
Does Inquiry-Based Learning Provide an Approach for Employing Culturally Relevant Pedagogy in a Primary School Classroom?

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Abstract

Inquiry-based learning could be viewed as a form of culturally relevant pedagogy as they both promote student success regardless of student culture. The aim of this research is to explore whether inquiry-based learning is an approach for employing culturally relevant pedagogy in a New Zealand primary classroom setting.

This is a qualitative exploratory case study examining students' perceptions of learning through an inquiry-based approach. Focus group discussions were conducted to collect data from a group of students' aged 9, 10 and 11 years from one New Zealand primary school. Data was analysed using a thematic approach that identified findings to be linked to four themes. Four themes of culture, authentic learning, relationships and teaching strategies were used throughout the study as they are deemed important components of inquiry-based learning and culturally relevant pedagogy.

On analysis of the findings it is evident that there are links between inquiry-based learning and culturally relevant pedagogy. The results highlighted students' perception of the importance of having a sense of belonging with a culture, the impact of authenticity of learning, the quality of relationships between teacher and student and the positive impact of providing a range of effective teaching strategies.

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CHAPTER ONE - INTRODUCTION

Topic and aims of the study

This study explores student perspectives and experiences of culture, school and learning to establish whether inquiry-based learning provides an approach for employing culturally relevant pedagogy in a primary school classroom.

The choice of this topic is to provide educators with a possible pathway to promote culturally relevant pedagogy and culturally inclusive classrooms for Māori students. Examining culturally relevant pedagogies is a current focus within education systems. This study focuses on New Zealand, specifically Māori students. The importance of the topic is to ensure an education system that can maximise Māori potential and provide engagement in learning. Promoting culturally relevant pedagogy and success for Māori students is a priority for New Zealand education and it is crucial that educators recognise, support and develop pedagogies that provide a learning environment that will ensure Māori students' success (Education Review Office, 2010).

The cultural diversity that exists in New Zealand classrooms is an opportunity to encourage all educators to promote culturally relevant pedagogies allowing all students regardless of culture to succeed in their learning. The New Zealand curriculum (2007) emphasises inquiry-based teaching as an effective pedagogy and literature outlines many benefits of it as an effective teaching and learning approach. Although inquiry-based learning is not a new concept within education, the increasingly popular trend towards using it as a teaching and learning strategy as well as my particular interest in culturally relevant pedagogies has underpinned this research.

Identifying whether inquiry-based learning is a tool for providing culturally relevant pedagogy will stipulate that teachers relate learning to students' cultural context, leading to positive change in Māori students' educational achievement. As the Ka Hikitia (Ministry of Education, 2009) strategy states, the system has to change to meet the needs and interests of learners rather than learners having to change for the system.

'Mahia nga mahi o nga tamariki; hei apopo ka tu hei rangatira'
(Fulfil the needs of our children and tomorrow they will stand strong)

Research Question and Objectives

Research Question:

"Does Inquiry-Based Learning Provide an Approach for Employing Culturally Relevant Pedagogy in a Primary School Classroom?"

The objectives of this study are:

1. To identify student perception of 'culture' and where this is acknowledged in their learning
2. To identify what factors relating to inquiry-based learning provide positive learning experiences for students
3. To identify whether there is a link between how culture is acknowledged and positive inquiry based learning approaches
4. To identify whether Māori students find inquiry-based teaching a positive learning experience

Context for the Study

The disparities surrounding achievement of indigenous students in mainstream classrooms are a continuous concern for educators. Curriculums that are designed and structured around a dominant culture will always disadvantage minority cultures. This disparity of engagement and achievement between indigenous and non-indigenous students is a contentious issue both internationally and within New Zealand.

Research suggests that effective teachers of diverse students display certain characteristics that positively influence students' enjoyment and achievement within classrooms (Berryman & Bishop, 2011; Gay, 2000, 2002). Inquiry-based learning is an approach that demonstrates student centred learning and promotes positive achievement outcomes for students. An inquiry-based learning approach identifies many characteristics that empower and include all students.

Underlying principles of culturally relevant pedagogy and inquiry-based learning identify the importance of empowering students through the inclusion of students being responsible and taking ownership of their learning and allowing student voice to be a crucial part of the learning environment (Bastock, Gladstone & Martin, 2006).

Listening to student voice offers respect and rights to the ideas, insights and perspectives of students. Research outlines the significance and benefits of gaining student perception with regards to learning, teaching and schooling (Cook-Sather, 2006). The focus of this study is in regards to gaining student perceptions around culturally relevant pedagogy and inquiry-based learning,

therefore allowing students a legitimate opinion and permitting them an active role in discussions around effective learning environments.

New Zealand Context

In New Zealand the dominant European culture has influenced education and the curriculum. This has created contradictory world-views and teaching and learning principles between Māori and non-Māori (Hemara, 2000). Educational disparities, which exist within New Zealand education between Māori and non-Māori students, have been a focus for educators and Government.

In the 1980s there was a shift to encourage and revitalise Māori culture, particularly Māori language. The Ministry of Education required that every Board of Trustees accepted *“an obligation to develop policies and practices which value our dual cultural heritage”* (Ministry of Education, 1988, p. 6). Alongside this, the establishment of Māori immersion schooling was initiated. These schools gave Māori parents an option to move out of the dominant schooling system to one that demonstrates tino rangatiratanga (Smith, 1997). Tino Rangatiratanga, within the school setting, is allowing Māori whānau a voice and involvement in the decision making process. Although immersion schooling is available, more than 85% of Māori students attend mainstream schools and statistics show there is still a disparity between Māori student achievement and that of non-Māori students (Tuuta, Bradnam, Hynds, Higgins & Broughton, 2004).

Over the years the Ministry of Education has focused on ways to improve educational outcomes for Māori students. Stemming from the early 1980s with the Taha Māori programme (Tuuta et al., 2004) in schools to the present Ka Hikitia Strategy (Ministry of Education, 2009), many initiatives have been implemented to support mainstream schools to ensure Māori culture is embraced and accepted within classrooms.

Ka Hikitia Strategy

One of the key priorities of the Ministry of Education is to lift the achievement of Māori learners in Aotearoa. To support this goal, in 2008, the Ministry of Education released *Ka Hikitia – Managing for Success Strategy 2008-2012* (Ministry of Education, 2009). This strategy is focused on realising Māori potential through four focus areas: Foundation years; Young people engaged in learning; Māori language in education; and Organisational success (Ministry of Education, 2009).

The Ministry of Education's goal of raising achievement for Māori students has been around for decades and Ka Hikitia is the second national policy framework designed to improve Māori students educational outcomes (Goren, 2009). The first framework produced in 1999 focused on Kaupapa Māori education and the involvement of Māori authority in education (Ministry of Education, 2009).

The Ka Hikitia strategy shifts, the focus of Māori disparities and deficit theorising to identifying success, potential and opportunities (Goren, 2009; Ministry of Education, 2009). This strategy shift is to enable educators to approach Māori students with a focus on success rather than deficit (Goren, 2009).

The most important assertion that arises out of the strategy is the statement of "*Māori achieving education success as Māori*" (Ministry of Education, 2009, p.11). This statement is essential in the progress of New Zealand education as it takes a wide view of success in recognising the importance of an education system that "*provides all Māori learners with the opportunity to get what they require to realise their own unique potential and succeed in their lives as Māori*" (Ministry of Education, 2009, p. 18). This is what Penetito (2002) says is so simple, yet so

profound, *“the desire for an education that enhances what it means to be Māori”*. (Ministry of Education, 2009, p. 18).

Although the Ka Hikitia strategy is set out with clear, concise focus areas, goals, targets and outcomes, the Ministry released the strategy alongside 14 other initiatives such as The New Zealand curriculum and Pasifika Education Plan. No professional development or ongoing support was provided to help with the incorporation of the strategy within schools (Goren, 2009). Although many educators understood the benefits of the strategy they saw this as a downside to implementing the strategy within schools. Schools need to be given opportunities to learn and be equipped with knowledge and skills to ensure that Māori students experience success (Goren, 2009).

The Ka Hikitia strategy sits alongside the Ministry of Education’s Statement of Intent 2012-2017 which states that one of the Government’s priorities is ‘improving education outcomes for Maori learners, Pasifika learners, learners with special education needs and learners from low socio economic backgrounds’ (Ministry of Education, 2012a). In the Statement of Intent, the Government will use the framework of Ka Hikitia to track progress and, based on this emerging evidence and research will produce a refreshed version of Ka Hikitia for 2013-2017.

The recognition of important concepts such as ako and relationships is embedded in the Ka Hikitia strategy. ‘Ako’ literally means to teach and learn. It is the principle of reciprocal learning where the teacher and students can learn together and from each other (Bishop, 2003). The recognition that effective teaching and learning programmes require these aspects is crucial. Providing learning contexts that are relevant to students and recognising that learning is a partnership between whānau, student and teacher will ensure that culture and education are woven together (Ministry of Education, 2009).

Similar to my study, the importance of student perspective was a key element in the consultation process of the strategy. Student voice was used to gather feedback on students' experiences in school and for the future. These perspectives were used to help shape the framework (Goren, 2009). The hope would be that students will be continuously consulted and collaborated with throughout the implementation of Ka Hikitia and not just have it driven by achievement data and evidence (Goren, 2009).

New Zealand Curriculum 2007

With the introduction of the revised New Zealand curriculum (NZC) in 2007, focus moved from the previous New Zealand curriculum, which focused on content coverage to an emphasis on developing clear learning pathways for students. The New Zealand curriculum encourages students to take control of their learning through being taught to reflect on what they know, how they know and what they need to learn next. The New Zealand curriculum outlines teaching approaches that are documented as being considered effective pedagogy, which has a positive impact on student learning (Ministry of Education, 2007, p. 34):

- Create a supportive learning environment.
- Encourage reflective thought and action.
- Enhance the relevance of new learning.
- Facilitate shared learning.
- Make connections to prior learning and experience.
- Provide sufficient opportunities to learn.
- Inquire into the teaching-learning relationship.

These are principles closely linked with philosophies around teaching through an inquiry-based learning approach, and are also linked with culturally relevant pedagogy. These principles are strongly aligned and highlighted in the Ka Hikitia Strategy.

The New Zealand curriculum has been underpinned by holistic perspectives and allows scope for schools and teachers to develop programmes and deliver learning in ways which best fit the needs of students within school communities. Therefore it is crucial that teachers understand and maintain pedagogical practices that provide effective learning opportunities for all students (Nuthall, 2007). The vision of the NZC is stated as the challenge of *“offering our young people the most effective and engaging teaching possible and supporting them to achieve to the highest of standards”* (Ministry of Education, 2007, p. 4).

The focus on providing effective pedagogies, which emphasise culturally relevant pedagogy, will allow students to reach their potential and improve educational outcomes for Māori learners.

Summary

This chapter has introduced the research topic and outlined the significance of the study. The research question and objectives have been provided. The context of the study has been described with particular emphasis on the New Zealand setting. Explorations of New Zealand initiatives, such as the Ka Hikitia strategy and the New Zealand Curriculum, have been examined.

CHAPTER TWO - LITERATURE REVIEW

Introduction

Inquiry-based learning and culturally relevant pedagogy both promote student success regardless of student culture.

Student perception of culture and learning experiences is the focus of this study. Students are capable of articulating and providing ideas and insights into what works for them in regards to learning. Often changes are made within education without consulting or collaborating with students. The importance of student perception is the inclusion and empowerment of students through listening to their experiences and this underpins the study. It outlines the issues and increasing push and acknowledgement that student input is an important aspect of educational reform.

Principles that underpin an inquiry-based learning approach and culturally relevant pedagogy both employ a theory of classrooms being student-centred and provide students with opportunities to be responsible for and take ownership of their learning. Inquiry-based learning and culturally relevant pedagogy are important ways of students being heard.

Many researchers have documented the importance and benefits of creating classrooms using inquiry-based learning and culturally relevant pedagogy within education (Bishop & Glynn, 1999; Gay, 2002; Justice, Rice, Warry, Inglis, Miller & Sammon, 2007; Ladson-Billings, 1995; Macfarlane, Glynn, Grace, Penetito & Bateman, 2008; Spronken-Smith, Walker, Batchelor, O'Steen & Angel, 2012). Although many studies have identified emerging themes between the two topics, the literature does not make an explicit link between inquiry-based learning as a

tool for providing culturally relevant pedagogy. Alongside this is limited literature on the student perspective of learning through inquiry-based teaching and culturally relevant pedagogy.

Structure

This review will give an overview of literature around culturally relevant pedagogy and inquiry-based learning and the implications for teaching and learning.

The first part of this literature review examines three sections, which are outlined below.

The first section of the review relates to literature concerning gathering data on learning experiences through student perspectives.

The second section relates to culturally relevant pedagogy with particular emphasis on the New Zealand context. It examines the benefits for students in providing learning environments, which employ culturally relevant pedagogy.

The third section discusses inquiry-based learning. It outlines the relationship to constructivism, the core components of the approach alongside the benefits and areas of consideration within an inquiry-based approach to learning.

The second part of the review outlines three themes that arose within the literature that were relevant to both culturally relevant pedagogy and inquiry-based learning. The themes outlined are authentic learning, relationships and teaching strategies.

Student Perspective

Traditionally student perspective has been limited and marginalised within research around educational and school policy change. For decades the question of how best to teach students has been asked, however there has been a lack of questions being asked of the students (Jagersma & Parsons, 2011).

During the early 1990s the lack of student perspective was acknowledged and the emergence of student voice became more widespread within educational research. Cook-Sather (2006) identified this as a cultural shift. This shift alongside educational changes that moved classrooms from a traditional pedagogical approach to a more social constructivist approach opened the way to gaining and listening to student perspective.

A traditional approach to teaching is one that is best described as a transmission approach to teaching, where students play a passive role (Prawat, 1992). The traditional teacher/student relationship is one of telling and listening. A constructivist approach changed this focus of teacher/student relationship and replaced it with a more complex and interactive one (Prawat, 1992). An underlying philosophy of constructivist pedagogy is that it aims to include students in their learning process. Researchers have identified a theoretical shift that aims to include students as research participants with the intention of working in partnership with students, ensuring they have a more active role in and ownership of learning (Harcourt, Perry & Walker, 2011; Levin, 2000). As Ruddick and Flutter (2000) state, the traditional exclusion of student perspective fails to recognise students' ability to think and reflect on areas that affect their lives. Levin (2000, p. 155) reinforces this idea and argues that education reform *"cannot succeed and should not proceed without a lot more student involvement."*

As the push to include student perspective in educational change increases, a definition needs to be identified. An examination of the literature reveals that

there is no fixed or simple definition of the term 'student voice'. Mitra and Gross (2009) define student voice as being 'the systematic inclusion and empowerment of students in the decision-making processes of schools'. This definition encapsulates one of the purposes of this study, which is about the inclusion and empowerment of students through listening to their views and experiences.

The importance of listening to students is becoming recognised as an important part of education reform. Harcourt et al. (2011) state that international research has increasingly begun to include students as valid, trusted and competent participants. To enhance educational improvement, educators need to listen to students' experiences and what they think will make a difference to learning and achievement (Ruddick & Flutter, 2000). It is not enough to assume teachers know what students regard as enjoyable. If educators feel this is important they need to incorporate students' perspectives in their learning. Kinchin (2010) concurs that if educators want to understand the complete process of teaching and learning then identifying students' positions on knowledge and learning is a crucial part of the process.

Historically, literature is limited around using student perspective in education reform however, the benefits of including student voice is becoming more widely discussed as a research method. The move to include students as active participants in research demonstrates positive links between engagement, learning and achievement for learners (Jagersma & Parsons, 2011). Cook-Sather (2002, 2006) also outlines the benefit of consulting with students to gain their perspectives is that it ensures teachers listen and learn from students leading to classroom programmes being made more accessible to students. This facilitates students' feelings of being respected and engaged in the classroom. This aligns with Ruddick and Flutter's (2000) identification that the benefit of empowering students as part of the decision-making process can lead to enhanced effort and achievement, as well as a commitment to reform or change. The resulting empowerment leads to an altering of dominant power imbalances

between adults and young students and encourages students to become active citizens beyond their school years (Cook-Sather, 2006; Jagersma & Parsons, 2011; Levin, 2000).

Benefits have been stated from including student perspective in studies however there are also areas that need careful consideration. Quicke (2003) identifies that, although the drive to include student perspective in regards to education policy and practice has benefits, often students' views will mirror the dominant school context view of learning. For example, students may have a traditional view of learning. They may see learning as being a transmission of information rather than exploring and expressing meaning, about learning facts rather than acquiring genuine knowledge (Quicke, 2003). Student voice will provide some insightful perceptions about the process of learning. However, for a complete view of learning, educators should not rely solely on student perspective when examining student learning (Daniels & Perry, 2003).

Careful consideration also needs to take into account the uniqueness of students. Educators can learn a lot from listening to students, although there needs to be an understanding that, like adults, students come from differing backgrounds and experiences and researchers need to be aware of this individuality concern when regarding aspects of student perspective. Cook-Sather (2006) reiterates this by warning that researchers overlooking the fundamental differences, perspectives, experiences and needs among students may get a biased perception of studies by accumulating all students comments to a 'single, uniform, and invariable experience'.

The importance of student perspective is gathering momentum within education. Educators must be open to the views of students even if they present challenges (Cook-Sather, 2006). Traditional education epistemologies have been based on a dominant adult culture and limited in the voices needed. Hence, this increasingly used approach of including student perspectives within education

may be difficult for some teachers to face. *“It is very difficult to learn from voices we don’t want to hear and to learn to hear the voices we don’t know how to hear”* (Cook-Sather, 2006, p. 368).

Like international studies, New Zealand research is also acknowledging the importance of including student perspective. A study conducted by Savage, Hindle, Meyer, Hynds, Penetito and Sleeter (2011) interviewed students regarding their learning, school experiences and issues around cultural identity. Researchers found students were able to identify and articulate that teacher pedagogy was important to their learning and were able to identify teachers who displayed culturally relevant strategies and how this contributed to their learning. Andersen, Evans and Harvey (2012) ascertain that examining positive classroom experiences needs to come from those on the ‘inside’, the student.

Within the New Zealand context there have been two significant projects that have included perspectives from students, parents, teachers and principals with the aim of raising Māori student achievement. The Te Kauhua pilot project began in 2002 and included the experiences of Māori primary and secondary students from around New Zealand (Tuuta et al., 2004). Te Kauhua laid the foundation for the Te Kōtahitanga professional development programme. Te Kōtahitanga, like Te Kauhua, used collaborative storying to analyse Māori students’ positions on educational experiences (Savage et al., 2011). The literature around Te Kōtahitanga is a positive basis to using and learning from student perspective within education. As Levin (2000) states, there is extensive literature around school reform however, it is limited in student perspective and issues. Both the Te Kauhua and Te Kōtahitanga projects address this lack of student perspective by enabling students’ input alongside increasing teacher professional knowledge, leading to increased levels of achievement for Māori students (Tuuta et al., 2004).

As the legitimisation of using student perspective within educational studies continues to increase, researchers are tending towards gaining student perspectives from secondary and tertiary students, for example Savage et al. (2011), Spronken-Smith et al. (2012) and Tuuata et al. (2004). While this is valuable information to glean, there are a relatively small number of research studies that include primary school student perspective. Young students' voices being used in research needs to increase, as for decades, educational reform has not been successful in encouraging all students to succeed (Cook-Sather, 2002). Including students as researchers may help to make schools more appealing for all young students.

The benefits of acquiring students' views of their experiences and needs are many and worthwhile. Student perspective of classroom practice can be used to develop a comprehensive picture of aspects of school life and to support teachers (Daniels & Perry, 2003).

Student perspective informs teachers of their learners' experiences and backgrounds, including cultural background. These understandings all contribute to providing safe, culturally inclusive learning environments. The next section of this literature review will discuss the literature around culturally relevant pedagogy.

Culturally Relevant Pedagogy

Culturally relevant pedagogy is not a new concept within education. The large amount of literature that exists around multicultural education has stemmed the growing body of literature around culturally relevant pedagogy for indigenous students (Banks & Banks, 2006; Castagno & Brayboy, 2008; Gay, 2002; Howard, 2001). Despite continuing discussion and literature over the years around providing students with learning situations that will embrace their cultural background, the achievement disparities between indigenous and non-

indigenous students still exist, both internationally and within New Zealand. For example, in New Zealand, Māori achieving Level 1 NCEA in 2009 was 48% compared to 69% of non-Māori students (Ministry of Education, 2012b). The concern over these disparities is reflected in a Ministry of Education report that stated,

It is of concern that this 2010 ERO national evaluation indicates that not all educators have yet recognised their professional responsibility to provide a learning environment that promotes success for Māori students (Education Review Office, 2010, p. 2).

These disparities between Māori and non-Māori are a crucial reason that educators need to create classrooms where each student has the opportunity to succeed regardless of cultural background.

Within literature there exists a range of frameworks, definitions and terms that describe culturally relevant pedagogy, such as culturally responsive, culturally congruent, culturally sensitive, multicultural and equity pedagogy (Morrison, Robbins & Rose, 2008). In the context of this study the term 'culturally relevant pedagogy' will be used. This term was chosen for this study as it aligns with the belief that teaching methods should recognise the diverse cultural characteristics of students. Gay (2002) identifies that culturally relevant pedagogy is a way to bring more equity to teaching by using strategies that are attuned to many different ethnic groups. Educators need an understanding that culture influences students' knowledge (Bishop & Glynn, 1999; Sharan, 2010). Matching teaching strategies to cultures will bring about positive benefits to all involved including the empowerment of students and their families.

The literature around the use of culturally relevant pedagogy, both internationally and in New Zealand, discusses a multitude of benefits for students. Researchers identify benefits that include increased engagement and motivation, as well as gains in academic achievement and successful learning outcomes that maximise student learning (Gay, 2002; Hemara, 2000; Irvine, 2010; Macfarlane et al.,

2008). The potential positive educational change for all students that culturally relevant pedagogy can bring about is something that cannot be ignored (Biermann & Townsend-Cross, 2008; Hemara, 2000; Ladson-Billings, 1995).

Changing school reform to incorporate culturally relevant pedagogy should be a crucial focus, particularly with the positive benefits that arise from embracing these approaches. Although the benefits are enticing to schools, teachers need to be dedicated and have an understanding of why they need to embrace this approach to teaching and learning. Teachers are crucial to the success of culturally relevant pedagogy. According to Castagno and Brayboy (2008), one of the essential elements of schools successfully weaving culturally relevant pedagogy throughout practice is that of teacher understanding, values and attitudes towards students and their cultures. Research by Gay (2002) reiterates this view that teachers' attitudes and the rejection of deficit thinking of diverse students is critical to the successful use of culturally relevant pedagogy.

There are also aspects that can hinder the incorporation of culturally relevant pedagogy by teachers within schools. Gay (2002) examines that the lack of teacher education, both in pre-service training and ongoing professional development around multicultural education, as a reason why a significant difference has not been made. Richards, Brown and Forde (2007) reaffirmed this issue by stating that teachers need to be skilled in successful approaches to educating all students, including those from diverse backgrounds. Alongside teacher knowledge around culturally relevant pedagogy is the importance that teachers do not treat all one ethnic group the same. New Zealand literature discusses the importance of educators not deeming all Māori students as the same and ensuring that teachers do not teach all Māori students as a homogenous group (Mahuika, Berryman & Bishop, 2011).

Researchers in New Zealand examine the importance the role of culturally relevant pedagogy should play in education (Alton-Lee, 2003; Baskerville, 2011;

Mahuika et al., 2011; Savage et al., 2011). Traditionally New Zealand education has been based on a European world-view to the detriment of Māori (Bishop & Glynn, 1999). The use of culturally relevant pedagogies is vital to New Zealand education as it is considered that the lack of understanding of Māori development and learning has been deemed one reason for Māori underachievement (Macfarlane, 1998). Educational disparities between indigenous students are not limited to New Zealand. As Macfarlane et al. (2008) points out, examining the strengths and knowledge of pedagogies of indigenous students worldwide will support theory improvement and practice in New Zealand. This is reciprocal as New Zealand can provide insightful ideas and examples of practices that are helping to bridge the gap between Māori and non-Māori.

Understanding what effective pedagogies are for indigenous students is vital as culture and learning are inextricably linked. Within the New Zealand context, ensuring culturally relevant pedagogy is embedded in every school is essential. The Ministry of Education (2004) states that the population of Māori students is rising. This increase in Māori learners means teachers need to ensure classroom programmes are culturally rich and are meeting the needs of all students. This is reinforced in the New Zealand Curriculum, which outlines the need for multicultural knowledge and teaching strategies by stating, *“that students’ identities, languages, abilities and talents are recognised and affirmed and their learning needs are addressed”* (Ministry of Education, 2007, p. 9).

An example of effective teachers ensuring needs are being met by using culturally relevant pedagogy in New Zealand is that of the Te Kōtahitanga programme (Bishop, Berryman, Tiakiwai & Richardson, 2003). Arising from narratives collected from students, principals, teachers and parents participating in the Te Kauhua project and the Te Kōtahitanga programme were common threads that were deemed successful, resulting in positive school experiences (Tuuta et al., 2004). Researchers used these themes to create an effective teacher profile. The effective teacher profile identified that successful teachers of

Māori students demonstrate a number of Māori concepts on a daily basis. Each of these concepts is based on a range of fundamental meanings. In terms of incorporating these Māori concepts in classroom practice, they have been interpreted by teachers and have been described in the following ways

- * The first, manaakitanga, which translates literally as 'caring for others', has been interpreted for classroom practice as caring for students as Māori.
- * Mana motuhake has been interpreted as 'care for the performance of Māori students'. Mana motuhake involves the development of personal or group identity and independence.
- * The third, ngā whakapiringatanga, is about teachers taking professional responsibility for motivating and engaging all learners by creating a secure, well-managed learning environment.
- * The concept of wānanga literally means 'Māori centres of learning', but also as a forum that involves rich and dynamic sharing of knowledge. This in terms of classroom practice means teachers are able to engage in effective learning interactions with Māori students as Māori.
- * The fifth concept is that of ako which translates as 'to learn as well as to teach'. It is about teachers using a range of teaching strategies that involve teachers and students learning in interactive relationships.
- * The final concept is that of kōtahitanga. This has been interpreted for classroom practice as 'collaboratively using student progress to inform future practices'.

(Bishop, 2003, p. 96)

These six concepts and values encapsulate culturally relevant pedagogy as they are based in a Māori perspective. The concepts are provided for teachers to incorporate in their daily classroom practice and as a foundation for teacher professional development. Bishop and Berryman (2009) identify the outcome of implementing these concepts, which are based in Māori understanding, will lead to improvements in educational achievement for Māori students. Fletcher,

Parkhill and Harris (2011) encapsulate this by stating that the successful outcome of cultural awareness and use of culturally relevant pedagogies will be determined when there are equal outcomes for culturally diverse students. Examining the effective teacher profile within this research project provides an example of proven teaching concepts and values that have been identified as successful for Māori students.

The next section of this review outlines inquiry-based learning as a teaching and learning approach.

Inquiry-based Learning

Inquiry-based learning has a long history in education. Historically, the literature around the New Zealand Native School system, in the late 1800s, identified aspects of using teaching and learning strategies that link with inquiry-based learning (Hemara, 2000). Some examples of these included that both students and teachers were at the centre of the educational process, students learnt gradually from a familiar starting point and teaching and learning were conducted from students' strengths (Hemara, 2000). Although the desire to make learning meaningful to learners is centuries old, it was in the twentieth century that researchers began to focus on inquiry-based learning. Dewey (1910) wrote about the significance of open-mindedness and critical thinking within education. In his work he discussed inquiry-based learning as that which involves "*studying, pondering considering alternative possibilities and multiple sources of evidence*" (Bastock et al., 2006, p. 27).

Inquiry-based learning can be defined as "*a philosophical approach to teaching that is question-driven, and involves active, student-centered learning*" (Spronken-Smith, Bullard, Ray, Roberts & Kieffer, 2008, p. 83). This definition connects with Dewey's earlier work. He promoted the model in the 1930s explaining the pedagogy as 'learning by doing.' Over the years interest and

research has increased in this approach to teaching, in particular the shift from traditional-type pedagogy to a more constructivist, inquiry-oriented approach.

Constructivism, as an approach to education, addresses that students create or construct knowledge and understanding through what they already know and believe, alongside ideas, activities and events that they come into contact with (Abdal-Haqq, 1998). Educationalists such as Piaget, who established the popular theory of developmental learning, and Vygotsky, who created new learning theories around social constructivism emphasised the importance of active engagement and collaborative exploration which have increased the discussion around inquiry-based learning (McInerney & McInerney, 2006). Vygotsky in particular, added to the theory of constructivism through his emphasis on and belief in the social and cultural nature of knowledge construction (McInerney & McInerney, 2006). Spronken-Smith and Walker (2010) discuss that by the 1970s inquiry-based learning was being used by many teachers however, schools were not adopting this approach as an integral part of the curriculum.

Common core components of an inquiry-based learning approach are:

- *learning is stimulated by inquiry*
- *learning is based on a process of constructing knowledge and new understanding*
- *it is an 'active' approach to learning, involving learning by doing*
- *a student-centred approach to teaching in which the role of the teacher is to act as a facilitator*
- *a move to self-directed learning with students taking increasing responsibility for their learning* (Justice et al., 2007; Spronken-Smith & Walker, 2010, p. 726).

Characteristics of inquiry-based learning are similar themes to research regarding culturally relevant pedagogy.

Researchers agree that if students have interest and are engaged in what they learn, it directly correlates with positive outcomes to learning (Hmelo-Silver, 2004; Paris & Paris, 2001; Yair, 2000). A five-year study around teaching and evaluating an inquiry course in higher education demonstrated that inquiry-based learning is a powerful pedagogical tool in encouraging students to become self-directed and engaged learners (Justice et al., 2007). Although this study was conducted at university level benefits to teaching and learning through an inquiry-based approach could correlate at all levels of education.

Within New Zealand, studies on inquiry-based learning have also shown positive benefits that enhance student learning outcomes (Spronken-Smith et al., 2012). Benefits such as deeper understanding, development of higher-order learning and critical thinking skills, responsibility for learning and increased motivation have all been identified from studies (Justice et al., 2007; Prince & Felder, 2006; Spronken-Smith & Walker, 2010; Spronken-Smith et al., 2012). Teachers understand that if students find learning enjoyable they are more likely to be motivated to learn. Research has indicated this is accurate by stating that enjoyment of learning generally leads to enhanced academic motivation (Pekrun, Goetz, Titz & Perry, 2002). Therefore, making classroom programmes relevant and enjoyable to students should be a crucial aspect of teaching.

Although researchers' findings identified many benefits of the use of inquiry-based learning there are some areas of consideration, which have been outlined in the literature. Wells (1995) identified a number of probable reasons as to inquiry-based learning not being integrated into daily classroom practice, the most crucial being teacher perception. Teachers believing they do not have significant knowledge of inquiry-based learning, the pressure to cover the curriculum and the move from teacher-led learning to more student-centred learning can all affect the successful integration of inquiry-based learning in classrooms. These views were substantiated by White and Frederiksen (1998) who discussed that teachers perceived inquiry-based learning as difficult, time-

consuming and there lacked teacher training and support. These considerations alongside the lack of understanding that inquiry-based learning is effective for students may hinder the successful implementation of inquiry-based learning being embedded in the school curriculum. Interestingly, there is a link between teachers' attitudes to, values about and perceptions of the success or failure of both inquiry-based learning and culturally relevant pedagogy.

Inquiry-based learning approaches have been researched at a tertiary education level (Healey, 2005; Justice et al., 2007; Spronken-Smith et al., 2008). However, few studies have explored other levels of learning such as early childhood, primary and secondary. This study will help to address the limited research around primary school students' experiences of inquiry-based learning.

According to Alton-Lee (2007) the challenge for teachers to teach a diverse range of learners effectively ensures the need for strategies that can achieve this successfully. Inquiry-based learning and culturally relevant pedagogy are examples of how these strategies can be implemented in our classrooms. The literature around culturally relevant pedagogy and inquiry-based learning identified three aligning themes and are discussed in the next section.

Part Two – Themes

When reviewing the literature, both internationally and New Zealand-based, three emerging themes arose within both topics. These themes were that of authentic learning contexts, the importance of positive relationships and the use of teaching strategies that encourage higher-order thinking skills and cooperative learning. These themes are proposed as benefits of both inquiry-based learning and culturally relevant pedagogies and will be examined in this section.

Authentic Learning

Knowledge and learning occurring within real, authentic world contexts was detailed as being beneficial to students (Bridges & Gilmore, 2010; Peck, 2010). The benefit of teaching through inquiry-based learning allows teachers to construct learning around authentic contexts by integrating the curriculum to meet the needs, interests and experiences of their students (Peck, 2010). For this to occur, teachers need to ensure they provide effective teaching practices that enable learning to be authentic and real for students. In New Zealand education, the Ka Hikitia strategy (Ministry of Education, 2009) supports this view by stating that learning contexts need to be relevant to students.

The approach of ensuring education is relevant and based around authentic experiences is essential for teachers to motivate students in their learning. Studies have found that this ability to link learning to students' experiences and lives increases student motivation (Peck, 2010; Tuuta et al., 2004). Tuuta and colleagues (2004) examined the importance of enhancing motivation and participation of Māori students, which they stated could be achieved through teaching around students' interests and experiences. If teachers believe in providing learning experiences that will motivate and benefit students then programmes incorporating inquiry-based learning and culturally relevant pedagogy will include lessons that are both meaningful and authentic to their students. Bridges and Gilmore (2010) state that, by using relevant, authentic and real world contexts, teachers enable knowledge to expand and learning to be superior and valued by learners, which highlights the importance of this approach.

Relationships

The second theme emerging strongly from literature, around both inquiry-based learning and culturally relevant pedagogy, is that of positive relationships between teachers and students. In literature regarding culturally relevant pedagogy, relationships are identified as being of crucial importance to the

positive experiences of students within education (Fletcher et al., 2011; Irvine, 2010). In New Zealand literature regarding raising the achievement of Māori students, the key to successful schools and motivator of students is that of whanaungatanga (relationships) (Macfarlane, Glynn, Cavanagh & Bateman, 2007). This correlates to international research and links with the benefits of inquiry-based learning. Inquiry-based learning and culturally relevant pedagogy can support these positive relationships and they could be promoted and encouraged in all schools.

Research also examined relationships in regard to the role of the teacher as a facilitator or coach who scaffolds learning (Golding, 2011; Ministry of Education, 2012c; Spronken-Smith et al., 2012). The importance of the teaching role moving away from the traditional directive approach to the teacher becoming a member of the learning group and a co-inquirer and co-learner with students is a powerful aspect of inquiry-based learning (Golding, 2011). This concept of inquiry-based learning links with the literature around culturally relevant pedagogy, with reciprocal learning being crucial to the educational success of Māori students. Studies around the educational success of Māori students and the mutual learning and inter-changing roles between teachers and students exemplify the concept of ako (Macfarlane et al., 2008). Relationships are built on mutual respect where responsibility is shared and all participants take ownership of teaching and learning. The concept of ako encapsulates the collective and collaborative environment built on positive relationships and reciprocal ownership.

Teaching Strategies

The third theme emerging from studies in inquiry-based learning and culturally relevant pedagogy is that of effective teaching strategies that can enhance student enjoyment and achievement outcomes. As mentioned earlier, student enjoyment of learning should be a top priority for teachers to ensure motivation

and academic success. Literature states that teachers need pedagogical approaches and strategies that are theoretically sound and culturally relevant (Richards et al., 2007). Studies identified that effective teaching demonstrated the use of culturally relevant learning activities, such as high student participation and working collaboratively and collectively. These are crucial to educators as they lead to an improvement in academic performance and improved attitudes towards learning and school (Macfarlane et al., 2007; Rubie, Townsend & Moore, 2004; Savage et al., 2011).

Although literature around inquiry-based learning did not examine working collaboratively, there was an association with culturally relevant pedagogy by regarding high student participation as important to learning. A number of research studies around inquiry-based learning examined the importance of developing higher-order thinking strategies and students learning to self-direct their learning (Alton-Lee, 2003; Bridges & Gilmore, 2010; Spronken-Smith & Walker, 2010; Spronken-Smith et al., 2012; Van Deur & Murray-Harvey, 2005). The significance of students being more self-directed means they take ownership of and responsibility for their learning and that they are able to relate learning to their lives and experiences outside the classroom (Peck, 2010; Spronken-Smith & Walker, 2010). This responsibility enables students to participate more actively in learning and is a positive teaching strategy to enhance student enjoyment.

Limitations

A limitation of the literature to date is that of primary students' perceptions of inquiry-based learning and culturally relevant pedagogy. Studies that have incorporated student perception have been based on secondary and tertiary students where primary students' perceptions are not well documented. Also scarce within the literature are the perceptions of student enjoyment of learning through inquiry-based learning and culturally relevant pedagogy. The literature particularly lacked Māori primary students' perceptions of their enjoyment and

experiences of inquiry-based learning and how they feel it impacts on their learning.

When reviewing the literature on inquiry-based learning and culturally relevant pedagogy, similar themes emerged as being of crucial importance to providing an education system that encompasses teaching programmes relevant to the learning and cultural diversity within New Zealand schools. In review, much of the literature indicates that students will be engaged and learn better if they can make connections to what they are being taught or what they are learning. Healey (2005, p. 197) stated that the *“rediscovery of a curriculum devised around inquiry-based learning would be a strong contender for benefits to students”*. Although the literature identified similar themes, it also alluded to the idea that both areas were complex and educators need to be aware of the issues around the topics. The two topics aligned in many ways but there was no clear link that studies have examined inquiry-based learning as a tool for employing culturally relevant pedagogy and this is where my research question has stemmed from. With no explicit link made between the two topics, I believe there is scope and need for a study of this nature.

CHAPTER THREE - RESEARCH METHODOLOGY AND METHOD

This chapter explains the methodology employed in this study in relation to the research question and objectives. It is structured so that the methodology and research design methods are made clear and are accompanied by descriptions as to why these approaches were chosen.

Introduction

Quantitative and qualitative methodologies are two key approaches that are applied within educational research. Quantitative research is primarily reflected in the scientific paradigm where the research questions and processes are predetermined by the researcher and the gathering of data and outcomes can be analysed numerically (Best & Kahn, 2006). Qualitative research as a methodology is considered an alternative approach. It enables the researcher to study a social situation in a naturalistic way, to explore the situation as it naturally occurs (Johnson & Christensen, 2012; Lincoln & Guba in Best & Kahn, 2006).

A qualitative approach is a popular research paradigm within the social science field and particularly within education. Prior to the 1980s, quantitative research was generally employed as the research paradigm in education. Over time researchers have argued the incompatibility thesis, meaning quantitative and qualitative research could not be mixed (Johnson & Christensen, 2012). However, by the 1990s researchers advocated the pragmatic position where quantitative and qualitative paradigms were both valid and important (Johnson & Christensen, 2012).

This thesis study is located within a qualitative research methodology. The first part of this section discusses the features of qualitative research, followed by the consideration of conducting the research study within Kaupapa Māori theory.

The second part of this chapter describes the methods used within this study. Outlined first is how this study is positioned within a case study and issues around ethical considerations have been summarised. Described next are the process, setting, participants, data collection and analysis that were conducted. Finally, the ethics of the research are discussed.

Methodology

Qualitative Research

When settling on and refining the research question and objectives for this study, it was clear that a qualitative methodology approach was necessary. The objective of the investigation was to understand and analyse Māori students' perceptions of school experiences. Through this data collection and analysis the outcome was to answer the research question, *“Does Inquiry-Based Learning Provide an Approach for Employing Culturally Relevant Pedagogy in a Primary School Classroom?”*

Qualitative research was chosen as the research paradigm for this study. According to Johnson and Christensen (2012), qualitative research seeks to examine people's experiences, thoughts and feelings regarding a particular phenomenon. Employing a qualitative research design provided an appropriate framework for gaining and examining an in-depth view of Māori students perspectives of their school experiences.

One of the key features of qualitative research is that it is an open-ended strategy that allows the researcher to gain detailed, in-depth and rich descriptions regarding situations from individuals and groups of people (Best & Kahn, 2006; Bryman, 2004). Best and Kahn (2006) identify this in-depth detail as a powerful aspect of qualitative research as it gives a fuller understanding and richness to the data being studied. This richness of data is specifically achieved due to the research being conducted in the natural context and setting of participants. It also provides richness due to the qualitative researcher's ability to understand the inner world of participants or a certain phenomenon, allowing a holistic perspective to qualitative research (Best & Kahn, 2006; Johnson & Christensen, 2012). According to Best and Kahn (2006), studies involving student perceptions relevant to learning is an example of research that benefits from the holistic approach of qualitative research.

Kaupapa Māori Research and Protocols

The methodology of this research will be guided by a Kaupapa Māori approach. Kaupapa Māori theory is grounded in Māori values and beliefs and is guided by tikanga Māori principles and protocols (Bishop & Glynn, 1999). Many prominent researchers state that "*Kaupapa Māori theory provides a credible approach to research methodology in educational settings in Aotearoa New Zealand*" (Bishop, Berryman & Richardson, 2001; Bishop, Berryman, Tiakiwai, & Richardson, 2003; Wilkie, Berryman, Himona & Paul, 2001, as cited in Mutch & Wong, 2008, p. 220). Smith (1997) outlines concepts that encompass the framework of Kaupapa Māori:

1. Tino rangatiratanga/Self-determination
2. Taonga tuku iho/Cultural aspiration
3. Ako/Reciprocal learning
4. Whānau/Extended family
5. Kaupapa/Collective vision philosophy

The two principles of tino rangatiratanga and ako in particular underpin this research.

The principle of tino rangatiratanga literally means 'chiefly control' however, in education terms this has taken on a representative meaning of 'self-determination' (Smith, 1997). This principle, within the school setting, is allowing Māori students a voice and involvement in the decision-making process. The methodology used within this research is associated with this principle. The main collection of data for this study was gaining students' perspective through focus group discussions. The participation of students and the process of focus groups aligned with the principle of tino rangatiratanga as it allowed them to be part of the process. It also promoted independence by allowing them to decide how much and what they would like to share, as well as check their responses through interview transcripts.

The findings and recommendations of this study are aimed at helping this particular school by providing teachers insights into students' perspectives on what helps them learn, specifically Māori students, in the hope that teachers will create learning environments that are culturally responsive. The desire of the research project would be recognition from educators that students have legitimate views around their learning and culture. The recommendations of this study would be to inform practice and policy through the direct help of students. Once this is occurring the principle of tino rangatiratanga will exist.

Ako literally means 'to teach and learn'. It is the principle of reciprocal learning where the teacher and students can learn together and from each other (Bishop, 2003). It moves away from the traditional perspective of the teacher as the 'fountain of all knowledge' to a more constructivist approach where teacher and student are partners in the learning process (Bishop, 2003). One of the main motivations of this study was to allow students to have the opportunity to discuss their personal views on and experiences of their learning. The method of

collecting data through focus groups allowed the students to listen and share each other's experiences and perspectives, in the outcome of providing rich learning and teaching information. The aim was to use this information to benefit and make a positive difference to Māori students' educational experiences. Ako is a major strategy focus of the Ka Hikitia strategy and outlines the importance of this principle to ensure high-quality teaching (Ministry of Education, 2009).

As a researcher, I endeavour to follow appropriate practices through Kaupapa Māori theory. The findings of this study will benefit Māori students by allowing them a voice and by helping educate teachers as to the merits of involving students in the teaching and learning programmes of the school.

METHOD

Case Study

This research study is positioned within an intrinsic case study. This approach was employed to explore students' perspectives around inquiry-based learning and culturally relevant pedagogy. A case study is a valued methodological approach as it enables the researcher to focus on deeper and complex aspects of a concept or single event. The investigation explored the research question and objectives within a bounded system, which was a primary school classroom.

Johnson and Christensen (2012, p. 395) define case study research as *“a form of qualitative research that is focused on providing a detailed account of one or more cases”*. An intrinsic case study is used when the researcher requires a better understanding of one particular case (Stake, 2003). The intrinsic case study method aligned with the aim of this investigation, which was exploring an in-depth view of student perspective around school and learning experiences.

Using an intrinsic case study model ensured that the research objectives were examined in a naturalistic setting. Gillham (2000, p. 2) describes that the study of human phenomena is particularly appropriate to the naturalistic style of case study research and “*what it means to be human in the real world ‘as it happens’*”. The deep understanding and observation of effects in real contexts that go into examining one case is a strength of employing a case study method (Cohen, Manion & Morrison, 2000).

Process

Setting

This study was conducted at an urban contributing primary decile 6 school in Wellington (Appendix 2 & 3). The school caters for Years 1 to 6 and has approximately 300 students. The school is multicultural with half of the population not identified as New Zealand/European. The school community is proudly multicultural and supportive and inclusive of all learners. Students are proud of and have a strong identity with their school and enjoy being there and learning (Education Review Office, 2011). This setting was chosen due to the multicultural nature of the population and fits with the purpose of the study as it uses inquiry-based learning as a teaching strategy.

Over the past two years the school has undergone a professional development goal of improving oral language among students. Teachers were up-skilled in areas of developing oral language by educating students to discuss their learning and learning goals. There is an expectation by staff that students will be able to discuss their learning and next steps. Due to this professional development, I felt the participants would be able to articulate their perspectives on school and learning experiences.

Selection of Participants

The sampling procedure used to obtain participants was that of purposive sampling. Best and Kahn (2006) and Creswell (2009) state that purposeful sampling is often used in qualitative research as it allows the researcher to select participants they feel will provide the richest information around the research question.

Initially the whole population of a Year 5/6 class were selected to be involved in the data-gathering process. The whole class was spoken to where the study was outlined and the opportunity to ask any questions was given. At the end of that day I went back to the class and handed out student consent forms (See Appendix 1), where it was made explicitly clear that participation was voluntary. It also gave an extra opportunity for any additional questions to be asked. The whole class, 22 students, chose to participate and sign their consent forms (See Appendix 4). The students were then given a letter of explanation for their whānau and a consent form to bring back to school (See Appendix 5). All consent forms from whānau came back except for three. Due to this I decided to choose two more Year 5/6 focus groups from different classrooms within the school to ensure I had enough participants, increasing the robustness of the study. The same process of relaying information was followed with these nine students. Consent forms came back for six of these participants.

Throughout the consent process I made it clear to the students that I was not acting as a teacher in this role but as a learner like them and would be asking them to share their knowledge and thoughts with me. This was important to relay to the students as I was aware of the power and control issues with myself as the researcher and as a teacher within the school. Bishop and Glynn (1999) discuss that it is the researcher's ethical responsibility to address power and control throughout the research process, specifically when researching with Māori

participants in a New Zealand context. This also aligned with the principle of ako where I was aware that I would be learning from the students.

Although my research question and objectives were to analyse Māori students' perceptions, I felt I needed to include students from a variety of ethnic backgrounds to ensure I had a rounded view of student perspectives to analyse with and against the identified Māori students. Māori students were identified by the school database where parents had indicated the ethnicity of the students. Although a database was used to identify ethnicity, the students were also asked what culture they identify with. This allowed the participants to speak for themselves, rather than information being interpreted by a database (Cohen et al., 2000). Observations and outcomes of allowing students to discuss what culture they identify with within this study provided interesting findings, which are discussed within the findings section.

Data Collection

Focus Groups

Data collection involved conducting five focus group discussions. Each focus group involved four or five participants with a total of 24 students being involved. The participants were aged between 9 years and 11 years of age. Although gender was not the focus of the study there was almost an equal mix of participants with 13 boys and 11 girls involved. The discussions were audio recorded and notes were taken on any non-verbal interactions. The purpose of conducting focus group discussions was to gain students' perceptions, experiences and impressions around culture, school and learning. Focus group discussions were used to collect data as opposed to individual interviews. As the participants were young students, I believed focus group discussions would help support and establish dialogue amongst the participants in a supportive and non-

threatening manner. Johnson and Christensen (2012) state that the purpose of focus groups is to allow respondents to discuss the phenomenon of interest and researchers gain in-depth information from these.

Once questions for the focus groups had been developed, I ran a small project. With two classes of students, I used the concept of tuakana/teina. Tuakana/teina can be defined as older sibling/younger sibling and is a fundamental part of traditional Māori society (Bishop & Glynn, 1999). This concept is where older students work with younger students to help guide a younger or less expert student (Bishop & Glynn, 1999). I gave them a sample of the questions developed and asked them to discuss the questions with each other where the older students recorded ideas and discussions. The students were able to ask me throughout the time period if they were unsure about any question or did not understand any question. During this time I was able to clearly clarify the questions, two in particular, that were proving more difficult for students to understand and answer. At the end of this session I asked the students to help me reword these questions so students more easily understood them. Vaughn, Schumm and Sinagub (1996) state that, to ensure the success of focus groups that involve young people, questions need to be stated in clear, simple language. Testing the questions in a project group was vital to ensuring clear, concise and 'student speak' questions were used.

Prior to the focus group discussions taking place I met with the students involved and gave each student a sheet outlining some of the questions that would be discussed. This allowed for any anxiety of what was expected of them to be alleviated and allowed the students to write down ideas and give some thought to the discussion before participating. They were told they could write down ideas as prompts and bring the sheet to the focus group discussions if they wished.

Prior to the focus groups being conducted, the classroom teacher and I enquired whom the students would feel most comfortable working with. Allowing students

the choice of whom they wished to work with links to the principle of tino rangatiratanga. Although Vaughn et al. (1996) state that focus groups with children should comprise same-sex participants, the participants of this study said they were content to work with anyone and were happy for the teacher and me to create the focus groups.

Triangulation

As a way of triangulating my data I used additional sources of data-gathering alongside focus group discussions to increase the trustworthiness of findings. Creswell (2009) identifies triangulation of different data sources as a primary strategy to help build comprehensible justification for themes.

To enrich the data gathered from the focus groups, formative and summative assessment samples were gathered to analyse learning and student outcome of an inquiry-based learning unit. Alongside this, teachers' planning, evaluation and any anecdotal notes made throughout the unit were collected. This allowed an insight into the teachers' perception of the teaching and learning of the unit. The triangulation of data sources allows corroboration of student perspectives about their learning and what the teachers think makes learning effective and enjoyable for students. Yin (2009, p. 105) states that the use of documents in case study research is important and is used to "*corroborate and augment evidence from other sources*". Collecting data through triangulation allowed a more rich information-gathering process and allowed a better understanding of student perspective to develop (Johnson & Christensen, 2012).

Data Analysis

The focus group discussions were transcribed verbatim by me. The benefit of the researcher transcribing the audio was to ensure accuracy and no loss of information. As focus groups are social encounters and not just a data collection

method, I recorded field notes on non-verbal communication or information to follow up. This collection of field notes enhanced the verbal transcript as it was in the social setting of the focus groups (Cohen et al., 2000).

I arranged for a time to meet with the focus groups and provided copies of the transcripts for the students to read together. This gave them an opportunity to dispute any of the transcriptions and allowed them time to ensure that what was written was what they had meant. Checking data through participant feedback, by allowing the students to read over their transcripts, increases validity and ensures the trustworthiness of findings (Johnson & Christensen, 2012).

When analysing the data I looked for emerging themes, as identified in the literature review, such as authentic learning, importance of relationships and teaching and learning strategies. Yin (2003, p. 109) provided a statement of what data analysis is: *“data analysis consists of examining, categorizing, tabulating, or otherwise recombining the evidence, to address the initial propositions of a study”*.

The focus group analysis needed to be a purposeful and deliberate process (Krueger & Casey, 2000) requiring me to systematically work through the transcripts, coding themes and developing category names. This approach to analysing data is described as thematic analysis (Mutch, 2005). It was important during this data analysis process that I was aware of personal bias and pre-existing opinions regarding the research questions. Thematic analysis allows the researcher to approach the data with an open mind, uncovering the key messages and identify the important themes (Mutch, 2005). As Krueger and Casey (2000) summarised, researchers need to be open to multiple realities. My supervisor provided extra insight, interpretation and alternatives to the coding of categories and themes of the focus group data analysis.

The collection of official documents, such as student assessment samples, allowed me to compare students' perceptions, as discussed in focus groups, to ascertain whether these were reflected in student outcomes. The collection of teachers' planning, evaluation and anecdotal notes helped to support and validate data gathered from the focus group discussions. This was used to compare students' perceptions with the teachers' records and was used as an exploration into whether students' perspectives match up with classroom practice. Johnson and Christensen (2012) identify that the use of official documents can provide an insight to what people think and what they do and can be used to corroborate other evidence.

Based on the triangulation of data collection procedures I analysed both similarities and differences between the focus groups, student assessment samples and teacher documentation.

Ethical Implications

Ethical implications were acknowledged as an important part of this research. They have been outlined as a separate section but were recognised as an integral part of this study. Within this qualitative research aspects of validity and researching as an insider have been described.

Validity

Validity refers to the authenticity and accuracy of representing participants' realities of the phenomena being studied (Cohen et al., 2000; Creswell & Miller, 2000). Validity is a necessity for qualitative study and is a crucial aspect of effective research.

To ensure authenticity and accuracy of this research, validity procedures were employed throughout the study. Creswell and Miller (2000) discuss the

importance of accurately portraying participants' representations and actively seeking to ensure these interpretations correctly represent them. Bishop and Glynn (1999, p. 104) have referred to the importance of researchers providing rich, accurate data by stating,

"In qualitative inquiry, the researcher does not follow a set of how-to rules, but rather creates opportunities for the voice of the research participant to be heard for others to reflect on."

I have purposefully provided research participants with the focus group transcriptions so they can confirm the accuracy and credibility of the information.

I have also used thick, rich descriptions, which Creswell and Miller (2000) state is a procedure to ensure credibility in a study. Findings have been conveyed using descriptive language and detailed accounts of participants' perspectives with honesty, depth and richness, addressing my position as an insider researcher.

Other strategies applied to address the issue of validity are to triangulate focus group data with documents and assessment data and multiple methods of data have been used to corroborate evidence and themes. For example teachers' planning was used to validate or invalidate interpretations that arose from the focus group discussions.

Locating Myself as a Researcher

I have taught at this school for four years and hold a position within the senior management team. As the context of this study was within my own workplace, I needed to be aware of issues around role conflict and possible lack of objectivity. To ensure trustworthiness of the study, I needed to make sure my own personal views of students, teachers and my philosophy of teaching and learning did not bias the interpretation of the data. I shared interpretations and conclusions with a colleague. By sharing draft findings with a person not involved in the study allowed me to ensure personal presence and positioning did not bias the interpretations and analysis of data. This helped promote theoretical validity by ensuring themes arising from data collection were credible and justifiable

(Johnson & Christensen, 2012). As researching as an 'insider' the benefit of already having a relationship with the staff and students meant they felt comfortable and may have talked more openly. Rooney (2005, p. 7) states that, *"insider researcher has the potential to increase validity due to the added richness, honesty, fidelity and authenticity of information acquired."*

Research Ethics

Johnson and Christensen (2012, p. 99) define ethics as the *"principles and guidelines that help us uphold the things we value"*. Throughout my research journey, from the development to the implementation stages, I needed to ensure careful consideration of research ethics.

The role of the researcher is to ensure no harm to participants. Ensuring effective planning for the safety of all participants, the researcher will demonstrate respect and integrity to the research study and most importantly the participants (Alton-Lee, 2001; Smith, 1999).

Ethics Application

The Victoria University of Wellington Faculty of Education Ethics Committee granted ethical approval for this research.

Informed Consent

The principal of the school and the Board of Trustees, as well as the participating classroom teachers' granted consent. Due to the age of the participants, informed consent from the participants' whānau was required and a letter was sent home outlining the research. Consent from the participants was also obtained. Although the participants were considered minors, it was important that they were fully informed and understood the requirements of the research

study. Johnson and Christensen (2012) state the importance of obtaining minors' consent when the child is at a stage where they have sufficient cognitive capacity and suggest that children nine years or older have this capacity.

Confidentiality

The principal, teacher and students were assured that the school name and the names of participating students were kept confidential. This was also outlined in the information sheets given to the whānau. All audio taped discussions and written records would be stored in a locked cupboard in my supervisor's office at Victoria University.

Limitations

Qualitative research means that it is difficult to replicate the study and obtain similar results due to the open-ended characteristics of this approach (Mutch, 2005). A case study was an appropriate methodology to use for this study. However, the limitation of using this method is that it is difficult to generalise from a single case (Johnson & Christensen, 2012; Yin, 2009). While the purpose of this study was to gather perspectives around learning experiences from this particular group of students, it is not the purpose of this study to be able to generalise this information. Although this is the case it was always crucial that the information was obtained in ways that were trustworthy (Mutch, 2005).

As a novice researcher there were considerations that were reflected on after the focus group discussions were completed. Focus group discussions are interviews that rely on open-ended questions that encourage discussion between the participants (Johnson & Christensen, 2012). While there was certainly a lot of discussion involved in the focus groups conducted, the students did not interact with each other as much as was anticipated. During some of the focus

groups it was more like an interview with open-ended questions being asked while each student responded to the question. Although much was gained from the focus group discussions, on reflection if time was not limited further interviews with students could have consolidated the data further and enhanced the trustworthiness of the study.

Many times throughout my contact with the students it was reiterated that they were to be completely honest with their responses to the focus group questions. It was outlined that the focus group discussions were going to be confidential, in that their names were not to be linked with any data used within the research. It was also discussed that they may not agree with what other students respond and that it was all right to disagree with statements made by others. A limitation regarding the participants' young age was that, although they were open and willing to discuss a range of views and perspectives around their school experiences, it was very difficult to know whether how they responded to questions were actually how they felt. At times probing of responses was applied to ascertain whether the responses were their reality or if they were what they thought they should reply or thought were the 'correct' answers.

Summary

This chapter has outlined the methodology employed within this study to create research findings around student perspectives of learning experiences. The employment of a methodological framework using a qualitative research design and case study approach was conducted which allowed for an exploration of the research question and objectives. The study was underpinned with the use of Kaupapa Māori approach with particular emphasis on tino rangatiratanga and ako principles.

This chapter also outlined the description of methods used and ethical considerations associated with the case study. The qualitative method of case study was used to gather data and focus groups provided student perspective to be examined and analysed in detail. Limitations of the study have been outlined and discussed with emphasis on researcher experience.

CHAPTER FOUR – FINDINGS

This chapter documents the understandings, experiences and beliefs around culture and learning for a group of primary school students. The data was collected from student focus group discussions and analysed under four themes. The four themes have been identified earlier in the Literature Review of this thesis and include culture, authentic learning, relationships and teaching strategies. The analysis of the data has also been aligned to literature around inquiry-based learning and culturally relevant pedagogy.

CULTURE

An objective of this study was to identify student perception of culture and where it is acknowledged in their learning. To meet this objective the study was conducted with the inclusion of students from a variety of cultural backgrounds.

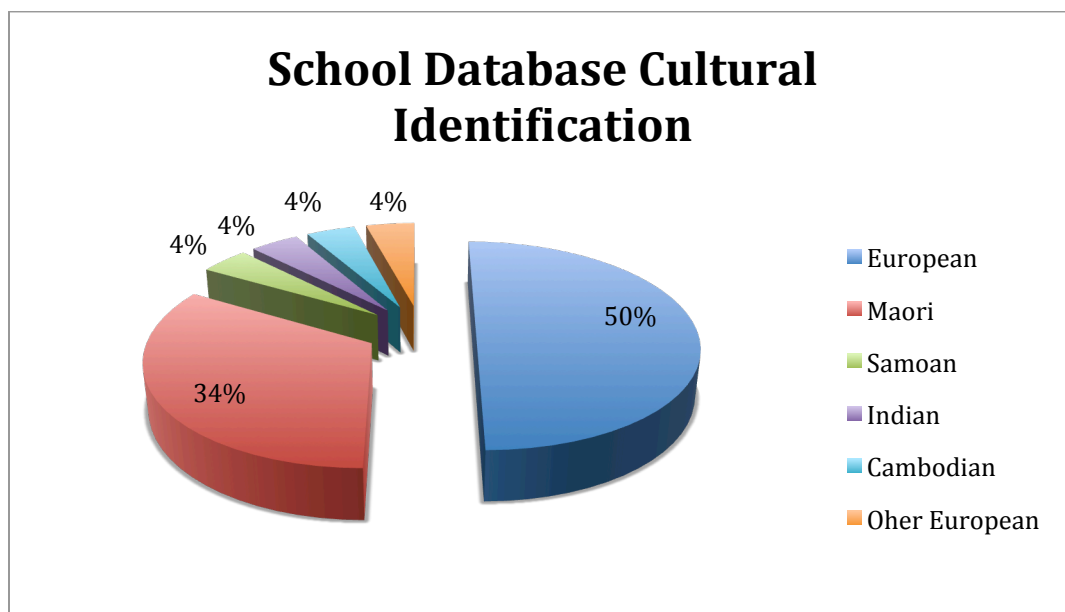
A second objective of the study was to identify whether Māori students find inquiry-based teaching a positive learning experience. Responses were analysed attributed to either Māori or non-Māori students to meet this objective.

Cultural Identification

*What culture does your family identify with?
Tell me about the culture you feel you identify with?
Why do you feel you identify with that particular culture?*

The initial set of questions was posed to gather information regarding students' personal identity alongside family identity. The intention was to gather information regarding the students' feeling of cultural identity and whether they felt a sense of belonging within a particular culture.

For the purpose of this study this information was gathered during focus group discussions, as well as from cultural identification data held by the school. The intention of collecting this data from the students and the school database was to examine any discrepancies between how students identify themselves and how their families identify them. The other purpose was to identify who was Māori and non-Māori according to the students and families.

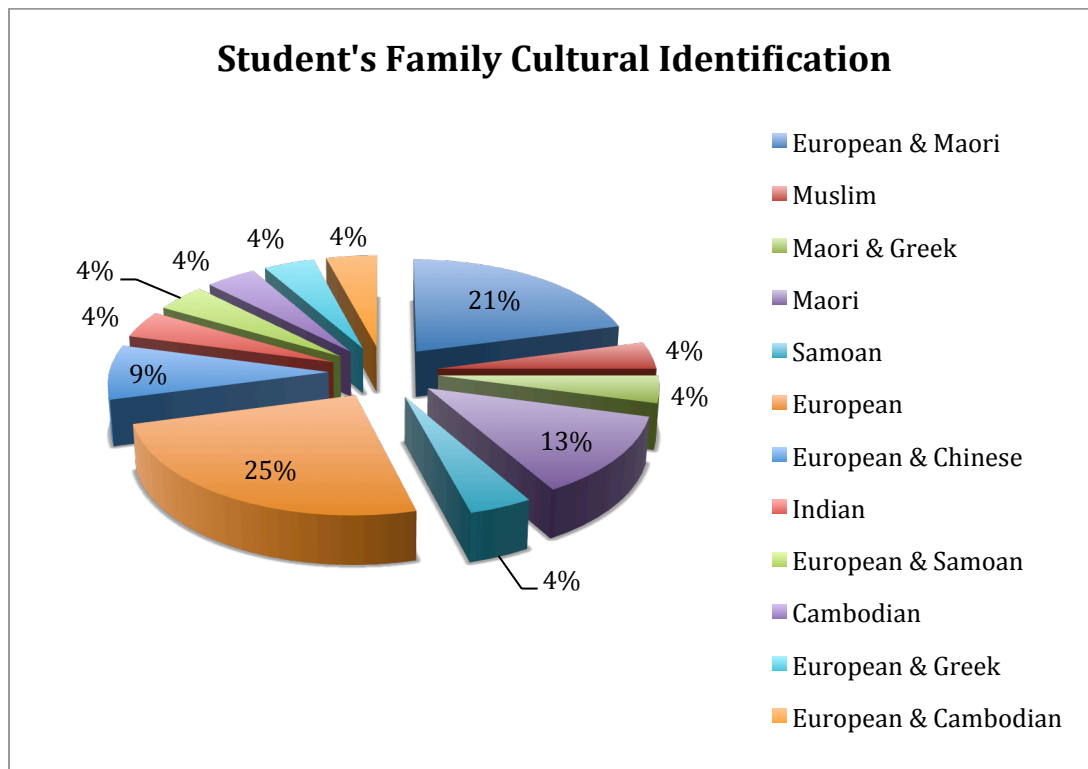


Graph 1

Graph 1 shows data provided by the school database. The school database information is provided by whānau/caregivers on school enrolment forms. The data shows that 50% of participants of this study were identified as being non-Māori and 34% Māori.

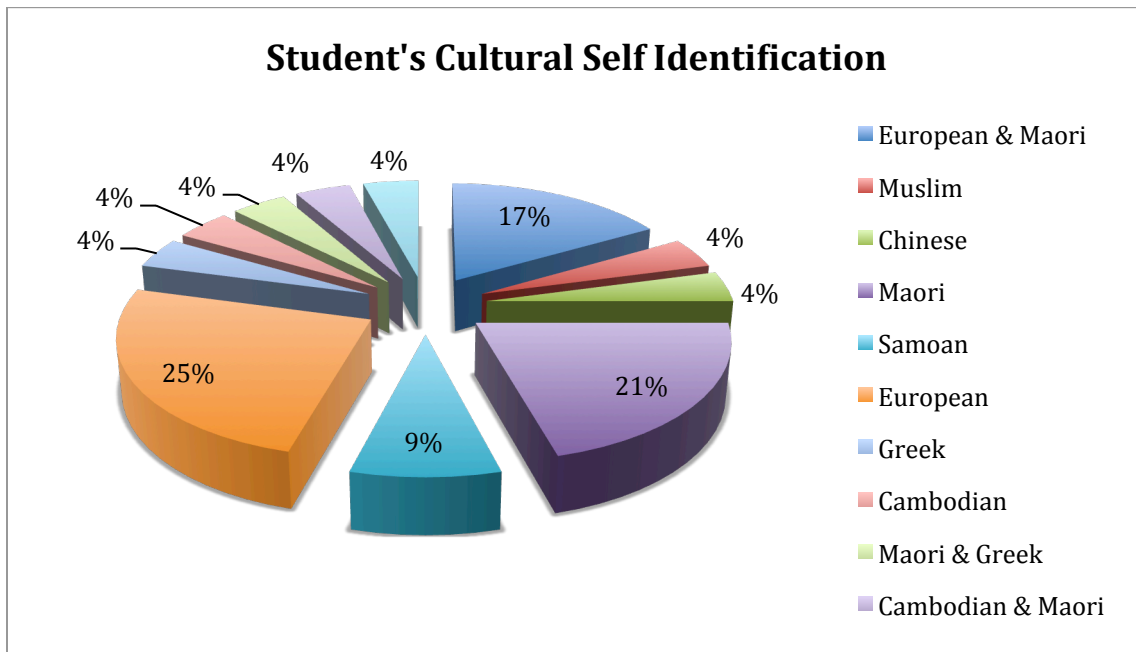
An implication regarding using the data from the school management system is that only one culture can be shown on data lists, unless otherwise requested. Due to the multicultural population of the participating school the data displayed within the school database does not truly or accurately identify and represent the whole picture in regards to culture. For the purpose of this study the school

database ethnicity information has been used when identifying Māori and non-Māori students. This was deemed the most valid way of identifying students' culture as the school database is the information provided to the Ministry of Education. The Ministry of Education uses this information for national data analysis and funding purposes.



Graph 2

Graph 2 shows the results from the question asked to students about the culture their family identifies with. The results varied considerably when compared to the school database information. Graph 2 showed the largest discrepancy between different and varied cultural identification than the other graphs. A reason for this could be due to the dual nature of students' responses, whereby students have indicated two cultures in which their family identifies. When students were able to identify their families', as well as their own, cultural identity they included more than one ethnic identity. Graph 2 shows that 67% of the participating students identified their families as non-Māori, either as single or dual identification, and 38% of students identified their families as Māori.



Graph 3

The information shown in graph 3 was gathered from the participating students when they were asked which culture they felt they identified with. The graph shows Māori, either as single or dual identification, at 46%. The data in graph 3 shows that the highest percentage of Māori cultural identification (46%) was when students self-identified their culture. This is highest when compared to the school database and the students' family cultural identification. In some instances the student's identification of himself or herself differed from the information they gave regarding their family's cultural identity. This could be due to parents being born and raised in different countries. This also could be because students had an affinity to the Māori culture and related to it because they were exposed to Māori culture and language from different aspects of life.

During the discussion around why students felt a connection with a certain cultural group, two main reasons were identified.

The first reason why some students felt a connection with a certain culture was due to them sharing that their ancestors came from that culture.

"Ah cause most of my ancestors are...Māori or from Europe"

"My dad's...a New Zealander and my mum's a New Zealander but my grandparents, they are all different cultures but my granddad he's Scottish, so Scottish too"

"Yeah my great granddad is European Māori and that's how I feel"

The majority of the students shared that their cultural connection was associated with where their parents were born and grew up.

"Mine's Cambodia cause my family's there and I feel comfortable there"

"My dad's New Zealand and my mum's Māori"

"My dad is not from England so he is NZ Māori and my mum is English and NZ"

Throughout the focus group discussions around cultural identity it was clear that students felt proud of their cultural heritage and were easily able to discuss their family cultural backgrounds. Some of the students identified they felt connected to a different culture from their family culture and saw this as a positive aspect as it meant they had more than one cultural connection. All discussions about cultural identification were positive and included a sense of connection. This student spoke about connecting with Māori culture

"I feel...that the culture I identify with is probably Māori because I feel comfortable and I really just like the food and just feel comfortable"

An implication that may have some input into the responses given was the possibility of students saying they identified with a culture, such as Māori, as they think that is what they should say or what they deem as the 'right' answer. This may be due to a teacher conducting the focus group discussions or students feeling that teachers would see that as the correct answer. There is no way of knowing whether this was the case or not and this is a limitation of having

younger students as research participants. Jones (2005) discusses the aspect of cultural identity in relation to student self-concept. The students developing awareness of self-concept and cultural identity is used as a basis of how students define themselves in relation to how others view them (Jones, 2005). This could explain students identifying with different cultural groups from their families, possibly looking for a sense of belonging.

Culture in the Environment

So thinking about the culture you identify with where do you see or hear your culture and language happening in school?

Continuing on from the first set of questions around cultural identity the students were asked about whether they feel they see or hear their culture and language within the school environment. Two themes arose from students' discussion around culture. The themes included Māori culture and students' own culture.

Māori Culture

Many of the students shared that they saw culture, mainly Māori culture, occurring around the school environment. They talked about Māori language happening in some classes by some teachers and knew of students who could speak Te Reo.

"I see it from some kids they talk it sometimes, Māori, yeah"

*"I really see it a lot...cause in class (teacher name), its hard to explain,
...like you see it nearly every day and like you hear it because (teacher name)
when she says hello or good morning she says kia ora or hello in all different
languages"*

Some students spoke of the school song being in Te Reo and that a Kapa Haka group had started up in the school.

“Yep there is a lot of Māori and Te Reo in in school, yeah like the school song and yeah things like that”

“Yes because...we (a teacher’s name) started up a Kapa Haka group”

Some students also discussed the schools yearly cultural week and that recently the cultural week was focused on Māori culture.

“I think last year we did Māori cultural week and my mum yeah she did things”

Students’ Own Culture

Five of the participants felt they did not see their culture happening in the school. All of these responses were from non-Māori students. Two non-Māori students thought they learnt enough about their culture and language at home and were happy to learn about their culture at home from family. They were not concerned at seeing or hearing it within the school environment.

“I’m just fine at home”

“At home”

Learning about Culture

Where would you like to see your culture and language happening at school?

Following on from the discussion around where students saw their culture in the school environment they were asked to discuss where they would like to see culture and language happening. Student responses revealed two common themes, The Arts and Te Reo.

The Arts

In response to this question, the majority of the students confirmed that they would like to see their culture and language occurring more in school. Seven out of 16 non-Māori participants (44%) were quick to discuss that they would like to see, hear and learn more about their own and different cultures through The Arts. Particular mention was given to learning different cultural dances and cultural music.

"Probably through dance because I don't do much dancing from different cultures or as many different cultures as maybe I should like them to do"

"...maybe in like arts and learning different dances and that sort of thing"

"Probably like getting into more like music from Scottish or something and like bagpipes and all of that stuff and like Irish instruments"

The students' indication of wanting to learn culture through The Arts is valuable. The Arts can provide opportunities to work across cultures while acknowledging and enriching understandings of cross-cultural perspectives (Dowsett, Smith, Spicer & Hindle, 2005).

Te Reo

Māori students thought that they would like to hear their cultural language more.

"...some of our language I'd say"

"I reckon that you should like be able to hear it more and see it a little bit more"

One non-Māori student talked about the possibility of having a language learning group and another student thought they would like to teach other students their cultural language and traditions.

“Making a group so I can teach people how to speak Samoan”

Overall, when students were asked where they would like to see, hear and learn more about culture, Māori students talked about hearing and speaking Te Reo. Non-Māori students discussed seeing culture and language more through The Arts. This finding will be examined further in the discussion section of this study.

The group theme of cultural identity brought up interesting discussions. The students easily identified and articulated what culture they felt they identified with. It was interesting to note that some students identified with different cultural groups from their families. Reasons behind this may be due to students feeling it was the expected answer from teachers. Students felt they saw and heard culture within the school and classroom environment however, findings indicated that students wanted to learn more about Māori culture and the language. The majority of the students enjoyed learning about Māori culture. Finally students wished to learn more about culture through The Arts and Te Reo.

AUTHENTIC LEARNING

The next section of the focus group discussions was about students' perceptions of learning. The purpose was to identify factors relating to inquiry-based learning that provide positive learning experiences for students. This section was linked to authentic learning in regards to a benefit of an inquiry-based approach being learning in authentic contexts (Peck, 2010). It was also to examine student perspectives on aspects of ownership and responsibility of learning.

What we Learn

How often, and are you, encouraged to help decide what you learn?

Students were asked to consider whether they felt they helped decide what to learn. This was posed to the focus groups to identify whether they felt they helped with the planning and learning programme. The question was asked because student input into learning is a principle of inquiry-based learning. The data produced two themes of helping to choose what to learn and responsibility for learning.

Helping to Choose What to Learn

Most students felt that they were sometimes encouraged to help decide what to learn. Five out of eight Māori students (63%) said they felt they were encouraged sometimes to help decide what to learn compared with four out of 16 non-Māori students (25%). Both Māori and non-Māori mentioned inquiry learning, when they talked about feeling they had some input into what they learn.

“Well when we start a new inquiry topic we get to choose what we would like to learn”

Six out of 16 non-Māori (38%) and one Māori (13%) student felt they did not get to help decide what to learn.

“Not really”

Findings from student discussions regarding having input into learning differed from other documents analysed. Triangulating the focus group discussion transcripts with the teachers' planning and anecdotal notes, alongside class blogs, showed that students were given opportunities to have some input into learning programmes. Teachers' planning and student assessment showed

students were asked to identify aspects of what they would like to learn within an inquiry unit and recorded questions about what they would like to research. It was evident from the student responses that some students did not recognise that they did have some input into learning. Documents showed student-created questions, which were developed from the class being given an overarching inquiry topic. It would appear that some students are not making the connection between questions they were generating and input into inquiry work.

An implication of this is teachers may not be making this link transparent to students, therefore students feeling they do not have as much ownership or responsibility around what they are learning.

Responsibility for Learning

A common theme emerged during the discussion regarding input into learning. Students felt strongly that they would like to have more input into what they learn. Both non-Māori and Māori students responded to the question and discussed the desire to have more input into helping decide what to learn.

“Yes, because it would be easier because then you would know...stuff you probably know stuff about it already”

Learning for the Future

*In what ways do you understand why you are learning what you are learning?
How do you think the things you learn at school can help you in your life outside of school?*

The next questions were to gain an understanding around students' views regarding relevance of learning. The purpose was to examine the relationship between learning at school and life outside of school from students' experiences. Student responses revealed that they had a pragmatic view of the purpose of school and learning.

Pragmatic View

Most students stated they understood the things they learnt at school would help them in their life outside of school. It was evident from the data that students were very clear on their understanding of the purpose of learning which was to help support them for the future. It was also clear that a pragmatic view dominated, as students believed learning and school helped them prepare for college and future jobs.

"Yeah our teacher says if you don't get a good education you're not going to be like successful in life like when you get older".

Comments such as this indicate that students considered their teacher's views as important in the learning process. Students shared their perception of learning which was to support their future success and this was deemed just as valid as the perceptions of teachers and parents.

Authentic Learning

Comments made by students showed that they understood the concepts taught and learnt and how they can be related to real-world experiences.

"Like I said earlier probably when you get a job and you go to college you have to know these stuff to, say you're cooking at school you have to learn like quarters and fractions, you learn this at school so it can help you later on"

"I think we are learning, well I know we are learning, because when we are older and we need a job, if we didn't know our... times tables, if we didn't know how to write, if we didn't know those things we wouldn't be able to get a job and so this comes in handy years later and if there was a problem you could solve it"

Overall, both Māori and non-Māori students thought it was important for learning to relate to life outside of school and not as an isolated context or process. This would indicate authentic learning is a powerful tool and is an important aspect to ensure is happening within school curriculum.

Responsibility for Learning

*Who do you think is responsible for your learning?
Do teachers encourage you to be responsible for your learning?*

These questions were posed to explore students' perceptions about having responsibility of their own learning. Two themes emerged, including shared responsibility and student responsibility.

Shared Responsibility

When the question regarding responsibility for learning was posed, the students were quickly able to discuss their thoughts about taking responsibility for their learning. An assumption could be made that students were able to identify a shared responsibility for learning. The majority of both non-Māori and Māori students felt that having responsibility for learning was a joint endeavour between themselves and teachers.

"If we don't concentrate but the teachers taught us really well, explained it a few times and told us how to do it but we're not concentrating, it's our responsibility to concentrate and get it done, but if the teacher didn't do a good job and we were concentrating and we were trying to think of how do we do this then it was the teacher's responsibility to do a better job"

"Teachers and myself because teachers can help you learn something you don't know how to do yet but...it's your choice whether you want to learn it or not"

Some students thought that having responsibility for learning included parents as well as themselves and teachers.

"...the teacher and parents and yourselves"

Student Responsibility

Students felt that some teachers encourage and help them to be responsible for their learning.

“Mostly it’s us but sometimes the teacher has to help”

“Ah they encourage me by if I find it too hard they kind of come over and explain it to me, help me along the way”

An important aspect of an inquiry-based learning approach and culturally relevant pedagogy is that classrooms are student-centred, that students are encouraged to take ownership and responsibility leading to self-directed learning (Alton-Lee, 2003; Bridges & Gilmore, 2010; Chit-Kwong, 2008; Richards et al., 2007). This would signify students need to be taught and encouraged to be responsible for their own learning. These responses suggest that students felt they were responsible for learning and achieving. It was also clear that they needed and wanted the support of teachers and, for some students, the support of family during their learning journey.

Discussion around authentic learning identified that students desired more personal input into their learning. The majority of students held a pragmatic view that the purpose of learning now was to help them in the future. It was also evident that students believed that what they learnt at school helped them in their life outside of school.

Students felt that having responsibility for learning was a joint endeavour between themselves and teachers, and some students felt parents should be involved as well. Students identified that they were encouraged to be responsible for their own learning, but felt they required the support of teachers.

RELATIONSHIPS

The following section of questions summarised student perceptions of relationships with reference to their schooling experience. The purpose of this section was to listen to students' experiences and perspectives about the importance of relationships with teachers and their peers in relation to positive learning experiences. This section aimed to examine whether relationships within an inquiry-based learning approach provided a positive learning experience for students.

Importance of Positive Teacher/Student Relationships

*Do you think it is important to have a positive relationship with teachers?
Tell me about how you get on with teachers?*

These questions were asked to gather student perceptions around their feelings in regards to the relationships they felt they have with teachers. The data revealed two themes: relating to others and making learning easier.

Relating to Others

Positive relationships were important to all students involved in the focus group discussions. Students overwhelmingly identified that it was important to have a positive relationship with teachers. When students shared how they got on with teachers, the comments were affirmative and included statements such as “great”, “quite well” and “I get on well with teachers”.

All of the Māori students identified that they got on well with teachers.

“When I get to know the teacher I get along with the teacher”

Two Māori students discussed the type of relationship they have with most of their teachers is that of friendship. They were the only students who discussed their relationship with teachers in this manner.

“I have relationships with most of my teachers, as in friends”

“I get on pretty well with teachers like they’re not my best friends immediately but they’re my friends”

Some responses included having a sense of belonging and connectedness with the teacher and class.

“You feel comfortable...if you get on with them and you just feel happy”

Making Learning Easier

Students easily articulated reasons for the importance of positive relationships. These included a variety of reasons as to why they felt it was important to have a positive relationship with teachers.

“Because then you can learn easier because...if you don’t have a good relationship with the teacher you won’t have a positive attitude so you won’t be able to do as much”

“It’s cause if you get along with your teachers you get better at relating to people in life that you meet or so it’s helping you learn”

“It’s like more fun”

“So you can learn better”

Some of the students’ responses identified personal individual feelings such as *“helps you to have a positive attitude”* and *“helps you to learn better”*. Other responses included social responses, such as the importance of interacting positively with people.

This section was dominated with the view that positive relationships were important to these students. They identified that when you have positive relationships you are able to relate to others effectively and these feelings allow learning to be made easier. This relates directly to literature about the necessity of teachers creating classroom environments with an emphasis on developing positive relationships. This is outlined as an essential concept of providing culturally relevant pedagogy (Fletcher et al., 2011; Irvine, 2010; Macfarlane et al., 2007).

Teacher as Co-learner

*Have you ever been able to teach your teacher anything new?
How did that make you feel when you taught a teacher something new?
Do you feel the teachers learn with you?*

The next set of questions aimed to examine student perception around the principle of ako, where learning and teaching is a reciprocal role. The themes of teaching the teacher and shared teaching and learning emerged from the data.

Teaching the Teacher

In response to the question of whether students felt they had been able to teach a teacher anything new was the general view that students felt that they had. Eleven out of 16 non-Māori students (69%) identified that they had been able to teach their teacher something new compared with three out of eight Māori students (38%).

Student responses in relation to teaching teachers identified two areas where they felt they taught their teacher: culture and maths.

*"I taught the teacher...like so when we were doing work I taught the teacher like...
the maths question and then we done it and then...she said you've just teached*

me something and I was like yeah”

When questioned about how it made the students feel being able to teach the teacher new things the most common response was one of feeling like a teacher.

“it’s like we are teaching as well”

Māori students made reference around feeling emotions after they had taught a teacher. Responses made were comments such as *“happy, really awesome and really good”*.

Student responses revealed that they appreciated an environment where teachers were co-learners, which also made them feel good.

Shared Teaching and Learning

Students were also asked whether they thought teachers learn with them.

The majority of non-Māori students felt that teachers learn with them.

All of the Māori students said that they felt that teachers learn with them.

“I feel more comfortable if we all get together and try and learn something so we can all know the answer and all learn something new”

“Yeah, I think its best, um instead of working individually...when the teacher doesn’t...know what the answer is or what it is you work as a team the whole class”

Both inquiry-based learning and culturally relevant pedagogy suggest that the teacher’s role should be that of a facilitator and co-learner within the classroom (Bishop & Berryman, 2010; Bridges & Gilmore, 2012; Ministry of Education, 2009; Spronken-Smith et al., 2012). The responses provided by these students suggest that they felt that this occurred and appreciated that teachers learnt with them and took on a reciprocal role of being a learner as well as a teacher.

Students Teaching Students

Do you think it is important to teach other students?

Students were asked whether teaching their peers was important to them. This was the only question throughout the focus group discussions where all students agreed. When students discussed why they thought it was essential to help other students the vast majority of replies were that it was considered the 'right thing to do'.

"Yes, because say there is someone really smart in the class and then there was someone who was not really confident you can help them and then it boosts them up so and it helps them"

Students also mentioned that they liked help from other students if they were finding work difficult. This identified it is a positive aspect of the classroom environment. They were particular to point out that to help other students was to support them, not just give them the answers. This suggested a true mentor-type role.

"Yeah not like all the answers but just helping them understand what it actually means"

This aspect of helping other students in a reciprocal way also relates to the principle of tuakana/teina type relationships (Bishop & Berryman, 2010), which is elaborated further in the discussion section of this study.

"It's not just the teachers teaching people it's also just the students because...it's not just teachers so students can actually help others, student's can teach new things to other people so like they can get a good life"

Teacher Knowledge of Learning Needs

Do you think your teachers know your individual learning needs?

This question was posed to the focus groups to gain understanding of student perception of teachers knowing their students and their particular learning needs in regards to both pedagogy and content knowledge. Students' individual needs, teachers giving feedback and teachers helping with learning were three themes that emerged.

Students' Individual Needs

Students were asked whether they thought teachers knew their individual learning needs. Eleven out of 16 non-Māori students (69%) felt that teachers knew their individual learning needs. Compared with this large number of non-Māori students' views, only three out of eight Māori students (38%) thought their teachers knew their individual learning needs and four out of eight Māori students (50%) said no, they did not think that teachers knew their needs.

"I don't really think (teacher's name) knows how I find it easy as to learn, because I find it easier to learn like...I can't really explain it...I find it way easier to learn when I'm working with someone else and whenever yeah when I work with someone else"

The identification by half of the Māori students that they felt teachers did not know their learning needs is a concern. Students feeling that teachers do not know their individual needs could have a detrimental effect on relationships teachers and students have, as well as students' self-efficacy. The suggestion that some students are feeling teachers are unaware of their learning needs would imply that more communication is required between teachers and students.

Teacher Feedback

The students who acknowledged that they felt teachers were aware of their individual learning needs were asked to discuss the reasons around how they recognised that teachers knew their needs. The responses to this were that students felt teachers knew their learning needs as they gave them feedback, both orally and written.

“Cause sometimes she always talks....to me about it”

“Yeah because she marks people’s books and she says you’re improving and puts good stuff in it and if you’re like getting there she’ll say...you’re getting better or something”

Teachers Helping with Learning

Another reply that arose many times was that the students knew they were able to ask teachers to help them with their learning. Students did not expand on how they knew they were able to ask teachers for help, but an assumption could be made that this was an integral part of the classroom ethos that was established throughout the year.

“Ah because they normally found that I had trouble and they figured out another way to help me do it”

This section identified student perceptions regarding the importance of positive relationships between students and teachers. Students discussed in detail the reasons why they felt this was important and reasons, such as having a sense of belonging, relating to others and making learning easier, were referred to. Student perceptions around the role of the teacher indicated that they felt they were able to teach teachers new things and there was a feeling of shared teaching and learning. All students felt it was important for them to support and

help teach other students. Findings indicated that only some students felt teachers knew their individual learning needs.

TEACHING STRATEGIES

The final section of the focus group discussions was about student perceptions of effective and enjoyable teaching and learning activities. The purpose of this section was to examine teaching strategies employed with an inquiry-based learning approach and those outlined in literature as culturally relevant pedagogy. The outcome was to gain student perspective around the benefits of these teaching approaches to their school and learning experience.

Enjoyment of Learning

So what type of activities do you like to do at school to help you learn?

This question was asked to identify aspects of learning that students enjoyed and helped them to learn. One major theme emerged which was the importance of a variety of activities.

Variety of Activities

Students were asked to discuss the types of activities they liked to do at school that they felt helped them learn. The overwhelming response from the majority of students was mathematics due to the variety of activities. Seven out of eight Māori students (88%) and 12 out of 16 non-Māori students (75%) replied:

“Maths, it’s fun with numbers and...you get to do different strategies like...times tables and divided bys and all those other ones and numbers is a really good thing that will help you in life”

When discussing why students felt maths was an activity that helped them learn the consensus was it was enjoyable as there were always a variety of things and activities to do and learn within maths. Students spoke about learning more and more in maths and that you are able to work through problems step by step.

“Math activities because you get to learn it and you learn more and more and more and get step by step”

How Teachers and Students Can Help with Learning

*What things can your teacher do to help you enjoy learning?
What things can you do to help yourself enjoy learning?*

The purpose of gaining student perceptions about what teachers and students can do to help enjoy learning was to gain an insight into what they felt worked for them. These can be analysed with literature around inquiry-based learning and culturally relevant pedagogy. The themes that emerged were using a variety of teaching strategies; making learning fun and to be focused and responsible.

Variety of Teaching Strategies

Students were asked to discuss the things teachers could do to help them enjoy learning. There were varied responses, with the most common response being that they liked it when teachers worked with them, one on one, if they did not understand the work. The other response, which linked directly to this, was the desire from students for teachers to explain things in different ways if they did not understand.

“I would like the teacher to work with me sometimes so she could explain it to

me in different words so that I can understand it cause the other work it might be at higher people's levels"

Another example of how students felt that a variety of activities was enjoyable for learning was when they discussed being able to work in groups.

Two out of eight Māori students (25%) discussed that they thought teachers should let them work in groups more. This aspect of working in groups is examined in the discussion section under independent and group work.

"When we do maths ah sometimes we're allowed to work in groups and I would be fine working by myself but it makes it more fun in groups"

One student discussed the possibility of doing more interactive work.

"Probably if the teachers gave out a little bit more of um like interactive work so that you can like work outside and have a look around and see what you can find and then write it down or something"

This comment around providing activities that were interactive was interesting as it was surprising that more students did not bring up this point of doing more hands-on activities and work outside of the classroom. Curriculum and teaching focuses are increasingly encouraging more interactive-type learning activities (Spronken-Smith et al., 2008). The findings from these students would suggest that this is either not happening as much within this environment or that these students are happy with the types of learning activities they are currently doing. It is difficult to make an assumption around this finding as it was not examined further within the focus group discussions.

Making Learning Fun

Māori students added to this question by saying they liked it when teachers made learning fun.

"Yeah they could introduce...new games or activities that are fun but...we learn

while playing them”

Students were very aware and articulate regarding the types of methods teachers could employ to ensure they enjoyed learning. As with the question regarding teachers making learning enjoyable, this question also encountered a varied response but overwhelmingly the comment that was mentioned the most was to try and make learning fun.

Focus and Responsibility

When students discussed how they could help themselves enjoy learning they alluded to aspects of being a focused learner and being responsible for learning.

Non-Māori students’ responses included comments such as *“take part in whole-class discussions, do work at home not just at school and don’t just sit out in class”*.

Māori students’ responses were more obedience and discipline-related. Comments such as *“listen to the teacher, ignore annoying people, and co-operate with the teacher”*. These types of comments may show that they perceived the teacher as authoritarian and this concept appears very traditional in nature.

“If someone beside you is talking or annoying just ignore them and do your own work”

Both sets of comments, however, show students saw themselves as being responsible learners who needed to be focused on learning.

Independent and Group Work

Throughout all of the focus group discussions a lot of responses related back to working independently or within groups. At the beginning of each focus group discussion a general question was asked to begin the discussion and to

encourage active participation. The students were asked how they felt they learnt best. The most common response to this question was either working independently or working in groups. There were varied responses to whether students preferred working by themselves or within a group situation. The majority of the students were able to view independent and group work in both positive and negative ways and thought each one had its own strengths depending on a variety of factors. The considerations discussed were aspects such as what activity it was, who they were working with, how many people they were working with and whether they choose the people to work with.

Independent Work

What do you think the benefits and strengths are of working by yourself?

When students discussed the benefits and strengths of independent work, two themes arose. The themes were being focused and being responsible when involved in independent work.

Focused Learning

When students were asked to discuss the benefits and strengths of working independently, the most common response from both Māori (75%) and non-Māori students (57%) was that they felt it was easier because they *“did not get distracted”* and *“it was easier to concentrate due to the peace and quiet”*.

“Everything is nice and quiet and you can just do your work instead of getting addicted with talking to your friends so it makes you feel, to me in my opinion, it makes me feel more comfortable just working by myself”

Responsibility for Learning

Other responses from Māori students were that when working independently you did not have to share your ideas and you need to think for yourself and do your own work.

“The good things about working by yourself is that...is that you don’t really like you don’t need to share your ideas off so you don’t really need to share your ideas with someone you don’t like”

“Maybe like if you are in group you like chat all the time and hardly get anything done and like when you are by yourself you actually have to stop and think and have to do your work”

Students’ comments in relation to the benefits of independent work were similar in nature. The responses suggested that students enjoyed learning in quiet, calm environments and appreciated it when they were given this opportunity. It also demonstrated students’ understanding that they need to be focused and responsible learners.

Group Work

What do you think the benefits and strengths of working in groups are?

Similarly to describing the benefits of working independently, when the students discussed the strengths and weaknesses of working in groups there were a variety of replies. The same themes emerged when discussing group work as when the students discussed independent work. The themes were being responsible for learning and being focused.

Responsibility for Learning

The two most common responses from both Māori (63%) and non-Māori (63%) students were you got to *“share your knowledge and ideas”* and that *“if you get stuck there are always people there to help you”*.

“I think it’s good to work by ourselves just cause you can get your work done and you can think but I actually think working as a group is more is better for learning because you can teach the other people because it’s easier for kids to explain to kids how to do things, like how to do a strategy how to find the answer and it also teaches you social skills being in a group”

These aspects of students working together displayed a shared responsibility for teaching and learning. This relates directly to the principle of ako. The students felt responsibility for teaching and learning and helping and receiving help from each other.

Other responses that link with the concept of ako from all students included factors such as *“you learn new ideas, everyone gets to have their say, it’s nice to work as a team, the whole group gets to work it out and it’s boring working by yourself compared to working in a group”*.

Another example of students displaying responsibility was when the groups discussed the social aspect of working in groups.

Some students discussed a strength of group work was the ability to learn social skills.

“Yeah working in partners um isn’t good cause you’re going to keep chatting but if you work in groups you can...chat with people about your work and how you can break it up and you can be really social. You can learn to be social and...learn about teamwork learning how to work with other people and getting along with people”

One Māori student talked about working in groups using another social aspect. They said it was a way to get to know people better.

“Probably cause if you are in a group you could probably, pretend there’s three in a group and you don’t even know them you like pretend they’re new, you’d get to know them more cause...some people know different things so you get to know more and then you just learn more so yeah”

Although the majority of students were able to discuss the benefits of working in groups there were also comments made regarding the students’ perspectives around weaknesses to working in groups. The main comment made was to do with social skills and the conflict with other students. These conflicts included being ignored or other students in the group not concentrating on the task.

“I like working in groups and I don’t like working in groups. I like working in groups so you can share your ideas with some people but sometimes if you work in groups they just like ignore you and say oh no I think that’s the wrong answer I don’t think that’s the right one so we won’t pick you”

These comments regarding students’ perceptions of possible negative impacts of working within groups also demonstrates responsibility and focus for learning. Relating possible conflicts to the inability to continue or complete work suggests that students are focused and take responsibility for learning.

Focused Learning

During the discussion around working in groups, students were asked what they felt was a good number of students to have in a group. The majority of students (71%) felt the ideal numbers were either three or four students.

“I usually work in a group of four...Yeah so it can have one really good person at that thing and one very, not so good and one in the middle and then another one in the middle or something”

“At the most probably three”

This discussion showed students were able to identify what was the ideal number to work with to be able to be focused on their activity.

Learning at Home

When you are learning an inquiry unit are you motivated to learn things at home about the unit?

Students were asked to discuss their motivation to learn at home. As with other questions discussed in this teaching strategies section, two themes emerged. Those themes were responsibility for learning alongside a desire for a variety of strategies and tools.

Responsibility for Learning

A common theme arose around this question, which was that student input into learning leads to motivation. The majority of students involved in this study felt that if they had more input into a unit of work they would be more likely to want to go home and learn more about it. This theme links directly to students being responsible and to the earlier section on authentic learning and the question posed to students regarding whether they were encouraged to help decide what to learn. As in that section, the common theme was students felt strongly that they would like more input into what they learn. The discussion around motivation to learn at home supports the perspective and theory that if students felt they had more input they would be more motivated to learn outside of the school environment.

When students were asked if they were motivated to learn at home, most replied that they were motivated and interested to learn at home. Two out of eight Māori students (25%) talked about if the topic or inquiry was fun and introduced as an exciting idea then they were more motivated to learn at home.

“Yeah I feel motivated to learn about it if it’s...like exciting because if you can...it’s not what the subject is, it’s...how its presented to you cause if it’s if its shown to

you as a boring idea then I probably won't want to learn about it but if like some parts of it are funny...they make you want to learn about it"

"It depends on how fun the thing we're working on is"

Two out of eight Māori students (25%) and one out of 16 non-Māori students (13%) talked about learning at home if it meant they would not get in trouble.

"I would do anything not to get me in trouble"

This would suggest an obedience issue similar to the discussion around what students can do to make learning fun. No further explanation was given around why they thought they might get in trouble if they did not work at home.

Being responsible for one student meant being responsible as a family member. This student stated that having spent six hours at school they would rather spend time with their family rather than doing school work.

Variety of Strategies and Tools

Other popular responses from students regarding being motivated to work at home were that at home they could use the computer and teach their mum and dad what they had been learning at school.

"when I got home, I taught my mum about it"

"Yes, because when you say I did something really good at school and I'm really confident at doing it I usually go home tell my mum and dad when they're free and not doing their work on the computer I can tell them what I did today and draw it down and so the next day at school if we are doing it again I feel really confident so I'm really smart"

Challenging Learning and Great Lessons

*How does a teacher challenge you with your learning?
Tell me what you think would make an awesome lesson?*

The next questions were around student perception of how teachers challenge them with learning and their views on and experiences of great lessons. The purpose was to examine responses with regards to higher-order thinking activities.

The question relating to teachers challenging learning provided a theme of students experiencing a variety of teaching strategies.

Variety of Teaching Strategies

When asked how teachers challenge students with learning, Māori students' answers varied amongst themselves.

- Two students (25%) said teachers move them on to the next stage
- Two students (25%) said teachers give them really hard questions
- One student (13%) said they start them with easy work and it gets progressively harder
- One student (13%) said teachers ask questions
- One student (13%) said they have races to see who can get the answer first, including the teacher

"Like our teacher in our class challenges us by doing easy stuff and going harder like easy, a little bit harder, a little bit harder, then really hard like its kind of steps up to really hard"

The majority of non-Māori students responded to this question with *“they give us really hard questions”*.

“She sometimes gives us really hard questions”

The responses around what students perceive to be a great lesson were similar to what students felt teachers can do to challenge them. The same theme of variety of activities emerged from the discussion around a great lesson.

There were a number of different responses from students, including being outside, playing games, giving work in lots of subjects and everyone getting along. The most common response discussed was *“doing a variety of things”*. Half of the Māori students said that a great lesson would involve doing a variety of things.

Other responses that displayed a desire for a variety of activities from Māori students included *“playing games outside if they had worked hard, a sense of humour, everyone getting along and choosing who they work with”*.

“What would make a great lesson for me is that you got to choose who you are with and then like there’s a variety of what you could do”

The statements of *“everyone getting along and choosing who they work with”* by some students emphasise the prominence of establishing positive and productive relationships within classroom environments and will be examined further in the discussion section of this study.

This section on teaching strategies provided student perception around a range of different teaching strategies. Students outlined how they felt teachers help them learn alongside how they can help themselves enjoy learning. Findings in this study indicated that students enjoyed working both in groups and independently for a variety of reasons. Students indicated that they were motivated to learn at home however, they also believed that if they had increased

input into what they learnt they would be further motivated to learn at home. Students identified the importance of teachers providing a variety of activities and to challenge them by moving them on to new learning in stages. Certain key themes that emerged from this section provide teachers with student perception of successful pedagogy. These themes include being responsible, having fun, having a variety of activities, step-by-step learning and being focused.

SUMMARY

This chapter provides a summary of the findings analysed within four themes: culture, authentic learning, relationships and teaching strategies. The findings are outcomes of the data collected during focus group discussions and are used as the foundation for the discussion chapter.

This study's findings demonstrate that students identified with particular cultures, wanted to learn more about culture and clearly identified ways in which this could occur. Findings that arose throughout the focus group discussions were similar within each theme of authentic learning, relationships and teaching strategies. Students identified attributes such as responsibility, focus, fun, getting along with others, ownership of learning and shared teaching and learning throughout the focus group discussions as important characteristics for students' positive learning experiences.

In summarising the findings there are closely aligned links from students' perceptions of learning in this particular setting to inquiry-based learning and culturally relevant pedagogy. The findings also indicate relationships between inquiry-based learning and culturally relevant pedagogy.

CHAPTER FIVE – DISCUSSION

This chapter examines the key findings from the study. The discussion centres around four themes identified in the literature review:

1. Culture
2. Authentic Learning
3. Relationships
4. Teaching Strategies

Links between the themes, which are identified in the findings, were evident in the focus group discussions. This could be due to the nature of teaching and learning being holistic and not one of these themes can stand independently without affecting the others. This chapter will examine the four themes and how they are correlated with and linked to inquiry-based learning and culturally relevant pedagogy.

Discussion related to these four themes provided insight into student perspectives of school learning experiences. In doing so, it provided some response to whether an inquiry-based learning approach provides a tool for employing culturally relevant pedagogy in a primary school classroom.

CULTURE

SUMMARY OF FINDINGS

- Students were able to articulate cultural identification.
- Many students self-identified a link with Māori culture.
- The majority of students desired to learn more about culture.
- Particular mention was made of learning about culture through Te Reo and The Arts.

Cultural Identification

The purpose of beginning the focus group interviews with a discussion around culture was to provide an understanding of students' beliefs around their cultural identity. Of particular interest was the insight into whether students' beliefs differed from their family cultural identification. Houkamau and Sibley (2010, p.11) suggest that identity is an *“umbrella term used to describe an individual's comprehension of him or herself as both an object and an actor in the social world.”* It was regarded important to allow students to identify for themselves a culture they felt they identify with and was an appropriate way to engage and allow students responsibility for voicing their own personal opinions and views. This is related directly to the principle of tino rangitanga (Smith, 1997).

The information gathered around culture from the school database, their family and their own cultural identification illustrated that students associated with a number of cultures. The highest percentage of Māori association arose when students discussed their own cultural identification. This affinity with Māori culture is positive. In addition to Māori cultural identification was the reference from students regarding the desire to learn more about it. It was apparent that students displayed a pride for knowing about Māori culture and hearing Te Reo.

Results indicated that some students who were not classified as Māori by family self-identified as Māori. They believed that was the culture they personally felt they belonged to and this is consistent with the principle of whanaungatanga. Pere (1979, 1988) observed that when individuals have responsibility and relationships within their cultural group it provides them with a sense of identity. This sense of belonging may account for why some students in this study identified with a culture group that was different from their family cultural identity.

Identity can be viewed as a dynamic and ongoing process (Houkamau & Sibley, 2010). Students may feel a sense of belonging to a certain group, in particular

the identification with Māori culture and what it means to be Māori. The view that identity is inextricably linked to relationships individuals have with each other (Houkamau & Sibley, 2010) could have also influenced students' identification.

Learning about Culture

The Arts

Students described the desire to see and hear their culture happening more within the school environment. The discussion regarding learning about culture through The Arts was prominent, particularly with non-Māori students. The Arts can provide opportunities to work across cultures while acknowledging and enriching understandings of cross-cultural perspectives (Dowsett et al., 2005). Students' explanation of wanting to learn through the arts may be associated with students' need for alternative learning environments (Ministry of Education, 1999). These alternative environments are more likely to coincide with preferred cultural learning activities through a culturally relevant pedagogy and an inquiry-based learning approach.

Students mentioned that a Kapa Haka group had started at the school. Findings associated with the benefits of students learning Kapa Haka align with students' views in this study of learning about culture through The Arts. Whitinui's (2010) study around Māori student participation in Kapa Haka identified a greater sense of engagement, association and attendance. The use of Kapa Haka, with its emphasis on group work, may influence student motivation, engagement and participation in the classroom (Whitinui, 2010). Although these benefits are from one aspect of The Arts it could be assumed that this would suggest that all students would value from the advantages of learning culture through The Arts

Te Reo

This finding regarding speaking and hearing Te Reo is heartening and reinforces the importance of Te Reo being used and taught more throughout the daily classroom programme, not just as tokenism. Weaving Te Reo throughout the school environment and learning programme is an integral part of any school and from the responses of this focus group it is important to students. Bevan-Brown (2004) reiterates this view, stating that environments that allow talent to emerge, are those that foster language development and embrace Māori perspective and culture.

Summary

This section outlined student perception around culture and connections with culture. It was evident that students easily articulated their cultural heritage. It was clear that students distinguished family cultural connections alongside their own cultural self-identification. It appeared that many students identified with Māori culture. It could be suggested that this connection with Māori culture is due to a sense of belonging, alongside exposure to Māori culture through school.

Students expressed desire to learn more about culture. They had clear ideas of where they would like to see and hear culture occurring in the school setting. Particular relevance was given to Te Reo and The Arts. Benefits associated with learning culture through The Arts supports students' perspectives. There may be an association between exposing students to culture through Te Reo and The Arts and a sense of student belonging to Māori culture.

AUTHENTIC LEARNING

The questions under this section provided an insight into students' descriptions of learning through analysis of student perceptions and experiences. The purpose was to identify factors relating to inquiry-based learning that provide positive learning experiences for students. This concept will be linked to the authenticity of learning in these students' lives.

SUMMARY OF FINDINGS

- Māori students believed they had some input into learning.
- All students felt they would like more input into what they learn.
- The majority of students indicated the importance of learning at school in helping them in the future.
- The majority of students believed learning was a shared responsibility.

What We Learn

Results indicated that students believed that, at times, they were encouraged to help decide what to learn. Māori students as opposed to non-Māori students dominated this view. The results around students' desire to have input into what they learnt is consistent with learning environments that promote inquiry-based learning and culturally relevant pedagogy.

Students felt strongly that they would like more input into what they learn.

"Yes, because it would be easier because then you would know... stuff you probably know stuff about it already"

This comment was made by a Māori student and relates to culturally relevant pedagogy as it indicates that the student would like teaching to start from prior knowledge and experiences and build on those. Hemara (2000) discusses that this type of learning traditionally happened in the late 1800s at New Zealand

Native schools. Students learnt gradually from a familiar starting point and teaching and learning were conducted from students' strengths (Hemara, 2000).

Literature reiterates students' views of wanting and allowing student input and perspectives on learning topics. Hemara (2000) states that co-opting student perspective leads to quality learning. This is echoed by other researchers around culturally relevant pedagogy, particularly the aspect of weaving culturally relevant pedagogy into classroom programmes by ensuring it is always student-centred (Bishop & Glynn, 1999; Macfarlane et al., 2008; Saifer & Barton, 2007). Saifer and Barton (2007, p. 25) discuss that learning should always be centred around students' lives, interests, families, communities and cultures because they *"are the basis for what is taught; students are involved in planning what they'll learn and how they'll learn it"*.

Literature on inquiry-based learning also outlines the benefits of students having input in to what is studied and taking ownership of their learning. An inquiry-based curriculum allows for learning to be more relevant, diverse and flexible through a wide span of student choice (Yair, 2000). Students choosing areas of interest to explore and investigate is the heart of an inquiry-based curriculum (Wells, 1995).

Although students' perceptions were that only sometimes they felt they were encouraged to help decide what to learn, other data sources such as teachers' planning and assessment information showed otherwise. Teacher planning showed questions identified from students around an overriding theme. Assessment information demonstrated student research and findings around those student-directed questions.

Literature around culturally relevant pedagogy and inquiry-based learning indicate that it is beneficial to include students in the decision-making process around the curriculum. The views and opinions of students in this study, both

Māori and non-Māori, aligned with this literature. It highlights the need to ensure learning is a reciprocal endeavour and that students have a sense of ownership of and input to what is taught.

Learning for the Future

Students indicated that they understood the reason for learning was for their future success. Educators are encouraged to create learning situations and activities where each student sees meaning in learning, has an interest in learning and is able to make connections between activities and their own real life. Powerful learning ensures it is authentic and related to encounters students may have in real-life situations (Chit-Kwong, 2008). Bridges and Gilmore (2010, p. 81) reiterate this by stating that learning is *“preferable when it is relevant, authentic, fluid and valued by each learner”*.

There is a link in literature between inquiry-based learning and culturally relevant pedagogy around this theme of authentic learning. The notion of pedagogical practices and learning being connected to students’ prior knowledge, experiences and everyday lives is dominant in literature on culturally relevant pedagogy (Castagno & Brayboy, 2008; Morrison et al., 2008). Macfarlane and colleagues (2008) discuss the importance of ensuring that learning at school is made an authentic part of students’ life experiences. This is particularly important for New Zealand educators in ensuring learning environments encourage success for Māori students.

Responses from students, both Māori and non-Māori, throughout the focus group discussions indicated they understood the importance of and valued their learning at school. These responses would suggest that teachers who make learning authentic and meaningful and allow student input into what is learnt through an inquiry-based learning approach will also be helping to create an environment which is culturally responsive.

Responsibility for Learning

It appeared the majority of students felt a sense of responsibility when it comes to learning. Findings indicated that students recognised that learning is a joint endeavour between themselves, teachers and parents. This finding correlates to literature which regards important elements in student success are the degree in which students, teachers and parents believe they are responsible for learning and achievement (Peterson, Rubie-Davies, Elley-Brown, Widdowson, Dixon & Irving, 2011).

It was clear that students were aware of their own part in their learning outcomes and success.

“Normally taking responsibility and part of your learning is something that you kind of pick up by yourself like...teachers sometimes try, try to teach you it but in the end its up to you, its up to the person whose trying to learn because its not you could have a really good teacher but not learn anything or you could have a really bad teacher and you could learn lots it's just up to what you're...what you think”

Comments such as these indicated that students recognised the need to take responsibility for learning and the self-motivation required to succeed. Peterson et al. (2011) outline that students who take responsibility for their learning perform better.

Students taking increased responsibility for and ownership of their learning is a core component of inquiry-based learning (Spronken-Smith & Walker, 2010). As students assume more responsibility they achieve a sense of control for learning which underpins the notion of inquiry-based learning being a student-centred approach (Bridges & Gilmore, 2010; Peck, 2010).

The theory of supporting students to take ownership of and responsibility for learning also aligns to literature around culturally relevant pedagogy. An

essential feature that arose from the Te Kotahitanga project was that students and teachers were connected through a reciprocal responsibility for learning (Bishop & Berryman, 2009).

Summary

It was clear that students easily distinguished characteristics of authentic learning such as having input into learning, learning for the future and taking responsibility for learning. An inquiry-based learning principle is that students help decide learning pathways. This correlates with culturally relevant pedagogy, which believes learning is student-centred and students should be involved in deciding what to learn. It appeared, in this study, that Māori students believed they had some input into learning, but discussed the desire to have more involvement in choosing what to learn. This would suggest more student input would be an advantage within classrooms as it would contribute to student motivation.

It appeared that students understood learning provided positive pathways for their future. Meaningful learning was valued by students and could be suggested to enhance students' self-motivation to do well at school.

It was also evident that students believed they were responsible for learning and enjoyed support from teachers and parents. This finding would suggest that teachers who use an inquiry-based approach support students to take responsibility for and ownership of learning. The findings around reciprocity of responsibility for learning from this study also suggest a link to providing culturally relevant pedagogy.

Relationships

The questions under this section provided an insight into the importance of relationships from students' perceptions and experiences. The purpose was to ascertain whether student's views were consistent with literature that claims positive teacher/student relationships are crucial to effective inclusive learning environments (Averill, 2012; Fletcher et al., 2011). There is extensive literature around the significance of relationships on student self-concept and achievement during schooling years (Averill, 2012; Bishop et al, 2003; Fletcher et al, 2011; Gay, 2000; Tuuta et al, 2004). This view is outlined extensively in inquiry-based learning and culturally relevant pedagogy literature and research. The Ministry of Education (1999) outlines that relationships and the way we connect with others in our lives relates directly to our quality of life. It is therefore crucial that teachers encourage and model positive interactions and are sensitive to and aware of the individual beliefs and values of all students (Ministry of Education, 1999).

SUMMARY OF FINDINGS

- All students believed positive relationships between teachers and students were important.
- Māori students believed they shared friendships with teachers.
- Māori students commented on relationships using emotions.
- The majority of non-Māori students believed they had taught teachers something new.
- The majority of students felt that teachers learn with them.
- All students believed it was important to help teach other students.

Importance of Positive Teacher/Student Relationships

Results indicated that all students, both Māori and non-Māori, involved in this study felt it was important to have positive relationships with teachers. Student

views reinforced the strong link between the importance of relationships on students' positive experiences of school and learning. It is widely accepted that best practice relies on the quality of the relationship between students and teachers (Alton-Lee, 2003; Bishop & Berryman, 2006; Bishop & Glynn, 1999; Hattie, 2003; Timperley et al., 2007). The Ka Hikitia strategy reiterates this view by stating that teachers who develop positive relationships with Māori students improve engagement and achievement (Ministry of Education, 2009).

Two Māori students discussed characteristics of friendship with teachers. This notion of having relationships with teachers where students see teachers as friends correlates with literature around culturally relevant pedagogy (Castagno & Brayboy, 2008; Irvine, 2010). In relation to Māori students, this establishing of positive, caring and equitable relationships is essential for effective learning to occur and ensures classrooms are student-centred (Macfarlane et al, 2008). The students involved in this study substantiate literature around culturally relevant pedagogy which identifies that whanaungatanga is of crucial importance to Māori students and is a key to motivating students (Fletcher et al., 2011; Irvine, 2010; Macfarlane et al., 2007).

Two Māori students identified that if you have a positive relationship with teachers then you *“feel comfortable, have a positive attitude and feel happy”*. These two students were the only participants who described emotions associated with having a positive relationship with teachers. This feeling of connection and the importance of holistic education can be related to Durie's (1994) Te Whare Tapa Wha model. This is a wellness model that incorporates an ecological and holistic approach to wellness. Durie's model is based on the four walls of a house where each wall is essential to guarantee strength and balance. If a wall is missing there is a loss of wellness (Durie, 1994). From the focus group discussions it appeared that the students associated their feelings of being connected with teachers with a positive learning environment. Aitken and

Sinnema (2008) echo this view in that respectful relationships are vital for creating a purpose of affiliation and belonging to a class and school community.

The literature around inquiry-based learning and culturally relevant pedagogy recognises the prominence of establishing positive relationships between teachers and students. Of particular relevance is the concept of whakawhanaungatanga (the process of establishing relationships in a Māori context). This can be related to teachers' connectedness, engagement and involvement with others to promote self-determination (Bishop & Glynn, 1999). This promotion of self-determination relates directly to the principle of tino rangatiratanga (Smith, 1997). Teachers promoting this principle allow Māori students a voice and involvement in decision-making processes within the classroom and school setting. Macfarlane and colleagues (2007, p. 70) states *"relationships are the key to a successful school and a key motivator for students"*.

Responses from the focus group discussions demonstrate that all students, regardless of ethnicity, believe that it is crucial to have a positive relationship between teachers and students.

"Yeah because if you don't have a good relationship with the teacher you're not really going to get along with the teacher and you're going to be stuck with them for the whole year and they're not really going to get along with you and you won't see that smile that they always have on their face"

Teacher as Co-learner

Results indicated some discrepancy between Māori and non-Māori students' responses to whether they felt they had been able to teach teachers anything new. While a large number of non-Māori students believed they had taught teachers, there were only a small number of Māori students who suggested they had. This response by Māori students highlights the need for teachers to create a learning environment where ako and reciprocity are embedded for the benefit

of all students and teachers. Teachers should see students as resources that they are able to learn from. Most importantly, evidence suggested that those Māori students who did believe they had taught teachers displayed positivity and increased self-efficacy.

As findings indicated the positive nature of students being able to teach teachers, a link can be made between providing an inquiry-based learning approach and the benefits of providing culturally relevant pedagogy. Inquiry-based learning enables the teacher to be a facilitator and that learning is a collaborative effort with a move towards students becoming self-directed learners (Bastock et al., 2006; Spronken-Smith et al., 2012).

Findings indicated that all Māori students and the majority of non-Māori students felt that teachers learnt alongside them. These findings reinforce the role of the teacher as a facilitator and co-learner in the classroom. This is consistent with an inquiry-based learning approach and is prevalent in research about culturally relevant pedagogy.

As a teaching approach, inquiry-based learning recognises the importance of teaching and learning being a reciprocal approach between teacher and student. Inquiry-based learning creates an environment where the teachers role is as a facilitator, therefore creating a student-centred environment where teachers become co-learners (Spronken-Smith et al., 2012; Spronken-Smith & Walker, 2010). This is deemed a powerful aspect of inquiry-based learning (Golding, 2011).

Comments from students regarding teaching and learning relate to the concept of ako. This reciprocal process of learning embodies the concept of ako. The responses from students demonstrate the importance of classrooms where ako is embedded and that students relate to it in a positive manner. Bishop (2010) states that, with ako, teachers build relationships with their students where

teachers can learn from students as well as students learning from teachers, leading to co-construction of knowledge. Certainly all students participating in this study believed that reciprocity occurred and that teachers learn with them and from them. This was significant to students as it made them feel good.

A point that arose from this section of the focus group discussions was the finding that the majority of the Māori students felt they had not taught teachers anything new; however, all the Māori students felt that teachers learn with them. This finding suggests that Māori students do not consider themselves imparting knowledge to teachers but are aware that teachers are learners too. This finding questions whether ako is occurring at the level of teacher/student within this setting.

Students Teaching Students

Students in this study believed that it is important to help teach other students.

“Anybody who’s not quite sure you can help them or not that confident in learning you can help them”

It was interesting to note that this was the only area of discussion where all students, both Māori and non-Māori, agreed on one view. It became apparent that students believed it was important to teach other students for two consistent reasons. The first was linked to empathy in that students considered helping as the ‘right’ thing to do.

“Yes it is important...so everyone knows the same thing and it would be kind”

The second reason was that if they found an activity difficult they would appreciate other students helping them.

“Maybe if they help you in something you could help them”

This aspect of helping teach others underpins the concept of tuakana/teina. The reason being that tuakana/teina shifts roles between being a learner and a teacher. The concept of tuakana/teina operates and is interrelated to the dual characteristic of ako (Royal Tangaere, 1997).

It is reassuring that students overwhelmingly feel that helping others is important. It highlights that students appeared to associate helping others with empathy and caring in a mentor-type role. Students opinions around helping others clearly indicated that they felt helping was to be conducted as a supporting role and that it was not about giving others the answers. This concept relates to a synthesis of research conducted by Webb (1991). The synthesis identified that helping other students was beneficial to the achievement of the student giving the help; the student receiving the help only gained from the help if it was an explanation or elaborated on rather than just an answer (Webb, 1991). Due to these findings it would be appropriate for teachers to ensure they teach students how to provide help to each other through elaboration and detailed explanations.

Teacher Knowledge of Learning Needs

The need for students to feel that teachers know them as learners and know their individual learning needs is crucial. The findings around whether students felt teachers knew their individual learning needs was particularly concerning regarding Māori students' perspectives. Fifty percent of Māori students felt that teachers did not know their learning needs. One reason around this student perspective could be that some teachers may still hold a deficit view of Māori students. The Ka Hikitia strategy, alongside other prominent researchers, states that changing this deficit theorising to realising potential (Ministry of Education, 2009) is crucial to the educational success of Māori students.

"I don't really think (teachers name) knows how I find it easy as to learn, because I find it easier to learn like...I can't really explain it...I find it way easier to learn

when I'm working with someone else and whenever yeah when I work with someone else"

The comment made by a Māori student regarding the teacher not knowing how easy they find learning may indicate that teachers do not know individual students as well as they should. The Quality for Diverse Students in Schooling BES (Alton-Lee, 2003, pg. vii) report clearly states that effective teaching requires teachers to recognise and build on *"students' prior experiences and knowledge"*. To be able to build on students knowledge and experiences teachers need to know students well.

A study conducted in two primary schools in New Zealand examining student self-worth in a school learning environment reinforces students' views on the importance of teachers connecting and knowing students (Cushman & Cowan, 2010). The students in this study, alongside findings from the previous study, align with the view that the value of teachers recognising their individual learning needs is important (Cushman & Cowan, 2010).

Summary

In this section students outlined their perception of the importance of relating to others. All students spoke of the importance of having positive relationships with teachers. Positive relationships appeared to have benefits for students' enjoyment of school experiences. This would suggest that students who have poor relationships with teachers and other students would be a barrier to the enjoyment of school and learning.

There were a range of characteristics that students alluded to regarding positive relationships. Māori students identified attributes of friendship and emotions when discussing their feelings around the relationships they have with teachers. It could be suggested from these findings that Māori students benefit from holistic education more so than non- Māori students.

Throughout the discussions around relationships it was evident that teachers were a crucial element to students' perception of enjoyment of learning. Findings suggested that students benefited from ako and learning and teaching through the concept of tuakana/teina. It could, therefore, be suggested that teachers who do not provide opportunities for these approaches would not be providing culturally relevant pedagogy.

TEACHING STRATEGIES

The questions under this section provided an insight into students' perspectives on and experiences of the strategies they feel help to support their learning. The purpose was to illustrate students' views on strategies that link with inquiry-based learning and whether these correlate with culturally relevant pedagogies.

SUMMARY OF FINDINGS

- The majority of students indicated that a variety of activities helped them learn.
- The majority of students enjoyed teachers working with them.
- Māori students liked it when teachers made learning fun.
- The majority of students enjoyed working independently at times.
- The majority of students outlined the need for responsibility and focus on learning when working in groups.
- The majority of students enjoyed a variety of teaching strategies when teachers challenged them and provided great lessons.

Variety of Activities

Both Māori and non-Māori students acknowledged that mathematics activities

were their favourite type of activity, which they felt helped them learn. Students indicated they enjoyed the variety of activities and learning that mathematics affords. Another finding behind the popularity of mathematics was that students enjoyed the fact that if they ended up with an incorrect answer they got to rub it out and try again.

This finding around students enjoying learning mathematics can be connected with the style in which mathematics is taught and how this links with inquiry-based learning and culturally relevant pedagogy. Mathematics, within this study setting, is taught using a constructivist approach and uses a number of co-operative learning approaches. It became apparent that these students were confident mathematicians and could see the value, desire and success of learning mathematics.

Mathematical learning is directly related to an inquiry-based learning approach through its ability to develop students' higher order and critical thinking skills. The New Zealand Curriculum (Ministry of Education, 2007) outlines the relevance of studying mathematics as it expands the ability to think critically and creatively.

Mathematics has become more hands-on with the introduction of the numeracy project and this could be another reason students enjoy mathematics. Research has shown that children can improve number knowledge through playing games that involve mathematical concepts (Ya Ling Lee, 2008). This enjoyment of mathematics could also be related to its social form. A study conducted by Taylor and Cox (1997) theorised that students construct and invent mathematical competence and this was strongest when socially supported. This aspect of social constructivism links with both inquiry-based learning and culturally relevant pedagogy as both assert that learning through social interaction is a benefit of these approaches to learning.

The participating classroom teacher was also passionate about mathematics and was the lead teacher for mathematics within the school. This enthusiasm the teacher showed for mathematics could be another reason why students indicated that mathematics was their favourite way to learn. Literature would suggest that if a teacher exhibits enthusiasm students are more likely to be interested, curious and excited about learning (Patrick, Hisley, Kempler & College, 2000). This links to literature around culturally relevant pedagogy where Macfarlane et al. (2008) state that enthusiastic teacher support can enhance student motivation.

Students also discussed that they are able to work out the answer and if it is wrong they are able to rub it out and start again working through the problem step by step.

“My favourite is the maths activities because you can write on the back and you write in pencil you can rub it out if you get times wrong”

Such views lend support to the theory that classrooms that are supportive, inclusive and caring environments allow students to be confident risk-takers. Students acknowledged that getting the answer wrong was part of learning and they were able to keep trying until they achieved.

How Teachers and Students Can Help with Learning

Students' experiences of learning can be affected by classroom environment, teacher behaviour and practices. Students made reference to a variety of characteristics around what teachers can do to help students enjoy learning. Findings indicated that teachers who work with students was the most important aspect for students. Literature around effective classrooms advocates that caring teachers are those who know their students, involving respect, giving advice and giving time for interactions (Nodding, 1992).

Findings highlighted students' desire for teachers working with them and help scaffold their learning. Effective teaching is when a learning environment is created where teachers are efficient at scaffolding a student's understanding (Alton-Lee, 2003). The literature around teachers' ability to scaffold students' learning lends support to culturally relevant pedagogy. It is recognised that if a teacher is skilled at scaffolding learning then there is a direct link to being an effective teacher with diverse learners (Alton-Lee, 2003).

Students' response about the desire for teachers to work and explain learning aligns with a synthesis of findings from studies conducted in New Zealand which identify that Māori students prefer guided instruction in small groups or one-to-one from teachers (Fletcher et al., 2011). This perspective from students also supports the effective teacher profile created from the Te Kotahitanga study (Bishop et al., 2003). It would appear that students' wanting teachers to work with them demonstrates the need for teachers to show manaakitanga, mana motuhake, nga turanga takitahi me nga mana whakahaere, wananga, ako and kotahitanga (Bishop et al., 2003, p.98).

One non-Māori student made reference to wanting more interactive work. The ability to provide interactive and hands-on activities foster learner engagement through opportunities for learner involvement and participation for learners (Newton & Newton 2010).

Independent Work

Although literature around culturally relevant pedagogy and inquiry-based learning recognises the numerous benefits of group work (Fletcher, et al., 2011; Hooley, 2009; Macfarlane et al., 2008; Sharan, 2010) the students in this study were resolute that they enjoyed individual work and felt they achieved during independent activities.

Findings showed that both Māori and non-Māori enjoyed being able to work independently at times. Students made particular reference to the ability to concentrate more when the classroom was a quiet environment. Research illustrates that to facilitate learning students should be given a combination and balance of learning experiences from teacher-directed, co-operative groups, peer interaction and individual work (Alton-Lee, 2003).

There is a broad range of characteristics that relate to using an inquiry-based learning approach and evidence in this study indicated that students enjoyed independent and group work. Richards, Brown and Forde (2007) suggest that a classroom environment structured around inquiry-based learning allows students the opportunity to work individually as well as in groups, where they are able to pose questions to themselves as well as each other.

This aspect of working independently, as well as giving the opportunity to work collectively, aligns with literature around effective multicultural teaching. Macfarlane et al. (2008) discuss the elements of balance between individual achievements against the achievement of a group. This process and responsibility for fulfilling individual and group goals is emphasised and valued within Māori contexts (Macfarlane et al., 2008).

Group Work

Alongside the discussion on independent work, students were able to concisely discuss their enjoyment of working in groups.

The discussion around working in groups reinforced the strong link between group work and social skills. Group work emphasises the importance of social interaction on learning. It is believed students benefit from the social interaction they get from group work by sharing ideas, appropriating understanding and articulating thinking (Eggen & Kauchak, 2006). Social skills are an important part of the New Zealand Curriculum and are outlined in the key competencies. The

connection needs to be made on the importance of learning social skills needed to build positive relationships (Ministry of Education, 1999).

Inquiry-based learning may involve students working in small groups to research and problem solve co-operatively. It is thought that within small-group work students are more co-operative and help peers when working together to accomplish a task (Shore, Aulls & Delcourt, 2008). Studies have identified that inquiry-based learning develops deeper understanding and the development of higher-order thinking and learning (Justice et al., 2007; Prince & Felder, 2006; Spronken-Smith & Walker, 2010; Spronken-Smith et al., 2012) and that the structure of group work can provide means for enhancing higher-order thinking (Palincsar, 1998).

Student perspective around the enjoyment of working in groups supports literature regarding culturally relevant pedagogy, which also outlines the benefits to Māori students. Research regarding effective teaching for Māori students outlines that co-operative and group work are activities where “*Māori themselves recognise as Māori*” (Metge, 1983 in Hemara, 2000, p. 64). Students views of the benefits of group work from this study align with findings from another New Zealand study where Māori students identified that working with a small group is good as it allows you to have someone to help if you are struggling and provides people to listen to your ideas (Fletcher et al., 2011).

Great Lessons

The question about students’ perceptions of what makes a great lesson was asked to end the focus group discussions. The reason was to hear students’ views on what they enjoy and feel they would benefit from.

Of particular interest was the discussion around moving students on to the next stage and ensuring the work continues to get progressively harder. From the

students' discussions it was clear they enjoyed lessons where they felt they were scaffolded onto new stages. This ability of teachers to scaffold learners and ensure students progress is raised when needed and they are provided with the right amount of assistance to take them higher is crucial in helping students strive for their potential (Richards et al., 2007). This type of teaching and learning, where students are moved on to more complex activities when ready, according to Hemara (2000) appears to have occurred in traditional Māori communities. It would appear the Māori students in this study felt the importance of co-constructing knowledge with the support of teachers.

A variety of teaching strategies was a common theme that emerged throughout all the focus groups. Students' perceptions were that teachers provided them with a variety of activities that ensured a sense of challenge and guaranteed learning was fun. These findings relate to literature that states learning opportunities should be varied, appropriate and sufficient for practice and application (Alton-Lee, 2003).

Summary

This section outlined students' perception of how they believed teaching strategies help them with learning. There was not one single factor that was most influential. Instead, students spoke of a variety of themes that were interrelated, which underpinned their personal experiences of creating positive learning outcomes.

Findings indicated that students believe effective teaching strategies are those which provide a variety of learning activities, that involve opportunities for independent and group work and made learning fun. Findings align with characteristics of effective teaching through inquiry-based learning and culturally relevant pedagogy.

CHAPTER SIX - CONCLUSION

This qualitative case study is a 'snapshot' of one group of students' learning experiences within one primary school setting.

The research findings have attempted to contribute to national and international research literature. The research focus has sought to understand student perceptions around whether inquiry-based learning provides an approach for employing culturally relevant pedagogy.

This investigation was carried out in an attempt to highlight teaching and learning practices that help Māori students engage in positive school experiences.

When undertaking this study the main priority was gaining perceptions directly from students about ways they felt engaged with learning and created positive school experiences. Their insights and reflections have underpinned the research. In doing so it provided the students with a sense of ownership and power related to their learning.

Gaining student perception was the main source of data collection. This was crucial as my philosophy as a teacher is on empowering students to take an active role in their learning. Listening to students' thoughts and experiences on how practices affect their learning experiences helped to develop a comprehensive picture of ways teachers can employ practices to engage students and enable successful outcomes. As Daniels and Perry state (2003, p. 107), "*We must first ask for their input and listen*".

The importance of collecting data through listening to students' experiences was reinforced at the end of the focus group discussions. Once the focus groups were completed, many of the students thanked me for including them in the experience, asking the questions and especially listening to their thoughts and ideas. It was at those moments that the importance of asking and listening to student perception was cemented for me. It was also fascinating to hear from the students and how aware and articulate they were of what works for them as proactive learners.

As a classroom teacher it is hoped that the students' insights may teach and alter teachers' classroom practice and encourage ongoing active student participation in what helps them learn. As Cook-Sather (2006, p. 382) states, "*we must listen to and act on students' words not once but again and again*". Students have a lot to tell us that is worth listening to.

The aim of this study was to investigate student perspectives on their learning experiences. In an attempt to answer the research question and objectives, Māori and non-Māori students' experiences were examined and analysed around inquiry-based learning and culturally relevant pedagogy. Four main themes culture, authentic learning, relationships and teaching strategies were examined in detail and illustrated characteristics that interrelated between inquiry-based learning and culturally relevant pedagogy.

Answering the Research Objectives

The research objectives were chosen to examine possible pathways for educators to provide culturally inclusive classrooms for Māori students. Alongside this, inquiry-based learning is an approach that shares many similar characteristics with culturally relevant pedagogy. Therefore this study was to examine the link between whether inquiry-based learning provides an approach to providing culturally relevant pedagogy in a primary school classroom.

Objective 1 - Identify student perception of 'culture' and where this is acknowledged in their learning

This study found that students were easily able to identify their culture. It was important to gain insight from students into their perception of culture and where this is acknowledged in their learning as many students have multiple cultural heritages. It was also important because, as Jones (2005) indicated, students develop awareness of self-concept and cultural identity and this is used as a basis for how students define themselves in relation to how others view them. Students identified family heritage and spoke about family connections to certain cultures. The study found that some students' self-identification with a culture differed from family cultural identification. Houkamau and Sibley (2010) detailed identity can be viewed as a dynamic and ongoing process, therefore a possible investigation would be to examine how students self-identification of culture relates to their self-concept and whether this changes as students get older.

Students acknowledged where they saw and heard different cultures within the school setting. Certainly the most common cultural identification and the culture students desired to learn and hear more about was that of Māori culture and language. Students identified the desire to learn more about Māori culture through The Arts and through the use of Te Reo.

Students within this study who suggested ways in which they would like to learn about culture may reinforce to teachers ways to embed culture into daily classroom practice. This finding shared similarities with quality teaching characteristics outlined in BES (Alton-Lee, 2003, p. vii): *"Quality teaching respects and affirms cultural identity"*.

Objective 2 - Identify what factors relating to inquiry-based learning provide positive learning experiences for students

Findings from this study confirm literature that examines the benefits of inquiry-based learning as an effective teaching and learning approach.

Similar to a large body of other research literature, this study found relationships between inquiry-based learning and positive learning experiences for students (Hmelo-Silver, 2004; Paris & Paris, 2001; Spronken-Smith et al., 2012; Yair, 2000). An emphasis on authentic learning, relationships and teaching strategies was carried through the study as these three themes interrelated between inquiry-based learning and culturally relevant pedagogy.

Findings suggested that students felt authenticity around learning was important. They particularly emphasised the importance of having input into learning. This is a crucial aspect of inquiry-based learning. Students felt having more input into learning would mean they were more motivated to learn. Student views were consistent with best evidence that acknowledge *“authentic applications through links to real life contexts can have significant and sustained impacts on student knowledge, attitudes, self esteem, independence and confidence”* (Alton-Lee, 2003, p. 61).

Objective 3 - To identify whether there is a link between how culture is acknowledged and positive inquiry-based learning approaches

Another outcome of this study was the closely aligned links between inquiry-based learning and culturally relevant pedagogy.

The results of this investigation support literature highlighting the importance of

quality relationships between students and teachers. The students in this study valued the importance of positive relationships. Findings suggested that having positive relationships made learning easier due to feelings of respect, friendship and connectedness.

Ako was identified throughout the study as a crucial concept to students, as was reciprocity of learning. The principle of tino rangatiratanga (Smith, 1997) was considered important to students through the desire to have more input into learning and the gratitude they showed when given a voice to discuss learning and school experiences.

Objective 4 - To identify whether Māori students find inquiry-based teaching a positive learning experience

Throughout the study data was analysed between Māori and non-Māori students to ascertain whether there were differences in students experiences of positive teaching and learning practices. Findings indicate that all students, regardless of culture, discussed similar positive attitudes towards learning through inquiry-based learning.

During the research many features of inquiry-based learning correlated to literature around effective culturally relevant pedagogy. The three themes of authentic learning, relationships and teaching strategies throughout the study were examples of the close alignment of inquiry-based learning and culturally relevant pedagogy.

Teacher understanding of culturally relevant pedagogy is imperative to influence effective practice. Increasing teachers' knowledge base around culturally relevant pedagogy will help to effectively support Māori students to achieve success. Inclusive teaching requires a high level of teacher commitment to

change from 'traditional' teaching practices to those practices that are culturally responsive.

This study reinforced how an inquiry-based learning approach can be an approach to employing culturally relevant pedagogy in a primary school classroom. From this study it can be assumed that inquiry-based learning is an effective teaching practice not just for some learners but is effective for all learners. Inquiry-based learning can be seen as a pedagogical practice that addresses diversity.

The four themes contributed to reinforcing the interrelationship between inquiry-based learning and culturally relevant pedagogy. The findings were consistent and contribute to characteristics of quality teaching outlined in BES (Alton-Lee, 2003). This reinforces the need to develop effective teaching practices through the implementation of inquiry-based learning and culturally relevant pedagogy.

Opportunities for Future Research

While the results of this study cannot be viewed as typical of all students because it is a case study, this small sample provided valuable insights and perceptions. Schools, principals and teachers, to enhance learning experiences for all students, can use these insights and findings. Most importantly the study should encourage the ongoing use of student perspective in school teaching and learning programmes, leading to enhanced collaboration between school, students and whānau. It provided some interesting themes and findings associated with inquiry-based learning and culturally relevant pedagogy that could be used as the basis of further research. When analysing data it was evident that the study was broad and there was space to consider more focused exploration within the four themes of culture, authentic learning, relationships and teaching strategies in the future.

- This study highlighted student cultural self-identification. Exploring reasons for students identifying with certain cultures and having a sense of belonging within cultures may be useful to examine.
- This study explored the views of one group of students in year 5 and 6 at primary school. More studies using primary school student perspective around school and learning experience could be beneficial to teaching practice and school reform.
- Positive relationships were highlighted as important to students on influencing positive learning experiences. Further exploration around strategies that allow teachers to gain greater understanding of their students from a student perspective would be worthwhile.
- Findings from this study suggested that students enjoyed participating in a variety of learning activities. Further investigation into activities related directly to an inquiry-based approach to learning may provide some interesting insights.
- It would be worth examining more in-depth the links between inquiry-based learning and culturally relevant pedagogy and how these can support Māori students' success and enjoyment of school experiences.

This study reinforced the closely aligned links and benefits of inquiry-based learning and culturally relevant pedagogy through student perception.

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APPENDIX 1: Question Sheet for Students



Tell me about the culture you feel you identify with?
Why do you feel you identify with that culture?
What culture does your family identify with?
Thinking about your culture; where do you see your culture and language in school?
Where would you like to see your culture and language happening?



How do you feel you learn best?
How often, and are you encouraged to help decide what you learn?
How do you think the things you learn at school can help you in your life outside of school?

Who do you think is responsible for you achieving at school?
Do you think it is important to have a positive relationship with teachers?
Do you feel teachers learn with you?

What types of activities do you like to do at school to help you learn?
What three things can your teacher do to help you enjoy learning?
Tell me about how you feel when working in groups?
How does a teacher challenge you with your learning?



APPENDIX 2: Information and Consent Sheet Principal and Board of Trustees



INFORMATION SHEET FOR PRINCIPAL / B.O.T

“Does inquiry-based learning provide an approach for employing culturally relevant pedagogy in a primary school classroom?”

Tēnā koutou katoa,

He mihi maioha ki a koutou e whāngai ana i te mātauranga.

My name is Andrea Benge and I am completing my Masters Thesis at Victoria University. I am a fully registered primary school teacher and a trained Resource Teacher: Learning and Behaviour. I am currently employed and have worked at [REDACTED] as a Senior Teacher for four years. For my masters thesis I would like to follow the learning process of a terms unit of work. I would like to conduct focus group interviews with a class of students and collect formative and summative assessment.

What is the research project?

The aim of this research is to examine whether inquiry-based learning provides an approach for employing culturally relevant pedagogy. This is a qualitative exploratory case study examining Māori students' perceptions of learning through an inquiry-based unit of work.

Who will be involved?

1. **School Principal and Board of Trustees** – for permission to be approved to conduct the study within the school.
2. **Classroom Teacher** – Through discussion with the Principal the selection of one classroom teacher of a Year 5/6 class who practices inquiry-based learning.
3. **Students** – All students within a Year 5/6 class.

All interviews with students would be scheduled at times that are convenient for the school and least disruptive for the classroom teacher and students.

How will information be gathered?

I will conduct focus group discussions with a class of Year 5/6 students. Individual consent will be sought from whānau and each participant. The focus group discussions will last approximately 50-60 minutes and will involve five students at a time. Group discussions will be held at the beginning and end of Term 3. Prior to conducting the discussions I will meet with the class and explain what we will be discussing and answer any questions they may have.

All participation is completely voluntary. Consent may be withdrawn at any time up until the end of the interviews and discussions with no negative consequences. Data already collected from them will be destroyed.

The information contained in the interviews and consent forms, will be stored securely in my supervisors office at Victoria University for a period of **five** years. They will then be destroyed.

This research has been assessed and approved by Victoria University Faculty of Education Ethics Committee. If at any time you have any questions or concerns about your treatment as a research participant in this study, contact Dr Allison Kirkman, Chair of the Victoria University of Wellington Human Ethics Committee at allison.kirkman@vuw.ac.nz

The objectives of the study:

The objectives of this study are:

1. To identify student perception of 'culture' and where this is acknowledged in their learning?
2. To identify what factors relating to inquiry-based learning provide positive learning experiences for students?
3. To identify if there is a link between how culture is acknowledged and positive inquiry based learning approaches?
4. To identify if Māori students find inquiry-based teaching a positive learning experience?

What will happen with the data?

The data gathered will be published for a wider academic audience, but the identity of participants involved will not be revealed at any point. Any responses that the students give will be treated confidentially and I will protect their identity and the identity of the school through the use of pseudonyms and the removal of identifying details.

Students - Transcribed interviews will be shown to participants to check accuracy before data analysis is completed. Interviews will be transcribed by myself.

Teacher / Principal – An email and hard copy letter will be sent to the classroom teacher and principal after all data collection has been completed, containing a list of emerging

findings, to make changes before data analysis is completed. School principal and/or Board of Trustees can request a presentation from me about the research findings.

If you agree to participate, please indicate this decision below and return this consent form to me. If you have any questions about this research or would like to discuss any concerns prior to providing consent, please feel free to contact me at:

Email: [REDACTED]

Phone: [REDACTED]

Mailing address: [REDACTED]

Or my supervisor:

Hiria McRae

Email: hiria.mcrae@vuw.ac.nz

Phone: 04-463 9602

Principal and Board of Trustees Consent

(This information will be stored for a period of five years)

- 🍏 We have read the participant information sheet and understand the nature of the study.
- 🍏 We have been offered the opportunity to ask questions and have them answered to our satisfaction.
- 🍏 We understand that our participation in this study is completely voluntary.
- 🍏 We understand that the school and all research participants may withdraw their information up until the end of interviews and discussions.
- 🍏 We understand that only Andrea Benge and her supervisor will have access to the information contained in the interviews and consent forms.
- 🍏 We understand that all data and consent forms will be stored separately in the supervisor's office at Victoria University for a period of five years. They will then be destroyed.
- 🍏 We understand that we will receive a copy of emerging findings that we can make adjustments to if we choose to and return to the researcher before the end of the data analysis period.
- 🍏 We understand we can request a presentation of the research findings.
- 🍏 We understand that the school participating, and the students will not be identified in the thesis nor in any publications or presentations (other than to the school).

Please indicate the appropriate response.

We do / do not give our permission for the school's participation in this project.

We do / do not give permission for you to invite the participation of our teachers, students and principal.

We do / do not give permission for the research data collection to occur on school grounds.

Principal

Date

BOT Chairperson

Date

APPENDIX 3: Information and Consent Sheet Teacher



INFORMATION SHEET FOR TEACHERS

“Does inquiry-based learning provide an approach for employing culturally relevant pedagogy in a primary school classroom?”

Tēnā koutou katoa,

He mihi maioha ki a koutou e whāngai ana i te mātauranga.

My name is Andrea Benge and I am completing my Masters Thesis at Victoria University. I am a fully registered primary school teacher and a trained Resource Teacher: Learning and Behaviour. I am currently employed and have worked at [REDACTED] as a Senior Teacher for four years. For my masters thesis I would like to follow the learning process of a unit of work. I would like to conduct focus group interviews with a class of students and collect formative and summative assessment.

What is the research project?

The aim of this research is to examine whether inquiry-based learning provides an approach for employing culturally relevant pedagogy. This is a qualitative exploratory case study examining Māori students' perceptions on learning through an inquiry-based unit of work.

Who will be involved?

- 4. School Principal and Board of Trustees** – for permission to be approved to conduct the study within the school.
- 5. Classroom Teacher** – One classroom teacher of a Year 5/6 class who practices inquiry-based learning.
- 6. Students** – All students within a Year 5/6 class.

All interviews with students would be scheduled at times that are convenient for the school and least disruptive for the classroom teacher and students.

How will information be gathered?

I will conduct focus group discussions with a class of Year 5/6 students. Individual consent will be sought from whānau and each participant. The focus group discussions will last

approximately 50-60 minutes and will involve five students at a time. Group discussions will be held at the beginning and end of Term 3. Prior to conducting the discussions I will meet with the class and explain what we will be discussing and answering any questions they may have. Data collection will include planning, evaluation, anecdotal notes and formative and summative assessment documentation.

All participation is completely voluntary. Consent may be withdrawn at any time up until the end of the interviews and discussions with no negative consequences. Data already collected from them will be destroyed.

The information contained in the interviews and consent forms, will be stored securely in my supervisors office at Victoria University for a period of **five** years. They will then be destroyed.

This research has been assessed and approved by Victoria University Faculty of Education Ethics Committee. If at any time you have any questions or concerns about your treatment as a research participant in this study, contact Dr Allison Kirkman, Chair of the Victoria University of Wellington Human Ethics Committee at allison.kirkman@vuw.ac.nz

The objectives of the study:

The objectives of this study are:

1. To identify student perception of 'culture' and where this is acknowledged in their learning?
2. To identify what factors relating to inquiry-based learning provide positive learning experiences for students?
3. To identify if there is a link between how culture is acknowledged and positive inquiry based learning approaches?
4. To identify if Māori students find inquiry-based teaching a positive learning experience?

What will happen with the data?

The data gathered will be published for a wider academic audience, but the identity of participants involved will not be revealed at any point.

Students - Transcribed interviews will be shown to participants to check accuracy before data analysis is completed. Interviews will be transcribed by myself.

Teacher / Principal – An email and hard copy letter will be sent to the classroom teacher and principal after all data collection has been completed, containing a list of emerging findings, to make changes before data analysis to completed. School principal and/or Board of Trustees can request a presentation from me about the research key findings.

If you agree to participate, please indicate this decision below and return this consent form to me. If you have any questions about this research or would like to discuss any concerns prior to providing consent, please feel free to contact me at:

Email: [REDACTED]

Phone:

Mailing address:

Or my supervisor:

Hiria McRae

Email: hiria.mcrae@vuw.ac.nz

Phone: 04-463 9602

Teacher Consent

(This information will be stored for a period of five years)

- 🍏 I have read the participant information sheet and understand the nature of the study.
- 🍏 I have been offered the opportunity to ask questions and have them answered to my satisfaction.
- 🍏 I understand that my participation in this study is completely voluntary.
- 🍏 I understand that the school, research participants and I may withdraw their information up until the end of interviews and discussions.
- 🍏 I understand that only Andrea Benge and her supervisor will have access to the information contained in the interviews and consent forms.
- 🍏 I understand that data collected will include planning, evaluation, anecdotal notes and formative and summative assessment documentation.
- 🍏 I understand that all data and consent forms will be stored separately in the supervisor's office at Victoria University for a period of five years. They will then be destroyed.
- 🍏 I understand that I will receive a copy of emerging findings that I can make adjustments to if I choose to and return to the researcher before the end of data analysis period.

Teacher

Date

Contact details for feedback:

Email:

Phone:

Postal address:

APPENDIX 4: Information and Consent Sheet Students



INFORMATION SHEET FOR STUDENTS

“Does inquiry-based learning provide an approach for employing culturally relevant pedagogy in a primary school classroom?”

Tēnā koe e te akonga,

My name is Andrea Benge and I am completing my Masters Thesis at Victoria University. I have been a primary school teacher for 12 years and am a trained Resource Teacher: Learning and Behaviour. I am currently employed and have worked at [REDACTED] as a Senior Teacher for four years. For my masters thesis I would like to follow the learning process of a unit of work.

Would you like to take part in some research?

I invite you to take part in my study. This will involve you discussing, within small groups, about how you enjoy learning during inquiry and discuss the culture you identify with. I am also interested in finding out what ways teachers can make learning interesting for you. You do not have to be involved if you choose not to be. If you decide you do want to be involved but then change your mind you can just let your teacher or myself know that you do not want to do it anymore.

What will be involved?

I would like to have groups of five students each and allow you to discuss with me and each other about learning through different learning activities and culture.

How long will it take?

The group discussions could last up to one hour and would be arranged with your teacher to be done during school time when it suits you and your teacher. I would like to meet with you to discuss your learning twice during term three.

What else is involved?

I would show you what we discussed to make sure that it is what you meant during our discussion times. The outcomes of my study will be written up in a thesis and I would not use your real names or the school name so your identity is kept confidential.

I hope you would find the discussions interesting and it gives you an opportunity to think about your own learning.

Student Consent

(This information will be stored for a period of five years)

- 🍏 I have read the information sheet and understand the nature of the study.
- 🍏 I have been offered the opportunity to ask questions and have them answered to our satisfaction.
- 🍏 I understand that my name will not be used.
- 🍏 I understand that my participation in this study is completely voluntary.
- 🍏 I understand that the school, other research participants and I may withdraw their information up until the end of interviews and discussions.
- 🍏 I understand that only Andrea Benge and her supervisor will have access to the information contained in the interviews and consent forms.
- 🍏 I understand that all data and consent forms will be stored separately in the researcher's office at Victoria University for a period of five years. They will then be destroyed.

Student

Date

APPENDIX 5: Information and Consent Sheet Whānau



INFORMATION SHEET FOR WHANAU

“Does inquiry-based learning provide an approach for employing culturally relevant pedagogy in a primary school classroom?”

Tēnā koutou katoa,

He mihi maioha ki a koutou e whāngai ana i te mātauranga.

My name is Andrea Benge and I am completing my Masters Thesis at Victoria University. I am a fully registered primary school teacher and a trained Resource Teacher: Learning and Behaviour. I am currently employed and have worked at [REDACTED] as a Senior Teacher for four years. For my masters thesis I would like to follow the learning process of a terms unit of work. I would like to conduct focus group interviews with a class of students and collect assessment data.

What is the research project?

The aim of this research is to examine whether inquiry-based learning provides an approach for employing culturally relevant pedagogy. This is a qualitative exploratory case study examining Māori students perceptions on learning through an inquiry-based unit of work.

Who will be involved?

1. **School Principal and Board of Trustees** – for permission to be approved to conduct the study within the school.
2. **Classroom Teacher** – One classroom teacher of a Year 5/6 class who practices inquiry-based learning.
3. **Students** – All students within a Year 5/6 class.

All interviews with students would be scheduled at times that are convenient for the school and least disruptive for the classroom teacher and students.

How will information be gathered?

I will conduct focus group discussions with a class of Year 5/6 students. Individual consent will be sought from whānau and each participant. The focus group discussions will last approximately 50-60 minutes and will involve five students at a time. Group discussions

will be held at the beginning and end of Term 3. Prior to conducting the discussions I will meet with the class and explain what we will be discussing and answering any questions they may have.

All participation is completely voluntary. Consent may be withdrawn at any time up until the end of the interviews and discussions with no negative consequences. Data already collected from them will be destroyed.

The information contained in the interviews and consent forms, will be stored securely in my supervisors office at Victoria University for a period of **five** years. They will then be destroyed.

This research has been assessed and approved by Victoria University Faculty of Education Ethics Committee. If at any time you have any questions or concerns about your treatment as a research participant in this study, contact Dr Allison Kirkman, Chair of the Victoria University of Wellington Human Ethics Committee at allison.kirkman@vuw.ac.nz

The objectives of the study:

The objectives of this study are:

1. To identify student perception of 'culture' and where this is acknowledged in their learning?
2. To identify what factors relating to inquiry-based learning provide positive learning experiences for students?
3. To identify if there is a link between how culture is acknowledged and positive inquiry based learning approaches?
4. To identify if Māori students find inquiry-based teaching a positive learning experience?

What will happen with the data?

The data gathered will be published for a wider academic audience, but the identity of participants involved will not be revealed at any point. Any responses that the students give will be treated confidentially and I will protect their identity and the identity of the school through the use of pseudonyms and the removal of identifying details.

Students - Transcribed interviews will be shown to participants to check accuracy before data analysis is completed. Interviews will be transcribed by myself.

If you agree to your child participating, please indicate this decision below and return this consent form to me. If you have any questions about this research or would like to discuss any concerns prior to providing consent, please feel free to contact me at:

Email: [REDACTED]

Phone: [REDACTED]

Mailing address: [REDACTED]

Or my supervisor:

Hiria McRae

Email: hiria.mcrae@vuw.ac.nz

Phone: 04-463 9602

Whānau/Parental Consent

(This information will be stored for a period of five years)

- 🍏 We have read the participant information sheet and understand the nature of the study.
- 🍏 We have been offered the opportunity to ask questions and have them answered to our satisfaction.
- 🍏 We understand that our child's participation in this study is completely voluntary.
- 🍏 We understand that the school and all research participants may withdraw their information up until the end of interviews and discussions.
- 🍏 We understand that only Andrea Benge and her supervisor will have access to the information contained in the interviews and consent forms.
- 🍏 We understand that all data and consent forms will be stored separately in the supervisor's office at Victoria University for a period of five years. They will then be destroyed.

Parent/Caregiver

Date

Name of Student

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