IDENTIFYING PEDAGOGICAL INNOVATION IN CULTURAL MINORITY CLASSROOMS: A CULTURAL HISTORICAL ACTIVITY THEORY AND APPRECIATIVE INQUIRY PERSPECTIVE IN THE PHILIPPINES AND NEW ZEALAND

BY

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Abstract

This is a multiple case study which investigates teachers’ pedagogical innovations in cultural minority classrooms using Cultural Historical Activity Theory and Appreciative Inquiry as theoretical lens. Pedagogical innovation refers to a new idea or the development of an existing product, process, strategy, or method in teaching and learning that is applied in a specific context with the intention to create added value or the potential to improve student learning. The purpose of the study was to investigate teachers’ pedagogical innovations in cultural minority classrooms; the ways in which teachers mediate the learning of their students through pedagogical innovations in cultural minority classrooms; and how individual teachers’ school environments promote or inhibit the implementation of pedagogical innovations in cultural minority classrooms. A total of nine teachers and their classes from five public or state secondary schools in the Philippines and Aotearoa New Zealand participated in the study. Data were collected using observations, talanoa, audio-visual recordings, and documents, which consisted of lesson plans, school newsletters, and publications. Data were analysed within and across cases using a thematic approach and a comparative approach in relation to the five standards of effective pedagogy.

The data suggest that there are two aspects to understanding pedagogical innovation in cultural minority classrooms: the tangible aspects or artefacts for learning, and the intangible aspects or appreciative mediation for learning. Artefacts for learning pertain to any human-made objects available in the learning environment such as classrooms, which are essential in engaging student learning. These are concrete manifestations of teachers’ creativity utilised in teaching and learning. Common examples of artefacts for learning used by teachers across all case studies were student modules or kits and teaching instruments such as visual aids, photos, and information and communications technology. Appreciative mediation for learning pertains to the positive and strength-based operations and/or actions, attitudes, behaviours, and outlooks of teachers, which result in student learning. These include genuine appreciation and collaboration with students, teaching initiatives, positive disposition, and self reflection.

Factors that affect the implementation of teachers’ pedagogical innovations are grouped into two: the social support system and the structural regulation of the school system.
The social support system identified in the study that promoted teachers’ pedagogical innovation, and are common across all case studies, were family, community, school staff, and students. The structural regulation of the school system was found to hinder teachers’ pedagogical innovation. Examples common across all case studies are lack of and/or limited artefacts for learning, inadequate professional development for teachers, impassive curriculum, and poor student attendance.
Acknowledgments

My PhD journey would not be possible if not for the people who have walked beside me and even went an extra mile to show their support and love. I could never thank them enough but I hope that through this simple acknowledgement, they would feel the inner greatness and benevolent blessings that I felt because of them.

More than a supervisor, Dr. Cherie Chu has been an inspirational mentor and a dearest friend. Her undying support for student cause, genuine appreciation of students’ abilities, and untiring devotion on education especially for Pacific peoples has influenced my study. Thank you for hiring me as tutor, as research assistant, and as research partner. These opportunities have helped me grow as a researcher, especially in writing this thesis, but most of all I would like to believe that the experience has also made me a better person. Thank you for your continuous support, guidance, humour, and supervision. You have helped fulfill my dreams and I am forever grateful to you.

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I express my heartfelt gratitude to the participant teachers and the students for their time, effort, contribution, and willingness to be involved and be observed. My sincere thanks also go to the Department of Education particularly the Divisions of Oriental Mindoro and Bataan and the head of schools and principals in New Zealand and the Philippines. Special thanks to Clemente Politico, Butch Rufino, Dr. Milagros Penaflor, and Gregorio Barin for their warm hospitality and assistance.
I would like to thank all my friends in New Zealand and the Philippines who became part of my journey. I appreciate how you asked about the progress of my study and offered encouragement. Thanks to Dr. Fuapepe Rimoni, Dr. Joanna Kidman, Dr. Sean Fernandez, Nor Jimenez, Helen Trinidad, Gabby Clezy, Eileen Thomson, Glenda Priest, Joy Lewis and Eden Lim. Many thanks to the mentors and members of Leadership Pacific whose works and stories have continuously inspired me. Special thanks to my colleagues in Pisay, Dr. Cristina Cristobal, Cristina Bawagan, Atty. Aurora Perez, Vlad Lopez, Jorge Job, Eileen Sarmago, and Dr. Fred Talaue.

I owe my deepest gratitude to my husband Paulo and son Iñigo for their untiring support, faith, and patience. Everyday I am reminded of how blessed I am to have you both in my life. Thank you Paulo for all the sacrifices you have made. You have been my constant companion, research partner, adviser, and energiser during the whole process of my thesis writing and beyond. Thank you Iñigo for always making mommy smile. Thank you both for the gift of love. Many thanks to my father, sister, and parents-in-law for their encouragement, love, and inspiration.

Finally, this thesis is dedicated in loving memory of my mother, Jovita Samala† and my brother, Dr. Mc Q Samala†

To God be the glory.
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Chapter One
Background and Rationale

This chapter provides the background and rationale of the study. First it explains the motivation for conducting the research. The context is then presented, describing the existing conditions and issues in education confronting ethnic minority students; first Pacific students in New Zealand, then indigenous Filipino students in the Philippines. Following this, the issues from both contexts are considered together. The chapter concludes by presenting the aims, significance, and chapter summary of the study.

Despite government initiatives to improve academic progress of students, there are still students who are left behind in the education system in terms of learning and achievement. The disparities in educational outcomes for ethnic minorities in mainstream schools in particular continuously pose a major challenge (Cerezo, Lyda, Beristianos, Enriquez, & Connor, 2013; Dustmann, Machin, & Schoenberg, 2010; Oxman-Martinez et al., 2012; Theodosiou-Zipiti & West, 2012; Zorlu, 2013). In light of such disparities, how can one address this challenge?

Commentators note that in the new millennium, classroom teaching demands more innovation and improvisation (Sawhney, 2013) to respond to a broad spectrum of learners with different cultures, languages, experiences, economic systems, and interests whilst simultaneously maintaining equitable access for all (Tomlinson, 2015). It is argued that teachers should continuously seek and create pedagogical innovations that would suit the needs of students resulting in learning and achievement (Christenbury, 2011; Roberts & DeMatteo, 2012). As noted by Msila (2013) pedagogical innovation, when used creatively, can result in effective teaching and learning.

Since teachers are one of the most important resources that can effect change and affect student achievement in any classroom, it is important to explore and understand how teachers operate inside the classroom (Gatimu & Reynolds, 2013; Sheets, 2004). Pang (2009) argues, “equal educational opportunity is highly dependent on the beliefs and abilities of teachers” (p. 55). Hence, it is clear that teachers play a direct and vital role in addressing students’ learning outcomes, particularly those of ethnic minority students in a mainstream classroom context.
I was a secondary teacher in the Philippines for eleven years and I was given the privilege of teaching some of the brightest and most promising student scholars, who came from different parts of the country. I was also honoured to grow professionally and work side by side with some of the best and inspiring teachers in the Philippines. One school summer break, I participated in a church activity during the Lenten season. Lent is a solemn religious observance and tradition of the Catholic Church commemorating the passion of Jesus Christ. It was through this that I experienced being amongst the Aeta, an indigenous community in Dinalupihan, Bataan. I joined a priest as he served and offered mass to the indigenous peoples in my province. It was this experience that opened my eyes to the conditions of indigenous peoples, especially in terms of education.

My work and experiences as a teacher in the Philippines paved the way for me to pursue my master’s degree in education through a New Zealand Aid (NZAid) Scholarship. The scholarship focused on education and indigenous peoples, which I aspired to pursue because of my professional background and more importantly due to my personal experience with the Aeta. I have witnessed how indigenous peoples like Aeta remain to be the marginalised and vulnerable sector of the society in terms of health, education, and standard of living. I felt that something needed to be done to improve their condition and I strongly believe that education would play a vital role to turn the situation around.

I was introduced to Pacific peoples’ culture and diversity when I first came to New Zealand to study. My interest and engagement in Pacific peoples, specifically Pasifika education, was heightened by what I experienced and witnessed as a student amongst lecturers, mentors, fellow students, and other scholars. Our passionate lecturers exposed us to the complex realities and issues surrounding Pacific peoples in New Zealand. Our dedicated mentors guided us to understand the challenges confronting Pacific students and inspired us to critically think how they can be best addressed. Our fellow students, Pacific friends, and friends of Pacific, who shared their life experiences, helped us to comprehend better their multiple world views and their diverse cultural identities. Some researchers and scholars we students met during seminars and conferences, advocated for change and betterment of Pacific Peoples in general, and encouraged us to do the same. To be surrounded by passionate and hard working teachers during my years of teaching and postgraduate study have influenced my thinking about the significance,
position, responsibility, and accountability of teachers to their students, especially inside the classroom. It is for these reasons that the focus of my study is the teacher and his or her ability to promote equity in education through pedagogical innovation so that all students, including ethnic minorities, can achieve and thrive in school.

Hence, this study focuses on the teacher’s voice. The decision to focus on the teachers voice is based on the recognition that teachers are key players in creating positive change in education and, in particular, the teaching and learning inside their own classrooms. Through the design and use of pedagogical innovation, teachers are able to not only improve student learning but also to promote equity in education for all students.

**Context of the Study**
This section describes the contexts, both in New Zealand and in the Philippines, for the study. It presents a brief historical development and background on education of indigenous Filipino and Pacific peoples in New Zealand.

**Pacific peoples and education in New Zealand.**
Pacific peoples are one of the largest ethnic minority groups in New Zealand. This group comprises 7.4 per cent of the population (Statistics New Zealand, 2014). Pacific peoples have been categorised under different names that have changed through the years. From “Pacific Islanders” in the early 1980’s to “Pacific Islands,” “Pacific Nations,” “Pacific peoples” and “Pasifika” or “Pasefika” (Coxon, Anae, Mara, Samu, & Finau, 2002, p. 10) in the early 1990’s up to the time of writing of this thesis. For the purpose of consistency, this study uses the term Pacific peoples as defined by Statistics New Zealand. Pacific peoples refers to residents identified with the seven Pacific nations of Samoa, Cook Islands, Tonga, Niue, Fiji, Tokelau, and Tuvalu (Statistics New Zealand, 2006). Though grouped under one name, it is acknowledged and emphasised that these island nations in the South Pacific have diverse cultures, different languages, and various ethnicities, which constitute their three most salient features (Fischer, 2002).

Evidence shows that Pacific peoples are part of the lower bracket of the statistics in terms of educational achievement. In terms of educational performance, 37.6 per cent of
Pacific students left school with a university entrance standard in 2014 compared to 51.3 per cent for non-Pacific students, which is a difference of 13.7 per cent (see table 1). The participation rate of Pacific students aged 18 to 24 years old in tertiary education in 2013 was 27.1 per cent while non-Pacific is 31.3 per cent, a difference of 4.3 per cent (see table 2). Of the Pacific students enrolled in tertiary education in 2009, the first year retention rate of Pacific students is 75.2 per cent while 76.8 per cent for non-Pacific students (see table 3) but only 68.3 per cent of Pacific students were able to complete their qualification within five years while 76.4 per cent for non-Pacific students (see table 4) (Education Counts, 2015). Despite the government’s plan and effort to improve the educational progress and academic achievement of Pacific students, the educational system still fails to deliver equitable outcomes for Pacific peoples (Statistics New Zealand, 2010).

Table 1
School Leavers With a University Entrance Standard

<table>
<thead>
<tr>
<th>Year</th>
<th>No of school leavers with a university standard</th>
<th>No of school leavers</th>
<th>% of school leavers with a university standard</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pasifika</td>
<td>Non-Pasifika</td>
<td>Total</td>
</tr>
<tr>
<td>2009</td>
<td>1,364</td>
<td>23,242</td>
<td>24,606</td>
</tr>
<tr>
<td>2010</td>
<td>1,737</td>
<td>24,865</td>
<td>26,602</td>
</tr>
<tr>
<td>2011</td>
<td>1,973</td>
<td>26,845</td>
<td>28,818</td>
</tr>
<tr>
<td>2012</td>
<td>2,172</td>
<td>27,298</td>
<td>29,470</td>
</tr>
<tr>
<td>2013</td>
<td>2,462</td>
<td>28,444</td>
<td>30,906</td>
</tr>
<tr>
<td>2014</td>
<td>2,472</td>
<td>27,690</td>
<td>30,162</td>
</tr>
</tbody>
</table>

Table 2

**Tertiary Participation Rates**

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of students enrolled in Level 4 or above*</th>
<th>Estimated population age 18-24</th>
<th>Participation rate for 18-24 year-olds</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pasifika</td>
<td>Non-Pasifika</td>
<td>Pasifika</td>
<td>Non-Pasifika</td>
</tr>
<tr>
<td>2009</td>
<td>10,252</td>
<td>126,685</td>
<td>42,090</td>
<td>395,250</td>
</tr>
<tr>
<td>2010</td>
<td>11,199</td>
<td>131,384</td>
<td>43,740</td>
<td>405,370</td>
</tr>
<tr>
<td>2011</td>
<td>11,498</td>
<td>129,572</td>
<td>45,350</td>
<td>411,200</td>
</tr>
<tr>
<td>2012</td>
<td>12,365</td>
<td>130,674</td>
<td>46,600</td>
<td>412,660</td>
</tr>
<tr>
<td>2013</td>
<td>12,875</td>
<td>129,635</td>
<td>47,580</td>
<td>413,590</td>
</tr>
</tbody>
</table>


Table 3

**Tertiary First Year Retention Rate**

<table>
<thead>
<tr>
<th>First year (after 1 year)</th>
<th>No of students enrolled in first year at level 4 or above</th>
<th>No of students still enrolled (or completed qual*) after 1 year</th>
<th>First-year retention rates at level 4 or above</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pasifika</td>
<td>Non-Pasifika</td>
<td>Pasifika</td>
<td>Non-Pasifika</td>
</tr>
<tr>
<td>2006 (2007)</td>
<td>5,340</td>
<td>83,639</td>
<td>7,634</td>
<td>115,962</td>
</tr>
<tr>
<td>2007 (2008)</td>
<td>5,880</td>
<td>84,622</td>
<td>8,512</td>
<td>115,926</td>
</tr>
<tr>
<td>2008 (2009)</td>
<td>6,240</td>
<td>81,230</td>
<td>8,668</td>
<td>108,511</td>
</tr>
<tr>
<td>2009 (2010)</td>
<td>7,627</td>
<td>88,685</td>
<td>10,147</td>
<td>115,442</td>
</tr>
<tr>
<td>2010 (2011)</td>
<td>7,550</td>
<td>84,703</td>
<td>10,282</td>
<td>113,370</td>
</tr>
<tr>
<td>2011 (2012)</td>
<td>7,817</td>
<td>80,489</td>
<td>10,108</td>
<td>101,932</td>
</tr>
<tr>
<td>2012 (2013)</td>
<td>8,151</td>
<td>80,358</td>
<td>10,450</td>
<td>100,710</td>
</tr>
</tbody>
</table>

Table 4

Tertiary 5 Year Completion Rate

<table>
<thead>
<tr>
<th>Year started (after 5 years)</th>
<th>No of full-time students who completed within 5 years of starting their qualification</th>
<th>No of full-time students who started their qualification</th>
<th>Five year completion rates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pasifika</td>
<td>Non-Pasifika</td>
<td>Pasifika</td>
</tr>
<tr>
<td>2004 (2008)</td>
<td>2,684</td>
<td>40,572</td>
<td>4,496</td>
</tr>
<tr>
<td>2005 (2009)</td>
<td>2,735</td>
<td>42,407</td>
<td>4,615</td>
</tr>
<tr>
<td>2006 (2010)</td>
<td>2,444</td>
<td>37,459</td>
<td>4,136</td>
</tr>
<tr>
<td>2007 (2011)</td>
<td>2,736</td>
<td>39,984</td>
<td>4,539</td>
</tr>
<tr>
<td>2008 (2012)</td>
<td>3,037</td>
<td>39,692</td>
<td>4,751</td>
</tr>
<tr>
<td>2009 (2013)</td>
<td>4,242</td>
<td>45,504</td>
<td>6,215</td>
</tr>
</tbody>
</table>

Note: Adapted from

Looking back in history, four of the seven island nations with which New Zealand’s Pacific peoples identify were part of New Zealand’s empire in the early 20th century. These were Cook Islands and Niue in 1901, Western Samoa in 1914, and Tokelau in 1925. Further to this, Fiji, Tonga, and Tuvalu (formerly known as Ellice Islands) came under New Zealand’s administrative leadership, particularly in education, on behalf of the British government (Coxon & Mara, 2000). Under New Zealand’s control, Pacific peoples shared common educational experiences. At the height of the empire until the end of World War II, two schools of thought emerged to describe the objective of education for the Pacific peoples. The first of these was to train them with restriction to their designated and assumed positions such as cultivators of land, which was seen as their natural role. The other objective was for them to assimilate European ways and ideals in order to prepare them for training as public servants, albeit limited to minor administrative roles (Ma'ia'i, 1957). Indeed, this was a manifestation of colonial education in the Pacific, that is, to keep the colony ignorant, controlled, and marginalised (Mara, Foliaki, & Coxon, 1994).

By the end of World War II, the clamour for decolonisation in the Pacific began and this led to radical changes in learning. This time, education became the means to train Pacific peoples toward self-governance and to make them part of the human workforce geared to economic development (Mara et al., 1994). The latter was the reason behind the great migration of Pacific peoples to New Zealand between 1950 and 1960. During this decade the economy and industry of New Zealand was expanding and a cheap
labour force was badly needed. Increasing the labour force of Pacific peoples became a solution to this problem.

Pacific peoples were encouraged to venture to New Zealand in search for greener pastures in terms of better educational opportunities and availability of wages and employment. Unfortunately, the majority of migrant families were unsuccessful in terms of educational attainment and qualification. The government’s Pacific peoples educational policy was criticised for its marginalised and assimilated approach to learning, thus resulting in failure (Mara et al., 1994).

The lack of academic achievement of Pacific peoples in New Zealand continues at the time of the writing of this thesis. Pasikale (2002) termed this as the failure phenomenon. The Government, through the Ministry of Education, has been challenging the effects of past Pacific educational policies through the implementation of a series of Pasifika Education Plans (PEP). In 1996, the first document that brought together information, policy, programmes and plans to raise the quality of education for Pacific peoples was developed and released as “Ko e Ako ‘a e Kakai Pasifika” (The Education/Schooling of/for Pacific Peoples). Generally, the plan’s main goals were high quality early childhood services, effective school programmes, and increased participation and success in tertiary education (Ministry of Education, 1996). The goal of primary and secondary education or compulsory education was simply to support, implement, and evaluate the progress of different projects, resources, and services to improve the academic achievement of Pacific peoples at this level (Ministry of Education, 1998).

By September 2000, the goals were redefined, changed, and developed to raise participation and achievement more sharply. This became known as the Pasifika Education Plan 2000-2005. The goals of the plan for compulsory education focused on the increase of achievement in literacy and numeracy, attainment of school qualifications, and reduction of risk factors among Pacific students (Ministry of Education, 2008). According to the report, primary Pacific students were lagging behind other students, particularly in literacy and numeracy, while senior students were achieving low outcomes in terms of getting higher qualifications such as the National Certificate of Educational Achievement (NCEA) (Ministry of Education, 2008). The National Certificate of Educational Achievement is the national secondary school qualification in New Zealand. It involves assessment of student’s knowledge and skills
against the set standards. The assessment is done internally and externally. When students achieve a standard, they receive a certain number of credits that lead to gaining an NCEA certificate. NCEA is categorised into three levels: NCEA Levels One, Two, and Three (New Zealand Qualifications Authority, 2015).

In order to address these challenges, the Ministry of Education launched a new Plan for 2006-2010, in which the goals corresponded to the present needs of Pacific students in terms of academic achievement, effective teaching, student engagement, Pacific representation, and parent, family, and community engagement (Ministry of Education, 2006). Nevertheless, the goals of the Pasifika Education Plan 2006-2010 were also not fully met. Low Pacific achievement at school in terms of literacy and numeracy proficiency, and leaving school with little or no formal attainment of NCEA level 2 or above – compared to the rates of European/Pakeha and Asian students still persisted among Pacific students (Ministry of Education, 2007). For teacher effectiveness, only 14 percent of schools were identified as being consistently effective for Pacific students and 3.5 percent of schools had strategic plans for Pacific students. While the number of Pacific teachers in the teaching sector in 2007 was still under-represented, suspension rates for Pacific students remained higher compared to European/Pakeha and Asian students. Moreover, Pacific representation on the School Boards of Trustees remained low. Participation and engagement of parents, families, or communities in schools needed to be well established and improved.

In order to boost and refine the focus of the Pasifika Education Plan 2006-2010, the 2009-2012 Pasifika Education Plan was developed for the New Zealand education system to “step up” for Pacific students. The plan concentrated on areas of literacy and numeracy, strong learning foundations, effective teaching, and school-family-community relationships (Ministry of Education, 2008). At the time of writing, to continue the Ministry of Education’s intention to improve the education outcomes of Pacific students, the Pasifika Education Plan 2013-2017 plan had been presented. This Pasifika Education Plan focused on increasing participation in quality early childhood education; attaining higher NCEA levels and entrance to higher education with the engagement of Pacific parents, families, and communities; and increasing participation, retention, and completion in tertiary education for Pacific students (Ministry of Education, 2013b).
Through the effort and hard work of some schools, teachers, and parents, the educational progress and academic achievement of Pacific students has slightly and steadily improved in some areas compared to previous years. For instance, 36.7 per cent of Pacific school leavers had university entrance standards in 2013, which increased to 37.6 per cent in 2014 (see table 5). Similarly, there was a small increase in Pacific students’ participation rate in tertiary education from 26.5 per cent in 2012 to 27.1 per cent in 2013 (see table 6) (Education Counts, 2015).

Table 5
School Leavers with a University Entrance Standard

<table>
<thead>
<tr>
<th>Year</th>
<th>No of school leavers with a university standard</th>
<th>No of school leavers</th>
<th>% of school leavers with a university standard</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pasifika</td>
<td>Non-Pasifika</td>
<td>Total</td>
</tr>
<tr>
<td>2009</td>
<td>1,364</td>
<td>23,242</td>
<td>24,606</td>
</tr>
<tr>
<td>2010</td>
<td>1,737</td>
<td>24,865</td>
<td>26,602</td>
</tr>
<tr>
<td>2011</td>
<td>1,973</td>
<td>26,845</td>
<td>28,818</td>
</tr>
<tr>
<td>2012</td>
<td>2,172</td>
<td>27,298</td>
<td>29,470</td>
</tr>
<tr>
<td>2013</td>
<td>2,462</td>
<td>28,444</td>
<td>30,906</td>
</tr>
<tr>
<td>2014</td>
<td>2,472</td>
<td>27,690</td>
<td>30,162</td>
</tr>
</tbody>
</table>


Table 6
Tertiary Participation Rates

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of students enrolled in Level 4 or above qual*</th>
<th>Estimated population age 18-24</th>
<th>Participation rate for 18-24 year-olds</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pasifika</td>
<td>Non-Pasifika</td>
<td>Pasifika</td>
<td>Non-Pasifika</td>
</tr>
<tr>
<td>2009</td>
<td>10,252</td>
<td>126,685</td>
<td>42,090</td>
<td>395,250</td>
</tr>
<tr>
<td>2010</td>
<td>11,199</td>
<td>131,384</td>
<td>43,740</td>
<td>405,370</td>
</tr>
<tr>
<td>2011</td>
<td>11,498</td>
<td>129,572</td>
<td>45,350</td>
<td>411,200</td>
</tr>
<tr>
<td>2012</td>
<td>12,365</td>
<td>130,674</td>
<td>46,600</td>
<td>412,660</td>
</tr>
<tr>
<td>2013</td>
<td>12,875</td>
<td>129,635</td>
<td>47,580</td>
<td>413,590</td>
</tr>
</tbody>
</table>

Despite this, however, there is still an increasing academic performance gap between Pacific students and their counterparts. In 2013, 87.1 per cent of non-Pacific students achieved NCEA level 1 compared 83.7 per cent of Pacific students (see table 7). In 2012, 78.3 per cent of non-Pacific students achieved NCEA level 2 or equivalent compared to 68.1 per cent of Pacific students. In 2013, both cohorts increased their NCEA level 2 achievements to 79.5 per cent for non-Pacific students and 71.4 per cent for Pacific students (see table 8). In 2014 51.3 per cent of non-Pacific school leavers achieved university entrance standard while participation rate in tertiary in 2013 was 31.3 per cent (see table 5 and 6) (Education Counts, 2015). On the other hand, 37.6 per cent of Pacific students achieved university entrance standard in 2014 with a participation rate of 27.1 per cent in 2013. Some Pacific students become easily disengaged with schooling quite early. Most Pacific students still achieve significantly less well in NCEA (Statistics New Zealand, 2010) and Pacific students are over-represented at the lower end of the literacy rating (Telford & May, 2010). Hence, there is a need to rethink Pacific education to enhance practices, to make appropriate decisions and actions, and to develop more effective policies for Pacific learning and achievement in education.

Table 7

School Leavers with NCEA Level 1 Numeracy and Literacy

<table>
<thead>
<tr>
<th>Year</th>
<th>No of school leavers with NCEA level 1 literacy &amp; numeracy</th>
<th>% of school leavers with NCEA level 1 literacy &amp; numeracy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pasifika</td>
<td>Non-Pasifika</td>
</tr>
<tr>
<td>2009</td>
<td>4,606</td>
<td>45,051</td>
</tr>
<tr>
<td>2010</td>
<td>5,327</td>
<td>47,717</td>
</tr>
<tr>
<td>2011</td>
<td>5,443</td>
<td>49,354</td>
</tr>
<tr>
<td>2012</td>
<td>5,328</td>
<td>47,723</td>
</tr>
<tr>
<td>2013</td>
<td>5,682</td>
<td>48,897</td>
</tr>
<tr>
<td>Target</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 8
Eighteen Year Olds with NCEA Level 2 or Equivalent

<table>
<thead>
<tr>
<th>Year</th>
<th>No of 18 year olds with NCEA level 2 or equivalent</th>
<th>% of 18 year olds with NCEA level 2 or equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pasifika</td>
<td>Non-Pasifika</td>
</tr>
<tr>
<td>2011</td>
<td>4,457</td>
<td>43,722</td>
</tr>
<tr>
<td>2012</td>
<td>4,591</td>
<td>44,326</td>
</tr>
<tr>
<td>2013</td>
<td>4,905</td>
<td>44,858</td>
</tr>
<tr>
<td>Target</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Indigenous peoples and education in the Philippines.

The concept of indigenous peoples is defined in a number of ways. According to Reynolds (2008) indigenous peoples around the world share the following: a strong link to lands and environment; distinct social, economic, political, and cultural systems; and resolve to maintain self-identification and self-determination in terms of knowledge, management, and development.

The Indigenous Peoples’ Rights Act of the Philippines (1997) defines indigenous peoples as:

A group of people or homogeneous societies identified by self-ascription and ascription by others, who have continually lived as organized communities on community-bounded and defined territory, and who have, under claims of ownership since time immemorial, occupied, possessed and utilized such territories, sharing common bonds of language, customs, traditions and other distinctive cultural traits, or who have, through resistance to political, social and cultural inroads of colonization, non-indigenous religions and cultures, become historically differentiated from the majority of Filipinos.

ICC/IPs [Indigenous Cultural Communities/indigenous peoples] shall likewise include peoples who are regarded as indigenous on account of their descent
from populations which inhabited the country, at the time of conquest or colonization, or at the time of inroads of non-indigenous religions and cultures, or the establishment of present state boundaries, who retain some or all of their own social, economic, cultural and political institutions, but who may have been displaced from their traditional domains or who may have resettled outside the ancestral domains. (Chapter II, Section 3h)

Historically, the indigenous peoples were the earliest occupiers of the Philippines, settling there well before the first Spanish colonisers arrived. They belonged to independent tribal communities or villages that defended their territories, evaded colonialism, and maintained their own cultural ways and traditions. Those who were colonised comprised the majority of modern-day Filipinos and those that resisted and escaped to remote areas to protect and retain their original ways have become known today as indigenous peoples (Cariño, 2012).

Indigenous Filipinos dwell in the various regions of the Philippine archipelago. There are an estimated 10-15 million indigenous peoples in the Philippines (International Labour Organization, 2013; National Commission on Indigenous Peoples, 2013). They are located in 65 of the 78 provinces in the country. There are approximately 70 to 140 distinct indigenous ethnic groups and 109 ethno-linguistic groups and sub-groups, all of which are diverse and distinct in their identity, language, and cultural systems (Cariño, 2012). Some of the major groupings of indigenous peoples are Igorot, Lumad, Mangyan, and Aeta. Though markedly different, the indigenous peoples in the Philippines share a common characteristic in their attachment to ancestral land, territory, and resources (Cariño, 2012). They are communal, collective, and cooperative people by nature (Molintas, 2004). However, they are also the most disadvantaged sector of the society in terms of economic standard of living, health, education, paid work, and social connectedness (Cariño, 2012; Guia-Padilla, 2012).

In education, the participation, completion, and achievement rates of indigenous peoples are low and below normal standards of the population. The majority of indigenous peoples in the Philippines have not had formal education (Guia-Padilla, 2012; Rovillos & Morales, 2002) and the right to use their respective mother tongues in schools has not been implemented (Minority Rights Group International, 2013). These minority ethnic groups represent an estimated 10-15 per cent of the Philippines’ total population (94
(22 million) based on the survey conducted by the National Commission on Indigenous Peoples (National Commission on Indigenous Peoples, 2013). Rovillos and Morales (2002) define indigenous peoples as “those with a social or cultural identity distinct from the dominant or mainstream society, which makes them vulnerable to being disadvantaged in the processes of development” (p. 3). In education, one out of three indigenous children will most likely drop out of primary school; only twenty seven per cent will have the chance to avail themselves of secondary education and only eleven per cent will be able to complete their education; and about six per cent will have the chance to enter tertiary institutions while the completion rate is only two per cent (Tamayo & Malanes, 2004). These statistics were based only on eight indigenous communities across the country. There are no available statistics that document the total indigenous peoples in the Philippines and their levels of educational attainment. According to Cariño (2012) the government has yet to intensify its programmes and services for the indigenous people who continuously experience neglect and discrimination from the government that should be protecting and helping them.

The Philippine Government through the Department of Education (DepEd) has responded to its responsibility of implementing and guarding the rights of indigenous people particularly in education as mandated by the country’s 1987 Constitution, the 1997 Indigenous Peoples Rights Act (IPRA), and the 2007 United Nations Declaration on the Rights of Indigenous Peoples. The Department of Education (2011a) issued an order entitled “Adopting the National IPs Educational Policy” in August 2011, which provides the policy framework for consideration of indigenous knowledge, skills, and practices that will be implemented through the “Philippines’ Response to Indigenous Peoples and Muslim Education (PRIME) Program” (Guia-Padilla, 2012). While a lot of work is yet to be done for the full implementation of this programme and to evaluate its effectiveness, the educational outcomes of indigenous peoples indicate poor academic performance, low achievement rates, and very low participation rates in compulsory and higher education.

**The common ground.**

Clearly, the challenge to improve the academic performance of ethnic minority students persists today both in New Zealand and in the Philippines. Ethnic minority groups who have no dominance in number and/or political power, possess distinct ethnic and cultural characteristics, and have subjective criteria of self-definition (Carcamo, 2013;
Reynolds, 2008) remain marginalised in various aspects of the social system, particularly in education (Esera, 1996; Guia-Padilla, 2012; Nakhid, 2006; Rovillos & Morales, 2002; Rubie-Davies, Hattie, & Hamilton, 2006; Samu, 2006).

Together, Pacific peoples in New Zealand and indigenous peoples in the Philippines are ethnic minority groups who are underachieving in their respective formal education systems that inculcate mainstream learning competencies and facilitate assimilation into society. Formal education or schooling as we know it today refers to the Western form of education, which was introduced to Pacific peoples and indigenous peoples in the Philippines by early Europeans in the nineteenth century (Thaman, 2012). Ethnic minority cultures, traditions, knowledge, and values are rarely recognised or given importance inside the classroom (Butler-barnes, Williams, & Chavous, 2012; Ungar, Russell, & Connelly, 2014). Often, they are stereotyped and labeled to fail in the school system. Nakhid (2003) asserts “the teachers’ and schools’ interpretations of Pasifika identity and ethnicity were used to decide the position of these students in education” (p. 307). Pacific students are continuously typecast as newly arrived immigrants from the Pacific Islands who have poor English skills when, in fact, the majority of them were born in New Zealand. Similarly, Fa'afoi and Fletcher (2002) identify stereotyping of Pacific students by some lecturers as one of the barriers to academic success. Tuioti (2002) explains that Pacific students are sensitive and aware when teachers proclaim they have high expectations on students but their actions mismatch what they preach. Tuioti (2002) maintains that “some teacher behaviour… obstruct or deny Pacific students the right to achieve at a level for which they have the potential” (p. 135). Nakhid (2003) argues that the problem is not the differences of Pacific students’ backgrounds – such as religion, culture, or socioeconomic status – but the way the society, schools, and teachers perceive and manage these differences that determine the way in which they influence learning.

Indigenous peoples in the Philippines have had a similar experience in the school system as Pacific peoples in New Zealand. According to the (Episcopal Commission on Indigenous Peoples, 2014), the school has become a venue for discrimination of indigenous peoples; indigenous culture, knowledge, and beliefs are not valued and seen instead as backward practices; and understanding of indigenous culture and community is merely tokenistic. This discrimination is perpetuated by the people and by the education system that is supposed to protect and support them. In school, indigenous
peoples are labeled as slow learners, especially with literacy without understanding that their communication pattern is first and foremost oral rather than written. The requirement of formal schooling for indigenous peoples to wear uniforms and shoes became a further source of discrimination. These requirements are beyond the financial capacity of the students and wearing shoes is not a cultural practice for them.

Overall, there are similarities in the educational issues confronting both Philippines and New Zealand. First, the academic underachievement of ethnic minorities in mainstream secondary schools is experienced in both countries. Second, the colonial or Western influences in the mainstream education system, which are distinct and devalue the culture of ethnic minorities, persist even today. Third, in both countries, the challenge for ethnic minorities to be empowered and active learners who are involved in an effective education remains. In all of these issues and challenges, teachers play a vital role in creating positive change for the students, at the school, and in the system.

Clearly, these challenging scenarios in education demand that ethnic minority students such as Pacific and Indigenous Filipino be given equal opportunity to learn and achieve in mainstream schools. And the person in the best position to have a direct influence and immediate effect on student learning and achievement is the teacher. Effective teachers are essential in increasing and improving learning and achievement of students (Alton-Lee, 2003; Bazylak, 2002; Nye, Konstantopoulos, & Hedges, 2004; Rivkin, Hanushek, & Kain, 2005; Rowan, Correnti, & Miller, 2002). Such effective teachers are defined as those who continuously learn how to develop their teaching practice, how to deliver the curriculum, how to gain support for their needs in teaching a subject, and how to enhance their skills and attitudes through education programmes or professional learning opportunities (Ministry of Education, 2007).

The creation of pedagogical innovation embodies the teacher’s dedication and effectiveness through the improvement of teaching practice and learning outcomes of students. Vieluf, Kaplan, Klieme, and Bayer (2012) claim that “Pedagogical practice always needs to be innovative. Adapting to characteristics of students and responding to their development is an inherent aspect of pedagogy” (p. 39). However, utilising creative ways of pedagogical innovation has been a crux of effective teaching and learning (Msila, 2013). Therefore, when used appropriately inside the classroom, a teacher’s pedagogical innovation can improve student learning.
Though various research projects have been conducted to assist with understanding how the educational outcomes of Pacific and indigenous Filipino students might be improved (Allen, Taleni, & Robertson, 2009; Arquiza, 2006; Douglas, 2003; Evans, 2011; Fletcher, Parkhill, & Harris, 2011; George, 2003; Haddock, 2007; Rakena, Airini, Brown, Tarawa, & O'Shea, 2009), only a few have been framed from an appreciative or strengths-based perspective (Chu, Samala Abella, & Paurini, 2013b) or combined with another theoretical perspective such as Cultural Historical Activity Theory. Hence, by using Cultural Historical Activity Theory and Appreciative Inquiry lenses, this study seeks to understand and identify teachers’ pedagogical innovations in mainstream secondary schools in New Zealand and in the Philippines where ethnic minority students are present. It investigates how teachers mediate learning for students through their pedagogical innovation. This study also explores the factors in individual teachers’ school environments that inhibit or promote teachers implementation of pedagogical innovation.

In this study, pedagogical innovation refers to either a new idea or a development of an existing product, process, strategy, or method in teaching and learning that is applied in a specific context with the intention to create added value or the potential to improve student learning (Kirkland & Sutch, 2009). Through this investigation the ability of teachers to influence and promote equity in the mainstream education system, particularly for ethnic minority students, via their ability to create pedagogical innovations is established, substantiated, and upheld.

**Aim of Study**

By using Cultural Historical Activity Theory and Appreciative Inquiry perspectives the study aims to identify teacher’s pedagogical innovation in public mainstream secondary classrooms with ethnic minority students in the Philippines and New Zealand.

The following research questions are addressed:

1. What pedagogical innovations do secondary teachers use to improve student learning in cultural minority classrooms?
2. How do secondary teachers mediate student learning through their pedagogical innovation in cultural minority classrooms?
3. What are the factors in individual teachers’ school environments that inhibit or promote how teachers implement pedagogical innovation in cultural minority classrooms?

**Significance of the Study**

Identifying teacher’s pedagogical innovation in cultural minority classrooms may be regarded as a MUST – meaning Major, Unique, Significant, and Timely. It is a major study for the result helps in reaffirming, innovating, or developing practices, procedures, strategies, and techniques to make education more effective and efficient for the students (Anderson, 1998). This study is unique for it combines and uses Cultural Historical Activity Theory and Appreciative Inquiry as theoretical lenses in understanding and indentifying pedagogical innovation. Cultural Historical Activity Theory as a theoretical framework helps to understand complex human activity through a systematic approach in identifying elements and patterns of the activity system. Alternatively, Appreciative Inquiry provides a framework that deviates from the traditional deficit approach of research into learning to take an asset-based view. This means that results of the study can produce heuristics needed for the design and reform of pedagogy with a positive and strengths-based undertone (Dalton & Tharp, 2002; Reed, Pearson, Douglas, Swinburne, & Wilding, 2002).

The study will provide information on teachers’ pedagogical innovation including the processes involved and factors that make it effective based on standards and indicators in order to improve student learning. Outcomes from exploring the process and system involved in creating and using pedagogical innovation based on the teacher’s perspective can be used as guidance for organising effective classrooms especially with ethnic minority students. Moreover, understanding the factors that hinder or promote how teachers implement pedagogical innovation is essential to finding ways teachers can be supported to improve their practice.

Finally, this study is timely because it focuses on the latest issues and challenges confronting teachers and ethnic minority students in the educational world, particularly in teaching, learning, and achievement in New Zealand and the Philippines. Thus, investigating teachers’ pedagogical innovation in cultural minority classrooms is significant because of its implications for the implementation of reforms in the curriculum, teacher education, and professional development programmes.
Organisation of the Thesis

This introductory chapter has provided the context and background of the study. It explains the alarming condition and current issues on education concerning New Zealand Pacific students and indigenous Filipino students in secondary education. This becomes the context of attention towards the role of teachers in promoting equity in education through understanding the nature of pedagogical innovation that improves student learning. The aim and significance of the study are also presented in Chapter One. Chapter Two is a review of the literature on effective pedagogical innovation. It also includes an exploration of Activity Theory and Appreciative Inquiry that provides the theoretical framework in investigating the phenomenon being studied. Chapter Three focuses on the methodology of the study. This includes the philosophical assumptions, research framework, research design, purposeful sampling, data gathering, data analysis, trustworthiness of findings, ethical considerations, and chapter summary. Chapter Four presents the findings and descriptions of individual cases. Each case is described under the headings Pedagogical Innovation and Factors Affecting Implementation. An Activity Theory model represents a summary of the activity system of each case. Chapter Five reports the findings across the case studies. A cross case analysis is conducted in three stages. First, a cross case analysis within each country, the Philippines and New Zealand, is done by identifying emerging themes from the activity system of participant teachers. Second, findings about the activity system of each country are compared with the five standards for effective pedagogy and their indicators for an in-depth analysis. Finally, the teachers’ activity systems based on pedagogical innovation, appreciative mediation for learning, and the factors affecting implementation of pedagogical innovation are compared for their consistencies. Cross case assertions were formulated across all of the findings. Chapter Six presents the main findings, their implications, and the pedagogical innovation model. It also acknowledges limitations of the research, identifies areas for further research, makes recommendations, and concludes with a brief summary of the thesis.
Chapter Two
Review of Literature

Introduction
In this chapter, a realist approach is applied to the review of literature relevant to the study. Developed by sociologists Ray Pawson and Nick Tilley, a realist review is defined as “an interpretative theory-driven narrative summary which applies realist philosophy to the synthesis of findings from primary studies that have a bearing on a single research question” (Wong, Greenhalgh, Westhorp, & Pawson, 2012, p. 93). It learns from real world phenomena through discerning not only what works but also how and why it works (Kirst & O’Campo, 2012). It uses both qualitative and quantitative research as evidence, which includes theoretical research, policy reviews, and peer reviewed literature.

Following the process identified by Pawson (2006) for conducting a realist review, which includes defining the topic and scope of the review, identifying and collecting the evidence, appraising the evidence and extracting data, synthesising the evidence, and disseminating findings to stakeholders (Kirst & O’Campo, 2012), this discussion of literature investigates Cultural Historical Activity Theory (CHAT), Appreciative Inquiry (AI), and teaching and learning innovations, particularly in determining how Cultural Historical Activity Theory and Appreciative Inquiry have been used in educational research and how teaching and learning innovations mediate learning.

Cultural Historical Activity Theory (CHAT)
Activity theory is an influential tool in exploring educational discourses and in analysing educational practices. Its historical roots can be traced in the classical German philosophy of Kant and Hegel, in the writings of Marx and Engels, and in the ideas of Russians psychologists Vygotsky, Leont’ev, and Luria. Today, there are two contexts where activity theory is discussed. One is the Socio-Cultural Activity Theory (SCAT) and the other is the Cultural Historical Activity Theory (CHAT). Though both are used interchangeably in some literature and overlap in ideas, they are different in origins and emphases. Socio-Cultural Activity Theory is focussed on anthropology, interactionism, and pragmaticism based on North American tradition, while Cultural Historical Activity
Theory is informed by Russian cultural psychology (Martin & Peim, 2009). The latter is used in this study.

Russian psychologists L. S. Vygotsky, A. N. Leont’ev, and A. R. Luria founded the school of Cultural Historical Activity Theory in the 1920s and the 1930s. Vygotsky was opposed to mainstream movement psychology that treated the organism and the environment as separate entities. Vygotsky believed that human consciousness and actions have social origins and are mediated by the cultural means of artefacts such as signs, tools, and languages through socialisation and participation in shared activities with other humans (Miettinen, 2005; Vygotsky & Kozulin, 1986). He introduced mediated action as a product of the interaction between subject, tools, and object. The object-oriented action mediated by cultural tools and signs was the unit of analysis (Vygotsky & Cole, 1978). Arbitration of other factors such as social others and relations were not integrated into Vygotsky’s basic mediated action triangle (Cole & Engeström, 1993).

With the changing political atmosphere in Russia, all Vygotsky’s study on human intelligence and consciousness were banned upon his death in 1934. Vygotsky’s colleagues sought refuge in Kharkov, Ukraine to avoid political pressure and persecution (Wertsch, 1985). As a result, Luria and Leont’ev together with other local psychologists shifted the focus of their work to human activity. Activity theory was introduced to examine the interaction between organisms and their environment. This school of thought was the result of the reexamination of Vygotsky’s writings and an extension of Rubinshtein’s work focusing on the psychological aspect of activity theory making human activity a unit of analysis (Brushlinskii, 2004; Scribner, 1997).

Through Leont’ev, the three-level model of activity theory characterised by a division of labour was conceived. The topmost level of collective activity pertains to the object; the middle level refers to the individual or group action, which is driven by a goal; and the bottom level is the operations, which are driven by the artefacts of action (Engeström, Miettinen, & Punamaki-Gitai, 1999). An individual or group that has a common and shared goal is the subject. Object is the purpose of the activity. It is the objective that motivates and drives the activity. Actions pertain to the process undertaken by the individual or group in order to achieve the goal or object in mind. Finally, the operations refer to the “unconscious microscale procedures” that make up...
conscious actions (Shanahan, 2010a). These constitute the execution of action that has become routinised and not attended to explicitly.

Part of Cultural Historical Activity Theory’s historical progress is the development of activity systems analysis. Described by Yrjö Engeström as the best-kept academic secret, Cultural Historical Activity Theory conceived learning as a dialectic exchange and change of subject and object through engagement in activity (Shanahan, 2010a). Its core issue is that the individual-in-context does not merely react to his or her surroundings or community but has the power to act and change his or her actions and therefore change the surroundings and community (Roth, 2009). Hence, Engeström developed an activity system model based on Leont’ev’s work that further developed the analytical methods within Cultural Historical Activity Theory. The activity system consists of the following elements: the subject, object, and outcome of the activity, the tools or mediating artefacts, the division of labour, the rules, and the community (Engeström, 1987; Engeström et al., 1999).

In Engeström’s activity system model shown in Figure 1, the subject pertains to the individual or groups of individuals involved in the activity. The object is the goal or motive of the activity. The tool is the instrument or medium such as social others and artefacts that act as resources for the subject in the activity. The rules are considered to be the limitation or regulation, either formal or informal, that can affect how the activity occurs. The community refers to the social group of the subject while engaged in the activity. The division of labour pertains to how the task is distributed or shared among the community. The outcome of the activity is the end result of the activity. The subject carries out the activity with goals, ways and processes to carry out objectives, and the results. In fulfilling the activity, the subjects do not only respond and change the environment but also change and develop themselves.
Rooted within Cultural Historical Activity Theory, the activity systems analysis is a methodology that works well with qualitative research in understanding the individual, their activity, and the context and how each of these elements affect one another. As an analysis method, it is descriptive by nature and simplifies human activities into representative snap shots or manageable units of analysis based on a complex context (Yamagata-Lynch, 2010). Activity theory as a resource for theorising is suitable for use with case study in examining individuals and activity systems (Shanahan, 2010b). According to Stake (2006) the aim of qualitative case study is particularisation and not grand generalisations. Similarly, this is the goal of activity systems analysis; that is, to understand complex human activities through discussion of general findings, particularly within the cases being examined.

There are criticisms about activity theory and activity systems analysis. Yamagata-Lynch (2010) summed up three issues relating to the “comprehensiveness of activity theory as a theoretical framework, the complexities involved in understanding and conducting activity systems analysis, and the problems associated with using human activity as a unit of analysis in research” (p. 27). Critics have argued that activity theory as a framework is inadequate because it focuses only on observable activities within cultural settings disregarding human cognitive processes (Toomela, 2000, 2008). However, the work of Roth, Radford, and LaCroix (2012) emphasises the “recognition of subject, object, community, material and semiotic tools, and other features of cultural practice as constitutive moments of activity” (p. 1). This echoes with the activity systems analysis of Engeström that captures not just the observable material tools or activities but also the semiotic or psychological tools such as signs and symbols.
Another issue in relation to Cultural Historical Activity Theory and the activity systems analysis is the level of difficulty that makes it hard for ordinary readers to follow. Nardi (1996) mentions that it is hard to publish on the Cultural Historical Activity Theory framework because of the complexities involved. However, such complexities give way to opportunities for researchers to investigate rich real human interactions and thoroughly identify and describe the elements involved in the activity systems and give meaning to them. The success of such investigation depends on the clarity, trustworthiness, and engagement of the researcher.

Human activity is dynamic, versatile, and complex. It is “endlessly multifaceted, mobile, and rich in variations of content and form” (Engeström, 1999, p. 20). Therefore, it should be understood that activity theory reflects such characteristics. “Activity is a specific form of the societal existence of humans consisting of purposeful changing of natural and social reality” (Davydov, 1999, p. 39). Through activity systems analysis, real-world complex situations are understood and unpacked through particularisation and manageable units of activities shared by individuals or groups of individuals. It can be seen, then, that Cultural Historical Activity Theory as a research approach is appropriate since this study aims to unpack and deconstruct complex real-world phenomenon surrounding teachers’ pedagogical innovations.

**Cultural Historical Activity Theory and research.**

Various research projects have provided better understanding of CHAT. The history, definition, and constructs of Cultural Historical Activity Theory have been comprehensively discussed in the works of different academics (Daniels, 2007; Engeström et al., 1999; Koschmann, 1998; Martin & Peim, 2009; Miettinen, 2005; Peim, 2009; Popova & Daniels, 2004; Rezat & Sträßer, 2012; Roth, 2004; Roth, Leeb, & Hsu, 2009; Roth & Yew-Jin, 2007, 2010; Shanahan, 2010a; Yamagata-Lynch, 2010). Cultural Historical Activity Theory has also been used to inform research practices in order to understand real world activities or situations (Yamagata-Lynch, 2007) and to critique other research designs (Roth, 2005). Nussbaumer (2012) produced a literature review on Cultural Historical Activity Theory focussing on qualitative research in education from kindergarten to twelfth grade conducted over the years 2000 to 2009. Nussbaumer’s overview includes a brief history of Cultural Historical Activity Theory,
its usage in educational and classroom research, and Cultural Historical Activity Theory’s key strengths and weaknesses.

Different studies have created new knowledge on the application of Cultural Historical Activity Theory as a framework and the use of activity systems analysis as a methodology. Cultural Historical Activity Theory is used in the evaluation of educational programmes and innovations. Through Cultural Historical Activity Theory, challenges in the microteaching activity of teachers were identified and analysed (Sezen-Barrie, Tran, McDonald, & Kelly, 2014). Other educational initiatives assessed through Cultural Historical Activity Theory include the creation of a technology-based programme that promotes professional development (Rybacki, 2009); the PGE (Plan/Go-through/Evaluate) group work procedure that integrates media experiences and practices into classroom-based work and learning (de Lange, 2011); the effect of establishing a community computing lab in a small traditional community in terms of literacy learning (Betts, 2009); the promotion of multimedia literacies for low income youth and its effect on the participants (Betts, 2006); and the impact of professional learning and development (PLD) programmes for teachers (Bourke, Mentis, & O’Neill, 2013).

Cultural Historical Activity Theory has inspired other research in different fields to produce a theoretical amalgam and create frameworks for analysis. The work of Foot (2014) provided a practice-based approach in analysing research in social work. Timmis (2014) argued for the integration of Cultural Historical Activity Theory and dialectical method for researching the sustainability of computer-supported collaborative learning. Oswald and Perold (2011a) proposed a framework that can be used as a platform in engaging with social and educational challenges. Their framework employed aspects of Engeström’s Cultural Historical Activity Theory, Rule’s ideas of dialogic space, and Weingarten’s notion of doing reasonable hope as a combined platform to contribute to the millennium goals in education. Likewise, Singh, Hawkins, and Whymark (2007) combined collaborative knowledge building with Cultural Historical Activity Theory as a better model to explain collaboration in practice. A Framework for Museum Practice was proposed as product of Cultural Historical Activity Theory that would maximise learning on school trips for both teachers and students (DeWitt & Osborne, 2007). Other frameworks influenced by Cultural Historical Activity Theory include the Game Object Model (GOM) (Amory, Molomo, & Blignaut, 2011) and the Indigenous
Knowledge Systems Policy (Botha, 2012). Some academics suggest Cultural Historical Activity Theory’s potential in investigating complex environments of social activity can be more effective through the intervention of action research (Darwin, 2011; Wells, 2011).

Information and communication technologies (ICT) are important tools in education. Using Cultural Historical Activity Theory framework different studies have been conducted to analyse the importance, effect, and application of information and communication technologies. Examples are the exploration of educational computer video games (Amory, 2010, 2014; Lazarou, 2011), online resources (Behrend, 2012), web-based technology (Bowen, Farmer, & Arsenault, 2012; Diehl & Prins, 2008; Lawrence & Lentle-Keenan, 2013), interactive technological learning environment (Dimitriadis, McAndrew, Conole, & Makriyannis, 2009; Dobson & Ha, 2008), desktop documentary making (Schul, 2012), online learning (Eijck & Roth, 2007; Gazi, Aksal, & Özhan, 2012; Yamagata-Lynch, Click, & Smaldino, 2013), interactive learning as tools to mediate learning (Rivera, Galarza, Entz, & Tharp, 2002), and text messaging (Jacobs, 2006).

Research on information and communication technologies using Cultural Historical Activity Theory have been analysed in relation to teacher education. McKavanagh et al. (2004) explored the connection between information and communication technologies and teacher supervision in higher degree research. Rizzo (2003) studied the effective ways of encouraging teachers to take up and use information and communication technologies as part of their teaching tools. Other research applied information and communication technologies for in-service or pre-service teacher training. Kim (2012) analysed the use of information and communication technologies to create personal teaching metaphors during pre-service teacher education, finding that construction of information and communication technology-mediated metaphors helps pre-service teachers to become reflective teachers. Amory (2011) evaluated the use of computer games as a mediating tool for learning among pre-service teachers to develop appropriate teaching classroom practices. Russell and Schneiderheinze (2005) described the effectiveness of technology innovations in education through the experiences of four teachers using the Cultural Historical Activity Theory methodology.
For student welfare services, Cultural Historical Activity Theory has been used to evaluate learning assistance or services for students. Peach (2005) identified the factors that influenced the practices of learning assistance in Australia and America. Similarly, Peach and Griffith University (2004) investigated the development and transformation of learning services in one of Australia’s largest multi-campus universities. The study revealed tensions within the activity systems, which can be solved when staff take an active position in reflecting on their practices.

Several pedagogic practices have been explored and analysed through Cultural Historical Activity Theory. Mosvold and Bjuland (2011) discussed learning study approaches in Norway’s kindergarten school using activity theory as a research framework and basis for analysis. Alcock, Cullen, and St George (2008) argued that children’s rhythmic musicality as a mediated activity does not only serve as communicative and enjoyable function but it also becomes the basis for the early literacy learning of young children. Asghar (2013) identified dialogue as a key tool in the engagement of students and staff to formative assessment. Patchen and Smithenry (2014) demonstrated through their study the interplay, connection, and effect of key classroom elements in creating a student-directed inquiry and collaboration inside the classroom. Similarly, the study of Andree (2012) agreed that altering classroom conditions such as classroom practices could open up opportunities for student engagement. Yeo, Seng-Chee, and Yew-Jin (2012) described how problem-based learning was employed in order to transform a physics class into an inquiry-based classroom using Cultural Historical Activity Theory framework. Through Cultural Historical Activity Theory, tensions in pedagogical practice, such as student centredness in Southeast Asian classrooms, may also be revealed (Yew-Jin, 2010).

Cultural Historical Activity Theory framework and analysis method are applied in teacher education including induction, pre-service, and in-service training. In their study, Anderson and Stillman (2013) concluded that Cultural Historical Activity Theory brings value to understanding the ways teacher educators can effectively support and enhance student teachers. McNicholl and Blake (2013) looked into teacher education practices in England and Scotland using the Cultural Historical Activity Theory systems analysis. They worked with higher education-based teacher educators to investigate their practical activities and understand the organisation and the division of labour between schools and universities. Snoek (2013) identified four main features of teacher
education and key factors to address them using activity theory. Bourke and McGee (2012) identified key success factors and tensions surrounding the objective of promoting and building bicultural pedagogies, policies, and practices in New Zealand initiated by the in-service teacher education organisation. Douglas (2012) investigated how pre-service teacher learning opportunities are constructed using Cultural Historical Activity Theory as a theoretical framework. Other studies looked at how novice teachers or student teachers can be supported in the field and in the classroom (Brayko, 2013; Bullock, 2013; de Beer, Petersen, & Dubar-Krige, 2012; Douglas, 2011; Fiedler, Mullen, & Finnegan, 2009; Makenzie & Andrea, 2014; Moussay, Flavier, Zimmermann, & Meard, 2011; Saka, Southerland, & Brooks, 2009; Spendlove, Howes, & Wake, 2010).

Cultural Historical Activity Theory lens is applied to educational leadership and mentoring. Oswald and Engelbrecht (2013) explored school leadership in two historically disadvantaged primary schools and found that teacher learning for inclusion is greatly affected by the type of leadership being practised in the school. Clark (2012) interrogated the concepts of leadership from new professionals or early years professionals in terms of their ability to lead. Through Cultural Historical Activity Theory framework, the study showed that catalytic leadership amongst new professionals are not dependent on a position of power. Vennebo and Ottesen (2012) investigated the role of school leaders in the success of the school’s initiative in implementing digital portfolios. They analysed leadership in a Norwegian school setting as an interactive process where agency and authority interplays in a hierarchical and distributed dimensions. Leadership development as a collaborative practice was analysed in the work of Jensen and Lund (2014). It was found that clear and well-defined objectives of collaboration should be established as a pre-requisite to leadership development. Through Cultural Historical Activity Theory, effective mentoring between faculty, staff, and students has been examined (Cowin, Cohen, Ciechanowski, & Orozco, 2012). Emotional, financial, and professional issues related to mentoring were raised and ideas for improvement were identified (Schwartz, 2012).

Several socio-cultural and human experiences contexts have applied Cultural Historical Activity Theory framework and methodology to understand complex activity. Cultural Historical Activity Theory has been used in understanding and analysing the experiences of alienated adult learners in one university in Korea (Joo, 2014); re-
examining language from a indigenous language revitalisation context (Lin & Yudaw, 2013); understanding and developing identity (Black et al., 2010; Cripps Clark & Groves, 2012; Etengoff & Daiute, 2013; Hoffman-Kipp, 2008); analysing the underachievement of students from a multilingual and multicultural background (Conteh, 2012); examining the impact of play on children (Alcock, 2010; Needham & Jackson, 2012); and understanding the concept and works of activism (Roth, 2010).

Furthermore, Beauchamp, Jazvac-Martek, and McAlpine (2009) described the tensions inherent in being a doctoral student by using Cultural Historical Activity Theory as a methodological tool to analyse their doctoral experiences and at the same time identifying the strengths and limitations of using Cultural Historical Activity Theory. Ng (2009) explored the linkage between reforms and learning in the Asia Pacific region using activity theory as a potential theoretical framework in discussing the relationship between educational reform and learning. Roth et al. (2012) used Cultural Historical Activity Theory in mathematics education. They engaged with Cultural Historical Activity Theory to understand the practical and underlying assumptions of this theory and how it can be applied to mathematical practices.

Indeed, using Cultural Historical Activity Theory in educational research has been effective in understanding and exploring teaching and learning phenomenon, practices, experiences, and tools.

**Summary of Cultural Historical Activity Theory.**

The definition, historical background, development, issues, and key players of Cultural Historical Activity Theory have been discussed in various academic works. Based on the reviewed literature, Cultural Historical Activity Theory has been used as a research framework and a research methodology through the development of activity systems analysis, which is attributed to the second generation of Activity Theory.

Activity systems analysis as a research methodology within Cultural Historical Activity Theory has been applied to inform research practices, to critique research design, to evaluate educational programmes and innovations, to analyse educational and classroom research, to create Cultural Historical Activity Theory inspired research frameworks, and to develop theoretical amalgam.
Cultural Historical Activity Theory has been applied in research in a range of different fields such as information and communication technology, student welfare services, pedagogic practices, teacher education, educational leadership and other socio-cultural research contexts including human experiences. Hence, Cultural Historical Activity Theory as a theoretical framework and an analysis method is regarded as an appropriate lens to investigate and facilitate an understanding of teaching and learning innovations, the focus of this study.

**Appreciative Inquiry (AI)**

In the 1980s, David Cooperrider and his mentor Suresh Srivastva developed the Appreciative Inquiry (AI) model to create an organisational assessment that focused on strengths; that is a positive-based approach (Reed et al., 2002) and moved away from traditional deficit-based thinking (Lord, 2005). Cooperrider and Whitney (2005) state that Appreciative Inquiry is the “cooperative, co-evolutionary search for the best in people, their organizations, and the world around them. It involves systematic discovery of what gives life to an organization or a community when it is most effective and most capable in economic, ecological, and human terms” (p. 8).

Hence, Appreciative Inquiry focuses on the life-giving forces or goodness in the system (Chen, 2003; Norum, Wells, Hoadley, & Geary, 2002), qualitative narrative analysis of stories and their generative potential (Whitney & Trosten-Bloom, 2003), asset-based language, and the concept of the “appreciative eye” (Gergen, 1999) that results in a collective positive image of a new and better future which is meaningful to the individual or community and results in transformational change that motivates, inspires, and unites the people toward a common goal. Appreciative Inquiry makes a shift from deficit-based language to an asset-based language. To clearly illustrate this frame of mind, Cooperrider and Srivastva (1987) used a model to differentiate problem solving and appreciative inquiry, as shown in Figure 2.
Appreciative Inquiry is guided by eight principles that stand as its philosophy. The principles are: constructionist, simultaneity, anticipatory, positive, poetic, enactment, wholeness, and free choice. These principles are based on different schools of thought namely, social constructionism, image theory, and grounded research. Each principle suggests that change is based on a positive search for what is best and what works, that human systems move in the direction of their shared image and ideas for the future, and that conclusion or theory is based on data systematically gathered and analysed (Whitney & Trosten-Bloom, 2003). The first five of these principles were identified by the original works of Cooperrider and Whitney (2005) and Cooperrider, Whitney, and Stavros (2003). The remaining three are products of the dynamism of this approach (Cooperrider et al., 2003; Preskill & Catsambas, 2006; Watkins & Mohr, 2001; Whitney & Trosten-Bloom, 2003).

The constructionist principle consists of the languages, social interactions, and relationships, which create the reality or future. The principle of simultaneity involves the art of questioning, for it is in questioning that we discover, learn, and change. The anticipatory principle refers to the collective image and discourse we hold that inspires the future. Hence, having a positive image yields positive results, which is the fourth principle, the positive principle. The poetic principle refers to the power of choice; that is, we can choose to look at problems, or at the best of what is. The enactment principle
embodies the ideals of Gandhi: “Be the change you want to see.” The future is now. The wholeness principle is concerned with engaging all the members and stakeholders to bring about a collective vision and action. The free choice principle refers to volition or free will. People become more committed if they choose freely, hence positive change (Whitney & Trosten-Bloom, 2003).

According to Hammond (1996), assumptions are statement or rules that explain what a group generally believes; they explain the context of the group’s choices and behaviours; they are usually not visible to or verbalised by the participants/members, rather they develop and exist; and assumptions must be made visible and be discussed before anyone can be sure of the group beliefs. In her book, “The Thin Book of Appreciative Inquiry”, Hammond (1996, pp. 20-21) enumerates the eight underlying assumptions of appreciative inquiry. She simply puts it as follows:

1. In every society, organization, or group, something works.
2. What we focus on becomes our reality.
3. Reality is created in the moment, and there are multiple realities.
4. The act of asking questions of an organization or group influences the group in some way.
5. People have more confidence and comfort to journey to the future (the unknown) when they carry forward parts of the past (the known).
6. If we carry parts of the past forward, they should be what is best about the past.
7. It is important to value differences.
8. The language we use creates our reality.

With the principles and assumptions inspired by Appreciative Inquiry, Cooperrider and Srivastva (1987) formulated the Appreciative Inquiry 4-D model as a process of positive change. This process commences with a context and the selection of an affirmative topic or topics that an organisation or institution wants to learn about (Mellish, 2001). An affirmative topic should be formulated thoughtfully and carefully for it will likely become the new reality (Hammond, 1996). Determining the affirmative topic is done through an initial interview, questionnaire, or small focus group, which will form the basis for the Appreciative Inquiry 4-D model: Discovery, Dream, Design, and Destiny (Hall & Hammond, 2005; Reed et al., 2002; Van Vuuren & Crous, 2005).
Discovery is recognizing and valuing positive potential and the best aspects of a system or organisation. To appreciate and elicit the best of “what is,” an interview with well-crafted appreciative questions is conducted. It is from this part of the process that stories of hope, achievement, triumph, and life-giving forces are discovered. The Dream phase is imagining what could be possible or creating a new shared vision of the future by challenging the status quo. Provocative propositions or possibility statements are drawn that articulate the positive possibilities envisioned for the system or organisation. Creating provocative propositions is a key transformational step where the individual will becomes the group will resorting to a concerted effort towards the main goal. This phase is both practical and generative (Watkins & Mohr, 2001). The Design phase involves creating and developing attainable plans and steps to make the shared vision or the provocative propositions extracted from the Dream phase into reality. During the Design phase, what needs to be done towards the achievement of the ideal is articulated. It is expected that at the end commitments, strategies, processes, systems, methods or techniques will have been designed and formulated by the members (Kelly, 2010). The Destiny phase is the developing and implementing of the action plan, based on what transpired in the previous phase, towards sustaining opportunities and changes. In this phase, key decisions are made, action plans are developed, and strategy performance indicators are identified (Mellish, 2001).

Various research projects and contexts have affirmed the ideas of appreciative inquiry. Sullivan (2004), for example, identified the effectiveness of Appreciative Inquiry in some research into the placebo effect which found that patients show remarkable change and improvement in their conditions when they believe they are taking effective medicine, even when that treatment is a sugar pill. The Pygmalion effect (Livingston, 1969) demonstrates how a person’s image and expectation of another person can affect the latter’s performance. Research has shown that teachers’ expectations can positively and/or negatively affect students’ performance and achievement (Babad, 1993; Weinstein, 2002). The Performance theory in sports declares that what a person expects is what he or she will usually experience. The whole body responds to what the mind imagines to be possible. Other areas of research that support this premise are positive effect, internal dialogue, positive imagery, and metacognitive competence (Cooperrider et al., 2003).

Indeed, Appreciative Inquiry gives a new perspective for looking at things. It discovers
and appreciates the best in people and their world through the exploration of their inspiring life stories and uplifting experiences. It is in this sense that positive change can occur when these life-changing shared stories become shared vision and action (Pratt, 2002). Moreover, Appreciative Inquiry is an alternative approach to traditional action research because it starts with looking for what is best, then identifying the problem; conversely traditional action research starts with identifying the problem based on the assumption that the phenomenon is a problem to be solved. However, Appreciative Inquiry has had its share of censure as well (Van der Haar & Hosking, 2004). Some criticisms were revealed in the study of Bushe and Khamisa (2004), which evaluated the effectiveness of Appreciative Inquiry in achieving transformational change in social systems by examining 20 published case studies using the Appreciative Inquiry framework. Only 35 percent or seven of the cases studied were identified as result of transformational change. However, this led the authors identify two qualities of Appreciative Inquiry’s transformative potential: changing how people think instead of what people do and supporting self-organising change processes that flow from new ideas. Patton (2003) argued that Appreciative Inquiry puts too much emphasis on the positive and does not directly address the problems, weaknesses, or things that are going wrong. Pratt (2002) added that recognition should also be bestowed on “the need to honour the multiple and undivided realities of human experience in organisations” (p. 119). Rogers and Fraser (2003) questioned whether Appreciative Inquiry encourages “unrealistic and dysfunctional perceptions, attitudes and behaviour” (p. 77). Moreover, Egan and Lancaster (2005, p. 42) identified three challenges associated with the Appreciative Inquiry approach:

- difficult interpersonal situations may be overlooked and remain unidentified as challenges to the success of the group or organization
- feelings of anger or frustration may not be voiced and may become barriers for some employees
- dissatisfied organisation members may retreat and withdraw from the process because they are unable to feel included by the Appreciative Inquiry approach.

In Appreciative Inquiry’s defense Coghlan, Preskill, and Catsambas (2003) stated that Appreciative Inquiry addresses the problem or issue but from a different angle or perspective, concentrating not on the problem per se, but on its surrounding strengths and successes. Similarly, Whitney and Trosten-Bloom (2003) affirmed the idea that Appreciative Inquiry recognises the conflict, issue, or problem as lived experiences, but
never uses them as the basis of analysis and action. It can be argued, then, that Appreciative Inquiry is the best approach for this study since Appreciative Inquiry provides a positive lens on looking at the phenomenon and focuses on changing the mindset of how people think.

**Appreciative Inquiry and research.**

Primarily an organisational development (OD) strategy that is inclusive and positive and is focused on exploring and affirming the best and strengths of people, systems, and their surroundings (Cooperrider & Whitney, 2005), Appreciative Inquiry is also becoming recognised as a social research method (Reed, 2007b). Reed (2007b) argued that Appreciative Inquiry has the “potential to contribute to research-derived knowledge” (p. 48) particularly when connected to research models such as critical theory and case study methodology widely used in education.

For more than a decade, Appreciative Inquiry has been used to facilitate desired outcomes in various research contexts and fields of study. In more recent times, the contribution of Appreciative Inquiry to organisational development and change management has been documented by Bezzina (2008) who outlined the effectiveness of Appreciative Inquiry as a paradigm for the development and implementation of the Bright Start Program in a school. Sullivan (2004) affirmed the promising role of Appreciative Inquiry in library organisation, where staff affirms the best of the past and the present and looks forward to the future in which library services and programmes are relevant. Similarly, Kelly (2010) provided an overview on the effective role of Appreciative Inquiry in library and information management organisation. Elleven (2007) examined Appreciative Inquiry and suggested it as a tool for organisational development and performance improvement in student affairs. The local government of Hampton City, Virginia witnessed the transformation of the city government when its workforce underwent an Appreciative Inquiry process to bring about their desired vision for the 21st century (Johnson & Leavitt, 2001). Calabrese, Hester, Friesen, and Burkhalter (2010) asserted the effectiveness of the Appreciative Inquiry 4-D model in promoting and improving sustainable relationships among rural Midwestern school districts stakeholders. Likewise, Lehner and Hight (2006) upheld Appreciative Inquiry as a positive approach to alter the workplace culture by empowering members of a student affairs unit. Chu (2009a) employed Appreciative Inquiry as a research approach in exploring mentoring as a strategy in developing and strengthening leadership among
Pacific students in order to enhance success in tertiary education. Based on Appreciative Inquiry’s 4D model, Chu developed the Appreciative Mentoring (AM) Framework comprising four phases of mentoring: recognise, realise, guide, and grow.

There are other studies involving Appreciative Inquiry as the research approach in investigating phenomena. Chu et al. (2013b) used the Appreciative Inquiry approach to investigate the experiences of tertiary students and to identify the factors and practices that lead to their achievement and success in tertiary education. Morsillo (2006) used Appreciative Inquiry approaches within an action research framework to identify the social identity issues and create meaningful community projects among social disadvantaged youths in the northwestern suburbs of Melbourne, Australia. Grant (2006) investigated the significance of information and communication technology (ICT) in the governance of four primary school Boards of Trustees (BOT) in New Zealand using Appreciative Inquiry as a research approach within a Critical Theory framework. In his critique of Appreciative Inquiry, Grant (2006) concluded that Appreciative Inquiry should be seen as a process for rather than a master of change. He suggested that Appreciative Inquiry should not only focus on “what is good” but appreciation must also mean “to know, to be conscious of, to take full and sufficient account of” (p. 4).

Appreciative Inquiry has been used for numerous educational outcomes, such as the identification and promotion of best teaching practices and traits. With the participation of students enrolled in the Family Literacy project in New Zealand, Giles and Alderson (2008) utilised Appreciative Inquiry as a research approach to identify the factors that have positive impacts on the relationship between the teacher and learners. These factors are: the vital role of adult educator is critical for the learners; the learning atmosphere should be socially enabling for learning; the importance, involvement, and recognition of family/whanau in the learning journey of the students; and the need for inclusiveness of all learners. Doveston and Keenaghan (2006) applied the principles of Appreciative Inquiry to improving the teacher-student interpersonal relationships and collaboration in the Year 8 class at a middle school. Some of significant areas identified were: ensuring everyone is consulted and their contributions acknowledged; making the classroom safe for students to contribute; creating fun, varied, and rewarding classroom activities; and generating time and different ways for students to reflect etcetera. Using Appreciative Inquiry, Kozik, Cooney, Vinciguerra, Gradel, and
Black (2009) identified traits which teachers must demonstrate that would lead to success in an inclusive adolescent education. Participants came from various settings, including higher education, school districts, the State Education Department, and technical support networks. They found that these are the values of social justice, passion, courage for change, listening, and communication. Likewise, Saunders (2002-2003) employed Appreciative Inquiry as a method for institutionalising retention activity in a college of arts and sciences. Based on the study she identified three principles: to care as much about who we teach as what we teach; to provide an environment that allows students to be the best that they can be; and to sustain a supportive environment and encourage students to maximise their potential. Calabrese, Hummel, and San Martin (2007) examined the positive core of teacher and administrator in a rural district of USA in terms of appreciating at-risk students or students who are under-performing in academic assessments and school-related academic achievements. Using Appreciative Inquiry as a research approach, they identified that i) teachers viewed themselves as people who can make a difference especially for at-risk students; ii), teachers identified positive core of experiences when working with at-risk students, such as empowering students and developing trusting relationships; iii) teachers built positive rapport and relationships with parents of at-risk students, which was made convenient and easy through technology as a communication tool; iv) teachers and administrators worked for a common vision towards the improvement of at-risk students; v) teachers and administrators espoused the most sincere demonstration of care for students; and vi) the use of prescriptive language about at-risk students, that is, words that express deficits or problems, which left little room for students to voice their own opinions. The final finding was unexpected and in contrast with the first five, hence the study concluded that such a result was an insight into the organisational defensive routines (Argyris, 1999; Calabrese et al., 2007).

Appreciative Inquiry has also been used to validate the effectiveness of a teaching technique, practice, or method; for example, the study of Smith and Neil (2005) on a story-based approach as an effective tool in empowering and promoting the ideas of peace in classrooms. Watt (2007) reviewed her personal teaching experiences in three domains of practice using the Appreciative Inquiry process and she concluded that Appreciative Inquiry as a theoretical framework enhances teaching practice, which results to improvement of students’ experiences. Watt also identified some best teaching practices such as promoting independent and critical thinking skills, affirming students’
self esteem and self-worth, and creating a learning atmosphere for students to freely share their ideas. Similarly, Chapman and Giles (2009) explored the professional practice of a lecturer using Appreciative Inquiry approach within the innovative narrative curriculum for midwifery. Findings showed various practices where the lecturer is at her best as well as the students. First, students’ understanding is enhanced when they see the relevance of what is being taught in the class, such as the use of real life experiences. Second, students are encouraged to actively participate and dialogue when there are various and interactive teaching and learning approaches. Third, socially enabling and safe learning environments greatly contribute to students’ learning. Fourth, the lecturer’s personality and character traits, such as openness, affirmation, flexibility, and accessibility, define the degree of interaction and relationship of the students towards the former. Fifth, the lecturer must be clear about her role as a facilitator and co-learner in the teaching and learning process. Sixth, the genuine and sincere concern of lecturers toward the wellbeing of their students contributes to learning success. And seventh, the art of questioning as an approach to learning should be used to bring out critical thinkers among students (Chapman & Giles, 2009, p. 303).

Giles and Kung (2010) affirmed the importance of Appreciative Inquiry in exploring the life-centric practices and an alternative discourse on the professional practice of a lecturer in Higher Education. These are first, that teachers should “walk the talk” and practice what they believe in order to establish an authentic bond or relationship with students. Second, teachers’ personal values and practices must be in congruence with the organization’s values and practices. Third, teachers need to be aware of their holistic influence and life-time effect on students, hence teachers should sensitise themselves. Fourth, teachers must continuously pursue and be aware of their professional and personal development and growth (Giles & Kung, 2010, p. 317).

O’Connor and Yballe (2007), who created appreciative pedagogy using the principles of Appreciative Inquiry, applied Appreciative Inquiry to the development of teams in the classroom, claiming that team members “draw on memories of peak group performance to build positive images for their team and to inform action” (p. 296).

In terms of facilitation of change in educational administration, Calabrese et al. (2008) have written about the role of Appreciative Inquiry to improve the preparation and practice of educational administration in a global perspective. Participants from Canada, the UK, Singapore, and the USA conveyed their high point stories and, through Appreciative Inquiry, the study concluded that relationships and collaboration are the
poignant and vital elements in educational administration and that educational administrators believe that they can be catalyst of change in education. Doveston and Keenaghan (2010) used Appreciative Inquiry to promote effective interpersonal relationships by evaluating and implementing a consultation framework that would support teacher colleagues by identifying what is already working in their class instead of the deficits. Moody, Horton-Deutsch, and Pesut (2007) suggested the use of Appreciative Inquiry as both a strategy and a method in supporting and enhancing transformational organisational change particularly in the academic nursing culture.

Appreciative Inquiry has also been used as a tool for effective evaluation particularly in the human performance improvement field (Dunlap, 2008). It has been used as an instrument in designing or modifying school activities or courses. Donnelly (2004) developed a simple methodology for classroom-based research based on the principles of Appreciative Inquiry. If Appreciative Inquiry has 4 Ds, Donnelly created four steps for classroom-based research: Scan (appreciating), Plan (envisioning), Do (designing), and Review (innovating) (Donnelly, 2004, p. 32). Lewis and Emil (2010) explored the use of AI to survey the perceptions of graduates of a school counsellor education programme in order to investigate what worked in the programme and what needed to be adjusted on the basis of what is life giving. Clearly, then, Appreciative Inquiry has been successfully used in a wide range of educational contexts.

**Summary of Appreciative Inquiry.**

Appreciative Inquiry (AI) is an alternative approach to framing the ways in which people think about and see their surroundings or conditions. It is a discourse geared towards looking beyond the problem and seeing the reality through a positive lens or inquiry. Appreciative Inquiry’s flexible framework allows it to be moulded according to the needs and desires of a system or organisation (Whitney & Trosten-Bloom, 2003). From its early beginnings as a tool for organisational evaluation, Appreciative Inquiry has now evolved into a theoretical research perspective or design, a research method, and a world view (Calabrese et al., 2007). As the reviewed literature indicates, a number of desired outcomes have been facilitated through the application of Appreciative Inquiry in a wide range of contexts such as education, government, community, personal growth, personal relationship, and even parenting (Conklin, 2009). Furthermore, as Martin (2002) points out, helping a person or community from a deficit perspective is most likely to disempower and devalue the person or community, hence
the Appreciative Inquiry approach. For these reasons then, this study views the phenomenon under investigation from the Appreciative Inquiry lens.

**Teaching and Learning Innovations**

Teaching and learning innovations are highly dependent on teachers. In this study innovation is defined as a new idea or the development of an existing product, process, strategy, or method that is applied in a specific context with the intention to create a added value; that is, they have the potential to improve student learning (Kirkland & Sutch, 2009). The literature showcases a range of teaching and learning innovations, which have positive effects on learners.

**On literacy and numeracy.**

Effective teaching practices in literacy and numeracy are based on teacher attitude, classroom strategies, clear instructions, use of technology, and classroom activities. A case study that observed three successful literacy teachers of Year 2 classes concluded that effective teaching for literacy is defined by positive behaviour of teacher, detailed subject knowledge of teacher, and excellent teacher-pupil interaction (Flynn, 2007). Gellert (2004) emphasised the importance of didactic material that teachers can use to engage students in mathematical activities, which results in the development of mathematical knowledge among students. This material can be any artefact such as textbook, information and communications technology (ICT) software, task or problem, which is employed by teachers to engage students.

Teacher’s creation and implementation of classroom strategies and activities was found to be an effective teaching practice in improving literacy and numeracy learning. Webb and Vulliamy (2007) observed the changes that teachers adopted in response to the New Labour policies in literacy and numeracy in the United Kingdom. These strategies included whole class teaching, planning, using and sharing learning objectives with pupils, and changing students’ seating arrangements. Interactive whole class teaching is described as an active teaching model that promotes high quality two-way dialogue and discussion between teachers and students, which, in turn, enhances inclusion, understanding, and learning performance in literacy and numeracy (Smith, Hardman, & Higgins, 2006). Oral activities involve the class in asking questions, students demonstrating their skills and methods, and pupils explaining their ideas altogether.
generating an interactive whole class discussion (Webb & Vulliamy, 2007). An example of this practice is “hot-seating” whereby the class is required to ask questions of the student seated in the “hot-seat,” who, in turn, is required to reply. In the pilot study conducted by Jeffrey (2003), it was found that when teachers were explicit about the learning objectives and made their intentions clear to the class, this had positive effects on students’ learning. The idea of presenting and reviewing the learning objectives at the beginning and end of lessons respectively captures the rationale behind the use of advance and post organisers as a practice and a tool for teachers to orient students to the task and to assist them to conclude or wrap up what they have learned (Brown & Thomson, 2006).

One of the technologies used to raise literacy and numeracy standards through interactive whole class teaching is interactive whiteboards (IWBs). This technology consists of large, touch-sensitive boards connected to the computer and a digital projector that sends images from the computer to the board. According to Smith et al. (2006), the use of the IWB promotes the ideas of whole class teaching as it engages students with the lesson and elicits open questions and answers from the class. It also improves the quality of teacher-student and student-student interactions (Webb & Vulliamy, 2007).

The use of specific teaching aids is important to teaching. Carnegie (2004), in her case study, concluded that Year 10 mathematics students improved significantly in terms of academic engagement, academic achievement, and the creation of a collaborative class culture through advance organisers, which present the class with the specific purpose and learning outcomes of the lesson. Likewise, Parker (1993) proved, in her case study of Year 4-6 multicultural urban school students, that advance organiser as a tool motivated the students to work, kept them on task, and assisted in their understanding of the learning objectives.

Classroom organisation such as seating arrangement and grouping is also part of the literacy and numeracy strategies. Hallam, Ireson, and Davies (2004) affirmed that group work or grouping in classrooms results in positive academic standards, and the personal and social development of students. However, grouping of students varies depending on their needs as well as the expertise and support of the teacher, teaching assistant, staff and parents to monitor and assess students’ development. For group work, it was
observed that students were more focused and better behaved when seated in rows than when grouped around tables, which was the former practice (McNamara & Waugh, 1993).

Giving importance to learners’ cultural context and their first language is important to student learning, particularly in literacy and numeracy. It has been contended that children’s development is enhanced through participation in culture-specific experiences, such as their own languages, and that this contributes to their language and literacy learning (Fetui & Malaki-Williams, 1996; Podmore, Sauvao, & Mapa, 2003; Tuafuri & McCaffery, 2005). For example, research has revealed that proficiency in reading using the English language is better attained by Samoan students in New Zealand who first learned to read in their mother tongue (Coxon et al., 2002; Long, 1994). However, Podmore et al. (2003) reported that ethnic language and Pacific resources were scarce once the children reached primary schools in New Zealand. It showed that there was distinct discontinuity in the children’s cultural experience, which can affect their progress academically. Therefore, the importance of maintaining ethnic languages and appreciating cultural backgrounds of learners are vital to student learning particularly in the area of literacy and numeracy.

**On teacher effectiveness.**

The literature identifies several instructional strategies which result in effective teaching. The storyline approach provides students with a framework for concept formation and retention resulting in student learning and motivation (Egan, 1997; Isabelle, 2007; Wilson, 1996). Problem-solving is an effective teaching technique for knowledge foundation, developing collaborative problem-solving skills, and other related skills necessary for successful lifelong learning (Beringer, 2007). Problem-based learning promotes active learning, encourages students’ personal reflection, and develops higher-order thinking skills (Bligh, 1995; Hmelo & Ferrari, 1997; Maudsley, 1999). It is also important for teachers to understand the learning behaviour of their students. Burnett and Gittins (2011) pointed out the importance of exploring learning behaviour of students and the value of leadership in the process of improving challenging behaviour and poor attendance among students.
Classroom practices effective for ethnically diverse students have also been explored. Four effective instructional strategies for diverse classrooms were identified in the study of Allison and Rehm (2007) namely: use of visuals, peer tutoring, cooperative learning, and use of alternative forms of assessment. Visuals are effective tools and stimuli for diverse students, especially for those who speak English as a second language (Carrier, 2005; Vaughn, Bos, & Schumm, 2003). Visuals present a universal, concrete, and clear understanding of ideas or concepts by providing mental images of them (Curtin, 2006).

Peer tutoring is a highly effective strategy among students from racially, ethnically, and culturally diverse backgrounds (Allison & Rehm, 2007). Students of differing abilities and backgrounds are paired up as teacher and resources for each other resulting in better communication, motivation, achievement, and friendship between students (Snowman & Biehler, 2003). Cooperative learning or grouping students of diverse backgrounds and heterogeneous abilities to work collaboratively promotes cross-cultural understanding, teamwork, interpersonal skills and intellectual autonomy that results in high academic achievement and enhanced communication skills in a multicultural school setting (Allison & Rehm, 2007; Crandall, 1999; Johnson & Johnson, 1990).

Different types of assessment are effective in enhancing student learning and achievement. Formative and internal assessment have been found to support Pacific learners (Ferguson, Gorinski, Wendt-Samu, & Mara, 2008). An example is the one-to-one nature of the Reading Recovery programme (McDowall, Boyd, Hodgen, & Van Vliet, 2005) that has six features which it is claimed support the performance of Māori and Pacific students. These features are:

• build close relationships with students;
• provide a safe learning environment in which students are not at risk of feeling shamed in front of their peers;
• learn about the diversity of students; out-of-school experiences;
• cater for these experiences through text selection, and story writing topics;
• negotiate the meanings and vocabulary in texts based on experiences foreign to students; and
• model oral language structures and engage students in the use of these language structures in authentic and meaningful contexts (p. xvii).

Alternative forms of assessment are highly recommended for diverse learners (Hodges, 2001). It gives them the opportunity to express themselves in a variety of ways.
compared to the traditional paper and pencil test, which discriminates against diverse of students for it fails to recognise their heritage, language, and experiences (Allison & Rehm, 2007; Banks & Bank, 1999; Pai & Adler, 2001). Some examples of alternative modes of assessment are the creating of journals, exhibitions, portfolios, and videos (Allison & Rehm, 2007).

The use of wide range teaching strategies is important especially for students of diverse backgrounds. These teaching strategies include group building and teaching and learning methods (Zepke & Leach, 2007). Some of the practices under group building were establishing class rapport and connection or group dynamics, learning students’ names and pronouncing them correctly, working in small groups, and providing pastoral care. Similarly, Zapalska, Brozik, Dabb, and Keiha (2002) concluded that collaborative learning and group interaction, such as simulation, improve students’ academic performance.

Generally, teachers also utilised a variety of instructional strategies. It was found that chalk and talk, field trips, movie segments, and internet supported activities have positive effects on the learning experience of primary students when Pacific indigenous knowledge was incorporated to teaching (Nelisi, 1999). In particular, Nelisi (1999) recommended the use of written materials that reflect indigenous concepts enabling Pacific students to appreciate their cultural identity and heritage and to empower their thinking and understanding of the world. This approach not only fosters cultural awareness amongst students but it also develops better understanding and sensitivity towards fellow Pacific students among non-Pacific New Zealanders (Samu, 2009). An example is the work of Bakalevu (2001) on teaching and learning mathematics and its relation to cultural experience, where she concluded that mastery of indigenous mathematics is primary to teaching and learning new mathematics for Fijian students.

**On student engagement.**

Various instructional innovations were identified in the literature as strengthening student engagement. One example is the use of contemporary technologies such as online learning management systems and computer software to enhance student engagement (Coates, 2007). Similarly, McCoog (2007) presented teaching strategies that integrate multiple intelligence and technology. For example, students with linguistic intelligence excel in written and oral skill; thus, instructional strategies that
focus on self-expression – such as presentations through the use of internet and desktop publishing – work for them.

A number of studies have concluded that group work helps in engaging students. In the study of Blatchford, Baines, Bassett, Chowne, and Rubie-Davies (2006) group work was seen to facilitate involvement and to improve interaction among students, which results in learning. Group work offers an alternative solution to individualised learning through assistance among members of the group and increased interaction between teachers and students during the facilitation of group work (Barker-Lunn, 1984). Also, group work appears to facilitate completion of task and development of social skills, self-esteem, and motivation, particularly for mixed ability groups (Galton & Williamson, 1992; Slavin, 1990; Webb, 1991).

Scaffolding has been shown to aid in student engagement. Lutz, Guthrie, and Davis (2006) stated that scaffolding facilitates student engagement, which translates into academic achievement. Scaffolding is defined as “any effort by the teacher to support the functioning of students’ cognitive or motivational processes during instructional activities” (p. 3). There are several teacher practices that promote student engagement, particularly with reading, in the classroom. These practices include highlighting strategy instruction, reviewing knowledge content goals, matching interesting texts to content goals, supporting autonomy of students over their learning, collaborative support that emphasises cooperation, making connection to what they read, showing affirmation and high expectations regarding students’ competence, using physical materials, and involving teacher-student interaction (Perencevich, 2003 as cited in Lutz et al., 2006; Stipek, 2002).

Structured programmes for students also appear to enable engagement. Fowler and Zimitat (2008) reported on the effectiveness of Common Time as a structured programme in Australia that enhances social and academic engagement among diverse students. Common Time involves formal and informal activities that provide a venue for teacher-student informal interaction, development of relationship with peers and other classmates, and support for students’ academic and social development. Through the influence of this programme, students became more engaged and involved with their learning that resulted in increased student autonomy and quality effort in their learning (Astin, 1984; Tinto, 1993).
Clarity of rules and teacher monitoring result in raising students’ subject-related interest. Research has shown that effective classroom management strategies result in students’ achievement (Walberg & Paik, 2000). In order to establish order in the classroom, desirable behaviours must be identified (Emmer & Stough, 2001). This can be done through the teachers’ communication, establishment, and maintenance of clear rules in the classroom (Kunter, Baumert, & Koller, 2007). While teacher monitoring and supervision of students may sound restrictive, limiting the learning autonomy and undermining the development of intrinsic motivation of students, it appears that, in fact, it is not. Several studies have shown that classroom management techniques such as rule clarity and teacher monitoring have positive effects on students’ motivation (Skinner & Belmont, 1993; Weinert & Helmke, 1995).

Outside classroom support to engage students in schooling includes assistance from non-academic staff. The initial findings of Airini et al. (2007) in their Success for All project were positive in terms of the project’s impact on Pacific and Māori students’ academic outcomes in applying non-lecture teaching activities that complement traditional mainstream teaching in New Zealand. These activities included core practice activities and academic support activities such as one-to-one tutoring and mentoring programmes (Airini et al., 2007).

The teacher’s use of creative teaching and learning tools has been found to result in an increase in student engagement. Barney and Mackinlay (2010) affirmed the benefits of reflective journal writing on student learning, particularly indigenous students. It was claimed that such journal writing engages, democratises, critically questions, reflects, and transforms students’ learning. Desai and Marsh (2005) investigated how spoken word poetry can be used as a teaching tool to foster critical consciousness, dialogue, and action. As a form of literocracy, spoken word poetry can connect students’ lives with classroom and classroom teachers thus resulting to understanding students’ context better and improving learning.

The use of arts as a medium in engaging students has also been viewed as effective in student engagement. Paige and Whitney (2008) described the integration of science, math, and art through painting of three murals by artists and student teachers. The aim of this innovation was to increase student engagement in learning and teaching science,
which was achieved through such an approach. Clausen (2008) analysed the use of intercultural work in a drama classroom and identified how this activity addressed the issues of cultural essentialism, stereotyping, and reductionism. In doing the activity the participants experienced changes in knowledge, beliefs, and values. Klopper (2010) initiated the use of intercultural music by utilising musical artefacts with Orff melodic and non-melodic instruments. This initiative resulted in the production of collective and participatory music.

Mentoring is also valued as a tool towards effective teaching and learning. Bean (2002) talked about the effectiveness of mentoring in a culturally diverse university. Similarly, Koerner and Harris (2007) documented the good effects of a mentoring programme between university and local schools in the region in terms of community engagement in higher education, including an increase in school retention rates and engagement. Morgan (2006) described the success of the Nga Hoa o te Kupenga Rorohiko programme that is founded on the ideals of mentoring. To address the paucity of Māori enrolment in engineering, a mentoring and tutoring relationship was established between senior and junior engineering students, and extended to secondary students through online and mobile communications technologies. Through this programme, additional peer support opportunities were given to secondary students thus increasing the number of students who are completing secondary schools with Maths and Physics achievement at a higher level.

On home-community-school engagement.

Immersion of students in communities and community participation in schools have been shown to be effective ways of teaching students. Community engagement is a powerful learning and teaching strategy that enhances student engagement and achievement (Bednarz et al., 2008; Kielsmeier, Scales, Roehlkepartain, & Neal, 2004). Community engagement can be attained through community service, service learning, volunteer work, work-based learning, fieldwork, and research collaborations (Bednarz et al., 2008). Hence, engaging the community and using it as a teaching and learning tool, can enhance and complement the curriculum and other teaching and learning activities resulting in meaningful learning experiences for the students (Bednarz et al., 2008; Kolb, 1984).
An example is service learning and its impact on the students, schools, and communities. Many researchers have shown that service learning has positive effects on students’ academic achievement, citizenship, personal and social development, and school-community relationship (Billig, 2004; Kielsmeier et al., 2004; Scales & Roehlkepartain, 2004). Learning with the Māori community through residential fieldtrips was practised as a teaching and learning strategy in Auckland, New Zealand (Bednarz et al., 2008). The experience involved the class learning the correct protocols and proper behaviours for the marae where the scene for the constructive visit was set. This activity not only enhanced formal learning but developed better understanding and deeper appreciation of each other’s world-views, culture, history, community, and values. Chan, Fong, and Lau (2003) used the service learning approach in teaching curricula to promote student learning and development for university students in Hong Kong. The study identified positive impacts on students’ learning such as advancement in communication skills, competence in spoken and written English, appreciation of ethnic minority cultures, and handling emotional reactions.

Active participation of community members in schools has also been found to have a plus factor. Members of the community can be involved in classroom activities and learning as tutors, resource persons, or even as participants in running the actual course (Whap, 2001; Williams & Lundsteen, 1997). In Queensland, for example, elders from the Torres Strait community in Brisbane were invited to take part in running classes as resource persons and guest speakers in terms of discussing and passing on indigenous knowledge to students (Whap, 2001). This practice of involving community members in classes can help bridge the gap between formal Western education and the traditional ways or methods of learning (Wilson, 1996). Anderson (2009) concluded there was essential value in good community engagement and meaningful long term relationships with indigenous communities in order to support and sustain the success of learners. Bettez (2011) discussed the importance of building critical communities in alleviating the difficulties and negative feelings of graduate work, thus promoting student participation and partnership at all levels of the process of teaching and learning, using creative activities to encourage collaboration and critical thought, teaching with compassion etcetera. Broadbent (2008) argued that university-community partnerships are essential to the building of effective and sustainable communities of practice that result in better educational outcomes.
Summary of teaching and learning innovations.

It is clear then, from the literature, that a number of innovations have had a positive effect on student engagement over a range of contexts. Various teaching and learning innovations were identified in the literature that focus on the areas of literacy and numeracy, effective teaching, student engagement, and family and community engagement in New Zealand and abroad. Most data on teaching and learning innovations focus on describing the theory behind the innovation rather than how the innovation looks in practice, how learning is mediated through the said innovation, and what factors inhibit or promote the implementation of the innovation. The research shows little evidence, however, of how the classroom and school context influence learning in conjunction with these innovations, particularly in terms of Pacific and indigenous Filipino students. In a literature review, conducted by Chu, Glasgow, Rimoni, Hodis, and Meyer (2013a) on Pacific education research regarding effective teaching, the authors concluded that the majority of the available data focus on attitudes and perceptions of teachers “without evidence of actual impact on the students or classroom practices” (p. 46). This, then, is one of the aims of this study: to understand and identify classroom pedagogical innovation of teachers and to know how learning is mediated to students.

Chapter Summary

It is clear then, from the literature, how Cultural Historical Activity Theory and Appreciative Inquiry have been used as theoretical frameworks and analytical approaches in educational research and how teaching and learning innovations mediate learning and have had positive effect on student learning over a range of contexts. The next chapter details the methodology of the study.
Chapter 3
Methodology

The chapter details and justifies the methodology used in this study. It is divided into nine sections. First, the philosophical assumptions that informed the study are discussed. Second, the explanation of the research framework that guided the study is provided. Third, the research design is described. Fourth, purposeful sampling is defined through the strategies used and rationale for choosing the participants for the study. Fifth, the data gathering methods and tools are identified and discussed. Sixth, the process employed for analysing the data is explained. Seventh, the procedures to ensure the trustworthiness of the study are explained. Eighth, the ethical considerations relevant to the study are acknowledged. Finally, a summary is provided at the end of the chapter.

Philosophical Assumption

Research paradigms are grounded on philosophical assumptions that dictate the nature of reality, knowledge, and values; these assumptions inform the methodological approach, data gathering methods, data analysis, and interpretation. The philosophical assumption that guided this study was interpretivism (Denzin & Lincoln, 2000; Merriam, 1998). The interpretative paradigm can be traced back to theorists like Kant, Dilthey, Husserl, Weber, and Schultz (Chilisa, 2012). It presents a perspective, which is firmly rooted in the sociology of regulation and approaches its subject matter from a subjectivist point of view. The social world is seen as “an emergent social process, which is created by the individuals concerned” (Burrell & Morgan, 1979, p. 28).

The Interpretative paradigm perceives and explains assumptions about the nature of reality (ontology), knowledge (epistemology), and values (axiology) differently from other approaches. For this study, the ontological nature was the product of individual cognition in which the description or interpretation of the social reality was subjective to the context and the people (Sanga, 2004). Reality was, in this sense, socially constructed, mind-dependent, limited and not able to be generalised into one universal reality (Chilisa, 2012; Creswell, 2003).

In terms of the grounds of knowledge, the study’s epistemology was learned, explained, and understood according to the paradigm that represents it or the frames of the
participants in action. The epistemological nature of the research was described as subjective, spiritual, transcendental, experiential, unique, and personal (Burrell & Morgan, 1979). Hence, the truth lies within the human experience (Chilisa, 2012). Since reality is regarded as subjective and knowledge as personally experienced and particular, it is acknowledged that the study is value-bound and value-laden because the researcher, the researched, the context, and the conceptual framework used were influenced by the reality, knowledge, and experience of the researcher.

Therefore, this study assumes that the individual teachers’ activity systems, including their beliefs and practice, with regard to their pedagogical innovation are experientially and contextually based, and it is through the researcher’s interpretation that these beliefs and practices can be understood. The researcher is tasked to make sense of the phenomenon in its natural setting and context (Creswell, 2003; Denzin & Lincoln, 1994). The study also acknowledges the position of the researcher as the primary instrument in data gathering and analysis; thus, eliminating researcher bias in handling and interpreting data is impossible (Merriam, 1998). Creswell (2003) described this thus: “the personal-self becomes inseparable from the researcher-self” (p. 182). Hence, the researcher acknowledges that the study is value-laden.

This study explores teachers’ pedagogical innovations in their natural setting in order to interpret, understand, and explain their pedagogical innovation by focusing on their activity systems. Accordingly, the research approach regarded to be most suitable for use with the ontological, epistemological, and axiological assumptions of this study is a qualitative approach. Denzin and Lincoln (1994) defined the qualitative research approach as being “multi-method in focus, involving an interpretive, naturalistic approach to its subject matter. This means that qualitative researchers study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of meaning people bring to them” (p. 2). It is a research approach in progress that interacts with the participants and is open to alterations as the research proceeds (Bouma, 2000). According to Glesne (2011), a qualitative approach seeks to understand the social phenomenon from the context and views of the participant. There are two main reasons that qualitative methodology was considered appropriate for this study. Firstly, to understand the activity system of teachers requires understanding of the context of the human activity in a real and complex environment. Secondly, to understand the activity system of teachers necessitates the researcher understanding the teachers’ personal
views, meanings, or perspective behind his or her activity. Therefore, qualitative is the best approach for the study since it is interpretative, experiential, situational, and personalistic (Stake, 2006).

**Research Framework**

In recognition of indigenous knowledge systems, Thaman (1992, 2000, 2003) developed the *Kakala* metaphor as an integrated and holistic philosophy and framework for research, teaching, curriculum development, art, and even spirituality, which is important to Pacific peoples in particular and indigenous peoples in general. The significance of the *Kakala* research framework to the study is that it was used as the guiding research process. The very spirit and essence of the *Kakala* framework was applied in the thesis in terms of its philosophy, cultural appropriateness, inclusiveness, and the values it represents. The framework and its philosophy are in harmony with the perception and creation of knowledge that identify with indigenous peoples. It was culturally appropriate and sensitive to the needs of the participants in the study. Principally, the *Kakala* research framework (see Figure 3) is meaningful and inclusive for it provides a sense of ownership in the process and development of Pacific education (Thaman, 2004), and for indigenous peoples’ education in general. Moreover, the framework signifies the value of culture, community, and reciprocity in terms of trust and respect, which is important to the researcher and the subjects.

*Kakala*, a Tongan term, refers to fragrant flowers, fruits, and leaves, which have mythical origins, strung or woven together into garlands and worn at special events or presented to honourable and distinguished people as a sign of love and respect. Thaman (2003) utilises the process of *Kakala* making, which is inherently valued in Tongan culture, as the basis for the research framework. The three different processes involved in *Kakala* making are *toli*, *tui*, and *luva*. Each step in making the *Kakala* represents the stages in conducting research. *Toli* pertains to the selection and collection of flowers, fruits, and leaves, which are ranked depending on their cultural importance, essential in making the *Kakala*. The type of occasion and the person who is expected to wear the *Kakala* is also considered when making it. In the study, the *toli* phase was associated with data collection. It refers to the “doing” of research, what is to be done, how to do it, who does what, and when (Chu, 2009b). *Tui* refers to the actual making or weaving of the garland. Certain features of the weavers and the weaving process are regarded as important to ensure quality, presentation, and art in the arrangement and completion of
the *Kakala* garland; these include time, knowledge, skill, and practice. Correspondingly, in the study the Tui phase represented the analysis stage. Analysis involves reflection on words, actions, metaphors, meanings, insights, discoveries elicited from the analytical questions posed during this stage. Finally, *luva* is the giving away of the *Kakala* to the intended recipient, who in turn is expected to pass on his/her *Kakala* to someone else. This gesture symbolises the value of sharing and the importance of relationships to the people of the Pacific. In terms of this research, the *luva* phase was the reporting and outcomes stage (Johansson Fua, 2009). It is the giving back to the people (stakeholders and communities), who were the source of knowledge, the findings of the study in various modes or approaches of presentation.

Subsequent to Thaman’s (1992, 2000, 2003) development of the original *Kakala* framework, three new phases were added, namely: *Teu*, *Mālie*, and *Māfana* (Taufe‘ulungaki and Johansson Fua, 2009 as cited in Johansson Fua, 2009; Manu‘atu, 2001). *Teu* is the preparation phase in the making of *Kakala*. Decisions are made as to the purpose of the *Kakala*, for whom it shall be bestowed, what flowers, leaves, or fruits shall be used. In research, the *teu* stage pertains to the conceptualisation of the study (Johansson Fua, 2009). It takes into consideration the perceptions, beliefs, and philosophies surrounding the research and thus influences the design and methodology of the study. In *Kakala* making, *mālie* is the reflection done by *Kakala* makers, receivers, and observers after the *Kakala* garland has been presented. Following the gifting of *Kakala* is *māfana*, which is expressed through further gifting and celebration. Usually, the recipient of the *Kakala* garland will pass on the garland to someone else as a sign of appreciation. *Mālie* and *Māfana* (Manu‘atu, 2001) represent the relevancy and worthwhileness of the research as reflected by the research team; and the application and transformation as the result of the research, respectively. Thus *Mālie* and *Māfana* are used as tools to monitor and evaluate the totality or wholeness of the research process (Johansson Fua, 2009).
Research Design

The research design of the study is based on theoretical lenses of Cultural Historical Activity Theory and Activity Systems Analysis and Appreciative Inquiry. It uses multiple case study approach to analyse and evaluate the phenomenon being studied.

Cultural Historical Activity Theory.

This study uses Cultural Historical Activity Theory (CHAT) as a qualitative methodology with descriptive case study methods of data structuring and analysis to enhance understanding of human activity in a complex learning environment. It also applies the principles of Appreciative Inquiry (AI) in framing the research questions and the talanoa questions since AI provides an inclusive positive-based perspective to investigating and understanding what works best in people, programmes, and communities. The use of Talanoa as a data gathering tool is explained below (see page 73).

Combining the two theoretical perspectives (Cultural Historical Activity Theory and Appreciative Inquiry) presents a methodological contribution in addition to the actual findings of the study. As shown in the literature review (Chapter Two), Cultural Historical Activity Theory has been combined with other theories thus producing theoretical amalgamation and frameworks for analysis, while, Appreciative Inquiry intends to contribute to research-derived knowledge, especially when connected to research models. This study is an application, affirmation, and assertion of the claims of both theories. When combined, Cultural Historical Activity Theory and Appreciative Inquiry complement each other in understanding the phenomenon that is the focus of this study.
Cultural Historical Activity Theory as a theoretical framework seeks to understand human activity and social systems in a real and complex environment. In this study, the activity is the teachers’ use of teaching innovations in the classroom to mediate and improve student learning. This activity involves various elements that help to identify patterns and to develop better comprehension of the complex system. A systematic approach in identifying these elements is done through the Activity Systems Analysis (ASA) (Engeström, 1987; Engeström et al., 1999), which guides the researcher in understanding individual activities in relation to their contexts, and the effects of both activities and contexts on one another.

**Activity Systems Analysis.**

Using Engeström’s activity systems model (Engeström, 1987; Engeström et al., 1999), the following elements were identified: the subject, object, and outcome of the activity; the tools or mediating artefacts; the division of labour, the rules, and the community. In the study, the subject is the teacher who knows and anticipates the object of the activity. Since all activity is object-oriented, the motive of the teacher is to use teaching and learning innovations to mediate and improve student learning. The researcher also identifies the tools, division of labour, the rules, and the community that constitute the wholeness of the activity. Through the identification of these elements the target phenomenon, which is the activity system of the teacher, is bounded and explored, thus, addressing the research questions of the study.

**Appreciative Inquiry.**

Another lens that influenced the outlook of this study is Appreciative Inquiry (AI) (Cooperrider & Whitney, 2005). As shown in the literature review, while primarily an organisational development (OD) strategy that is inclusive and positive, and is focused on exploring and affirming the best and strengths of people, systems, and their surroundings (Cooperrider & Whitney, 2005), AI is also becoming recognised as a social research method (Reed, 2007a). Reed (2007a) argued that AI has the “potential to contribute to research-derived knowledge” (p. 48) particularly when connected to research models such as critical theory and case study methodology widely used in education. Thus, Appreciative Inquiry is appropriate for this study for three reasons: One, this study focuses on the strengths of the teacher as mediator of learning and the teacher’s use of pedagogical innovation to facilitate and improve student learning. Two,
this study deviates from the traditional deficit view type of research into learning to take a positive, asset-based, and strengths-based approach. Three, this study is qualitative research using case study.

**Case study.**

The earliest use of case study as a form of research can be traced in Europe. Case study is associated with Frederic Le Play, who first developed the method in 19th century. In the 1900’s French sociology described case study as an approach to establish and define significant features and attributes of social life or a case. At the same time, American sociology, particularly the Chicago School, expressed interest in the value of the actor’s perspective as part of the social interaction. Case study is “an in-depth study of the cases under consideration” (Hamel, Dufour, & Fortin, 1993, p. 1). It may refer to both the process and product of inquiry (Tobin, 2010). As a systematic approach for focussing on a phenomenon that is bounded or limited, its purpose is twofold: 1) to provide rich description of and information about the case, and 2) to suggest theoretical relevance that may give birth to concepts and theories that would explain the controlled phenomenon (Tobin, 2010). More specifically, in the context of education research, the use of case study approach not only has the potential to create knowledge and understanding, but it also presents a standard for good teaching practices in two ways: 1) development and implementation of policy, and 2) gaining experience through exposure to a particular phenomenon (Tobin, 2010, p. 100).

Case study as an empirical inquiry seeks to address the “how and why” questions and to understand a contemporary phenomenon within a real-world context where the researcher has little or no control over behavioural events (Yin, 2014). Yin (2014) added that when “the boundaries between phenomenon and context may not be clearly evident” (p. 16) then case study is appropriate. Being a case study, multiple sources of evidence are utilised to analyse and evaluate the phenomenon in its natural setting. Thus, case study was deemed to be a relevant and effective approach for this study since the researcher needed to explore the activity systems of individual teachers in depth (Creswell, 2003) in order to provide rich and thick description of the situation (Merriam, 1998), and to collect comprehensive information about the activity system of individual teachers – which is bounded by time and activity – using multiple tools to gather the data (Stake, 1995).
There are four types of designs for case studies. These are: single case (holistic) designs, single case (embedded) designs, multiple case (holistic) designs, and multiple case (embedded) designs (Yin, 2014, p. 50). The single case designs (holistic or embedded) are appropriate for cases that have critical, unusual, common, revelatory or longitudinal purpose or circumstance (Yin, 2014). Single case (holistic) designs are analogous to a single experiment while single case (embedded) designs have subunit or subunits. The multiple case designs (holistic or embedded) are recommended if the study has more than a single case. Multiple case (holistic) designs have more than a single case of different or related context while multiple case (embedded) designs have more than a single case and have subunit or subunits with each case. This study uses multiple case (holistic) design as it suits the purpose of the research. Multiple case studies provide both a better look at the cases and understanding of the phenomenon between different individuals, and yet also link cases. Evidence from multiple case study are more compelling because of the replication logic it brings to the findings, thus making them more robust (Herriott & Firestone, 1983; Yin, 2014). Furthermore, presenting multiple cases in the study contributes to the generalisability and stability of the findings (Merriam, 1998; Miles & Huberman, 1994). The unit of analysis (Yin, 2014) in this study is the individual teacher.

**Purposeful Sampling**

As qualitative research, this study has purposefully selected individuals and sites to understand in depth the phenomenon under study. The reason behind purposeful sampling or intentionally selecting participants and sites for the study is in order for the researcher to gather relevant information that would help address the problem and the research questions (Creswell, 2003). According to Creswell (2012), using purposeful sampling demands the researcher to identify the sampling strategy and its rationale. Creswell (2012) also mentions some qualitative sampling strategies available in the literature such as Miles and Huberman (1994) model that includes four aspects in identifying purposefully selected sites and individual; the setting, the actors, the events, and the process. These aspects are the basis for explaining the sampling strategies used in selecting the participants for this study.
The setting.

A total of five public mainstream secondary schools in the Philippines and New Zealand participated in the study: three schools from the Philippines and two schools from New Zealand (see Table 9). The criteria in selecting these schools were that the school should be a public or government funded or state school; it should be a mainstream secondary school; and the student population should be largely composed of ethnic minority students, particularly Pacific peoples in New Zealand and Indigenous peoples in the Philippines. Attention was given to selecting schools that represented typical school situations in the Philippines and New Zealand. Most school-aged students, including those belonging to the ethnic minority groups, attend public or state schools in both countries. The reasons for selecting these two locations are that there are differences in context – for example the teacher/student ratio (see Table 9) – and that these are also typical schools in their respective environments. Therefore, they are likely to produce meaningful data helpful in understanding the phenomenon and answering the research questions.

The Philippines and New Zealand are two different countries with different schooling systems. Economically, the Philippines is an underdeveloped country with lower-middle income while New Zealand is a developed country with a higher income (United Nations, 2014). In terms of schooling, secondary education in the Philippines takes up to six years, covering the ages 12 to 18. This corresponds to grades 7 to 10, termed as junior high school, and grades 11 to 12 known as senior high school. There are no national standard examinations that determine qualifications or entrance to university. Graduating from high school depends on assessments and evaluations set up by individual schools in reference to the Department of Education guidelines. Entrance to a university in the Philippines is dependent on the student taking and passing the entrance examination conducted by their chosen university.

The New Zealand secondary education takes up to five years, covering the ages of 13 to 18. This corresponds to Years 9 to 13. New Zealand state schools have a qualification system known as the National Certificate of Educational Achievement (NCEA). This system involves a mix of internal and external assessments that students work on. For every required number of standards students achieve, there is a corresponding credit, which, when added up results in gaining National Certificate of Educational Achievement level 1, 2, or 3. University entrance in New Zealand is dependent on
National Certificate of Educational Achievement results (New Zealand Qualifications Authority, 2015).

Table 9

Selected Schools

<table>
<thead>
<tr>
<th>Schools</th>
<th>Grade or year levels</th>
<th>No. of teaching sessions observed</th>
<th>Total no. of teachers in school</th>
<th>Total no. of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>School A (Philippines)</td>
<td>Grades 1 to 7</td>
<td>3</td>
<td>3</td>
<td>174</td>
</tr>
<tr>
<td>School B (Philippines)</td>
<td>Grades 7 to 10</td>
<td>2</td>
<td>6</td>
<td>257</td>
</tr>
<tr>
<td>School C (Philippines)</td>
<td>Grades 7 to 10</td>
<td>2</td>
<td>6</td>
<td>246</td>
</tr>
<tr>
<td>School D (New Zealand)</td>
<td>Years 9-13</td>
<td>6</td>
<td>38</td>
<td>371</td>
</tr>
<tr>
<td>School E (New Zealand)</td>
<td>Years 9-13</td>
<td>8</td>
<td>45</td>
<td>555</td>
</tr>
</tbody>
</table>

Participants.

The participant teachers were locally trained in the Philippines and New Zealand and in their subject areas. There were in total nine (9) participant teachers: eight (8) female and one (1) male. The majority of them were aged between fifty-one (51) and fifty-five (55) years old and five hold Master’s Degrees in Education.

The selection criterion for participants was that teachers had had a minimum of three years experience of teaching their subjects in the school. Based on the participant teachers’ service records, the lowest range in years of service was from six (6) to ten (10) years and the highest range in service was from twenty-one (21) to twenty-five (25) years. Teachers with a minimum of three years experience were assumed to be more knowledgeable of the school system and better adjusted to the school culture than those with less experience. It was also assumed that the participant teachers’ years of experiences would mean they were more fully aware of what they do inside the classroom and what needs to be done. Experienced teachers are more likely to easily anticipate, reflect, and/or act on initiatives that would promote pedagogy and improve student learning. It was anticipated that the due to the years of teaching experience, the information gained could contribute to the study.
Table 6 provides a summary of background information about the teachers who took part in the study. Utmost care has been taken not to reveal participants’ identities. Participant teachers were allocated pseudonyms, and alphabetical letters, which corresponded to the first letter of the participant teachers’ pseudonyms, were assigned to each school. This set up is the way teachers will be identified throughout the thesis.

Table 10

<table>
<thead>
<tr>
<th>Pseudonyms</th>
<th>Gender</th>
<th>Ethnicity</th>
<th>Age</th>
<th>Subject taught</th>
<th>Highest educational qualification</th>
<th>No. of years teaching</th>
<th>Grade/year level observed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amihan (School A)</td>
<td>Female</td>
<td>Filipino</td>
<td>31-35 years</td>
<td>Literature</td>
<td>Master’s Degree</td>
<td>6-10 years</td>
<td>Grade 7</td>
</tr>
<tr>
<td>Bituin (School B)</td>
<td>Female</td>
<td>Filipino</td>
<td>41-45 years</td>
<td>Physics</td>
<td>Master’s Degree</td>
<td>11-15 years</td>
<td>Grade 10</td>
</tr>
<tr>
<td>Celia (School C)</td>
<td>Female</td>
<td>Filipino</td>
<td>26-30 years</td>
<td>Math</td>
<td>Master’s Degree</td>
<td>6-10 years</td>
<td>Grade 11</td>
</tr>
<tr>
<td>Darla (School D)</td>
<td>Female</td>
<td>Māori</td>
<td>51-55 years</td>
<td>Math</td>
<td>Diploma of Teaching</td>
<td>21-25 years</td>
<td>Year 11</td>
</tr>
<tr>
<td>Danica (School D)</td>
<td>Female</td>
<td>New Zealand European</td>
<td>51-55 years</td>
<td>Social Science</td>
<td>Bachelor’s Degree</td>
<td>6-10 years</td>
<td>Year 11</td>
</tr>
<tr>
<td>Dan (School D)</td>
<td>Male</td>
<td>New Zealand European</td>
<td>51-55 years</td>
<td>ESOL</td>
<td>Master’s Degree</td>
<td>21-25 years</td>
<td>Year 11</td>
</tr>
<tr>
<td>Eileen (School E)</td>
<td>Female</td>
<td>Samoan-European</td>
<td>51-55 years</td>
<td>Math</td>
<td>Master’s Degree</td>
<td>21-25 years</td>
<td>Year 9</td>
</tr>
<tr>
<td>Eden (School E)</td>
<td>Female</td>
<td>Samoan</td>
<td>46-50 years</td>
<td>Music</td>
<td>Bachelor’s Degree</td>
<td>11-15 years</td>
<td>Year 9</td>
</tr>
<tr>
<td>Elizabeth (School E)</td>
<td>Female</td>
<td>Samoan</td>
<td>51-55 years</td>
<td>Social Science/ESOL</td>
<td>Bachelor’s Degree</td>
<td>6-10 years</td>
<td>Year 9</td>
</tr>
</tbody>
</table>

The events.

The study focuses on understanding pedagogical innovations of participant teachers in public or state secondary schools in the Philippines and New Zealand. Hence, the researcher observed the classroom teaching and learning innovations and practices of the participant teachers as they did their teaching and activities with the class. Through classroom observation and individual talanoa, the researcher identified the pedagogical innovations of participant teachers to improve student learning, investigate how
participant teachers mediate learning, and explores factors that inhibit or promote how teachers implement pedagogical innovations inside the classroom.

Aside from exploring the pedagogical innovations of teachers in the Philippines and New Zealand, this study also features a cross case analysis of Indigenous Filipino and Pacific students’ context in education from the eyes of their teachers.

**The process.**

Before approaching any public or state schools and potential participants in the Philippines permission for conducting this study was first sought from the Department of Education regional offices in the Philippines. Once the authorisation was received, an official from the Department identified schools that matched the criteria the researcher had set. He then gave the researcher a brief orientation about the schools and what was to be expected. The official escorted the researcher to the study schools. He introduced the researcher to the school principals and the school principals then accompanied the researcher to the teachers chosen by the principals who satisfied the set conditions of the researcher. In New Zealand, the researcher emailed the letter of information and a request to conduct the study to the school principals. When the request was granted, the researcher went to meet with the contact teachers of the selected schools. The contact teachers assisted the researcher in inviting and involving fellow teachers who fulfilled the set criteria for the study.

Before the observation started, the researcher introduced herself to the participant teachers, gave them the background of the study, orientated them on ethics and their rights, and encouraged them to ask questions.

During the classroom observation, the researcher was asked to introduce herself and explain the purpose of her presence. The researcher sat at the back of the classroom with the video recorder turned on and her journal notebook at hand to take down important notes while the teacher did her activity and interacted with the students.

The researcher sat with the participant teachers during their vacant period to conduct the individual talanoa. The researcher prepared a set of talanoa questions. A digital recorder was turned on and the journal notebook was ready as the researcher listened to the answers and stories of the participant teachers in Filipino and English languages.
After the individual talanoa, the researcher thanked the participant teachers and explained to them what to expect next in the research process. The researcher also handed token gifts to the teachers to thank them for their participation and in respect for the cultural value of appreciation.

**Data Gathering**

Case study uses multiple sources of evidence (Yin, 2014). The most common stages for single case and multiple case studies are observation, interview, coding, data management, and interpretation (Stake, 2006). In this study, data were collected through person-to-person interaction with the participants and accumulation of related documents and artefacts. Methods used to gather data included classroom observation, individual talanoa with participant teachers, physical artefacts such audio visual recordings, and examination of available and related documents such as lesson plans and school publications.

Classroom observations were completed first before individual talanoa with participant teachers ensued. Audio visual material and documents were collected after the talanoa. The data gathered from these methods comprised each individual case. Each method in data collection represents how the gathered data were used in exploring and answering the research questions as shown in Figure 4.

The researcher was aware of the four principles of data collection that would ensure the construct validity and reliability of the gathered evidence. According to Yin (2014) these principles include: the use of multiple sources of evidence; the creation of a case study database; the maintenance of a chain of evidence; and caution in using electronic sources. The researcher used data from different sources such as observation, talanoa, audiovisual materials, and documents. Evidence gathered from these various sources was used when doing evaluation through triangulation of data sources (Patton, 2002) using the principle of convergence (Yin, 2014). Based on the gathered evidence, the researcher created a case study database composed of field notes, case study documents, and audio and video recordings. Files were named, coded, categorised, and saved in the researcher’s personal laptop and copied to an external hard drive, which could be accessed through a password known only to the researcher. It was also through this arrangement that a chain of evidence was maintained in terms of identifying specific
sources to back up findings. In terms of electronic sources, the researcher used electronic documents such as electronic journal articles and e-books as relevant sources to support arguments and findings of the study.

**Figure 4. Data Collection**

**Observation, field notes, and video recordings.**
Observation is the most frequently used form of data collection in qualitative research (Creswell, 2012). It allows the researcher to investigate the phenomenon of interest in its natural setting (Merriam, 1998). Patton (2002) even argued that observation might be the best approach in understanding the complexity of most phenomena.

A 50-60 minute observation was conducted in the classroom of each participant teacher. A digital video camera was used to record the whole observation in order to capture the interaction, body language, facial expressions, and actual reactions of both students and
teachers during the lesson. This is important so that the researcher can actually hear, see, and even feel the “reality” of the participants and at the same time capture the full activity without the fear of losing some important information that hand written notes might miss.

Classroom observations were done in the third quarter of the school year. The data collection in the Philippines was conducted in the months of November and December, while in New Zealand it was during the months of August and September. It was assumed that during this time, teachers were well adjusted to their classes and established practice could be observed.

Participant teachers in the Philippines were given very short notice about being observed in their classrooms so what was observed was more likely to be their actual everyday practice. However, these teachers were used to being observed – either announced or unannounced – as part of their performance evaluation by higher school officials. The researcher had to assure them that the observations had no consequence in relation to their official evaluation and that it was mainly for the study being conducted. In New Zealand, an observation schedule was given to teachers before the actual observation took place. Since the observation started in Term 3 of the school year, the researcher expected that what was observed inside the classroom was the established practice of the teachers.

Each teacher was observed either two or three times. Lessons were video recorded and field notes were taken during every observation. The researcher was positioned in the rear corner of the classroom during observation. During the observation specific attention was given to teacher pedagogy and his or her activity system; for instance, the tools that teachers used, and how the teacher mediated learning. After each observation, the researcher uploaded the file to NVivo to view the recording of the observation and to write notes and make reflections about the observation. The researcher had been forewarned that, as an observer, your behaviour is likely to be constrained than the field participants (Yin, 2014).

**Individual talanoa and audio recording.**

_Talanoa_ has been developed as part of the Indigenous Research Methodology (IRM) (‘Otunuku, 2010; Vaioleti, 2006, 2011). Tongan in origin, the term generally means
engagement in conversation. Talanoa has no enforced, artificial, and arbitrary boundary for it is simply about talking, story-telling, sharing, and debating based on the interests of the participants to build better understanding and good human relationships where the researcher and participants are engaged as equals. It is a culturally sensitive research method that recognises the participants’ contexts (Otunuku, 2010; Vaioleti, 2006). This method for data collection was seen to be appropriate for the study since participant teachers were ethnically diverse and the phenomenon being observed was contextual in nature. According to Crocombe (1975, as cited in Anae, Anderson, Bensemen, & Coxon, 2002) one of the general characteristics of the “Pacific Way” is that it is spoken rather than written. Fa'afloi and Fletcher (2002) experience supported this belief when only two out of thirteen Pacific Island participants returned the questionnaire of their research. Thus, they concluded, “the most effective way to uncover the Pacific Islanders’ experiences and feelings was by using the spoken language” (p. 31). This is also generally true for Filipinos where oral tradition is highly practised and preferred over written communication.

This study used individual talanoa to interview each participant teacher in the Philippines and New Zealand. Some of the strong points of talanoa include the importance placed on the participants; pursuit of details, historical information, and in-depth analysis are permissible; it involves building relationships between people; and the participation turnout is high (Vaioleti, 2006).

On the other hand, using talanoa to collect data also has its weaknesses similar to an interview method; for example, participants may say things to please rather than tell the truth. It can also be time consuming for both parties, expensive on the part of the researcher, and conflicts often arise in terms of scheduling (Arsenault & Anderson, 1998). Creswell (2003) also added that the researcher’s presence may incur biased responses and that people are not equally perceptive and articulate.

Nonetheless, talanoa, in contrast with interview method, was still regarded as the most appropriate method for this study since it takes into consideration the cultural context of its subjects. The talanoa approach is less formal but more engaging for participants since it aims to elicit personal stories spontaneously without the feeling of hierarchy or inequality between the researcher and the participant.
Questions created for the talanoa session were mixed in types and imbued with the appreciative inquiry principles to sufficiently fit the intention of the study. Questions included open-ended questions to generate stories or quotations; zeroing questions relating directly to the study in order to understand a particular situation; and experiential questions relating to the main research question (Stake, 2006).

In this study, talanoa was conducted after the classroom observation allowing the researcher to clarify what was unclear and the participant teachers to elaborate on their observed practice or activity. The researcher also listened to and transcribed the audio recording of the talanoa for each participant teacher to make sure that no pertinent information was missed out.

Audio recording and note taking were used during the talanoa. The researcher was mindful of the protocols in recording information during talanoa. Creswell (2003) pointed out the following audio recording protocols: a heading, opening statements, the research questions, follow-up questions, transition messages for the interviewer, space for recording the interviewer’s comments and space in which the researcher records reflective notes, all of which were observed.

The talanoa session for each teacher happened within a day or two after the last observation. Participant teachers decided the location and time for the talanoa. All the talanoa sessions were held in the respective schools of participant teachers during breaks or free periods. Before the talanoa session started, the researcher reminded the participant teachers about the objectives of the research, assured them of the confidentiality of their comments, and asked their permission for the audio recording of the talanoa session.

**Documents.**

Documents are a valuable source of information in qualitative study (Creswell, 2012). During the research process, the researcher collected documents such as newsletters, official reports, school publications, and lesson plans. Other relevant literature was also sourced to strengthen and support the arguments of the study.

Furthermore, the researcher kept a journal where she wrote her field notes during the duration of the research study. The researcher personally noted down details,
reflections, observations, feelings, and experiences of the whole process. This assisted the researcher in keeping up with the data collection and in verifying data during the gathering phase.

**Data Analysis**

Data analysis is the process of making sense out of text and image data (Creswell, 2003). According to Creswell (2003), combining or blending generic steps in data analysis with specific research design steps is an ideal way of analysing data. Hence, this study is a multiple case study, which has two stages of analysis: the within-case analysis and the cross case analysis (Merriam, 1998).

The within-case analysis stage involves the individual analysis of the activity systems of each of the teachers in the study as a separate case, since the overall findings of the study depends on the quality of its individual cases (Patton, 2002). Only then, the cross case analysis stage can proceed. Identification of themes, construction of categories, and their interpretation were done for both stages of analysis.

Data analysis is an ongoing process. Creswell (2003) argues that data analysis involves continuous reflection about the data even during the process of collection. Once data collection was completed, data were organised and prepared for data analysis (Creswell, 2012). This involved transcribing interviews, uploading video clips and audio recordings, scanning and photocopying documents, and downloading related literature. Data were then sorted and organised into types depending on the sources of information. For instance, all talanoa, all observations, all documents, and all audio-visual files were organised into individual folders using the computer. All research data were backed up on an external hard drive.

According to Creswell (2012), the researcher has to decide whether to analyse the data by hand or by computer. In this study, the researcher chose computer analysis of qualitative data. This meant that the researcher used “a qualitative computer program to facilitate the process of storing, analysing, sorting, and representing or visualising data” (Creswell, 2012, p. 241). Creswell (2012) suggests the use of computer analysis if a large database for analysis is involved, the researcher is adequately trained in using the programme and comfortable using computers, a qualitative computer programme is available for use, and a close inspection of every word and sentence to capture its
meaning is needed. All four scenarios fit well with the experience of the researcher and the demands of the study. Though the database being analysed was not very large in size, the researcher still found the use of NVivo software helpful for storing, coding, and retrieval of data.

When all data were prepared, sorted, and uploaded in Nvivo, the researcher thoroughly read and started taking notes of general thoughts and ideas salient to and emerging from the data. All classroom observation videos were watched repeatedly while taking notes. Audio recordings of talanoa sessions with participant teachers were listened to multiple times. Field notes of the observations and talanoa were also read and re-read. This process is known as preliminary exploratory analysis (Creswell, 2012). It enables the researcher to become familiar with the data and helps in the coding process (Denscombe, 2010).

The next step was the coding process. Rossman and Rallis (1998) explain coding as “organizing the materials into chunks before bringing meaning to those chunks” (as cited in Creswell, 2003, p. 192). This step involved categorising data and labelling them with a term based on the actual language of the participant. Tesch (1990) and Creswell (2012) suggested six steps involved in coding data: i) get a sense of the whole through careful reading and taking down ideas; ii) pick one document and go through it; iii) code the document; iv) after coding, make a list of all coded words. Group similar codes and look for redundant codes; v) get your list and go back to the data; vi) reduce the list of codes to get the main or major themes. The researcher used these as a guide to code transcripts from the talanoa and observation, field notes, and document. To enhance the coding process, the researcher used NVivo, a computer qualitative software programme. NVivo as a research tool assisted in sorting, coding, and categorising large amount of data.

Through the coding process, descriptions of the setting, people, and categories were generated. All codes were examined for similarities among the rest of codes identified in this study. Codes were categorised so they could be grouped accordingly. Emerging patterns were determined such as the frequency of the occurrence of codes or code combinations and themes were generated. The process was repeated several times in order to attain accuracy of the codes and themes. Themes were analysed for each individual case and across different cases. A detailed discussion of the themes supported
with quotations, perspectives, and stories from the original text were used to communicate the meaning.

Finally, the researcher made meaning or interpretation of the data by developing general statements or conclusions. As Lincoln and Guba (1985) put it, what were the lessons learned? The lesson in this study was based on the researcher’s personal interpretation in connection with her context. It included meanings derived from existing literature or theory. Further questions were also raised that advocated for action, reform, and change. Individual case reports were written in a descriptive narrative form, which constituted direct quotations from the participants, information through tabular form and diagram, and intertwining quotations with the researcher’s interpretations.

Since the study is a multiple case study, it necessitated cross case analysis or cross case synthesis. Cross case analysis involves the reading of individual case reports and applying their findings of situated experience to the research questions of the quintain or phenomenon (Stake, 2006, p. 47). It refers to the aggregation of findings across a series of individual studies (Yin, 2014, p. 164). The researcher utilised NVivo to code and rank themes for each case report and to sort, merge, and rank findings accordingly. This process led to meaningful assertions that contributed to understanding the quintain across all findings of each case report. This is known as cross case assertion (Stake, 2006).

Cross case analysis was conducted by grouping nine individual cases into three: Philippine case study, New Zealand case study, and across the case studies. Cross case analysis was conducted for each group in three stages. In the first stage, findings from the Philippine case study, which is composed of three individual cases; the New Zealand case study, which is composed of six individual cases; and across all case studies, which totals nine individual case studies, were analysed for emerging themes that described teachers’ overall activity systems. Teacher’s activity system referred to in this stage is the teacher’s pedagogical innovation, appreciative mediation for learning, and the factors affecting implementation of pedagogical innovation. These are the three main categorical themes identified through the use of Engeström’s activity system (Engeström, 1987; Engeström et al., 1999), which is composed of tools, subject, object, rules, community, division of labour, and outcome. Figure 5 below represents the activity system model.
In the second stage of the cross case analysis, themes that emerged from the activity system of teachers were analysed and evaluated based on the standards of effective pedagogy and their indicators (Dalton & Tharp, 2002). This step was conducted to produce a more in-depth analysis of the findings, to provide concrete theoretical basis on teacher’s pedagogical effectiveness, and to identify areas that teachers need improvement.

In stage two of the cross case analysis, the researcher used Dalton and Tharp (2002, p. 182) five standards for effective pedagogy. These standards were “developed both empirically and from a Cultural Historical Activity Theory perspective, which express criteria and crucial elements for the transformation of classrooms from the ‘receptacle-recitation’ model to that of the socially productive, actively engaged, dialogically based Cultural Historical Activity Theory model” (Dalton & Tharp, 2002, p. 182). The five standards (see below) for effective pedagogy are not quick fix recipes for teaching but rather a guide and ideals that teachers should strive for (Dalton & Tharp, 2002). The findings in the study of Dalton and Tharp (2002) are as relevant to the majority of students as they are to those on the educational margins.

Moreover, the five standards for effective pedagogy underpin the ideals of learner centredness. Despite criticisms on learner-centred pedagogies (Carter, 2010; Rodriguez, 2013; Schweisfurth, 2013), the researcher used the five pedagogical standards based on
the context that both curricula and classrooms in New Zealand and the Philippines advocate and integrate student-centred learning that includes minority learners (Brough, 2008; de Guzman, 2004; Ministry of Education, 2016). Hence, the five standards for effective pedagogy are deemed applicable in analysing teacher’s pedagogies inside the classroom.

The five standards for effective pedagogy identified by Dalton and Tharp (2002, p. 182) are:

I. Joint productive activity (JPA): Teachers and students producing together
II. Developing language and literacy across the curriculum (LLD)
III. Making meaning: Connecting schools to students’ lives (MM)
IV. Teaching complex thinking: Cognitive challenge (CC)
V. Teaching through instructional conversation (IC)

Each standard has corresponding indicators that teachers do to enact the standards. These have assisted the researcher in the analysis and evaluation of the teacher’s activity system in the cross case analysis stage. Dalton and Tharp (2002) assert that the indicators per standard were drawn from “extensive observations in a variety of classrooms serving diverse and at-risk students” (p. 183). Table 11 presents a summary of the five standards for effective pedagogy and their indicators.

Finally, findings from stages one and two were compared and contrasted for consistencies and for cross case assertions and discussion. Findings of the study were displayed in tables and diagrams and a narrative discussion, which according to Creswell (2012) is the “primary form for representing and reporting findings in qualitative research” (p. 254). Figure 6 shows the summary of the processes involved in analysing data.
Table 11

Five Standards of Effective Pedagogy

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<td><strong>1.</strong> Designs instructional activities requiring student collaboration to accomplish a joint product.</td>
<td><strong>1.</strong> Listens to students talk about familiar topics such as home and community.</td>
<td><strong>1.</strong> Begins activities based on what students already know from home, community, and school.</td>
<td><strong>1.</strong> Ensures that students, for each instructional topic, see the whole picture as the basis for understanding the parts.</td>
<td><strong>1.</strong> Arranges the classroom to accommodate conversation between the teacher and small groups of students on a regular and frequent schedule.</td>
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<td><strong>2.</strong> Matches the demands of the joint productive activity to the time available for accomplishing it.</td>
<td><strong>2.</strong> Responds to student talk and questions, making “in-flight” changes during conversation that directly relate to student comments.</td>
<td><strong>2.</strong> Designs instructional activities that are meaningful to students in terms of local community norms and knowledge.</td>
<td><strong>2.</strong> Presents challenging standards for student performance.</td>
<td><strong>2.</strong> Ensures that a clear academic goal guides conversation.</td>
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<td><strong>3.</strong> Arranges classroom seating to accommodate students’ individual and group needs to communicate and work jointly.</td>
<td><strong>3.</strong> Assists language development through modeling, eliciting, probing, restating, clarifying, questioning, praising, etc., as appropriate, in purposeful conversation.</td>
<td><strong>3.</strong> Acquires knowledge of local norms and knowledge by talking to students, parents, community members, and by reading pertinent documents.</td>
<td><strong>3.</strong> Designs instructional tasks that advance student understanding to more complex levels.</td>
<td><strong>3.</strong> Ensures that student talk occurs at greater rates than teacher talk.</td>
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<td><strong>4.</strong> Participates with students in joint productive activity.</td>
<td><strong>4.</strong> Interacts with students in ways that respect student preferences for speaking that may be different from the teacher’s, such as wait-time, eye contact, turn-taking and spotlighting.</td>
<td><strong>4.</strong> Assists students to connect and apply their learning to home and community.</td>
<td><strong>4.</strong> Assists students to accomplish more complex understanding by relating to their real-life experience.</td>
<td><strong>4.</strong> Guides conversation to include students’ views, judgments and rationales, based on text evidence and other substantive support.</td>
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<td><strong>5.</strong> Organizes students in a variety of groupings such as by friendship, mixed academic ability, language, project, interests, etc. to promote interaction.</td>
<td><strong>5.</strong> Makes explicit connections between student language and literacy and academic content.</td>
<td><strong>5.</strong> Plans jointly with students to design community-based learning activities.</td>
<td><strong>5.</strong> Gives clear, direct feedback about how student performance compares with the challenging standard.</td>
<td><strong>5.</strong> Ensures that all students are included in the conversation.</td>
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<td><strong>6.</strong> Plans with students how to work in groups and move from one activity to another such as from large group introduction to small group activity, for clean-up, dismissal, and the like.</td>
<td><strong>6.</strong> Encourages students to use content vocabulary to express their understanding.</td>
<td><strong>6.</strong> Provides opportunities for parents to participate in classroom instructional activities.</td>
<td><strong>6.</strong> Listens carefully to assess levels of student understanding.</td>
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<td><strong>7.</strong> Manages student and teacher access to materials and technology to facilitate joint productive activity.</td>
<td><strong>7.</strong> Provides frequent opportunity for students to interact with each other and the teacher during instructional activities.</td>
<td><strong>7.</strong> Varies activities according to students’ preferences, from collective and cooperative to individual and competitive.</td>
<td><strong>7.</strong> Assists student learning throughout the conversation by questioning, restating, praising, encouraging, etc.</td>
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<td><strong>8.</strong> Monitors and supports student collaboration in positive ways.</td>
<td><strong>8.</strong> Encourages student use of first and second languages in instructional activities.</td>
<td><strong>8.</strong> Varies styles of conversation and participation to include students’ cultural preferences, such as co-narration, call-and-response, choral, among others.</td>
<td><strong>8.</strong> Guides the students to prepare a product that indicates the instructional conversation’s goal was achieved.</td>
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Trustworthiness of Findings

As a qualitative inquiry, case study has often been faulted for lack of representativeness and lack of rigour due to reliance on the biases, subjectivity, or common sense of the researcher (Hamel et al., 1993). However, through the criteria of trustworthiness, qualitative inquiry can be measured on the grounds of validity and reliability (Lincoln & Guba, 1985). Trustworthiness is a concept that qualitative researchers use to substantiate and demonstrate the merits of the study outside the parameters of qualitative research. It involves establishing credibility, transferability, dependability, and confirmability of the research (Given & Saumure, 2008; Shenton, 2004). Credibility refers to the findings of the study being reasonably true. Transferability shows the applicability of the findings in other contexts. Dependability demonstrates that the operations and findings of the study are consistent, or could be repeated, with same results. Finally, confirmability refers to the extent to which the findings of the study are neutral and shaped by the participants and not the researcher (Lincoln & Guba, 1985).

Various techniques are in place to ensure trustworthiness of findings. Lincoln and Guba (1985) suggested several techniques to ensure that the trustworthiness criteria of
qualitative date are met, such as by using triangulation for credibility, having thick description to show transferability, inquiry audit to establish dependability, and doing a confirmability audit to ascertain confirmability. Creswell (2012) asserted the three most used techniques in establishing trustworthiness of findings are triangulation, member checking, and auditing.

In this study, the researcher used different techniques to establish credibility, transferability, dependability, and confirmability of the study and its findings. The subsequent sections explain the techniques for meeting trustworthiness and how these were applied in this study.

Credibility.
To address credibility this study used the strategy of triangulation. According to Creswell (2012), triangulation is “the process of corroborating evidence from different individuals (e.g., a principal and a student), types of data (e.g., observational field notes and interviews), or methods of data collection (e.g., documents and interviews) in descriptions and themes in qualitative research” (p. 259). In this study, data were collected from multiple sources using multiples methods in order to arrive at credible findings. A diverse range of individuals from different settings and contexts participated in this study. Nine teachers from the Philippines and New Zealand became the main source of data extracted through observation and talanoa. Audiovisual materials and documents were also used for data collection.

Another technique to establish the credibility of this study was member checking. Member checking is a “process in which the researcher asks one or more participants in the study to check the accuracy of the account” (Creswell, 2012, p. 259). Final report, descriptions, or themes of the study, were referred back to the participants in order to check whether the interpretation of their views was accurate or similar to what they said or meant. This technique aids in eliminating bias and identifying errors about the discoveries (Stake, 2006).

Another technique to maintain credibility of the study is establishing a chain of evidence. This strategy was identified by Yin (2014) as relevant especially when doing case study. Chain of evidence is a principle that allows an external observer to follow the process or flow of the study from questions to conclusions (Yin, 2014). To establish
a chain of evidence in this study, all gathered data were kept and filed appropriately for easy derivation and reference for any evidence or links from start to finish.

Since qualitative research is value-laden, it is truly impossible to fully eliminate the researcher’s own bias, views, and values (Maxwell, 2013), which can jeopardise the credibility of the research (Patton, 2002). However, acknowledging researcher bias, such as assumptions made in the study, personal information, or professional information that could have influenced the study, enhances the credibility of the study (Maxwell, 2013; Patton, 2002). In this study, researcher bias was recognised by briefly laying down the researcher’s personal and professional information, background, and assumptions (see Chapter One).

**Transferability.**
According to Lincoln and Guba (1985), external validity can be achieved by providing thick description or a detailed account of the phenomenon. In this study, the methodology, methods, process, and procedures were described in detail so others could replicate the study. Rich, thick description was also used to convey the findings (Cohen, Manion, & Morrison, 2000).

For Yin (2014) external validity can be achieved through the use of replication logic, which is analogous to conducting multiple experiments in order for findings to be considered robust. In this study, being a multiple case study, the researcher adapted replication logic to test the robustness of the findings. This was done by conducting nine individual cases on a similar proposition, which led to the prediction of similar and contrasting results but for anticipatable reasons for the latter.

**Dependability.**
Dependability is established when procedures of the study and decision processes are clearly stated (Denscombe, 2010). According to Yin (2014), dependability in case study research is established through the use of case study protocol and development of a case study database. In this study, certain protocols were observed during data collection. This included basic attributes that the researcher followed such as being prepared during the talanoa and observations, asking good questions, being a good listener, staying adaptive and open minded, being mindful of the issues at hand,
avoiding biases, and being conscious of the boundaries of research ethics. Together with the gathered data was the creation of the database that aided in organising and structuring collected evidence for easy access and reference of the researcher.

**Confirmability.**

Confirmability is the extent to which findings from a qualitative research can be freed from influences, especially from the person conducting it (Denscombe, 2010). In order to establish confirmability in this study the researcher applied the following strategies: First, the researcher’s background including her personal and professional information was provided so readers could know where the researcher was coming from and what influenced her decisions. Second, evidence that either confirms or challenges the themes are identified in study. Since different perspectives were involved, it is right to say that there are negative or discrepant information regarding the study. This information should not be excluded; instead it should be mentioned in the study for it adds credibility to it, especially from the perspective of a reader. Third, an iterative process was applied to the refining and checking of the themes. Finally, Yin (2014) suggests employing an external auditor to review draft case study reports. Asking an outside examiner, who is new to the study, is a good source of soliciting ideas, providing assessment, and giving different perspectives and breadth to the research, which the researcher could have possibly missed or not seen. In this study, the researcher requested the assistance of her husband, whose background is in education, to review the draft which was then turned over to the researcher’s supervisors for another round of review.

**Ethical Considerations**

The need for regulation, codes of behaviour, and protection for both researcher and participants are guarded by codes of ethics (Anderson, 1998). This study had obtained ethical approval from Victoria University of Wellington Faculty of Education Ethics Committee and conformed to its ethical guidelines. It also followed the Ministry of Education’s Pasifika Education Research Guidelines (Ministry of Education, 2008).

In comparison, there are no ethical guidelines in the Philippines. However, the study was conducted with utmost care based on the ethical guidelines set by Victoria
University of Wellington. According to Anderson (1998, p. 18), there are specific and acceptable standards for ethical research, these are:

- that risks to participants are minimised by research procedures that do not unnecessarily expose them to risk;
- that the risks to participants are outweighed by the anticipated benefits of the research;
- that the rights and welfare of participants are adequately protected;
- that the research will be periodically reviewed; and
- that informed consent has been obtained and appropriately documented.

In this study, necessary protocols and careful steps were taken to obtain permission from institutions and participants. Seeking the approval of “gatekeepers” by giving them a brief background of the study for their review helped in clarifying questions and ideas about the study and clearing the path to secure their permission (Creswell, 2003).

It is the researcher’s duty to protect and respect the rights and welfare of the research participants. Where participants’ positions and the institutions were highly visible, certain steps were taken to ensure that the rights of the participants were protected. At the outset of this study, a letter of information regarding the process of the study and a request to conduct the study was given to the indigenous sector of the Department of Education. The official then directed the researcher to the head of division schools in the Philippines. After permission to conduct the study was obtained, the researcher went to meet and seek the permission of the principals of the selected schools for this study. When permission was granted, the researcher met with the prospective participant teachers. On the other hand, in New Zealand the letter of information and request to conduct the study was given to the school principals. When authorisation was granted, the researcher went to meet with the contact teachers of the selected schools who assisted the researcher in involving fellow teachers in the study.

A voluntary informed consent transpired between the researcher and the participants. It is an on-going discussion; two-way communication, and dialogue between the researcher and the participants and put in place before the consent form was handed out (Sieber, 2009). The written consent form included a description of the purpose and procedure of the study, the risks and benefits of participation, the nature of the task and alternative procedures to be performed, the participant’s right to ask questions and
receive answers regarding the study and about the researcher, and the right of the participant to withdraw from the study anytime he or she wants.

The identity of participants, or anonymity, was protected at all stages in the study by using aliases or pseudonyms. All information and documents pertaining to the participants such as transcripts of interviews, written interpretations, and other records were kept confidential. Only the researcher and the supervisors had access to the research data. Analysed data will be discarded after a reasonable time. Sieber (2009) recommends five to 10 years. When it comes to decision making with regard to reporting and disseminating data, it was the participants’ wishes that were prioritised and considered.

The researcher was also mindful of the language or words used in the study, which may be biased against the participants in terms of gender, sexual orientation, or ethnicity (Creswell, 2003). Furthermore, appropriate Pacific and Indigenous Filipino protocols and processes were observed and entrenched throughout the entire research process. This included upholding Pacific and Indigenous Filipino ownership of the objectives and processes of the research through observance and respect of proper protocols, transparency in the research process, and gifting of the final research (Coxon et al., 2002, p. 3).

**Chapter Summary**

Chapter Three has laid out the philosophical (interpretivism) and methodological (Cultural Historical Activity Theory, Activity Systems Analysis, Appreciative Inquiry, case study) foundations of the study. The research framework (*Kakala*), research design, the process for selection of participants, data gathering methods and tools (individual talanoa, classroom observations, audiovisuals, documents), and the process involved in analysing the data are expounded in the chapter. Chapter Three also discusses issues and strategies relating to the trustworthiness and ethical concerns relating to the study. Chapter Four presents the findings and descriptions of individual cases.
Chapter Four

Findings and Descriptions of Individual Cases

This chapter describes the findings from the within-case analysis. The description of each individual case is essential in understanding the context and complexity of the phenomenon in order to arrive at credible and inclusive findings (Patton, 2002; Stake, 2006). Individual cases were described based on the collected and combined information from individual talanoa, classroom observations, artefacts for learning, and lesson notes. The information for each case was analysed independently through activity system analysis (Engeström, 1987) to identify key themes and understand the context of individual teachers in relation to their pedagogical innovations.

Each case is described under the headings: pedagogical innovation and factors affecting implementation (see Figure 7). Pedagogical innovation has two subheadings: artefacts for learning and appreciative mediation for learning. An activity system model is also created for each case to depict a summary of each teacher’s activity system. Direct quotations from the interview are used to support the discussion of themes. The researcher has provided an English translation of quotes from participant teachers in the Philippines who used Filipino language during the interview.

Figure 7. Case Study Headings
Case Study One: Amihan

Amihan teaches Filipino literature in a school in provincial Philippines that has twenty-two (22) Aeta students in her class. I observed three (3) teaching sessions in the month of December 2014.

Pedagogical innovation.

Amihan’s teaching and learning innovations as observed by the researcher are described through the following subheadings: artefacts for learning and appreciative mediation for learning.

Artefacts for learning.

Amihan uses various artefacts for learning inside the classroom. These include: vocabulary exercises, diagrams, and lesson plans.

Amihan uses the blackboard for vocabulary exercises, diagrams, and lesson plans to improve student learning. Before she starts the discussion of the main lesson, she identifies words that are difficult or confusing for the students. She gives examples that are familiar to the students so that they can understand the meaning of the word eventually. Diagrams are also used to help students analyse and simplify the main ideas of the lesson. Through vocabulary exercises and showing of diagrams, students are motivated to participate in the discussion:

Sa paghawan pa lang ng balakid (vocabulary) nabanggit na ang lesson lalo pa sa motivation kaya naka recite agad sila. Yung pagtatanong tungkol sa kwento at pag sharing ng mga estudyante ay nakakatulong din. Kung ano po ang nakikita ninyo ngayon ay iyan po ang lagi kong ginagawa.

(I try to remove the hindrance that my students would face in understanding the lesson. In this case, we had vocabulary exercises, so learning the difficult words from the story before actually reading the story would give students motivation to recite because they understand what they are reading. Asking questions about the story and sharing amongst students also helps in their learning. What you see now, is what I usually do in class.)

Amihan’s lesson plan covers the methodical progress of her teaching inside the classroom. She starts with motivation, followed by a review of the previous lesson, then the discussion, a short exercise, and, finally, evaluation:
I always start my lesson with a motivational activity then review of the previous lesson. When I assess that they have the background and are ready, I go straight to the lesson. After the discussion, we have exercises, then generalisation of the lesson, next is evaluation, and then the assignment.

Appreciative mediation for learning.

Amihan demonstrates appreciative mediation for learning in a number of ways. These include: storytelling, integration of indigenous culture, teacher’s intuition, self reflection, knowledge on student background, belief and practice of equality, positive disposition, and positive relationship.

Storytelling is noticeable throughout Amihan’s classroom activity. She narrates key ideas of the lesson using her own life experiences and the students’ own stories as part of her discussion to make the topic easier, interesting, and relevant for the students:

(When I see that my class is bored, I would tell them stories and a little joke on the side so I can bring their interest back to the lesson. Sometimes, they wouldn’t notice that my story telling is a segue to the lesson proper.)

Amihan also facilitates learning through integration of indigenous culture in her classroom activity. Due to her deep knowledge and understanding of the Aeta Magbukon culture, her story telling includes aspects of Aeta Magbukon beliefs and traditions. Indigenous dancing and singing are also inserted as part of the lesson. Even with the wooden stick, Amihan can create music the Aeta Magbukon can dance to.
Furthermore, being fluent in the Aeta Magbukon language, she uses it to effectively communicate and get the attention of her Aeta students during classroom discussion:


(Before the idea of IPED was in place, I was already integrating Indigenous people’s culture in my classroom. An example is their language; I know their language so I used it in class. During story telling, I use their culture, tradition, and values in my lesson including their dances, songs. I know these because I am one of them. I can use a wooden stick as an instrument to create music and my students can dance along.)

Teacher’s intuition also plays a role in mediating learning inside Amihan’s classroom. Amihan’s years of teaching experience have developed her teacher instinct to be proactive in dealing with different classroom situations or students’ needs:

Habang tumatagal alam mo na kung ano ang pamamaraan kung paano sila matuto. Noong una kasi ay naiiyak pa ako kasi hindi ko alam kung paano ko sila mapapatuto. Habang tumatagal kayo ay nagiging bihaya kasi alam mo na kung saan mo sila sasakyan. Halimbawa kung nag discuss ka sa English at napupuna mo ng tahimik sila, alam mo na hindi nila naiintindihan kaya kailangan mong ipaliwanag sa tagalog o minsan sa wika ng Aeta Magbukon.

(As time goes by, I learn how to deal with students when it comes to their learning. Before when I was just a new teacher, I would cry because I find it hard to teach them. But as years passed, I gained experience and expertise and I learn how to teach them better by instinct. For example, when I discussed in English and the class suddenly turned quiet, I already sensed that they did not
understand what I said so I had to explain it in Tagalog or sometimes in their own language, Aeta Magbukon.)

Kung hindi na nakikinig yung mga kulot sa lesson ay bigla ako magsusulat ng magbukon at bigla sila magtatawanan at makikinig na sila ulit. Marunong pa sila magsalita sa sarili nilang lenggwahe pero hindi lahat ginagamit. Pero pagkina usap naman ay nagsasalita sila. Nagkakaintindihan at nakakpagsalita naman po sila.

(When students are not listening, I write and speak to them in Aeta Magbukon language and that would get their attention. Luckily, most of the students still know how to read and speak the indigenous language.)

Self reflection has been a constant exercise in Amihan’s teaching practice. Looking back on what has transpired in her classroom, what worked, what did not work, and how it could be improved has helped enhance her teaching practice in expediting learning among students:

Iniisip ko din po kasi after the lesson ay kung natuto kaya ang estudyante ko. Kaya Iniisip ko po yung mga strategy na dapat Kong gawin para madaling mapaliwanag sa kanila ang leksyon.

(I do self reflection after each lesson. I ask myself if my students learn something. I often reflect on strategy that would make students understand the lesson easily.)

Hindi naman lahat success sa pag excute ng mga practice sa pagtuturo kaya patuloy ang refelction ko para ma improve. Siyempre masaya kapag maganda ang achievement or result. Ibig sabihin natututo sila. At the end ng class lagi ko sila tinatanong kung natutunan ba nila o hindi, kapag hindi nag-iisip ako agad ng paraan kung paano sila matuto. Nag-iisip ako kung anong gagawin kong sistema para sila matuto

(I’m not always successful in executing my teaching practice; that is why I always reflect on how I can continously improve my teaching. Of course, I am
happy if students achieve or get good results. It means they learnt something. That’s why at the end of the discussion, I always ask the class if they understand the lesson. If not, I quickly think of another way or system for how they can learn and understand the lesson.)

In the eyes of Amihan, every student is equal. The students’ cultural background or ethnic make up does not affect the attention she gives to each and every student. This belief guides her to teach better:

Hindi ko na po napapansin kung sila ay halo o may discrimination. Hindi ko na po napapansin kung ito ba ay aeta o unat. Sa akin po ay pantay para makapag turo ako ng maayos.

(I do not notice whether my students Aeta or not. There is no discrimination. In my eyes they are all equal and I teach them all.)

Amihan adds:


(Students’ ethnicity should not be a hindrance in learning. Especially in this class where there are more kinky haired students, “Indigenous peoples”, than the straight ones, “Tagalog.”)

Finally, Amihan’s positive disposition as a teacher influences facilitation of learning in the classroom. She is comfortable with teaching; that is why she does not want to be ranked and moved to an administrative position. Her personal upbringing became her mission to serve the people and the community who adopted her:


(I am Tagalog but was adopted and raised by Aeta parents. It was only in 2003 when I found out about this. When I asked my adopted mother about this she told me the truth – that though I was not her daughter by blood, I was her daughter in spirit and for who I am now. She did not tell me the truth because she was scared that I might leave her. So from then on, I made a promise to myself that I would study hard and finish my degree so I can serve her people. That is why I am in this community.)

Clearly, Amihan’s pedagogical innovations include the use of teaching and learning tools in the classroom and demonstrate appreciative mediation for learning in many ways to improve student learning.

**Factors affecting implementation.**

There are various factors that promote or inhibit teachers’ use of pedagogical innovations. In the case of Amihan, the factors that inhibit implementation include: teacher and student ratio, lack of teaching instruments, conflict in school calendar with the observance of cultural practice, and heavy teaching load. While the factor that promotes implementation of pedagogical innovations is the relationship and support from the community including the school principal, students, parents, religious groups, and local government.

The low number of student enrollees has affected the number of teachers being employed. Hence, Amihan has to teach different subjects and to combine two class levels, one on each side of the classroom, and teach each level in turn to attain the minimum number of students as per regulation. As a result, she needs to prepare a number of lesson plans per subject and per level. This situation inhibits Amihan’s ability to implement pedagogical innovation, thus she resorts to the use of the typical chalk and board:

(My students are used to me cutting our lesson every time because I need to go to another class of different level for their turn in discussion. We don’t have enough teachers because there are few enrolled students. The minimum per year level should be at least 25-30 students. At first, it was difficult for me but it has been two years now since I have been teaching two levels of different subjects at the same time. Aside from that I need to write sixteen lesson plans. In K-12 I just do a daily log. This is the reason why sometimes I just use chalk and board.)

The scarcity of artefacts for learning has also impeded the creation and use of pedagogical innovation. There are some topics, particularly in science, that are hard to explain but could be more easily understood if the right resources were available. According to Amihan:


(For Science, we do not have materials or equipment except books. We don’t have cylinders, microscopes, or related equipment for the subject.)

The conflict in the schedule of school year with the cultural practices of Aeta Magbukon affects the school attendance of the Aeta Magbukon students. According to Amihan, Aeta Magbukon students are obliged to be with their family in the mountains as part of their culture instead of going to school. This absence usually happens in the month of December during hunting season. Amihan suggested that the school year, which is from June to March, should also consider the cultural practices of its Indigenous students:
Yung practice ng pagpasok, yung school year ay dapat tignan at i-review. Kasi po kung December mas madaming lumiliban kasi sumasama sa mga magulang nila sa bundok kasi po kultura nila yun.

(The school calendar should be reviewed, particularly class days, especially in December. Most of the time Aeta students are absent during this period because they need to join their parents in the mountains as part of their cultural practice and tradition.)

Despite these limitations in her working environment, Amihan has found support and encouragement from the school principal, her students, the parents, religious group, and the local government. According to Amihan:


(Our principal is considerate. He does not require a detailed lesson plan because of our workload. He is friendly and includes his other staff.)

Amihan’s relationship and approach with her students reflects Filipino cultural values of respect and importance of close family ties. It also shows the positive relationship she has with her students. These practices are reflected in Amihan’s implementation of pedagogical innovation:

Kasi yung pakiramdam ko din po ay yung mahal nila ako. Hindi po nila ako itinuturing na as a teacher kundi as a mother po siguro. Ganun po ang relasyon naming ng mga bata na iyan.

(I can feel that students love me. They see not just their teacher but also their mother at school. That’s how I see my relationship with them.)

The students also share some of the tasks in the classroom because of Amihan’s substantial teaching load:
Ang preparation po ang mabigat. Kaya sa classroom minsan ay estudyante na ang magsusulat sa pisara ng assignment nila kasi very time consuming habang may ginagawa akong iba.

(Teaching preparation is a big load. So sometimes, I ask my students to write the assignment on the board to save time while I do something else.)

Amihan consults constantly with parents regarding their children especially because she lives in the community, she knows the people, and the location of the school is within the compound where most of the students live. Parents inform Amihan about why their children did not go to school because they needed their help in the harvesting, gathering, or household chores. When this happens, Amihan sees to it that her students catch up by repeating the lesson:


(I communicate with parents especially when their children are absent from class. But usually the parents would say that they needed the help of their children for their livelihood. When students have accumulated a lot of absences, I repeat the lesson for them to catch up.)

Coming from a low socio-economic background, the school has a feeding programme for its students. Most of the students come to school hungry making it difficult for them to concentrate thus affecting their learning. With the help of a church and the community, the school has implemented a feeding programme:

May mga sponsors naman po kami sa feeding program. Yung mga Born Again Christians. Marami naman pong tumutulong sa amin na nagbibigay ng tulong, gamit sa eskwela libre na lahat.

(We have sponsors for our feeding programme. The Born Again Christians, a religious sect, is one of them. There are people who help and donate school supplies for the students.)
The provincial tourism office has also organised a children’s choir, whose members are Aeta Magbukon students of the school. This effort of the local government supports not only the nurturing of students’ talent but also the preservation of their culture. Furthermore, this activity serves as a reminder for the general public that there are ethnic minorities living within the area that aspire to be acknowledged and respected as members of the society.


(We have a choir in the school, composed of 28 Aeta students, which was established in 2010. The provincial school teaches them. The children’s choir is the official provincial choir of Bataan. The children have been performing in different places in the Philippines. Their repertoire includes indigenous, modern, and classical songs.)

Figure 8, below provides a summary of Amihan’s activity system model.
Figure 8. Amihan's Activity System Model
Case Study Two: Bituin

Bituin teaches Physics in a school in provincial Philippines that has ten (10) Mangyan students in her class. I observed three (3) teaching sessions in the month of November 2014.

Pedagogical innovation.

Bituin’s teaching and learning innovations as observed by the researcher are described through the following subheadings: artefacts for learning and appreciative mediation for learning

Artefacts for learning.

Bituin uses various artefacts for learning inside the classroom. These include: manila paper, chalk, blackboard, lesson plans, and student modules.

Bituin begins her activity using manila paper, chalk, and the blackboard. Though she rarely uses visual aids, her exercises are written on manila paper as a visual aid for students. According to Bituin, her most preferred tool in teaching is the standard chalk and blackboard. She explains:

Nagsusulat ako sa blackboard. Kasi kapag may visual aid ka kadalasan I follow ko lang kung ano ang nasa visual aid. Samantalang kung sinusulat ko yan, nadadagdagan ko pa yan. Kapag may naisip akong idea ay mas mapapa simple ko pa an explanation. Kaya para sa akin mas ok ang chalk and blackboard dahil kapag may visual aid ang bata ang focus ay nasa visual aid kahit nag discuss ka na. Samantalang kapag chalk and blackboard ay they can follow the progression of the lesson.

(I write on the blackboard most of the time because if you have visual aids, I just usually follow what’s written there, but when I personally write it down, I can add more to it. So when I suddenly think of an idea about how I can make the explanation simpler, then I write it down. That’s why I prefer the chalk and blackboard; it stimulates me and students can follow the progression of the lesson, unlike having visual aids. The tendency is students’ focus will be on the visual aid and not on the discussion.)
Her lesson plan guides the flow of her teaching in the classroom. She always starts her lesson with a review of the previous lesson followed by the main discussion, then activity, and finally evaluation:

Usually ma’am kung ano yung nakita mo kanina ay iyun na rin ang usually kong ginagawa sa klase. Lagi po akong may activity after the discussion followed by the activity then checking of the activity one by one. Hihintay ko sila na kung mayroon hindi maintindihan ay maaaring makipagtulungan o magtanong sa kapwa nila estudyante, Pinupunthan ko sila isa-isa sa kanilang upuan at tinitignan ko kung tama ang kanilang sagot. Iniisa-isa ko talaga sila kahit hindi na kami umabot sa evaluation basta nakita ko sa isang item ay sila ay nakasunod. Kahit na umabot sa evaluation ang mahalaga ay nakuha nila ang lesson that day.

(What you saw ma’am during your observation is what I usually do inside the classroom. I always have an activity after the discussion, then checking of the activities one by one. I encourage them that if they don’t understand something they can ask help from their fellow students. During the activity, I walk around the classroom and check them individually. I look at their work and try to see if they are understanding the lesson; even if we don’t reach the evaluation part of the lesson plan, that is fine with me because what is important is that they learn.)

Bituin also creates modules for students who are often absent for a valid reason – in particular, the Mangyan students who often miss school due to cultural practices, family obligations, financial troubles, and natural disasters such as typhoons and flooding.


(Mangyan students work with their family for their livelihood. They plant and harvest their crops. They lack finances for their school allowance. Especially
during typhoon season, they cannot go to school because of flooding. We have a student who was absent for so long and only attended school for the periodical examination because he has to work for the family. So what I do is I create modules that would help them make up for what they have missed in class.)

*Appreciative mediation for learning.*

Bituin demonstrates appreciative mediation for learning in a number of ways. These include: clear instruction, teacher’s presence and availability, class attention, knowledge of student background and condition, students’ learning needs, constant monitoring of students, boosting students’ self confidence, and genuine appreciation of students.

Bituin believes that with clear explanation and instruction to the students, learning happens. With the aid of her teaching tools, she makes sure that students know and understand what they are expected to do:

If the teacher will explain the topic well, talagang naintindihan ng students then there’s no reason for them not to do the activity. Most of the time ang bata kapag hindi naintindihan kung ano gagawin sa activity they will not do the activity. But if they know what to do, motivation na yun sa kanila. Hindi dahil takot sila sa iyo or hindi sila bibigyan ng grade but they are much willing to do the activity because they know what to do.

(If the teacher explains the topic well, the students will understand and there’s no reason for them not to do the activity. Most of the time when students do not understand what they need to do, then it can be expected that they will not do the activity. But if they know what to do, that is already motivation on their part. Students are much more willing to do the activity because they know what to do and not because they are scared of the teacher or they won’t get a grade.)

Making the teacher’s presence and availability known to the students helps them in their learning. Bituin encourages students not to hesitate to ask questions or seek her support about the lesson. She is hands-on in regard to facilitating student learning.

Lagi ko rin sila remind na don’t hesitate to ask questions kasi lagi naman akong nasa laboratory at wala naman akong advisory class. Sa mga activity kagaya ng
sa chemicals, I do the actual demonstration. Pero kapag hindi medyo dangerous ang chemicals na gagamitin ay I let the students do the activity. But I would still facilitate them. Kaya every group ay nakabantay ako.

(I always remind students not to hesitate to ask questions because I am always around the laboratory and I don’t have advisory class. For activities that involve dangerous chemicals, I do the actual demonstration. But if the chemicals are not so dangerous, I let students do the activity. But I would still facilitate them. I always monitor them.)

Bituin makes sure that when she is managing the discussion from the front of the class everyone is quiet and listening. She remains silent and stares at the class, which signals that they need to pay attention:

Hindi po ako nagtuturo kapag maingay kasi hindi rin kami mag-kakaintindihan. So yung mga bata po alam po ang aking strategy. Basta kapag ako ay tumahimik ay alam na rin nila that they need to stop their noise. Isa pa po, ang atmosphere ko sa pagtuturo ay they must listen.

(I don’t start the class discussion when the class is noisy because we will not understand each other. The students know my strategy. When I become silent, the students know that they need to stop their noise because the atmosphere that I want in when I teach is that they listen.)

Bituin is knowledgeable about the background of the students particularly the Indigenous Mangyan. Her training as a teacher included experiences to be part of the Indigenous community. This familiarity helps her understand her Mangyan students better.

During our training din as student teacher ay napunta kami sa Mangyan. Nagpaligo kami ng bata, nappakain kami ng bata, naglinis kami ng bahay ng Mangyan. Tinuruan naming sila about hygiene. Ngayon ay po aware na mga parents na dapat papasukiing ang mga anak nila sa eskwela. Marami na rin kaming minorities na graduates.
(During our training as student teachers, we went to the Mangyan community. We took care of the children. We fed them and cleaned their houses. We taught the Mangyan about hygiene. Today, Mangyan parents are aware that their children need to go to school. We have few Mangyan graduates.)

Nagpunta po kami sa bahay nila. Umaakyat po kami ng bundok para pumunta doon. Nakikita po naming kung ano ang sistema ng kanilang pamumuhay at nakatulong ito sa aming kamalayan. Some of them nasa tuktok ang bahay, some of them ay dalawang ilog ang layo, some walang dingding ang bahay.

(We visited Mangyan in their place of residence. To go there, we have climbed a mountain. We witnessed their way of life and that exposure helps in our understanding. Some of the Mangyan live at the peak of the mountain, sometime you have to cross to rivers to reach their place, and some don’t have roof in their house.)

Furthermore, Bituin’s awareness of the Mangyan’s conditions of living made her appreciate and understand her students more:

Kapag wala po silang notebook, ballpen ay binibigyan ko. Kapag minsan lalapitan ko sila at tanong ko kung bakit wala kang ginagawa sasabihi sa akin na ma’am wala po kasi akong papel. So sasabihi sige pumilas ka na lang sa notebook at yan ang gamitin mong papel. Kaya po lagi akong may extrang ballpen at papel.

(I provide my Mangyan students with notebooks and ballpens when they don’t have these. Sometimes when I approach and ask why a student is not doing anything, the student would answer, “I don’t have paper”. So I tell him to take a page out of his notebook. That’s why I usually bring extra supplies of ballpens and paper.)

Besides being knowledgeable about the students’ backgrounds, Bituin also considers her students’ needs in learning. She understands the students’ condition and capability to learn so she adapts to it:
Ang aking students ay average. Kung titignan nyo po ang aming libro, ang mga activities ay sa level ng mga students sa star section kasi nakapagturo rin ako dun. In the kind of students that we have here, they are almost average. Kaya dapat i-level mo sa kanila ang discussion. Dito limited ang libro ng bata. Limited din ang readings ng bata dahil ang mga bata dito sa hapon ay naghahanapbuhay. That’s why I do the explanation first before the activity. I know dapat student-centred na dapat facilitator lang ang teacher according na rin sa DepEd. Sa situation dito hindi applicable all the time. Kaya it depends on the students’ need kung papaano ang strategy ng teacher.

(My students are average. But most of the activities we have in the book are for students of a higher level of intelligence. But the kind of students that we have here, they are almost all average. So you need to adjust your discussion to their level. Since books are limited, students are also limited with their readings, plus they also go to work in the afternoon. So I do the explanation first before the activity. I know that it should be student-centred and that teachers should be the facilitator but because of the situation here that does not apply all the time. That’s why the teacher’s strategy depends on the needs of the students.)

Constant monitoring of what students do when they have exercises or activities is a common practise for Bituin. She goes around each and every student to look at their work and check if they are doing it correctly:

Sa loob naman ng classroom, I always see to it na lalapitan ko yung bata at makikita ko yung kanyang ginagawa. Pinupunthan ko sila isa-isa sa kanilang upuan at tinitignan ko kung tama ang kanilang sagot. Iniisa-isa ko talaga sila kahit hindi na kami umabot sa evaluation basta nakita ko sa isang item ay sila ay nakasunod.

(Inside the classroom, I always see to it that I approach each student and look at what they are doing. I go around and monitor them so I will know that they are following and understanding the lesson.)

To monitor her students’ learning progress in her lesson plan she also records students’ attendance, tardiness, and level of mastery:

(I usually monitor their attendance and tardiness. I record in my lesson plan their absences and late arrival to class. I also record the mastery level of the student so I can check if students understand the lesson or not).

Bituin recapitulates her previous lesson to check if students have clearly understood it. She writes exercises on the board for students to answer and later on these are marked to find out their scores. If most students get low scores, another batch of exercises will be made for students to answer.


(I always see to it that we review our previous lesson. When I ask students if they understand the lesson and they answer “yes”, then we will have a short quiz to test if they really understand the lesson before I proceed to the new lesson. If their score is low, I repeat the lesson until they understand. Sometimes when the admin staff checks me and ask why I stay longer on the same lesson, I would explain the aforementioned situation.)

Boosting Mangyan students’ self-confidence is Bituin’s way of encouraging participation and learning in class. She often calls on them to recite or to answer exercises on the blackboard. This action pushes the students to not be timid to speak or stand in front of the class:
Dapat po hindi sila nahihiya, they should have self confidence when they answer
kahit po ang mga minorities kaya po madalas ko silang tinatawag para po ang
self confidence nila ay ma push.

(I tell my my Mangyan students that they should not be embarrassed or be shy in
public; instead be confident. That’s why in class I often call them – so their self
confidence can be pushed.)

Likewise, Bituin advises Mangyan students to be comfortable and proud of who they
are:

I always talk to them. Walang pagkakaiba ang tagalog at saka ang minorities. If
you really want to improve yourself, you can. Nasa iyo yan. Pero sasabihin nila,
maa’m nahihiya nga po kami. Sabi ko naman bakit kayo mahihiya ay pareho
lang kayo ng kinakain nyan, so ano ang nakakahiya. Kasi ma’am sabi nila
mangyan kami, sabi ko mas maganda kayo, mangyan kayo.

(I always talk to my Mangyan students. I tell them that there is no difference
between Tagalog and the minorities. If you really want to improve yourself, you
can. It’s all up to you. But my Mangyan students would say that they are shy or
embarrassed because they are Mangyan, but I would tell them why should you
be embarrassed? You are Mangyan, and you are beautiful.)

Bituin’s appreciation of her students motivates her to become a better teacher to her
students in spite of the school location and condition:

Kapag sumasagot ang minority sa klase sa totoo lang ay mas masaya ka kasi
nakuha mo ang interest nya at na motivate sya. Yung pagpasok na lang nila
araw- araw ay emotionally talagang natutuwa ka. Kaya nga ayaw ko rin
magpalipat sa main, sabi ko ayaw ko dun muna ako habang kaya ko pang
maglakad. Habang kaya ko pang mag motor dito muna ako kasi mas nakikita ko
na mas kailangan ang serbisyo ko dito ng mga bata. When it comes to teaching, I
am very much devoted to teach them well.)
(Whenever my minority students participate and answer in front of the class I am very happy because I know I have got their attention and they are motivated to learn. Seeing them go to school every day is a big effort on their part because of the long distance that they have to travel just to be in school. Emotionally, that makes me happy and I appreciate them. That is why as long as my motorcycle is still working and I can still cross the river, I will stay in this school where I feel my service is really needed by the students. When it comes to teaching, I am very much devoted to teach them well.

Evidently, Bituin’s pedagogical innovations include the use of teaching and learning tools in the classroom and demonstrate appreciative mediation for learning in many ways to improve student learning.

Factors affecting implementation.
There are various factors that inhibit or promote teachers’ use of pedagogical innovations. In the case of Bituin, factors that inhibit implementation include: teacher and student ratio, lack of teaching resources, change in curriculum without enough teacher preparation, and conflict in school calendar with the observance of cultural practice. While the factor that promotes implementation of pedagogical innovations is the relationship and support from the principal, co-teachers, guidance counsellor, parents, students, and the school community.

In Bituin’s case the lack of teachers results in large numbers of students per class. The ratio of one teacher to seventy students has an impact not only on students’ learning but also on the teacher’s effectiveness and usage of pedagogical innovation. Bituin admits:

Aaminin ko medyo hilaw ang turo ko sa grade 9 & 8 kasi halimbawa sa recitation hindi lahat matatanong ko. Paano kung maabot ko lang ay 39 students. Hindi kagaya sa population ng class ko kanina tamang tama lang lahat maiikutan mo sila unlike kung 70 ang students mo. Hindi mo na ma check ang lahat kung naintindihan. Meron kaming competencies na sinusunod at due time na dapat matapos. Kaya mahirap kapag malaki ang population.

(I have to admit that I am not satisfied with my teaching in grades 9 and 8 because, in recitation alone, if you are only able to call 39 students, how are you going to check up on the rest of the 70 students in class? How can you monitor
whether all of them understand when you have competencies that you need to follow and a timeframe to finish the lesson?. That is why it’s difficult when you have a big student population.)

Bituin also adds that if she had her way, she would see to it that the ratio of students was in proportion to the number of teachers so that teachers could monitor students’ progress:

Kung ako ang masusunod hindi mag combine ang grade 9 at grade 8 dahil kulang kami sa teachers that’s why we have to combine them, e ilan yan 70plus in one classroom. Kaya mahirap ang grade 9 and 8 namin. Kung ako ang masusunod kailangan talagang madagdagan ng science teacher. Ang vacant ko lang po ay after lunch. Kaya kulang ang upuan at space kaya kapag nag activity kami nasa labas sila ng classroom. Kaya kung magiging principal ako, ang aking teachers ay dapat equally divided sa mga students para ang bata ay talagang matututukan.

(If I had the authority to change the system I would not combine grades 8 and 9 because in total there are 70 plus students in one classroom. This is due to a lack of teachers. That’s why it is really difficult to handle grades 8 and 9. There’s not enough seats and space, so sometimes we have to do our activity outside the classroom. My only vacant time is lunchtime. If I had my way, I would definitely hire new science teachers and they would be equally divided amongst students, so they could monitor them well.)

For more than a decade, the constant changing of the curriculum and adding of new subjects without enough preparation on the part of the teacher has made it challenging for Bituin to introduce the new curriculum to the students:

For almost 14 years, ilang curriculum na ang inabutan ko na papalit-palit. Na every summer ay meron kaming seminar. Another introduction of the curriculum, another practices, another activities but the topic is still the same. Kaya minsan nakakapagod din. Halimbawa ang K-12, spiral yan, nawindang ako kasi nag iisa akong science teacher. Though advantage sa akin dahil naituturo ko lahat except for chemistry kasi ngayon ko pa lang ituturo. Yung earth science ay
A new subject. We are trying to introduce the new curriculum.

(For almost 14 years, I was introduced to different curriculum and every summer we have to attend seminars. Another introduction of the curriculum, another practice, another activity, but the topic is still the same. So sometimes it’s very exhausting. For example, the new K-12 curriculum, it’s spiral and I am really overwhelmed since I am the only science teacher. Though it’s an advantage on my part since I taught most of it except chemistry. Earth science is a new subject and I find it hard to introduce the students to the new curriculum.)

The lack of teaching materials also adds up, as a challenge for Bituin in doing activities that would aggregate students’ learning experience. Hence, she only resorts to whatever is available:

Maraming activity pero kulang naman kami sa kagamitan like wala naman kami ditong internet. Meron kaming computer pero ilan. Walang by classroom na computer. For example sa earth science, so ang ginawa lang naming ay clay at pinasabog. May activity na volcanic eruption, medyo mahirap ang availability ng materials and it will take time.

(There are many learning activities but we lack the resources and equipment, like Internet connection. We have very few computers and they are not available in classrooms, at least one computer per classroom. For example, there is an activity in earth science about volcanic eruption, but the materials are not available and it would take time to procure so what we did was use clay and make it explode.)

In spite of some limitations and regulations, Bituin finds encouragement from the school principal, co-teachers, parents of the students, the community, and the students themselves. She explains that the school principal shows support for the teachers and understands the situation of the students:

Very supportive din ang principal namin lalo na kung ito ay para sa mga estudyante. Hindi po sila required naka uniform. Basta naka puti ka lang na t-
shirt. Hindi rin required sa lahat na naka sapatos basta pumunta ka lang sa school ay matuto ka. Kaya kung makikita nyo student naming, may nakayapak, may naka tsinelas basta ang mahalaga sila ay pumasok.

(We have a very supportive principal, especially when it concerns the students. Students are not required to wear uniform and shoes; as long as they are wearing a white t-shirt, you can go to school to learn. So you will notice some of our students are wearing shoes, slippers, and others none because what is important is you attend school and learn.)

In looking after the students, Bituin, her co-teacher, and the guidance counsellor do home visits, especially when students have been missing school for a long time:

Kami po ay may home visitation. Kapag ang bata ay matagal na wala at na miss na naming, dalawang teacher ang lalabas para puntahan ang mga bata based sa assigned na araw. Ang guidance counsellor laging kasama.

(We do home visitation. When our students are absent for quite some time, two teachers and the guidance counsellor visit the students in their home based on the assigned schedule.)

In addition, Bituin consults with Mangyan parents regarding their children’s long absences and academic status. Bituin noticed that Mangyan parents are now receptive in communicating with them any concerns about their children:

Kinakausap ko rin ang mga parents nila. Pinapatawag ko parents nila kapag mahaba ang absence nila. Kapag hindi talaga ma cope up ang bata, we call the attention of the parents. We do the PTA meeting during sa bigayan ng cards.

(I meet with the parents of my students especially when students are failing in their attendance and when students couldn’t cope. We also do parent teacher meeting during card giving.)

Not only do parents cooperate with Bituin, she has also observed the physical improvement of Mangyan parents in terms of their personal hygiene.
Malaki na rin po ang improvement ng parents ngayon kasi nakikipag-usap na po sa teacher at nakaka punta na rin sila dito na well dressed na rin sila. Hindi kagaya noon na punta sila dito na parang galing sa anihan at hindi mo maintindihan ang amoy. Kaya tuloy napapabilis ang usapan kasi hindi naman sa pagiging maselan pero ma suffocate ka na sa amoy. Pero ngayon naman ay marunong na sila.

(There’s a big improvement in the Mangyan parents today. They communicate with us and attend the meeting well dressed, unlike before when they would come here not properly dressed and cleaned, which made the teachers uncomfortable. But now they know.)

Bituin, together with the school community, is involved in supporting Mangyan students with their basic needs. The school is involved in the feeding programme for the minorities. Mangyan students also receive free tuition, school materials, and non-prescription medicine when they are sick.

May feeding program po kami para sa mga minorities, Mangyan. Libre rin sa tuition, libre rin sila notebook, papel. Kapag may sakit, may gamot din kami dyan o kaya ihahatid sa kanila.

(We have a feeding programme for the Mangyan minorities. They receive free tuition fees, free school supplies like notebook and paper. When they are sick we give them medicine or we bring them home.)

Bituin also collaborates with her students to support their fellow Mangyan students by being their tutor to help them catch up with schoolwork and discussion which they have missed due to absences. She also asks them to prepare relief goods for their minority classmates, especially during the typhoon season:

May buddy-buddy tutorial sa mga madalas mag absent. Kagaya ngayon panahon ng bagyo ang naging project ko sa klase ang maghanda ng used clothes, dry goods, ibalot ninyo and we will give it to your classmates na mga minorities.
I have organised students into a buddy-buddy tutorial with their fellow classmates who are usually absent. I also have a project in class especially this typhoon season. I asked students to bring used clothes and dry goods to be given to their fellow Mangayn classmates.

Bintuin acknowledges that, on their part, Mangyan students make their share of sacrifices so they can be in school – walking long kilometres, climbing mountains, and crossing rivers demonstrates their true determination to learn. Mangyan students have also adapted to the ways of the general public in terms of hygiene, particularly in taking a bath:

Naglalakad sila ng ilang mga kilometro bago makarating dito. Noong una kapag sinabi natin IP medyo nakakairita sa classroom kasi nga hindi sila naliligo, hindi sila participative, wala silang gamit noon. Ngayon, hindi na rin sila gaano mahiyain at ang sakripisyo na maligo sila dahil they are not aware of that or practise nila. Yung mga ninuno nila hindi pa rin naliligo. Yung sakripisyo nila na maligo bago pumunta school at they dress well ay malaki ng achievement yun.

(Mangyan students walk many kilometres to be in school. Before when we said IP, the impression was not good because they didn’t take a bath, they were not participative, and they didn’t have school materials. But now, it’s different except for their elders who still do not have bath regimen. The sacrifice they make to be in school well groomed is a big achievement already.)

Figure 9, below provides a summary of Bituin’s activity system model.
Figure 9 Bituin's Activity System Model

**Tools:**
- Manila paper, chalk, and blackboard
- Lesson plan
- Student modules

**Appreciative Mediation:**
- Clear instruction
- Teacher's presence & availability
- Class attention
- Knowledge of student background & condition
- Students' learning needs
- Constant monitoring of students
- Boosting students' self-confidence
- Genuine appreciation of students
- Home visitation

**Subject:** Bituin

**Object:** to create added value in learning

**Outcome:** educational equity

**Rules:**
- Teacher-student ratio
- Lack of learning instruments
- Change in curriculum without enough teacher preparation
- Conflict in school calendar with the observance of cultural practice

**Community:**
- School principal
- Co-teachers
- Guidance counsellor
- Parents
- Students
- School community

**Division of labour:**
- Home visitation
- Consulting with parents
- Involving the school community
- Collaborating with students
- Mangyan adapting some of the practices of the mainstream society
Case Study Three: Celia
Celia teaches Math in a school in provincial Philippines that has Mangyan students, and has ten (10) students in her class. I observed two (2) teaching sessions in the month of November 2014.

**Pedagogical innovation.**
Celia’s teaching and learning innovations as observed by the researcher are described through the following subheadings: artefacts for learning and appreciative mediation for learning.

**Artefacts for learning.**
Celia uses various artefacts for learning inside the classroom. These include: paper ball, CD player, question cards, modules and exercise notebooks, and lesson plans.

Celia utilises a paper ball, compact disc player to play music, and question card to motivate students’ participation, pre-assess their understanding of the topic, and initiate the lesson for the day in Mathematics. As the music plays the paper ball goes around the class and when the music suddenly stops, the student who is holding the ball will have to choose one from a bunch of question cards that Celia is holding. The question will be read out loud in the class and the student is expected to answer it. This activity goes on for up to 8 rounds.

Una ay alamin ko muna nag kailangan ng mga bata. Dapat malaman ko kung ano yung alam at hindi pa alam ng mga bata. So motivate ko muna sila at magbigay ako ng activity parang pre-assessment po. Kaya sa akin po ay may review muna, tapos motivation ko kanina yung passing the ball.

(I need to find out the needs of the student. I have to find out what they know and what they do not know. So I motivate them by providing an activity, which is also their pre-assessment. So I do review with the class, and for me the activity I had, which is passing the ball, is part of the motivation.)

Once the discussion of the lesson is finished, Celia brings out the individual exercise notebooks of the students and distributes the module she has prepared, which contain
mathematical exercises. Students answer the module individually to assess their understanding:

Nag individual activity po kami kung saan malalaman naming kung naiintindihan ang lesson. Tapos kung hindi namin matapos ay itutulo-tuloy lang po.

(We do an individual activity to know if students understand the lesson. If we don’t finish it, we just continue the next day.)

Celia’s routine inside the classroom is based on her lesson plan, which guides the flow of teaching. She starts with a review of the previous lesson, followed by a motivation, then a class activity to pre-assess the learning and understanding of the students, afterwards the discussion of the main topic, followed by individual activity, and assignment.

**Appreciative mediation for learning.**
Celia demonstrates appreciative mediation for learning in a number of ways. These include: peer tutoring, knowledge of student background, personal vocation, self reflection, openness and approachability, and motivational activities.

Celia has initiated a buddy system to assist students in their academic needs. Mangyan students who need catching up with the lesson are paired with their fellow students who work with them on understanding the lesson and answering the exercises. Their fellow student “buddy” acts as their tutor:

Yung mga mahina na IPs ay isinasama ko sa mga classmates nilang pede silang i-tutor. Kapag nag group activity kami, hiwa-hiwalay ang mga IPs at hindi nasa isang group lang. Sa akin po kapag nahirapan sila ay I will pair them with their other classmates.

(I group Indigenous students who are having difficulty catching up with the lesson with fellow students who can tutor them. Whenever there’s a group activity, I make sure that the Indigenous peoples are not grouped together.)
make sure that when Indigenous students are having difficulty I pair them with other classmates who can help them.)

Knowledge of her students’ backgrounds is vital to Celia’s understanding the situation of students, especially the Mangyan. Getting to know her Mangyan students deeply and genuinely has changed Celia’s attitude towards her students. She recalls:


(In my first year of teaching, I reprimanded students if they didn’t do their assignment. But now, I encourage them. Before I was really an authoritarian. But I realised students became aloof so I changed my approach. From then on, I was able to find out why they were not able to do their assignment or why they were absent. It was because they needed to harvest crops and were very tired from working the whole afternoon, or there was not enough money to buy food for their break. Most of the Mangayan students don’t have breakfast in the morning.)

Moreover, this awareness has a direct effect on Celia’s approach to teaching and to the students:

Mangyan students were often absent because their place of residence is very far from the school. They need to cross ten rivers. Sometimes, when they don’t have food to eat, they don’t go to school. Most of the students usually have stomachaches because of starvation, so as teachers we give what we can. When in class and asking them to answer the question, you have to give them time to think and answer because they really want to learn. They are not lagging behind academically despite their condition.

Celia’s personal vocation as a teacher has motivated her to love teaching in spite of the hardships attached to it. This conviction translates to her approach in teaching students:

Mahirap magturo bilang guro kung wala sa puso mo ang pagtuturo kasi marami pong balikid so kailangan mong kilalanan ang isat’isa ang mga bata para mas malaman mo ang kalakasan nila at doon mo sila palalakasin. Dapat tuwing hapon, ay iniisip ko na ang gagawin ko para bukas.

(It’s hard to be a teacher if it’s not in your heart to teach. There are so many barriers, especially when dealing with students, but you just need to know more about your students’ strengths and use it to their advantage. Every afternoon, I always think of what I will do the following day.)

Self reflection is common practice for Celia after each class. She believes this will improve her performance as a teacher. During self reflection she recalls what she did in the class, what worked, and what did not work, so she can make changes in her approach:


(Sometimes, when I reflect that what I did was wrong, I always make sure to improve next time. I do personal reflection automatically.)

Celia’s openness and approachable manner of dealing with students especially in teaching Mathematics appeals to her students:
Malaya po silang magtanong sa akin. Gusto ko free silang lumapit at walang takot magtanong. Dahil siguro favourite nila ang Math at siguro at ease sila sa teacher kaya nakikipag participate sila at kung hindi sila takot sa teacher ay makakasagot sila at makakapag isip ng ayos.

(Students can freely ask or consult with me. I want them to feel free to approach me and ask questions. Students do this because either Math is their favourite subject or they feel at ease with their teacher. Hence, students participate and they can answer and think properly.)

Noticeably, Celia’s pedagogical innovations include the use of teaching and learning tools in the classroom and demonstrate appreciative mediation for learning in many ways to improve student learning.

**Factors affecting implementation.**

There are various factors that inhibit or promote teachers’ use of pedagogical innovations. In the case of Celia, the factors that inhibit implementation include: teacher and student ratio, lack of teaching instruments, and conflict in school calendar with cultural practice. While the factor that promotes implementation of pedagogical innovations is the relationship and support from students, parents, co-teachers, and the school community.

Most Mangyan students are unable to go to school because of the great distance of the school from their home. Mangyan students need to cross ten rivers to reach school. Hence, when there is typhoon or high tide students are hindered from attending classes. Another reason for constant absences among Mangyan students, especially the males, is their obligation to help their own family, and partly because of their cultural practice, which sometimes leads to totally quitting school:

Karamihan sa IP ay madaming tumitigil na sa pag-aaral lalo na sa mga lalaki dahil kailangan na nilang tumulong sa pamilya at sa kabuhayan kagaya ng pagtatanim o magtatabas.
(Most Indigenous people stop schooling, especially the males, because they need to help their family and take part in their livelihood such as planting and cutting.)

Hence, Celia suggested looking into the school year and incorporating the observance of Mangyan culture in scheduling the beginning and end of the school year including school activities.

The school has insufficient resources to support students with their learning. However, Celia believes that such scarcity is augmented by the teacher’s resourcefulness:

may kakulangan din kami sa kagamitan para mas mapabilis at matulungan ang mga bata sa kanilang pagkatuto. Pero gumagawa rin naman kami ng pamamaraan para masulusyunan ito.

(We lack materials and equipment that can help students with their learning. But we do what we can find solutions to the scarcity.)

Celia suggested that, to better facilitate learning, a smaller class size is recommended, especially when teaching Mathematics:

Sana mas mababa rin ang bilang ng mga students per class para mas lalo silang matutukan sa klase lalo na sa Math.

(I wish that the number of students per class is small so I can easily monitor each student, especially in Math.)

Celia mentions that the school community finds a way to support Mangyan students with their basic needs such as food through the school’s feeding programme. This way, students will have food in their stomachs before they come to class thus making them focused to learn:

May feeding program po kami. Kapag gutom po ang bata ay dinadala po namin sa canteen. Nakakain po ang mga bata doon ng libre, Mangyan man o hindi.
(We have a feeding programme. When students are hungry, we bring them to the canteen. All students can eat for free whether you are Mangyan or not.)

Celia also participates in the home visitation programme of the school that requires teachers to visit their students’ residence and make contact with their parents to discuss the students’ condition and whereabouts:

May home visiting program din po kami. Kapag 5 days absent ang bata, dapat alamin naming kung bakit absent. Kaya kahit tumawid kaming 10 ilog o bundok para mapuntahan ang bata ay ginawa po namin. Kaya yung isang bata nalaman po namin na kaya pala hindi makapag laba ng damit dahil walang nanay, walang sabon, walang ina, siya lang nagluluto para sa sarili nya. Meron po kaming bata na namamahay sya ng kanya.

(We have a home visiting programme. When the student is five days absent, as teachers, we need to find out why. Even if we have to cross 10 rivers or a mountain just to see the student, we do it. Because of visitation, we found out that one of our students has to do everything by himself because he has no mother so he has to do everything, while another student we found out was living on his own).

Figure 10, below provides a summary of Celia’s activity system model.
Figure 10. Celia's Activity System Model

**Subject:** Celia

**Object:** to create added value in learning

**Tools:**
- Paper ball, CD player, & question cards
- Modules & exercise notebook
- Lesson plan

**Rules:**
- Teacher-student ratio
- Lack of learning instruments
- Conflict in school calendar with cultural practice

**Community:**
- Students
- Parents
- Co-teachers
- School community

**Division of labour:**
- Working with students in classroom
- Consulting with parents
- Collaborating with the whole school community

**Appreciative Mediation:**
- Peer tutoring
- Knowledge of student background
- Personal vocation
- Self reflection
- Openness and approachability
- Motivational activity (e.g., games)
- Home visitation

**Outcome:** educational equity
Case Study Four: Darla

Darla teaches Math in a school in New Zealand suburb that has Pacific students, and has eight (8) students in her class. I observed two (2) teaching sessions in the month of September 2014.

Pedagogical innovation.

Darla’s teaching and learning innovations as observed by the researcher are described through the following subheadings: artefacts for learning and appreciative mediation for learning.

Artefacts for learning.

Darla uses various artefacts for learning inside the classroom. These include: worksheets, whiteboards, coloured pens, diagrams, and calculators.

Darla creates her own Mathematics worksheets for students to answer in the class. Plastic sleeves are also provided for each student to file all their exercises. She explains:

I brought all the worksheets because I don’t have textbooks. When I asked for textbooks they were not available for my class. So I let them all know that and at the beginning of this year I gave them each plastic sleeves and that’s where everything was kept and well labelled. I told them that they should have pride in your work. If you don’t have pride you don’t get anywhere.

The use of the whiteboard, different coloured pens, diagrams, and individual calculators has aided students’ learning of Mathematics in Darla’s class. Darla draws a diagram on the whiteboard that illustrates what is given and asked in the problem. This helps students visualise and understand the word problem better. It also makes it easier for the students to compute using their own calculator while visualising the problem through the diagram. Moreover, this set up encourages students to help one another to understand and achieve:
Also the likes of the one you saw on that part of the room. They are actually helping and sharing with each other. Now, you will see that there were no put downs in the class.

**Appreciative mediation for learning.**

Darla demonstrates appreciative mediation for learning in a number of ways. These include: dividing the class, chunking down work, clear instruction, high expectation, feedback, words of wisdom, belief in equality and respect, self reflection, knowing student background, boosting students’ confidence, and being Māori.

Darla divides the class into two groups based on the level of readiness and understanding of each student. Darla believes that “those students who are ready shouldn’t be held up by those who aren’t.” She points out that some students hardly understand the topic not because they have low levels of intelligence but due to poor class attendance and lack of self-confidence. In order for this group of students to catch up, she divides the class:

Even though they are slightly ahead, students who haven’t quite got it yet who still needed that extra 2 or 4 more periods to get in the craft. Not that you are brighter than the other. It makes students feel more comfortable and ready and that you just need a little bit more time.

Aside from splitting the class, chunking down work is also a practice that Darla does in her Mathematics class. She tries to downsize the enormity of the topic into a small size so students can easily understand it and can get the work done. She explains:

Chunking is making work a lot easier by cutting it in half and further, smaller in size; it will not focus on the lot of work but just getting that small portion done. Often, math teachers will give students loads and loads of exercises but that is not reinforcing the work, it actually has negative effect on their learning because all they do and see are the same thing. They are not actually learning or challenging themselves.

Darla is confident that through breaking the ideas or work apart, students can easily learn the skills they need for Math:
Another is chunking down work. I do it with the students, so it’s easier for them and then we reinforce them and we move on or teach them skills first and then we kind of put it all together. So they learn the background first. This is how I usually do it in class.

Clear instructions are laid out at the beginning of each school year. Darla sees to it that students understand their roles and rules inside the classroom. She simply says “this is my classroom and these are my rules.”

Darla has high expectations for her students. She affirms their ability to achieve and succeed despite what others label them:

My year 11 is the lowest in their class. But my attitude is: who said that you are the lowest? I am not a low rate teacher, I am a high rate teacher so you have to come up to my standard and I’m teaching you to be on par with everybody else.

Feedback is an important element towards improvement. Darla believes that through feedback, one can learn to adjust to be better. She shares a story:

When someone from the Ministry went to observe and I asked the person “what have I improved on?” he answered, “Oh, what I saw was good.” But that didn’t help me. Feedback helps, especially when someone is observing you and that’s how you adjust.

During class, Darla shares words of wisdom with students to inspire and motivate them despite the challenges they encounter in their lives. She has a sense of openness and frankness with them:

If you look around the class, there’s a lot of personality. It could be conflict or problems. I would tell the class that they needed to leave their problems, conflicts, and issues at the door because we all have problems and issues and if you bring it inside the class it will not get us anywhere. So don’t bring it in.
Moreover, she believes in equality and respect, which includes students respecting each other and at the same time having their own individual time. This helps in their learning:

There are no put downs because students understand each other. Now, a lot of that has to do with treating everybody as equal. There has to be respect but there also has to be a time when there is a down time and I think the students need the period to be on their own.

Self reflection is another practice that Darla does to assess her effectiveness in class and to target students who need assistance:

Also when you see students who are disengaged, you will make mental note that next time I’ll pay attention to them. I asked myself on how I can engage these students in class. As their teacher, I reflect on how I can better help them.

Getting to know students and their background fosters good relationship between Darla and her students. This provides an atmosphere conducive for both teaching and learning. It also boosts student confidence and faith in their teacher:

Because of the make up of the class, I can say things that can make the kids laugh. I know their spots and vice versa. Because they also know that there is a time to learn and there is a time to laugh. And I think having confidence in them and having confidence in me.

Darla also believes that building students’ confidence heightens their motivation to learn and achieve particularly in Mathematics:

I think students are more engaged when they feel better about themselves. I think students feel they can achieve in Math and they can achieve with that teacher.

Another way of enhancing students’ confidence is through appreciation. Darla believes that appreciation when due or seemingly fit “is nurturing for the needs of the class.”
Being Māori¹ is an advantage for Darla since, because the school’s student population is mainly Māori and Pacific, she knows their culture and language:

I think I am lucky because I am Māori. Best of all, I use Māori language spontaneously because the majority of the class are Māori. But having said that, I also have Pacific Island students in my class. Some of them don’t know the Māori language, but I believe that hearing their language being spoken in class makes them proud.

Undoubtedly, Darla’s pedagogical innovations include the use of teaching and learning tools in the classroom and demonstrate appreciative mediation for learning in many ways to improve student learning.

Factors affecting implementation.

There are various factors that inhibit or promote teachers’ use of pedagogical innovations. In the case of Darla, the factors that inhibit implementation include: heavy workload and unavailability of books. While the factor that promotes implementation of pedagogical innovations is the relationship and support from students, parents, community, and teacher aide.

Holding an administrative position and teaching at the same time entails a lot of work, responsibility, and time on the part of Darla. There are times that she feels very tired. She explains:

I have a heavy workload. I was meant to have two classes but I have more plus some admin work. I prefer teaching rather than admin but it also has to do with money and you get paid. And sometimes you need to move up. I wish some people would step up to the call of the position.

The unavailability of books for her students has led Darla to create and design worksheets for her Math class. Even though it is an additional work for her, she feels satisfied because students are learning:

¹ Indigenous New Zealander, indigenous person of Aotearoa/New Zealand – a new use of the word resulting from Pākehā contact in order to distinguish between people of Māori descent and the colonisers (Maori Dictionary, 2015)
I brought all the worksheets because I don’t have textbooks. When I asked for textbooks they were not available for my class. Actually, it is more work for the teacher. But it’s all right because students are learning and it is working and at the end of the day they are passing.

A trustworthy relationship exists between Darla and her students. She believes that this kind of connection results in a positive rapport and good communication inside the classroom. She narrates:

I’d like to think that it is an honest relationship and they count me as honest. I can relate to the students. I know their background, which is really important. Our relationship is based on trust. Students confide in me, and some of the parents as well.

This positive relationship extends to the parents and the neighbouring community. Darla communicates with parents because some of them were her former students. Her being around the suburb for a quite a long time has contributed to the strong connection she had with the Māori and Pacific communities surrounding the school:

There is communication with family and community. I have parents who were my students before and now have children who are my students. We have teacher and parent evening where we talk face-to-face with parents.

However, there are some members of the community who have a negative view of the school’s being low decile, and who believe this is affecting students:

I think that people outside the school looking in see it as a very low achieving school. But if you are inside the school looking out, you can see a different perspective. I went to two schools in New Zealand, which were decile 10 schools and they would ask why am I teaching in a school like this, and I said “because there are students in here that are criticised by the one next door that is not low decile and that stigmatises them.”
Darla has a teacher aide named Faye (pseudonym), who assists her in working and learning with the students. Faye goes around each student to check on his or her work. She asks students questions and participates during class discussion:

Faye, the teacher aide, started coming last week. She is now working with students and you can actually see as she goes around that students are explaining to her how it works. This shows that if students can explain the lesson to someone it means that they understand it.

Figure 11, below provides a summary of Darla’s activity system model.
Figure 11. Darla's Activity System Model
Case Study Five: Danica

Danica teaches Social Science in a school in a New Zealand suburb that has Pacific students, and has twelve (12) students in her class. I observed two (2) teaching sessions in the month of September 2014.

Pedagogical innovation.

Danica’s teaching and learning innovations as observed by the researcher are described through the following subheadings: artefacts for learning and appreciative mediation for learning.

Artefacts for learning.

Danica uses various artefacts for learning inside the classroom. These include: photos, memorabilia, and publication.

Danica uses story telling to assist with narrating facts and events in history, particularly World War I. She discusses the topic like she is chatting with the students. The students can freely interrupt her when they have questions. Danica relates what happened in the past to the present. She tries to find relevance in history to the current situation:

I like to chat with them but not talk and talk. Though sometimes they encourage you to keep talking, maybe because they really want to learn from you.

In describing World War I in class, Danica shows photos and illustrations of World War I events. She brings commemorative World War I items and replicas such as Australian and New Zealand Army Corps (ANZAC) biscuits tins and explains the significance of the item during wartime. Danica also uses a publication titled School Journal, which features various stories on World War I, particularly the participation of New Zealand soldiers in the Great War. One of the stories from this publication was used as a reading material for the class to get credit points:

The course I ran is based on the literacy course. It’s based on NCEA. It is based on the adult’s learning progression. So students get three credits for reading, three credits for speaking, and four credits for writing so in all they need to get 10 credits. I’m using strategies that appeal more to the visual learners.
Appreciative mediation for learning.

Danica demonstrates appreciative mediation for learning in a number of ways. These include: storytelling, knowledge on student backgrounds, making classroom safe, and valuing student feedback.

Danica believes that it is an advantage if a teacher has knowledge of the background of students, whether it’s their culture, family, or interests. It is helpful in establishing good rapport and better relationship with the students:

Before I came to teach here, I did my training in Whitireia. I first worked in Johnsonville, where there’s a lot of Samoans. I think I actually have a more realistic view of what some families go through in terms of their aspirations. In terms of the students in this class, I get along well with them.

To motivate students to participate in class, Danica assures them that the classroom is safe; a place where students must respect each other and where students are free to make mistakes without the fear of getting laugh at:

During their speech, students have to talk for three minutes to show that they can actually have a conversation and they can impart information. In order to encourage students to do this, I have to make sure the environment is a safe one.

Doing some of the class activities in groups has helped students gain credits. But for Danica, the key to successful grouping is getting the right combination of students to work on something that is their interest:

Sometimes it helps to get the right combination of students. For example, two students who are both skaters worked well with their project, especially because the topic is about skating, which they both like.

Asking for students’ feedback has aided Danica on reflecting how she can best serve students’ needs and interests:
Last year I had problems with getting students to do work, so I asked them, “what do you like to do?” We might do a whole term looking at the topic more in depth and getting their interest.

Evidently, Danica’s pedagogical innovations include the use of teaching and learning tools in the classroom and demonstrate appreciative mediation for learning in many ways to improve student learning.

**Factors affecting implementation.**

There are various factors that inhibit or promote teachers’ use of pedagogical innovations. In the case of Danica, the factors that inhibit implementation include: impassive curriculum\(^2\) to students’ needs and teacher’s implicit rules. While the factor that promotes implementation of pedagogical innovations is the relationship and support from teacher aides, student mentors, and students.

As the course co-ordinator, Danica runs the curriculum based on the literacy course of NCEA relating to adult’s learning progression. Students get three credits for reading, three credits for speaking, and four credits for writing. All in all, students are expected to get a total of ten credits or nothing. The basis of earning points is on naturally occurring evidence where students must prove individually that they can read, write, and speak. According to Danica, this system serves as limitation for students particularly for Pacific students. She explains:

> Well, it’s difficult because most of my students in that class were PIs (Tongan, Niuean, Samoan) and they like to work collectively. And one of the problems of this course is that it supposed to be naturally occurring evidence. Students must prove to me that they can actually read and write on their own.

Teacher’s stereotypes, generalisations, and low expectations sometimes create tacit rules, which are consciously or unconsciously translated when dealing with their students, who, in turn, are affected and restricted by this. This experience is revealed in Danica’s pronouncements:

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\(^2\) Impassive curriculum pertains to the lack of relevance, inclusiveness, and cultural sensitivity of mainstream curriculum towards ethnic minority context.
Since I have been here, I specialised in the norm, the low expectations in this class, you can put it that way. So any credit they can get is a bonus. I have taught the academic classes, but I prefer this class. I prefer it to be more challenging in some way.

These students who are not expected to achieve can do great and so any credits they can get are a bonus

If they work, they are wonderful. If they don’t then awww…. The temptation is if you want all your students to achieve that you dumb it down, and you can’t.

Danica is confronted with student absences and failure to comply with requirements because of negligence of their duties and responsibilities as students:

The difficulty comes as in most classes. It is frustrating; for example, a student who has one paragraph to write so she can get the credit for NCEA literacy level 1 but has not done so. She came back to school after the tournament to do fundraising but she never turned up to class.

Danica receives support from student mentors and teacher aides. She admits that “I do a little yelling, I nag. Sometimes you just really get frustrated.” But having student mentors around has helped her in dealing with students.

Together with student mentors, Danica also has two teacher-aides who attend her class. They assist Danica in looking after the students’ progress academically. During exercises they go around the classroom to do a quick chat and look at the work of each and every student in the class. The two student-aides also participate during class discussions. However, Danica observed that the two teacher-aides sometimes have conflicting styles in dealing with students. Nonetheless, they are both helpful to the teacher.

Figure 12, below provides a summary of Danica’s activity system model.
Figure 12. Danica's Activity System Model

**Subject:** Danica

**Tools:**
- Photos
- Memorabilia
- Publication

**Object:** to create added value in learning

**Outcome:** educational equity

**Rules:**
- Impassive curriculum to students' needs
- Teacher's implicit rules

**Community:**
- Teacher aide
- Student mentors
- Students

**Division of labour:**
- Assisting the head teacher with monitoring student learning through the teacher aide
- Working with students when in need of academic and general support through the student mentor
- Participating in class activity and doing their share of duties and responsibilities as students
Case Study Six: Dan
Dan teaches English for Speakers of Other Languages in a school in New Zealand suburb that has Pacific students, and has five students in his class. I observed two (2) teaching sessions in the month of September 2014.

Pedagogical innovation.
Dan’s teaching and learning innovations as observed by the researcher are described through the following subheadings: artefacts for learning and appreciative mediation for learning.

Artefacts for learning.
Dan uses various artefacts for learning inside the classroom. These include: reference books, English for Speakers of Other Languages kit, laptop, tablet, and assessment test.

In Dan’s school, English for Speakers of Other Languages students are multiple level classes with different individual needs. According to Dan “most of them are interested in getting National Certificate of Educational Achievement (NCEA) level 1 or 2. So we provide opportunities for students to get credits.”

When students come to class, Dan assesses them to find out what their needs are through the English for Speakers of Other Languages assessment test. Once Dan gets the results, he informs and liaises with the classroom teacher about students’ needs. Inside his classroom, Dan explains:

We concentrate a lot on the reading, the writing, and the vocabulary. A lot on developing their writing skills. Using the library to do research to improve their research skills and library skills and so on.

Apart from books of varied reading age levels, Dan uses teaching and learning innovation in providing opportunities for each student in his English for Speakers of Other Languages class. Dan personally prepares an English for Speakers of Other Languages kit that is individually distributed for students’ use. The kit contains various reading materials depending on the reading age and levels. Dan also includes reading, writing, and vocabulary exercises, which he has created. Students not only use the English for Speakers of Other Languages kit in school, but they can also bring it home so they can practise reading:
They got an ESOL reading pack. They have homework after class. They should be reading every night to themselves and other people at home.

A laptop and three tablets are loaned to students to support them in their learning. With the Internet connection, English for Speakers of Other Languages students can easily search for translation of words from their respective languages to English, can listen to the correct pronunciation of English words, and can check their vocabulary and find the meaning. Dan believes that these tools, if used properly, enhance students’ learning and personality, particularly for students of English for Speakers of Other Languages:

We have laptop provided to one of the students and purchased three tablets to support other students. For example, she does her writing in Spanish and uses it to translate words to English. This tool helps build confidence of students.

Appreciative mediation for learning.

Dan demonstrates appreciative mediation for learning in a number of ways. These include: making the topic relevant to students, working with students, focus on student needs, good relationship with students, and knowledge of student background.

Dan explains that for English for Speakers of Other Languages class, relevance is very important. Making concrete connections, having sufficient knowledge, and knowing students’ interests increase students’ learning. Students are more motivated to write when they can relate to the task at hand. Dan describes their practices:

Teaching innovation works with students when it captures their interest and when it is relevant to their experiences. For example, we do a lot of discussion or writing about where they come from, what they are doing in New Zealand. Try to link things to what they are doing in the past. We do a unit on soccer and watch a movie like “Bend it like Beckham” because of the World Cup and because some of the students are in the soccer team, so we really try to get the students’ interest.
According to Dan, working together with the students is a way to learning. Focussing on students’ needs also entails a sense of direction on the students’ progress. Dan believes that it can happen by:

Working with students more. Getting them to be the learner and guide the students properly. Be supportive and respectful; encourage students to achieve, and to have confidence in themselves.

A good student and teacher relationship is vital for student learning. Dan tries to encourage students and provide for them. He checks on what the students are doing, talks to them, and shares humour with them:

For English for Speakers of Other Languages students, the key element is the relationship with students, the support, caring, anxiously tracking their achievement.

Knowing your student and their background is also important in supporting their learning. Dan asserts that teachers should not only focus on the academic achievement of students, they should also know the students, where they are coming from, and what is valuable to them:

To help them not only with academic but with also other things that matter to them. Making the students feel important and finding out where they come from and overcoming the challenges.

Clearly, Dan’s pedagogical innovations include the use of teaching and learning tools in the classroom and demonstrate appreciative mediation for learning in many ways to improve student learning.

**Factors affecting implementation.**

There are various factors that inhibit or promote teachers’ use of pedagogical innovations. In the case of Dan, the factors that inhibit implementation include: conflict in class schedule, time constraint, and teaching and administration workload. While the factor that promotes implementation of pedagogical innovations is the relationship and support from the school principal, local communities, co-teachers, teacher aide, translators, and students.
Dan’s English for Speakers of Other Languages class is a multiple level class of students that come from different year levels who were assessed as needing support in English reading and writing. Because of the nature of the English for Speakers of Other Languages class, conflict arises in the schedule with other subjects because the English for Speakers of Other Languages class is held during the first period every day:

The timetable is very structured when English for Speakers of Other Languages class is a multi level class. It’s really hard because we are never sure who are the students who will come into English for Speakers of Other Languages class every school year or if we can pick students out from different times.

Besides conflicts in scheduling, time is also a constraint for Dan. He usually does a one-on-one session with English for Speakers of Other Languages students. But the time is not enough so Dan suggests:

I would like to have more teaching aid or teacher support, especially for English for Speakers of Other Languages students because they need more time and support.

The student population where Dan works is small. For this reason staff, including Dan, are doing many jobs. Dan is the careers adviser, English for Speakers of Other Languages teacher, vocational subject teacher such as tourism, staff coordinator, Co-dean, and coordinator for student courses. Dan admits that holding several positions can affect his performance as a teacher for it entails responsibilities and commitment:

I have been here a long time. Yes, sometimes holding many positions affects my teaching, because sometimes you are focussing on something and you just need to juggle things. I think there is more paperwork too.

In spite of some limitations, Dan finds support from the school principal, community, co-teachers, teacher aide, translator, and students. According to Dan, the school principal has arranged for a translator to come to school to help one of the English for Speakers of Other Languages students and also to tutor the said student at home:
A translator also comes here and to her home to tutor and help with the translation and liaise. Our principal organised it.

According to Dan, the school has established a strong connection with its local community. The community involves the local iwi or “a large group of people descended from a common ancestor and associated with a distinct territory” (Maori Dictionary, 2015) and local organisation:

We’ve got a strong core group and we have Māori support group. We have been trying to develop connections with our local iwi since we have lots of Māori students here. We have connections with local organisations in terms of helping with the courses and student exploration. We do have a lot of links with the community. For English for Speakers of Other Languages, we have a cluster group of English for Speakers of Other Languages teachers, where we talk about the different tools and experiences we have as English for Speakers of Other Languages teachers.

Dan communicates with his fellow subject teachers regarding the assessment and needs of their English for Speakers of Other Languages students:

When they come to class, we assess the students to find out what their needs are and inform and liaise with their classroom teacher about what they need in class.

We also have a mentoring programme for students every Tuesday evening.

A teacher-aide and a translator come to school to assist Dan with his students inside the classroom. The teacher-aide does one-on-one sessions with students. She coaches them with their reading and supports them with their needs like giving out exercises and supplementing their reading resources. The translator, on the other hand, assists a particular student at school and at home.

Finally, Dan believes that in his English for Speakers of Other Languages class, working together with students is a must in order to support them:

At this school we try to foster positive relationship with students. We do concentrate on relationship with students. Some of them have certain needs. We
want the school to be a supportive and encouraging environment and that they can talk to people.

Figure 13, below provides a summary of Dan’s activity system model.
Figure 13. Dan's Activity System Model
Case Study Seven: Eileen
Eileen teaches Math in a school in suburban New Zealand that has Pacific students, and ten (10) pacific students in her class. I observed three (3) teaching sessions in the month of August 2014.

Pedagogical innovation.
Eileen’s teaching and learning innovations as observed by the researcher are described through the following subheadings: artefacts for learning and appreciative mediation for learning.

Artefacts for learning.
Eileen uses various artefacts for learning inside the classroom. These include: chromebooks, Internet and websites, practice test, and smart board.

One tool that is very noticeable in Eileen’s Mathematics class is the so-called “chromebook” that students used. Chromebooks look like a typical laptop but instead of storing data on the machine’s hard dive, the data is kept online, on the Internet, or in the “cloud.” Chromebooks were first used in a South Auckland school and later adopted by Eileen’s school from the same Trust that started it in South Auckland. Eileen rationalises on the use of chromebooks:

Our year 9 maths programme has now been developed so it’s now all online and as well as using textbook or paper. The idea is students are doing a lot of individual learning and they can do it at home for homework. Homework is set online so they can print the paper out. So there’s no excuse for not doing homework. Students have access during school and after school time to free printing and use of computer in schools. There is also homework club so there is really no excuse for not doing their homework. Also we’ve got the Khan Academy, which is maths available for free. They could learn the whole curriculum just using Khan Academy if they want to. We are developing topics as we go and we have other websites we use as well.

Besides being cheaper than a regular laptop, Chromebooks have various advantages for learning. Through chromebooks, students can learn at their own pace since they can start or stop activity whenever they are ready. Different Google education apps are
readily available for students’ use. Parents can monitor the learning of their children and can participate as well. Most importantly, teachers can easily give timely feedback on students’ learning progress. Eileen elaborates:

The idea of using chromebook was because more and more of our learning is online and because of technology. The kids are more into ICT and so much of the learning or information is available online so it’s just more appropriate to do it online. So another reason is to increase engagement and learning.

Students now have better access to learning through chromebooks. Eileen explains:

Chromebook makes access to learning easier because when they are stuck they could just Google it or they can replay it like in the Khan Academy. There are teaching videos there, which they can play or replay. There’s also a hint to teach students. There would be four hints.

Moreover, Eileen contends that chromebooks are more economical than purchasing textbooks:

It’s about engaging learning and reducing our textbooks usage because our textbooks are destroyed. We got new textbooks but within a year, they are ready for the rubbish bin. They are tagged on. They are ripped. You can’t take them home. So by having chromebooks, you are reducing the cost. Textbooks cost $25 but by having laptops and chromebooks we can reduce the buying of textbook since some of them are already available online. Chromebooks can be used without Internet.

Another tool that Eileen uses in her class is practice tests for Math. Practice tests are composed of skills tests and problem solving tests, which she gives out to students to answer before the start of class:

We decided that 20 questions would just be skills without using the calculator, with very little reading or language involved. The second half is problem solving, with all your work problems and calculator. We are also setting the test based on ARB (assessment resource bank) because we think maybe our tests are
too low level, so we choose a site where questions are already available at the right level.

Eileen also uses the smart board to put up mathematics questions for students to answer and discuss interactively. She also refers to books for further exercises like word problems that are effective for her English for Speakers of Other Languages (ESOL) students.

On the smart board I might have a file that I just show the questions up. At the moment with Year 9 we’ve got a book that I was able to scan and there are 5 questions and they are all word problems, just so that the ESOL kids can get used to the wording. I use other resources or I make up mine. So there are a lot of resources available to do a quick data to present in class.

*Appreciative mediation for learning.*

Eileen demonstrates appreciative mediation for learning in a number of ways. These include: appreciation of technology, mix of teaching and learning activities, integrated learning, positive relationship with students, high expectations starting from simple things, constantly asking questions or feedback, use of space, and display of visual learning aids.

As a teacher, Eileen appreciates how technology has helped her in teaching and learning. She considers learning and using technology as an achievement:

I think most of the concepts of Math are better because I am using technology rather than a textbook. So it’s good that now I have choices; that is, textbook, interactive whiteboard, and now laptop. So I’ve got a lot of choices now to use for teaching and I think some of the ideas are easier to understand now.

Eileen does a mixture of teaching and learning activities depending on the circumstances and students’ needs such as the topic, time of the day, or the year level. A lesson may be made up of teaching then activity, or, alternatively, doing a lot of activities more than teaching. For example:
Year 12 are expected to be doing more of their own learning and I just go and check them while Year 9 and 10 you have to do a lot of whole class teaching. Except when they come to you with their laptops, like the juniors; then that’s a lot of individual learning. So it’s a real mixture, but I prefer to do less teaching because I get tired, but sometimes you just really have to go with it.

Another initiative is integrated learning. Integrated learning is a collaborative teaching activity organised between subject teachers like Eileen that involves connecting student work within four subject areas; Mathematics, English, Physical Education, and Arts:

The whole of my teaching has been changing because of technology. But the biggest change and the one I love was the integrated learning. I did that for one year and it made me realise that I don’t like to teach Maths in a traditional way. I like integrated learning because it made Maths real in a real context. But it’s a matter of time to sit as a team and develop that.

Eileen values positive relationships with students. She realises that the definition of good relationships with students depends on the cultural context. This is more important for Māori and Pacific students:

Relationship is very important. So for me, that relationship is the kids get to know a little bit about me; so sometimes in my teaching I might share about my family or my private life – where I have been, how I grew up, those sort of things. But also you have to make sure that there’s a line, that the kids should know that you are the adult and they are the students.

Setting high expectations starting by doing simple things goes a long way. Eileen believes that most schools, especially low decile schools, do not set their standards high enough for their students. She says:

When I look at simple things like uniform or arriving on time, these things, they are slack. But to me, I think it impacts on what happens in the classroom. [At] one school, when they got strict on uniform, all the other things reduced like lateness, no homework. So you should really address simple areas and it will impact in the classroom.
During classroom discussion, Eileen consistently and frequently asks the students if they understand the lesson. It is like a routine for Eileen that for every amount of information she imparts to the class, a question of clarification or understanding is addressed to the class:

[What] I believe is that if you don’t ask that the kids won’t say anything. Because our Māori and Island kids won’t say, “I need help” and so the assumption is if they don’t put their hand up they don’t need help, but they do because they are too shy or too embarrassed. So I ask it all the time and most of the time the kids will then put their hands up and say, “no, I need help”.

The use of space is a fundamental part of Eileen’s classroom activity and in students’ individual learning, especially with the use of chromebooks. Eileen explains that the school building was structured as the future of teaching and learning:

The whole buildings were built around the idea of computer pods and laptops. So the buildings were built with the idea of the 21st century teaching and learning to increase engagement in teaching and learning and to increase knowledge with the use of technology.

As such, Eileen’s classroom extends to the communal room where students can use the space and work independently:

So for me I’m rewarding groups of students who can work independently. [They] can use the community space. So that has been another change, utilising the space.

Another advantage of the space is how it influences the organisation and structure of students per house and per year level, thus, resulting in better attendance and monitoring of students:

Because of the building we are now structured this way and that is working and it is a positive. There were less attendance issues because the juniors do all their
core subjects here. The seniors have to move from house to house. But for the
juniors that’s great because they don’t need to move so much.

One can easily notice that Eileen’s classroom is adorned with various visual learning
aids like photos, posters, diagrams etcetera. Eileen assumes that these visual aids will
stimulate student learning:

I like my classroom to have a lot of things in it. So for me personally, I can’t
focus for very long, so I think if it’s got posters, hopefully the kids would look at
the posters and would read that. There’s also a little bit of talk written on the
window.

Obviously, Eileen’s pedagogical innovations include the use of teaching and learning
tools in the classroom and demonstrate appreciative mediation for learning in many
ways to improve student learning.

Factors affecting implementation.
There are various factors that inhibit or promote teachers’ use of pedagogical
innovations. In the case of Eileen, the factors that inhibit implementation include:
students inability to purchase own chromebooks, limited availability of chromebooks at
school, limited student knowledge on using chromebooks, teacher training on
chromebooks, students’ improper utilisation of chromebooks, poor literacy skills of
students, big class size, curriculum, time, and school interruptions, and lack of Pacific
elements in the curriculum and system. While the factors that promote implementation
of pedagogical innovations are the adopotation and reinforcement of the Positive
Behaviour for Learning (PB4L) Restorative Practice in the school and the relationship
and support from co teachers, parents, community, and students.

Not all students in Eileen’s class have chromebooks. Parents of these students claim
that they cannot afford it despite the three-year long-term payment of $4.00 a week set
up and $45.00 deposit. This has affected Eileen’s teaching to some extent:

In one class all the students have chromebooks. So all the teachers over there are
using chromebooks. In here I’m the only one that is teaching with an expectation
that all students have chromebooks, so it’s a bit of unequal usage here at school really.

Since not all students have chromebooks, the school has one set of laptops for one whole class that all teachers in the same building need to book and borrow. This condition limits and discourages the use of chromebooks in teacher’s class lesson and activity:

The teachers are booking the laptops if they need to use it since not all students have chromebooks. That is why we encouraged parents to buy the chromebooks. In that way we don’t need to book laptops every time we need it. So that’s the problem here; you can’t always use the laptop in every lesson that I have because I have to book it. There is a computer room but, again, you have to book the computer room. So that’s the problem.

The New Zealand born students (students of Pacific descent or ancestry who were born and raised in New Zealand) are familiar with computers so it is easy for them to use chromebooks. However, other ethnic minority students – especially those born overseas in places such as the Pacific Islands, Asia, and Latin America – have to learn the basics about computers:

For a lot them that’s new. They are not used to it. The students from Burma, Tokelau, Samoa, and even Colombia are not familiar because they have never used a computer. We actually have to teach them how to turn it on. So the reaction is more about them having to learn it and it’s quite overwhelming to those migrant students to learn, but they are quite resilient.

Eileen admits that not all teachers are trained on how a chromebook can be utilised to its maximum capacity, particularly as a teaching and learning tool:

I am thinking that the teachers don’t understand how they incorporate chromebooks into their teaching. I think there is still a lot of learning on behalf of the teachers.
On the part of the students, chromebooks are not properly utilised and maximised as an academic learning tool. Eileen observes that students are using it for entertainment and social networking:

The challenge is for students to really use it for learning, but most students tend to use it for games, Facebook, YouTube. So if you notice during lunchtime in the computer pods, the students are playing games or watching YouTube, there is nothing about learning.

Another factor that hinders implementation is the use of practice tests. Practice tests reveal the strengths and weaknesses of ethnic minority students in class especially the Pacific students whose English is a second language. These student tend to perform better in skills tests than in problem solving tests because the latter involve English comprehension and analysis. Eileen explains:

I think the skills test definitely shows up that they can do the Maths because there is no English, but it also shows up the ones that did not study quite clearly. But problem solving is showing up their weakness and using their Maths knowledge and context as well as literacy issues. So in terms of measuring it is showing up a lot of deficit but also a lot of good things.

Class size is also seen as a factor that inhibits Eileen in effectively using pedagogical innovation and in monitoring students’ learning. She expounds:

The average class size is meant to be 25 and below but we have had to cut the staff (due to decrease of student enrolment) so some of our classes are hitting 30, nearly 30. Because there are so many special and academic needs, this means the bigger the class, the harder it is to see everybody.

Likewise, Eileen finds the objective of finishing the curriculum restricting – especially with regard to students real understanding and learning of the topic – despite the limited time and various school interruptions:

I do a lot of formative testing during each topic and it shows what students have not learned. So it’s Catch 22; I have to finish the topic in a certain time but a lot of the time the students don’t get it anyway. So by the time they sit the test, I
know they haven’t learned. We are dictated by both time and the curriculum to finish the set topics/test despite the so many interruptions in school.

Eileen aslo identified a number of factors that promote implementation of pedagogical innovation. The first of these is Positive Behaviour for Learning (PB4L) Restorative Practice that influences her philosophy and practice as a teacher. This systemic approach is an initiative of New Zealand’s Ministry of Education with some participating New Zealand schools. Its aim is to build positive and respectful relationships among students, teachers, staff, and the whole school community. Eileen recalls:

Positive Behaviour for Learning, or PB4L, impacts a lot on how you teach and how students learn. It has almost become part of me. It’s ingrained in me. It’s part of my teaching practice. The programme is a pilot of MOE I see the school has progressed positively with PB4L and restorative together. When I first came here there were always big fights, like 20 kids. But ever since the implementation of PB4L, I can’t remember the last fight big fight in the 3-4 years. I feel that this is a big part of the school environment.

Moreover, Eileen professes that due to the ideals of restorative practice she has become a better teacher:

Also based around the restorative practices, which I’ve learned being here at the school, which I think is excellent, is that there should always be a positive relationship rather than a negative, put down, get out of my classroom sort of thing. This is reinforced through the way we speak with the students, the way we talk about something that is not right and they understand that it is causing harm to somebody. So when there is an issue we have processes but there is also restorative chat at the end. So the whole restorative practice, I learned a lot from it and I like it because it keeps the relationships better.

Eileen continues:

And because of that I notice I speak differently with the kids. So I will say things like what’s on the poster, like “are you focused on your learning?” or “do
you think you are managing your school?” or “what’s stopping you from learning?” or “what do you think you need to do to help you focus on your learning?” rather than telling kids off.

Support from co-teachers, parents and the community, and students is available and helpful to Eileen in promoting pedagogical innovation. Teachers, including Eileen, participate in facilitating homework club that assists students with their assignments after school hours. Moreover, Eileen truly appreciates her team of teachers located in one building representing different subjects who handle the same students:

I really have a very good team here. I like my team. And I like teaching like this, that we are all different subjects and just Maths department, which is another good thing. So if we have problems with a class we talk about it and we do the same thing because we all know about the child.

Furthermore, having passionate co-teachers who believe in integrated learning makes the collaborative work possible and successful. According to Eileen:

I really would like to do integrated learning because I have seen it and it is fun. But you need the whole chain to be on board. Four of us teachers did it and it was great.

However, not all teachers are on the same page with Eileen when it comes to relationship with students, especially in a school in which the majority of students are Pacific. Eileen points out:

I guess for me with the schools like this and other schools I worked in Porirua, it’s all about seeing our kids doing well, which the European teachers would talk about that kids. While we Māori and Pacific teachers, we own it, our kids. While the European teacher wouldn’t call it “our kids” but “the kids”. They won’t own it. So when our kids fail, we fail, but the European teachers, they don’t see it as their failure because they can leave. The only times they mix with Māori and Pacific kids are at work, whereas in my life the only time I mix with Europeans was here at work.
Furthermore, Eileen is aware of the irony that there is insufficient Pacific cultural and contextual input in the school system, despite the fact that the school is predominantly Pacific. Instead it is dominated by mainstream European ways:

I’m not a teacher of Maths but I am teacher of children, so I want to see the whole child. Being a Pacific school, I see the issues that frustrate me – like the European context, European teachers, European systems, European ways of talking and talking to our kids, the put downs, and the teachers who [reinforce this] without realising.

Eileen is pleased to say that there is an existing relationship and constant communication between herself and her students’ families and the community. This connection benefits Eileen in understanding her students better and knowing their needs. She elaborates:

I live in this community so we have relationship with community and the family. We do home visits, mainly the Māori and Island teachers. The European teachers don’t even do that. One teacher said to me, “oh I would be too scared” and I said, “what are you going to be scared about?” Others, they just see it not their job, they would never go on home visit, which is ok. But I think sometimes teachers here, if they don’t know where our kids are coming from, you can’t really teach.

According to Eileen, the hardest thing among Pacific Island students is the island mocking and put downs, which she sees as quite destructive and shameful, and which she wants to change. In doing so, Eileen promotes students being proactive and sensitive in helping each other:

It’s based on our two three before you asked for tea. So that’s actively trying to solve the problems themselves instead of always relying on the teacher.

Conversely, some students are not keeping their part of the bargain, particularly with regard to their homework. Eileen believes that students have the Maths ability but are not doing their homework or catching up online:
Have the kids done their homework and online, they will achieve.
Constantly, I would think, “what can I do for them to get the topic, or what resource I can use to get the idea across?” But the biggest area that needs improvement is for students to do their homework and practice and reread it and think about it.

Figure 14, below provides a summary of Eileen’s activity system model.
Subject: Eileen

Tools:
- Chromebooks
- Internet and websites
- Practice test
- Smart board

Appreciative Mediation:
- Appreciation of technology
- Mixture of teaching and learning activities
- Integrated learning
- Positive relationship
- High expectation beginning from simple things
- Constantly asking questions or feedback
- Use of space
- Display of visual learning aids
- Home visitation

Outcome: to create added value in learning

Rules:
- Students inability to purchase own chromebooks (CB)
- Limited availability of CB at school
- Limited student knowledge on using CB
- Teacher training on CB
- CB not properly utilised by students
- Low literacy skills of students
- Big class size
- Curriculum, time, and school interruptions
- Positive Behaviour for Learning (PB4L) Restorative Practice
- Stewardship of students
- Lack of Pacific elements in the curriculum & system

Community:
- Co-teachers
- Parents and community
- Students

Division of labour:
- Providing resources and support for the students
- Mentoring and monitoring student needs
- Consulting and working with parents and the community
- Helping fellow students
- Improvement on part of the students

Figure 14. Eileen's Activity System Model
Case Study Eight: Eden

Eden teaches Social Science in a school in suburban New Zealand that has Pacific students, and has fifteen (15) students in her class. I observed two (2) teaching sessions in the month of August 2014.

Pedagogical innovation.

Eden’s teaching and learning innovations as observed by the researcher are described through the following subheadings: artefacts for learning and appreciative mediation for learning.

Artefacts for learning.

Eden uses various artefacts for learning inside the classroom. These include: musical instruments, computer and Internet, Youtube website, and reflection book.

Eden often uses musical instruments such as piano, guitar, and drums together with computers, Internet and YouTube in teaching and learning music in class. Her approach to learning music adapts to widely shared enthusiasm of today’s generation:

I use the Internet and instruments every time because that’s the way we are today. We could view records on the Internet. You just plant an idea and students take the idea and run with it. They don’t have to do exactly what I say; they can just take it and work it out to suit them.

A big part from our music department is using the YouTube clips because it helps to reinforce what they are trying to learn. It helps with their core learning of music. So it is just another way of complementing what they are learning in class by listening to the songs; and that’s what they are doing, the young generation, looking at YouTube and checking out the latest songs. So it is a really good tool to use in the classroom because it is readily available.

To monitor student learning and progress, Eden requires her students to write in their reflection book. The reflection book contains a personal log of what they have achieved, what needs to be done, and what to do in the future. In the music department, her colleague, Peter, uses it as well. Eden explains that when students get into the senior
level, the reflection book becomes more of an electronic log, where they type online how they are progressing. But in her case:

We give students hand outs created to complement the assessment schedule. They are given a schedule and they write what they have accomplished, what they haven’t done yet, and what they need to do for the next lesson, what is stopping them, what is the barrier, and so we address those barriers and they can write it in their exercise books. And so the students can see the progress they have made. It is amazing when students go over their book and they agree through their entry. It is a great measuring tool. It helps with their learning because they can see how fast or slow they go. And I can see positive change in their learning; and we did it right across and its brilliant.

The reflection book is also an instrument for Eden to learn more about her students. The student’s entry in the reflection book also becomes a conversation piece between Eden and her students in terms of knowing their opinion or how they feel:

I can take their books and read and get to know my students better. In that way I could come back and for the next lesson I could tell them, “hey, you wrote this in your book. Let’s see what we can do better.” And then I will ask students, “well, what do you think?” I always think it is important to ask for their opinion, so it is not only for me, but also to encourage them to think more about how they are doing things and how they could do it differently.

Appreciative mediation for learning.

Eden demonstrates appreciative mediation for learning in a number of ways. These include: high standard and expectation on students, consistency, relevance, positive reinforcement and encouragement, constant feedback, good and positive relationship with students, being personable, variety in learning, scaffolding, considering students’ needs, keeping the lesson simple, and constant self reflection.

As a music teacher, Eden sets high standards and expectations with her students. She lets them know that they can do anything and it doesn’t matter where they come from; as long as they have dreams and goals in life and they work for it then they can reach it. Together with high expectation is consistency with students. She explains:
Maybe in different ways, but it’s the same thing over again, so students have consistency and they know that they are making progress. That there is a purpose for everything; you are not just learning to learn, because you have to live it. One thing I definitely try to do with consistency is I try to show them as best as I can that there is a reason why you are doing it in this particular way.

Being a relevant teacher is important to Eden. She believes that teachers like herself need to be flexible, open minded, and willing to adapt and change for the better in order to continue to being relevant, especially in today’s fast changing environment. She rationalises:

I think it is important as a teacher to be ready to change if necessary. If we don’t change to suit our young people, we are going to lose them. For example, I have to learn information technology stuff because that is what our young people are using today. It is the way the world is going, technology. So as the teacher, I can’t ignore it. I must know how to use all those things. So a lot of our work is done online. Students can do their work online at home. They have access to their work. So the way technology is going today, students who cannot finish their work in school, they can do it at home. For me myself, I have to be updated with everything in order for me to be a relevant teacher of the 21st century.

Eden is an encouraging person, which is part of her personality. She thinks that young people love encouragement. They thrive on it, as long as it is real encouragement that is relevant. Eden puts into practice positive reinforcement and encouragement by promoting a classroom atmosphere where students are valued:

An atmosphere where students feel that they can be themselves and no matter what they do it is important. They feel that they are important and what they have to contribute to class is valued. When students come around, I want them to know that they are valued when they come in to my class. That they are individuals and that they are not lost in the numbers because there are some students who are quiet and not as vocal or active in class. I want an atmosphere where one is safe to take risk in their learning. Anything they say is neither silly
nor stupid. So I always encourage students to ask questions. An atmosphere where students love to learn and extend their learning.

Apart from encouraging and sitting around to do one on one, Eden gives feedback constantly to students. In her music class, Eden goes around listening to small groups of students practicing with their instruments or working out a plan for their presentations. After observing the students, Eden makes comments and suggestions for improvement:

One thing I’ve noticed in our young people is they come to do something and they go away; that’s it, they don’t want to think about it, so they would come back again. So I give them feedback whenever necessary.

Getting to know your students is one key factor in establishing a good, positive relationship. However, Eden believes that having positive relationship with students also entails limitations and expectations:

I would hope that my relationship with students would be a positive one and a caring relationship too. I really truly believe that they give you more of themselves when they see that you care. But at the same time, we do have guidelines and expectations. And I do expect them to keep them. So they pull out of line, there are consequences but most of the time I am really grateful for the relationship I have with them because I haven’t had really to deal with issues.

Establishing a good and positive relationship with students also involves being amiable and open with relevant information on the part of the teacher. Eden recalls that when she first started teaching she came in to teach and that was it. Students did not know her apart from being their teacher. But it is different now:

I have relaxed more in my teaching. I have become more personable. When I first started, I didn’t let student know so much about me. I have definitely changed and definitely for the better. Now, my students know pretty much about me and I’m a lot more relaxed in my teaching. And I feel that I have refined my practice as well.
Variety in learning is essential in Eden’s teaching. She believes that there are many ways to learn, not just one particular way. Part of this variety is her conscious effort of incorporating her students’ unique culture. She explains:

I love having variety in learning and in my teaching practice. I try to be more spontaneous in my planning and have a lot of variety of using different sources of media. So when we have listening exercises, I will play a clip. And also having the hands on, or the practical, side. So the main objective is to make the lesson as interesting as possible, even when it comes to the things that they don’t like to learn such as theory. Sometimes I also use video clips that showcases the culture and music of my students thus making it relevant to them.

Scaffolding is another way of helping students with their learning. Eden assumes the position of a role model and sets the example. She shows students where they should be with their learning and how to get there from the starting point to the finish line:

With the scaffold type of learning, I take a part of what they need to know and I show them where they are supposed to be at the end of our assessment part and I check with them. From there, I sort of work backwards and get them to the starting point where they can see it’s possible for them. So we start from there and we gradually add to bits of the puzzle along our journey and the goal is to get to that level.

In doing this, Eden keeps the needs of the student in mind. In her lessons, Eden always has different things going with the different groups of students depending on what their needs are:

I work better in a differentiated type environment. In other words, I will pitch with the students what we hope to get to by the end of assessment or the unit; there are some students who learn from a particular way. So I will pitch my teaching style that is relevant to that kind of learning. There were others with a different level with the other group so I would pitch my style in a different level.
Based on her experience, students are easily discouraged when they feel that the task on hand is huge or way beyond their ability, but with Eden’s intervention of unpacking, this condition is turned around positively:

I always have the students’ learning needs in mind every time. And I’ve learned over the years that if I try to pitch into the students that are way beyond their starting point then they won’t do it. But if I take it apart and show them that it is possible, that you can get to that point, that it is attainable, they will make more effort to get the thing done.

Keeping teaching simple, with the help of the tools she uses in the classroom, is how Eden views effective learning. She does this by unloading big ideas into smaller chunks and lets her students navigate the rest with their own instruments:

So I will make things simpler and more able for the other people. I will not give them as much to work on. I just pretty much lead them to their own devices because they pretty much have their own independent learning strategy that they need to use, and for the others that need assistance, I kind of unpack a bit more and go into more details and once they hook on to that then they are free to carry on.

Constant self reflection has been a part of Eden’s teaching routine that helps her to constructively criticise her work and improve her practice. She credits this exercise as a way of making herself more relatable and effective to students:

I think constantly looking at what I am doing. I even do my own reflection. I do my reflection as a teacher. I will go away and then I think over my lesson, and reflect, what didn’t work or what can I do better next time, so it’s not just my students who are doing it but me too. So having that constant reflection has helped me to refine my teaching practices and how I teach. Being able to constantly reflect has helped me to make my teaching practice in class more relevant so that I know students are getting something for each class when they come to me.
Evidently, Eden’s pedagogical innovations include the use of teaching and learning tools in the classroom and demonstrate appreciative mediation for learning in many ways to improve student learning.

**Factors affecting implementation.**

There are various factors that inhibit or promote teachers’ use of pedagogical innovations. In the case of Eden, the factors that inhibit implementation include: the need for professional development and training, poor student attendance, and negative attitudes of students. While the factor that promotes implementation of pedagogical innovations is the relationship and support from the administration, co staff, students, and community.

Given the demands of teaching, Eden sees the need for professional development and training that would enhance her teaching skills and improve in her profession. She explains:

> It would be nice to go on training courses to help me advance my teaching skills and to be able to go to professional development things and to see what other teachers are doing in the greater Wellington area and rest of the country. And being able to see what you are doing is on track with everyone else. To develop more and more and more the professional side of teaching.

According to Eden, Students’ poor attendance and negative attitudes provide further barriers to learning. These negative attitudes of students include island mocking and put-downs. Furthermore, students missing class is also a drawback in their learning, because it sometimes results in them being left behind. In these situations, Eden would then have to do one on one teaching to help the student catch up:

> The main barrier is attendance, so if attendance is not consistent it affects the learning and the students fall behind. When the students come back to school then I will have to work with them individually to bring them up to par with the rest of the class. Another barrier is when they first come in with their negative attitude, it takes me a while to get them used to the environment that we have here in the music department.
On the positive side, Eden gets support from the administration, her co-staff, the students, and the community, which assists in her implementation of pedagogical innovation. She describes her experience with them:

Students all come to school with their dreams, passions, and desires about where they want to be and what they want to be, so if I can be an instrument and help to make a difference, small or huge, then I will really be happy. I know I have done my job. It’s not just in the school, I see them around the community and so having that relationship with the community is fantastic. There is great support from the admin team. Great staff we got here. So there is a really good solid relationship.

Figure 15, below provides a summary of Eden’s activity system model.
Subject: Eden

Tools:
- Musical instruments
- Computer & Internet
- YouTube
- Reflection book

Object: to create added value in learning

Outcome: educational equity

Rules:
- The need for professional development and training
- Poor student attendance
- Negative attitudes of students

Community:
- Administration
- Co-staff
- Students
- Community

Division of labour:
- Providing resources and support for the students
- Mentoring and monitoring student needs
- Helping fellow students
- Consulting and working with the community

Figure 15 Eden's Activity System Model
Case Study Nine: Elizabeth

Elizabeth teaches Social Science and English for Speakers of Other Languages in a school in suburban New Zealand that has Pacific students, and has fifteen (15) students in her class. I observed two (2) teaching sessions in the month of August 2014.

Pedagogical innovation.

Elizabeth’s teaching and learning innovations as observed by the researcher are described through the following subheadings: artefacts for learning and appreciative mediation for learning.

Artefacts for learning.

Elizabeth uses various artefacts for learning inside the classroom. These include: field trips, mat weaving, and chromebooks,

Elizabeth was inspired by a workshop she attended that focused on different ways or strategies to support student engagement. This workshop gave her the idea about the students out there; to be in the moment, and to listen. So Elizabeth took her English for Speakers of Other Languages students out for a short fieldtrip and students were inspired to work because of the activity:

When we came back, they did some really good items. These are from the boys that don’t really do quite as much. Some of them did some booklets using the pictures that they took and they did some slide presentations. We also went to the arts and science museum and army. And it has a lot to do with their topic in science, which is ecology. When we came back, they are working on a presentation that they will present in the house assembly.

Using a mat and its weaving process as a metaphor was Elizabeth’s plan in instilling academic learning and cultural values among her students. Together with learning about students’ individual cultures, they also get to appreciate them. Elizabeth describes:

Last week we talked about their weaving. So they already know what they are going to do. The topic was identifying what part of their culture is important to
them. So they have to choose five things that they would like to share with the
other groups. If you are not sure about it, talk to your family about it. So they
will share their five things to the group and the top ten will be put together in the
mat that they are weaving.

Some students of Elizabeth are using chromebooks in doing their activity in class while
others are not because their parents could not afford to purchase these despite the low
term of payment over three years of $4 per week.

*Appreciative mediation for learning.*

Elizabeth demonstrates appreciative mediation for learning in a number of ways. These
include: grouping in even smaller groups, making connections, relevance, good and
open relationship, consideration of students’ needs, being open to challenges, and
inviting resource person.

For Elizabeth, grouping her English for Speakers of Other Languages students into
smaller groups helps both herself in teaching them and her students’ learning:

> My challenge would be my English for Speakers of Other Languages kids,
because sometimes when I give instructions and feedback and they would still
do the opposite. So I take small groups into smaller groups and I do a lot
conferencing with the kids.

Furthermore, Elizabeth also does a lot of coaching and practice with her English for
Speakers of Other Languages students in order for them to put words together, construct
the words into a sentence, pronounce the words properly, and truly understand their
meaning. This way, English for Speakers of Other Languages students can enjoy
learning.

Making connections between the students and the lesson is important for Elizabeth. She
believes that learning will be made easier if students can relate to and make sense of
what is being talked about:

> They can identify with the topics. For some of them it is a new learning. The
kids can make connections rather than just being given something foreign to
them. So we learn about other people from other countries but we don’t know our own. So that is connections, which I think is important for our kids to be able to connect in our own backyard.

Moreover, relevance is also key in evoking students’ interest and emotion about the topic. Elizabeth describes:

Students see relevance of the topic in relation to themselves. For example, I showed them clips of refugees that somehow touched the students and made them tell their story.

Elizabeth maintains that she has a good and open relationship with her students. This relationship is based on trust and supporting each other:

I think we have an open relationship with my students. We both know the expectations of the subject and what my expectations are. They also know the consequences if they don’t follow. It is kind of a good relationship. There is also a relationship of trust and that I will be here to support and help them.

The needs of the students are an important consideration in Elizabeth’s teaching. She is open to change and flexible in terms of what best fit the students:

I’m the kind of person that changes as I go. For example, I taught in primary school, so what I did then and this is what I’m doing now but on a different level. I change to suit the group of kids that I have. I also need to be aware that these kids have also a lot of others things that would impact on their learning and behaviour so I need to take that into account.

Besides being open to change, Elizabeth is also up for a challenge whether it is teaching or supporting her students. For example, technology is now part of the real world of today’s younger generation. This means that teachers need to be aware and knowledgeable in order to not be left behind. Elizabeth is open for that challenge:

I’m the kind of person who will always take up a challenge. I think any teacher will do that and I don’t think you will come across teachers who would do
otherwise. That’s what I love about teaching; every day is not the same and you are learning with a lot of students.

Elizabeth also invited resource persons in her class to be guest speakers, including her daughter who is an alumna of the school and who works as a teacher in another school. Elizabeth narrates:

My daughter was my guest speaker for my Year 10 class. She spoke about the heroes of Aotearoa and the Pacific. She had her presentation and she said to the class, “have you heard of these people before?” And some said “no, we are just learning people from Europe and Africa.” And my daughter said, “oh, that’s the same as me when I was your age.”

Noticeably, Elizabeth’s pedagogical innovations include the use of teaching and learning tools in the classroom and demonstrate appreciative mediation for learning in many ways to improve student learning.

**Factors affecting implementation.**

There are various factors that inhibit or promote teachers’ use of pedagogical innovations. In the case of Elizabeth, the factors that inhibit implementation include: time constraint and availability of chromebooks to all students. While the factor that promotes implementation of pedagogical innovations is the relationship and support from the community, administration, and students.

Elizabeth finds that there is never enough time, especially when she does coaching and one on one conferencing with her students. According to her:

sometime I don’t have enough time to do it because of other responsibilities that I need to attend to.

Elizabeth has also mentioned that not all students have chromebooks and that this somehow affects these students in their academic work:
You would have noticed as well that not all of them have chromebooks, so those without chromebooks will be doing their work by hand and that is a struggle for the others.

The main support groups for Elizabeth are her community, the school in general, and the students. She mentioned that she is very familiar with and immersed in the community because she has lived there for a long time. For this reason, when she needs assistance from the community concerning her students, she can easily get help. Further to this Elizabeth has also had a long term involvement with the school where she currently works. All her children graduated from the said school and she was even involved with the school board of trustees. As for the students, they know what is expected of them and as long as they fulfil it, Elizabeth does not worry too much if students poke fun in class:

I don’t mind a noisy classroom as long as they work. I don’t mind a good laugh. I do try and plan my lesson where the kids will actually do something. If the weather would have been good I sometimes bring them outside.

Figure 16, below provides a summary of Elizabeth’s activity system model.
Figure 16. Elizabeth's Activity System Model
Chapter Summary
This chapter has presented the findings and descriptions of the nine individual cases that comprise the unique and inspiring stories of selected teachers working with Indigenous and Pacific students in the Philippines and New Zealand respectively. Each case focuses on describing the teacher’s pedagogical innovations, the appreciative mediation for learning, and the factors in each individual teacher’s school environment that hinder or promote the implementation of pedagogical innovation. In the next chapter, the focus is on building an overall understanding of the teachers’ pedagogical innovations by using Cultural Historical Activity Theory and Appreciative Inquiry lenses to provide a cross case analysis.
Chapter Five

Findings of the Cross Case Analysis

This chapter reports the findings across the case studies. The cross case analysis was conducted in three stages. First, findings from individual cases grouped as Philippines and New Zealand case studies were analysed for emerging themes that describe teacher’s overall activity system, mainly the teachers’ pedagogical innovation and the factors in the teacher’s school environment that affect how they implement the pedagogical innovation. Next, findings about the teachers’ activity systems in the Philippines and New Zealand were compared with Dalton & Tharp’s (Dalton & Tharp, 2002) five standards for effective pedagogy and their indicators. The teacher’s activity system pertains to the pedagogical innovation, which includes artefacts for learning and appreciative mediation for learning, and the factors in the teacher’s school environment that affect how they implement the pedagogical innovation. Finally, teachers’ activity systems based on pedagogical innovation and the factors affecting implementation of pedagogical innovation were compared for consistencies, and cross case assertions were formulated across all findings.

The findings are discussed under the headings: Philippines case study, New Zealand case study, and across the case studies with sub-sections that present findings in relation to activity systems and standards for effective pedagogy.

Philippines Case Study
This section describes findings of cross case analysis of the three individual cases in the Philippines. The first part is a brief description of the themes that emerged from the teachers’ activity systems based on pedagogical innovation and factors affecting implementation of pedagogical innovation. Next, teachers’ activity systems compared against the five standards for effective pedagogy and their indicators are analysed.

Activity system.
Themes that emerged from the within case analysis of the activity system of participating teachers in the Philippines (see Table 12) regarding pedagogical innovation were organised into two categories: artefacts for learning and appreciative mediation for learning. Artefacts for learning are “human-made objects that are found in
learning environments” (Levin, Carter Ching, & Parisi, 2003). In this study, artefacts for learning included the usage of lesson plans, creation of students’ modules, kits or exercises, and teaching instruments such as blackboards, chalk, and diagrams. Amihan, Bituin, and Celia were all using lesson plans as part of their preparation and guide for their everyday lessons. The lesson plan is like a blue print that guides teachers on how they deliver their topic. It can also be compared to a script that directs the teacher on what to say and what to do next inside the classroom. In general, besides identifying the objectives of the lesson, the topic, and the materials needed in the lesson plan, the procedures that teachers follow start with preparation, motivation, lesson proper, activity, generalisation, evaluation, and assignment.

Amihan, Bituin, and Celia all created modules and exercises for student use, especially for students who were lagging behind the lesson due to reasonable absence, in order for them to catch up with their fellow classmates. These modules are personally created by the teachers and include a brief written discussion of the lesson, exercises for students to answer, and assignments to work on.

As dictated by the lesson plan, Amihan, Bituin, and Celia facilitated classroom activities to stimulate students’ motivation before they started their lesson proper. Of course, teachers have the option to skip the motivational activity or icebreaker and to go straight to the lesson in order to save time and to be on schedule. However, Amihan, Bituin, and Celia believe in doing an icebreaker before the lesson proper to both get the attention of the students and to stimulate their interest in the topic. Examples of motivational activities used by these teachers were music, games, storytelling, and question and answer.

All three teachers used teaching instruments in their classroom. The teaching instruments that Amihan, Bituin, and Celia use were blackboard, chalk, diagrams, manila paper, and CD player.

In terms of appreciative mediation for learning, four themes were categorised, namely: teachers’ genuine appreciation and collaboration with students, teachers’ teaching initiatives, teachers’ positive disposition, and teachers’ self reflection. Genuine appreciation and collaboration with students includes having knowledge of students’ background, nurturing positive relationships with students, boosting students’ self-
confidence, and peer tutoring. These are the ways that Amihan, Bituin, and Celia demonstrated their acknowledgement of student ability, capability, and needs to improve learning. Knowing students’ backgrounds is especially important for Indigenous students’ learning. Amihan, Bituin, and Celia demonstrated that they not only knew their students inside the classroom but they also had knowledge about their students families, cultures, traditions, and practices. In addition to this, Amihan, Bituin, and Celia did home visits to check on students and talk with their parents.

Teacher’s teaching initiative refers to the act of taking the lead with the students. In the case of these teachers, this involved integrating indigenous culture in class discussion, story telling, identifying students’ learning needs, constant monitoring of students, presenting motivational activities in class, and giving clear rules and instructions.

Teachers’ positive disposition is demonstrated by being personable, believing in teaching as a personal vocation, ensuring equality, and valuing ethnic identity. These were evidenced to be personal traits and beliefs of Amihan, Bituin, and Celia when it comes to being an effective teacher. Amidst the hardships in their personal and professional lives they have found inspiration in their beliefs both personal and spiritual. These traits and beliefs have kept them going.

Self reflection is a common practice for Amihan, Bituin, and Celia. They indicated that constantly examined themselves in terms of what they were doing in the classroom. They focused on their actions, on what worked and what did not work. This exercise has inspired them to find ways in which they can improve their pedagogy and be better teachers.

Different factors within the individual teachers’ school environments in the Philippines affect their implementation of pedagogical innovation. Based on the findings the two categories formed were social support system and structural regulation. Social support system refers to the social groups that provide teachers with assistance in their activity. In terms of the social support system of the teacher, the families of the students and their community, the school principal, colleagues and staff, students, local government, and religious groups were the microsystems that supported Amihan, Bituin, and Celia. Support for students, especially with regard to their learning, came both from within
and outside the school system. These groups shared the task in terms of facilitating student learning either directly or indirectly.

Part of the teachers’ activity systems are the rules or regulations in the school environment that inhibit or promote how teachers implement their pedagogical innovation. All the limitations Amihan, Bituin, and Celia identified on implementing pedagogical innovation categorised under structural regulation were the high number of students to teacher in the classroom, lack of artefacts for learning, conflict between the school calendar and the Indigenous peoples’ observance of their cultural practices, inadequate professional development, impassive curriculum, and poor student attendance. While the commonly shared concerns of Amihan, Bituin, and Celia under structural regulation were high student ratio over teacher, lack of artefacts for learning, and the conflict in the scheduling and structuring of the mainstream school calendar with the observance of cultural practices and traditions of Indigenous peoples.
### Table 12

**Philippine Case Study Activity System**

<table>
<thead>
<tr>
<th>Philippine Case Study: Activity System</th>
<th>Amihan</th>
<th>Bituin</th>
<th>Celia</th>
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<tbody>
<tr>
<td><strong>1. Pedagogical innovation</strong></td>
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<tr>
<td>1.1. Artefacts for learning</td>
<td>![X]</td>
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<td>![X]</td>
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<tr>
<td>1.1.1. Lesson plan</td>
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<tr>
<td>1.1.2. Student modules, kit exercises</td>
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<tr>
<td>1.1.3. Teaching instruments</td>
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<tr>
<td>1.2. Appreciative mediation for learning</td>
<td>![X]</td>
<td>![X]</td>
<td>![X]</td>
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<tr>
<td>1.2.1. Teacher’s genuine appreciation and collaboration with students</td>
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<tr>
<td>1.2.1.1. Knowledge of students’ background</td>
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<tr>
<td>1.2.1.2. Positive relationship</td>
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<tr>
<td>1.2.1.3. Boosting self confidence</td>
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<td>1.2.1.4. Peer tutoring</td>
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<tr>
<td>1.2.1.5. Home visitation</td>
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<tr>
<td>1.2.2. Teacher’s teaching initiative</td>
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<tr>
<td>1.2.2.1. Integration of indigenous culture</td>
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<tr>
<td>1.2.2.2. Story telling</td>
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<td>1.2.2.3. Knowing student’s learning needs</td>
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<td>1.2.2.4. Constant monitoring of students</td>
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<td>1.2.2.5. Clear rules and instruction</td>
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<td>1.2.3. Teacher’s positive disposition</td>
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<td>1.2.3.1. Personable</td>
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<td>1.2.3.2. Teaching as a vocation</td>
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<td>1.2.3.3. Providing equality</td>
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<td>1.2.4. Teacher’s self reflection</td>
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<td><strong>2. Factors affecting implementation</strong></td>
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<td>2.1. Social support system</td>
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<td>2.1.1. Family</td>
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<td>2.1.2. Community</td>
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<td>2.1.3. School staff</td>
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<td>2.1.4. Students</td>
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<td>2.1.5. Local government</td>
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<td>2.1.6. Religious groups</td>
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<tr>
<td>2.2. Structural regulation of the school system</td>
<td>![X]</td>
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<td>![X]</td>
</tr>
<tr>
<td>2.2.1. High student ratio over teacher</td>
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<tr>
<td>2.2.2. Lack of artefacts for learning</td>
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<td>2.2.3. Conflict in school calendar and observance of cultural practice of indigenous peoples</td>
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<tr>
<td>2.2.4. Inadequate professional development for teachers</td>
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<tr>
<td>2.2.5. Impassive curriculum</td>
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<tr>
<td>2.2.6. Poor student attendance</td>
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</table>
Standards for effective pedagogy.

Comparing the activity systems of Amihan, Bituin, and Celia against Dalton and Tharp’s (2002) five effective pedagogical standards (see Table 13) shows evidence individual teachers met some of the indicators of standards for pedagogy. Tables 14 to 18 provide a brief summary of how the teachers’ activity systems coincided with the indicators of each standard for effective pedagogy.

Table 13

Five Effective Pedagogical Standards

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<tr>
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</thead>
<tbody>
<tr>
<td>1. Designs instructional activities requiring student collaboration to accomplish a joint product.</td>
<td>1. Listens to students talk about familiar topics such as home and community.</td>
<td>1. Begins activities based on what students already know from home, community, and school.</td>
<td>1. Ensures that students, for each instructional topic, see the whole picture as the basis for understanding the parts.</td>
<td>1. Arranges the classroom to accommodate conversation between the teacher and small groups of students on a regular and frequent schedule.</td>
</tr>
<tr>
<td>2. Matches the demands of the joint productive activity to the time available for accomplishing it.</td>
<td>2. Responds to student talk and questions, making “in-flight” changes during conversation that directly relate to student comments.</td>
<td>2. Designs instructional activities that are meaningful to students in terms of local community norms and knowledge.</td>
<td>2. Presents challenging standards for student performance.</td>
<td>2. Ensures that a clear academic goal guides conversation.</td>
</tr>
<tr>
<td>3. Arranges classroom seating to accommodate students’ individual and group needs to communicate and work jointly.</td>
<td>3. Assists language development through modeling, eliciting, probing, restating, clarifying, questioning, praising, etc., as appropriate, in purposeful conversation.</td>
<td>3. Acquires knowledge of local norms and knowledge by talking to students, parents, community members, and by reading pertinent documents.</td>
<td>3. Designs instructional tasks that advance student understanding to more complex levels.</td>
<td>3. Ensures that student talk occurs at greater rates than teacher talk.</td>
</tr>
<tr>
<td>4. Participates with students in joint productive activity.</td>
<td>4. Interacts with students in ways that respect student preferences for speaking that may be different from the teacher’s, such as wait-time, eye contact, turn-taking and spotlighting.</td>
<td>4. Assists students to connect and apply their learning to home and community.</td>
<td>4. Assists students to accomplish more complex understanding by relating to their real-life experience.</td>
<td>4. Guides conversation to include students’ views, judgments and rationales, based on text evidence and other substantive support.</td>
</tr>
<tr>
<td>5. Organizes students in a variety of groupings such as by friendship, mixed academic ability, language, project, interests, etc. to promote interaction.</td>
<td>5. Makes explicit connections between student language and literacy and academic content.</td>
<td>5. Plans jointly with students to design community-based learning activities.</td>
<td>5. Gives clear, direct feedback about how student performance compares with the challenging standard.</td>
<td>5. Ensures that all students are included in the conversation.</td>
</tr>
<tr>
<td>6. Plans with students how to work in groups and move from one activity to another such as from large group introduction to small group activity, for clean-up, dismissal, and the like.</td>
<td>6. Encourages students to use content vocabulary to express their understanding.</td>
<td>6. Provides opportunities for parents to participate in classroom instructional activities.</td>
<td>6. Listens carefully to assess levels of student understanding.</td>
<td></td>
</tr>
<tr>
<td>7. Manages student and teacher access to materials and technology to facilitate joint productive activity.</td>
<td>7. Provides frequent opportunity for students to interact with each other and the teacher during instructional activities.</td>
<td>7.Varies activities according to students' preferences, from collective and cooperative to individual and competitive.</td>
<td>7. Assists student learning throughout the conversation by questioning, restating, praising, encouraging, etc.</td>
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</tr>
<tr>
<td>8. Monitors and supports student collaboration in positive ways.</td>
<td>8. Encourages student use of first and second languages in instructional activities.</td>
<td>8. Varies styles of conversation and participation to include students' cultural preferences, such as co-narration, call-and-response, choral, among others.</td>
<td>8. Guides the students to prepare a product that indicates the instructional conversation's goal was achieved.</td>
<td></td>
</tr>
</tbody>
</table>
**Standard I: Joint productive activity.**

Table 14
*Philippine Case Study Activity System in Relation to Standard I*

<table>
<thead>
<tr>
<th>Indicators for Standard I are that the teacher:</th>
<th>Amihan</th>
<th>Bituin</th>
<th>Celia</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Designs instructional activities requiring student collaboration to accomplish a joint product.</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>2. Matches the demands of the joint productive activity to the time available for accomplishing them.</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>3. Arranges classroom seating to accommodate students' individual and group needs to communicate and work jointly.</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>4. Participates with students in joint productive activity.</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>5. Organizes students in a variety of groupings such as by friendship, mixed academic ability, language, project, interests, etc. to promote interaction.</td>
<td>✔️</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>6. Plans with students how to work in groups and move from one activity to another such as from large group introduction to small group activity, for clean-up, dismissal, and the like.</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>7. Manages student and teacher access to materials and technology to facilitate joint productive activity.</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>8. Monitors and supports student collaboration in positive ways.</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
</tbody>
</table>

Indicators 1, 2, and 8 (designs instructional activities requiring student collaboration to accomplish a joint product; matches the demands of the joint productive activity to the time available for accomplishing them; and monitors and supports student collaboration in positive ways) for Standard I were evident in the activity systems of Amihan, Bituin, and Celia. The three teachers designed activities for students that necessitate collaboration to achieve the activity’s objectives within the timeframe. They also monitored and encouraged student collaboration. Amihan identified difficult words that students would encounter before they read the short story. She used some of these
words in real life situations so students could relate to them easily. She then made the students share their understanding of the difficult words using their own experiences and, when students were ready, Amihan asked for a volunteer to read the short story in class. After reading the short story, Amihan showed a diagram on the blackboard to test student understanding, which the students all responded to together. Amihan looked on while she let her students respond to the diagram exercise.

Bituin always had an activity after each discussion. From the observed classroom activity, she posted physics problems written on manila paper on the blackboard. She asked her students to answer the questions and encouraged them to ask their fellow classmates for help if needed. Bituin monitored students by going around the classroom looking at students’ work.

Celia used a paper ball game to motivate her students, pre-assess their needs, and initiate the lesson. Question cards were waiting for students to choose from if the paper ball landed with them once the music stopped. If a student did not know the answer, his or her fellow classmates helped out. Celia facilitated the whole activity together with the students.

Indicator 4 (participates with students in joint productive activity), teacher participates with students in joint productive activity, was apparent in both Amihan and Celia’s classroom practices. For instance, Amihan used story telling to relate her personal experience as an example to discuss difficult terms with her students during their reading activity. Her sharing of her story made her part of the whole classroom activity. Celia participated in the ball game activity she initiated in class. She was managing the game in terms of operating the music, distributing the question cards, and checking if the answers or computations of students were correct.

Celia organised her students in groupings based on students’ mixed academic ability and ethnicity to promote interaction, which is indicator 5 (organizes students in a variety of groupings such as by friendship, mixed academic ability, language, project, interests, etc. to promote interaction). According to Celia, Mangyan students who need help with the lesson are grouped or paired with fellow students who can work with them; thus to promote interaction from the whole class during group activities, Celia
made sure that her Mangyan students were distributed among other groups and not grouped together.

Indicators 3, 6, and 7 (arranges classroom seating to accommodate students' individual and group needs to communicate and work jointly; plans with students how to work in groups and move from one activity to another such as from large group introduction to small group activity, for clean-up, dismissal, and the like; and manages student and teacher access to materials and technology to facilitate joint productive activity) of Standard I were not apparent in the activity systems of Amihan, Bituin, and Celia.

**Standard II: Developing language and literacy across the curriculum.**

Table 15

*Philippine Case Study Activity System in Relation to Standard II*

<table>
<thead>
<tr>
<th>Indicators for Standard II are that the teacher:</th>
<th>Amihan</th>
<th>Bituin</th>
<th>Celia</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Listens to student talk about familiar topics such as home and community.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>2. Responds to student talk and questions, making “in-flight” changes during conversation that directly relate to student comments.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Assists language development through modeling, eliciting, probing, restating, clarifying, questioning, praising, etc., as appropriate, in purposeful conversation.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Interacts with students in ways that respect student preferences for speaking that may be different from the teacher's, such as wait-time, eye contact, turn-taking and spotlighting.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>5. Makes explicit connections between student language and literacy and academic content.</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Encourages students to use content vocabulary to express their understanding.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Provides frequent opportunity for students to interact with each other and the teacher during instructional activities.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>8. Encourages student use of first and second languages in instructional activities.</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Indicators 1, 4, and 7 (listens to student talk about familiar topics such as home and community; interacts with students in ways that respect student preferences for speaking that may be different from the teacher's, such as wait-time, eye contact, turn-taking and spotlighting; and provides frequent opportunity for students to interact with each other and the teacher during instructional activities) of Standard II were apparent in the activity systems of Amihan, Bituin, and Celia. The teachers all listened to their students, particularly the Indigenous Peoples’ talk about their home, conditions in life, and their community. Amihan, Bituin, and Celia interacted with students, particularly the Mangayan and Aeta Magbukon, with respect to their cultures and preferences. They also provide opportunities for student and teacher interaction during instructional activities.

All three teachers agreed that a big part of student learning is through listening to their students, which leads teachers to gain knowledge of their background. For example, Amihan, who had been adopted by Aeta Magbukon parents, was aware of the academic performance and socio-economic condition of her Aeta Magbukon students. She understood where her students were coming from and appreciated their culture and tradition. There were instances when she had to extend her discussion to give time for her Aeta Magbukon students to process the lesson and to ask questions. Since the school is situated within the community of Aeta Magbukon where Amihan also lives with her Aeta Magbukon husband, it became easier for Amihan to acknowledge the situation not only of her students but of their families as well.

Similarly, Bituin appreciated the openness of her Mangyan students when it came to their identity. Her students would confess their feelings of inferiority towards other students because of being a Mangyan. Bituin would always remind them that they should always be comfortable and proud of whom they are. Though Bituin herself is not a Mangyan, she was familiar with their culture and traditions. She had experienced the Mangyan way of life and so was able to appreciate them being Indigenous Peoples. Like Amihan, she too extends her lesson to accommodate their needs and to provide more time to interact and ask questions.

Celia shared the same sentiment about her Mangyan students. By listening to their stories and witnessing their life’s condition first hand she could appreciate the students in a positive way. Celia knew her Mangyan students needed to cross ten rivers to reach
school. Sometimes these students went to school with an empty stomach so teachers like Celia would give what they had. In class, Celia would give them time to think, ask, and answer the question because that is how they learn and she welcomed that.

Indicator 8 (encourages student use of first and second languages in instructional activities) was evident in the activity of Amihan. Being a fluent speaker of Aeta Magbukon language, Amihan effectively conversed with her students. Beside the Indigenous language, English and Filipino were also being used inside the class. All three languages were accepted. When Amihan’s students found difficulty in understanding English academic content, she would use Filipino and Aeta Magbukon to make them understand easily. Students were also encouraged to used Filipino or Aeta Magbukon language when they found it hard to express themselves in English.

Indicators 2, 3, and 6 (responds to student talk and questions, making “in-flight” changes during conversation that directly relate to student comments; assists language development through modeling, eliciting, probing, restating, clarifying, questioning, praising, etc., as appropriate, in purposeful conversation; and encourages students to use content vocabulary to express their understanding) were not explicitly evident amongst Amihan, Bituin, and Celia’s activity systems.

**Standard III: Making meaning: Connecting school to student’s lives**

Table 16

*Philippine Case Study Activity System in Relation to Standard III*

<table>
<thead>
<tr>
<th>Indicators for Standard III are that the teacher:</th>
<th>Amihan</th>
<th>Bituin</th>
<th>Celia</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Begins activities based on what students already know from home, community, and school.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>2. Designs instructional activities that are meaningful to students in terms of local community norms and knowledge.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>3. Acquires knowledge of local norms and knowledge by talking to students, parents, community members, and by reading pertinent documents.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>4. Assists students to connect and apply their learning to home and community.</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Plans jointly with students to design community-based learning activities.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Provides opportunities for parents to participate in classroom instructional activities.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Varies activities according to students’ preferences, from collective and cooperative to individual and competitive.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Varies styles of conversation and participation to include students' cultural preferences, such as co-narration, call-and-response, choral, among others.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Amihan, Bituin, and Celia showed evidence for indicators 1 and 3 (begins activities based on what students already know from home, community, and school; and acquires knowledge of local norms and knowledge by talking to students, parents, community members, and by reading pertinent documents) in their activity systems. They started their instructional activities based on what student’s already knew from home, community, and school. Amihan, Bituin, and Celia also advanced their knowledge of the local norms through interaction with students, parents, and the community. For instance, Amihan integrated indigenous culture in her class activity. She used aspects of Aeta Magbukon’s culture and beliefs in her discussion such as their indigenous dance and song. She also communicated with the students in their indigenous language to get their attention and to explain any ideas which were confusing for the Aeta Magbukon students. Living within the Aeta Magbukon community and being one of them had been advantageous for Amihan as she was well aware of what was happening with her students and in the community. She easily consulted with parents on how best she could assist students especially when they went on leave due to cultural practices that conflicted with the school calendar.

Bituin began her lesson by asking students what they knew. She often called her Mangayan students in class to recite or answer exercises on the board to encourage them to participate, to push them not to be timid, to gain confidence, and to be comfortable about who they were. Bituin’s knowledge of the Mangyan Indigenous Peoples was based on her personal experience, as she was immersed in the community as part of her teacher training and when she did home visitation. These experiences had resulted in Bituin gaining deeper understanding and appreciation of the Indigenous.
community and their culture, which affected her approach to teaching especially with her Indigenous students.

Celia started her class through a review of what students knew and what they still needed to learn. When she called on Mangyan students to respond in class, Celia made sure that she gave them time to think and answer because she knew that her students really wanted to learn. Celia’s personal experience through home visitation in the Mangyan community had increased her level of understanding, knowledge, and appreciation of her Mangyan students. Her teaching approach had changed as she contextualised the situation of her Mangyan students in terms of their culture, location, and struggles in life. Celia became more considerate of her students’ condition.

Besides Indicators 1 and 3, Amihan received a positive response for indicators 2, 4, and 8 (designs instructional activities that are meaningful to students in terms of local community norms and knowledge; assists students to connect and apply their learning to home and community; and varies styles of conversation and participation to include students' cultural preferences, such as co-narration, call-and-response, choral, among others). Being an Aeta Magbukon and living within the community had been beneficial for Amihan in terms of connecting her classroom activities with student’s lives. Her knowledge of indigenous language, culture, and tradition made it easy for her to create instructional activities that were meaningful and linked to the local norms such as the use of indigenous song and dance. Through her story telling, she clearly related the connection and application of Aeta Magbukon student’s learning to their home and community. With her fluency in the Aeta Magbukon language and familiarity with the culture, Celia easily accommodated her students’ needs including their cultural preferences.

Indicators 5, 6, and 7 for Standard III (plans jointly with students to design community-based learning activities; provides opportunities for parents to participate in classroom instructional activities; and varies activities according to students' preferences, from collective and cooperative to individual and competitive) were not apparent in the activity systems of Amihan, Bituin, and Celia.
**Standard IV: Teaching complex thinking: Cognitive challenge**

Table 17

Philippine Case Study Activity System in Relation to Standard IV

<table>
<thead>
<tr>
<th>Indicators for Standard IV are that the teacher:</th>
<th>Amihan</th>
<th>Bituin</th>
<th>Celia</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ensures that students, for each instructional topic, see the whole picture as the basis for understanding the parts.</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>3. Designs instructional tasks that advance student understanding to more complex levels.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Assists students to accomplish more complex understanding by relating to their real-life experience.</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>5. Gives clear, direct feedback about how student performance compares with the challenging standard.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Indicators 1 and 4 (ensures that students, for each instructional topic, see the whole picture as the basis for understanding the parts; and assists students to accomplish more complex understanding by relating to their real-life experience) are visible in the cases of Amihan, Bituin, and Celia. Through teachers’ lesson plans, Amihan, Bituin, and Celia ensured students followed a structure that would help them understand the topic from general to specific or vice-versa. To make complex ideas in the lesson simple, Amihan, Bituin, and Celia linked it to the realities of life.

For each instructional topic, Amihan was guided by her lesson plan. With the objectives in mind, she started with motivation, followed by a review of the previous lesson, introduction and discussion of the topic, a short exercise, evaluation, and assignment. Her story telling style of discussion made it fun and easier for students to understand the topic. This was because she narrated key ideas of the lesson using her own life stories and linked to the students’ own experiences. This not only made the topic easy to understand but it also made it relevant to the students.

Similarly, Bituin followed a lesson plan that started with a review of the previous lesson, followed by the discussion, then an activity and checking of the activity, and
finally, evaluation and assignment. This methodical structure guided her in the execution of the topic so students could follow the flow of the lesson and understand the topic better. In her discussion, Bituin inserted personal wisdom and stories in class to make the classroom atmosphere more conducive for learning.

The flow of Celia’s teaching inside the classroom was based on her lesson plan. She started with a review of the previous lesson, followed by a motivational activity, then a class exercise, a discussion of the main topic, followed by individual activity, and the assignment. It may be difficult to insert life experiences in explaining Maths but Celia believed that knowing your individual students’ strengths and weaknesses would be a good starting point in learning the topic.

Indicators 2, 3, and 5 (presents challenging standards for student performance; designs instructional tasks that advance student understanding to more complex levels; and gives clear, direct feedback about how student performance compares with the challenging standard) were not observed in Amihan, Bituin, and Celia’s activity systems.

*Standard V: Teaching through instructional conversation*

**Table 18**

*Philippine Case Study Activity System in Relation to Standard V*

<table>
<thead>
<tr>
<th>Indicators for Standard V are that the teacher:</th>
<th>Amihan</th>
<th>Bituin</th>
<th>Celia</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Arranges the classroom to accommodate conversation between the teacher and small groups of students on a regular and frequent schedule.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Ensures that a clear academic goal guides conversation.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Ensures that student talk occurs at higher rates than teacher talk.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Guides conversation to include students' views, judgments and rationales, based on text evidence and other substantive support.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Ensures that all students are included in the conversation.</td>
<td>✔️✔️✔️</td>
<td>✔️✔️✔️</td>
<td>✔️✔️✔️</td>
</tr>
<tr>
<td>6. Listens carefully to assess levels of student</td>
<td>✔️✔️✔️</td>
<td>✔️✔️✔️</td>
<td>✔️✔️✔️</td>
</tr>
</tbody>
</table>
understanding.

| 7. Assists student learning throughout the conversation by questioning, restating, praising, encouraging, etc. | ✓ | ✓ | ✓ |

| 8. Guides the students to prepare a product that indicates the instructional conversation's goal was achieved. | |

As table 14 shows, indicators 5, 6, and 7 (ensures that all students are included in the conversation; listens carefully to assess levels of student understanding; and assists student learning throughout the conversation by questioning, restating, praising, encouraging) were evident in Amihan, Bituin, and Celia’s activity systems. During class discussion, all three teachers made sure that all students had opportunities to answer and ask questions and to participate in the class conversation or activity. In their conversations, teachers showed evidence of assessing levels of understanding of students and assisting student learning by questioning, restating, and encouraging. In the following transcripts from the classes of Amihan, Bituin, and Stacey with their respective students, it can be seen how these teachers focused on the topic and how they guided students to increase their understanding through a series of questions, restating, praising, and examples.

**Amihan:** Sino sa inyo ang umaalis sa bahay ng hindi nagpapaalam sa magulang? (nagtaasan ang kamay ng mga estudyante) Ano kaya ang nararamdaman ng magulang nyo kapag hindi kayo nagpapaalam? (Who among you left home without telling their parents where they were going? [Students raised their hands] What do you think your parents feel when you leave home without telling your whereabouts?)

Student 1: Nag-aalala. (worried)

Student 2: Pinalo po. (My parents smacked me)

Student 3: Pinagalitan. (My parents got mad at me)

Student 4: Pinagsabihan na huwag aalis ng bahay ng hindi nagpapaalam. (I was told not to leave the house without telling them.)

Amihan: Pinalo, pinagalitan, pinagsabihan. Yung mga pangaral ng mga magulang pagkatapos nyong pagalitan o pagsabihan ng mga magulang nyo ay natatandaan nyo ba? Sinusundod nyo ba ang mga pangaral nila?
(You were smacked, reprimanded, and advised not to do it again. After being scolded by your parents, do you remember it by heart and never do it again?)

Student 3: Sumusunod na po
(I follow what my parents say.)

Amihan: Kung halimbawa napag sabihan na kayo ng magulang nyo at hindi nyo pa rin sinunod, ano kaya mararamdaman ng magulang nyo?
(When your parents told you not to do it again but you did not listen, how do you think they would feel?)

Student 2: magagalit
(They will get angry.)

Amihan: Magagalit. Pero bukod sa galit, ano pa kaya mararamdaman ng mga magulang nyo?
(Besides being angry, what else they would feel?)

Student 1: Maiinis.
(They will get furious.)

Amihan: Maiinis. Tama, maiinis siguro iniisip nila paano ko kaya mapapasunod ang aking anak.
(Correct, your parents will be furious because they would ask themselves, how can I make my children obey me).

Bituin: What are the given in the problem and what is the unknown?

Student 1: The unknown is heat.

Bituin: Yes. What are given in the problem?
Student 2: 200 grams

Bituin: What is 200 grams?
Student 3: It is the mass.

Bituin: Mass is 200 grams. Another given?
Student 4: 4,180

Bituin: And what is 4, 180?
Student 4: It is the specific heat of water

Bituin: Ok, 4,180 joules kilogram degree kelvin is the specific heat of water. Yes, another given?

Student 5: The final temperature.

Bituin: And what is the final temperature?
Student 6: 75 degrees Celcius

Bituin: Are there anymore given?
Class: Wala na po.
(None.)

Bituin: So what do we do now?
Student 7: Change the temperature into degrees Kelvin since the specific heat is in degrees Kelvin.

Bituin: Ok. So what now is the given formula to convert degrees Celcius to Kelvin?
Student 4: Add 273 to 75 degrees, which is equal to 348 degrees Kelvin and same with degrees Celcius, which is 298.

Bituin: Ok. Can we now get the change in temperature? How? Other hands.
Student 8: 15 degrees Kelvin

Bituin: How did you come about 15 degrees Kelvin?
Student 8: Subtract 348 to 298 degrees Kelvin.
Bituin: Are there any more that needs to be converted?
Student 9: Yes. The mass.
Bituin: Why do we need to convert the mass?
Student 9: To change gram to kilogram
Bituin: Are the given completed?
Class: Yes.
Bituin: Ok. Very good.

Celia: What are the symbols for inequality?
Student 1: Less than
Student 2: Greater than
Student 3: Less than or equal to
Student 4: Greater than or equal to
Student 5: Not equal to.
Celia: Very good. Can you give again the symbols for inequality?
Student 6: Less than, greater than, less than or equal to, greater than or equal to, and not equal to.
Celia: Very good. Now let’s answer the exercises.
Student 7: $3 + x = 4$ (wrote the answer on the board)
Celia: Very good. Next question.
Student 8: $3x - 2 = 4$ (wrote the answer on the board)
Celia: Is that correct? What should be the value of $x$ to make the equation true? Anyone who would like to help her?
Student 9: (wrote the formula on the board)
Celia: (Checked the formula on the board). Correct. We go to the next number.
Student 10: (wrote the formula on the board)
Celia: Based on the equation is $10 < 10$ correct?
Student 11: (wrote the formula on the board)
Celia: Can you please explain your formula?
Student 11: $x - 1 < 10$, $9 - 1 < 10$, $8 < 10$
Celia: Very good.

Indicators 1, 2, 3, 4, and 8 (arranges the classroom to accommodate conversation between the teacher and small groups of students on a regular and frequent schedule; ensures that a clear academic goal guides conversation; ensures that student talk occurs at higher rates than teacher talk; guides conversation to include students' views, judgments and rationales, based on text evidence and other substantive support; and guides the students to prepare a product that indicates the instructional conversation's goal was achieved ) were not apparent in Amihan, Bituin, and Celia’s activity systems.
Discussion of Philippine cross case analysis.

Artefacts for learning.

The used of artefacts for learning was evident in Amihan, Bituin, and Celia’s classes, and these included blackboard, chalk, diagrams, manila paper, and CD player. Artefacts for learning are important in engaging students especially in Maths (Gellert, 2004). The use of visuals is an effective tool in stimulating students, especially those from diverse backgrounds (Carrier, 2005; Vaughn et al., 2003). A simple chalk and talk lesson also has positive effects on the learners especially when indigenous knowledge is incorporated into teaching (Nelisi 1999, as cited in Coxon et al., 2002).

All three teachers identified the use of lesson plans as their guide or blue print for teaching as one of their pedagogical innovations. According to Koslofsky (1984), “a well prepared lesson plan is the most effective tool for effective teaching and classroom control”. In a study by Schumacher, Grigsby, and Vesey (2015), the authors determined four domains of effective teaching behaviours, namely: classroom management, organising instruction, implementing instruction, and monitoring progress and potential. The daily lesson plan of teachers was identified as the key element in the area of organising instruction.

To support the learning of their students Amihan, Bituin, and Celia also used learning modules. Learning modules are a specific type of learning resource, which cover either “a single element of subject matter content or a group of content elements forming a discrete unit of subject matter or area of skill that is self-contained, self-instructional packages, with learning paced by each student according to his/her individual needs and ability” (Ali, Ghazi, Khan, Hussain, & Faitma, 2010, p. 50). According to Barnes, Mayer, Alfred, and Hayman (2000) the use of modules motivates and benefits students with their learning. Ali et al. (2010) concluded in their study modules are effective in the teaching of biology and recommended that this instructional approach be applied in other subject areas and levels. Lloyd and Abbey (2009) identified the use of modules as one of the effective strategies to promote active learning, especially for high-risk students. Hence, the use of artefacts for learning as part of teachers’ pedagogical innovations in this study supported the findings in the literature and added value in improving student learning based on this study.
Appreciative mediation for learning.

Genuine appreciation and collaboration with students.

One of the themes of appreciative mediation for learning that Amihan, Bituin, and Celia demonstrated was genuine appreciation and collaboration with students, which included knowledge about students, home visitation, nurturing positive relationships, encouraging students to build their self-confidence, and peer tutoring. Relationship building with students is key to effective teaching and learning (MacSuga-Gage, Simonsen, & Briere, 2012). Hill (2014) added that forming positive relationships with students and caring about their learning is as equally important as teacher’s competence in terms of knowledge of content and teaching. Even for at risk students, student-teacher relationship like having high expectation is an important element towards effective teaching and learning (Popp, Grant, & Stronge, 2011). Giving high regard for the student as sign of teacher-student partnership is another significant part of effective teaching (Komos, 2013). Consulting with students and getting their feedback would not only determine their needs in terms of hearing their voice and knowing their feelings but it would also guide teachers in becoming effective in what they do (Demetriou & Wilson, 2010; Hopkins, 2010; Webb & Vulliamy, 2007). Peer tutoring is an example on how teacher and student collaborate and works well with students form diverse cultural backgrounds (Allison & Rehm, 2007). Students with different levels of abilities and backgrounds are paired up as teachers and resources for each other resulting to learning, achievement and friendship between students (Snowman & Biehler, 2003). Thus, genuine appreciation and collaboration with students was one of the ways teachers in this study mediated student learning as part of their pedagogical innovations. This was demonstrated through knowledge of student background, positive relationship, boosting students’ self confidence, and peer tutoring, which supported the findings in the literature and added value in improving student learning based on this study.

Teaching initiative.

Teacher’s teaching initiative is another theme under appreciative mediation for learning exhibited by Amihan, Bituin, and Celia. This involved teachers taking the lead with students in terms of integrating indigenous culture in class discussion, identifying students’ learning needs, monitoring students constantly, and providing motivational activities. It has been proven that integration of indigenous culture works for a culturally diverse class (Lewthwaite et al., 2015; Nam, Roehrig, Kern, & Reynolds,
Considering students’ needs is also central to effective teaching and learning (Roberts & DeMatteo, 2012). According to Christenbury (2011) effective teaching is reliant on the teacher’s flexibility to respond to the classroom context and students’ needs, wherein the teacher is fearless in putting student learning first. Hence, teachers and schools must be responsive and adaptive to the changing faces and cultures of student populations and their needs while maintaining provisions for equity of access to all (Tomlinson, 2015). Moreover, monitoring students’ progress was another aspect of the Philippine case study teachers’ initiatives. Monitoring students’ understanding and adjusting instruction accordingly is one of the features of good teaching (Phillips, 2013). Other studies have shown that though monitoring students may sound restricting, it results in positive effects on students’ motivation (Skinner & Belmont, 1993; Weinert & Helmke, 1995). Together with teacher monitoring is the rule on clarity as part of classroom management. Teachers communicating clear instructions inside the classroom had positive effect on student motivation and learning (Kunter et al., 2007; Walberg & Paik, 2000).

Moreover, motivational activities were an essential part in Amihan, Bituin, and Celia’s classes. Before these teachers started the main discussion, a classroom activity or icebreaker was presented to stimulate interest and learning amongst students. These included story telling, games, and question and answer. Bernheimer (2005) argued that story telling is key to effective teaching for it generates a different level of personal understanding and perspective in life. Nietzke (1988) believed that through story telling students’ interests and attention are captured. Wirth and Gamon (1999) asserted that telling stories is an effective teaching tool because stories effect changes in the physiological and psychological being of the listener plus the fact that affective information is easier to recall than cognitive information. On the other hand, the use of games particularly in Maths is affirmed to be an effective teaching and learning strategy (Dillon, Ollerton, & Plant, 2012). Therefore, teaching initiatives were one of the ways teachers in this study mediated student learning as part of their pedagogical innovations. This was demonstrated through integration of indigenous culture, knowing students’ learning needs, constant monitoring of students, and motivational activities, which supported the findings in the literature and added value in improving student learning based on this study.
Positive disposition.

Amihan, Bituin, and Celia exhibited a positive disposition towards their teaching; seeing teaching as a vocation, being personable, and having a strong belief in equality. In her study, Koutrouba (2012) identified that personal traits attributed to effective teachers; such traits included the positive outlook of teachers such as display of friendliness, open-mindedness, tactfulness, supportiveness, and respect and humour. Similarly, Alemu (2014) identified some personal factors of an effective instructor such as being respectful, caring about students’ success, and friendliness. Thus, positive disposition was one of the ways teachers in this study mediated student learning as part of their pedagogical innovations. This was demonstrated through viewing teaching as a vocation, being personable, and providing equality in class, which supported the findings in the literature and added value in improving student learning based on this study.

Self reflection.

Amihan, Bituin, and Celia practised self reflection as a way to assess and improve their teaching. According to Lu (2014), “reflection can help teachers unpack the complexity in their practice” (p. 13). In his study, Lu found that self reflection has helped teacher participants remember what they learned, inspired them to apply what they learned in their classrooms, and made them more reflective and open-minded. Likewise, Khan (2014) recommended the integration of reflection in teacher education programmes. Hence, self reflection was one of the ways teachers in this study mediated student learning as part of their pedagogical innovations, which supported the findings in the literature and added value in improving student learning based on this study.

Factors affecting implementation.

Finally, the findings on the factors in the individual teachers’ school environments that inhibit or promote how teachers implement pedagogical innovation show two categories: the social support system and structural regulation of the school system. The social support system of teachers promoted teacher’s pedagogical innovation through the presence of family, community, school staff particularly school principals, students, local government, and religious groups. The study of Thuwayba Ahmad Al, Wajeha Thabit, and Ismail Hussein (2012) identified community relationship, such as involving society in the educational process, to be the most important factor towards effective teaching. Home-community-school engagement is crucial to effective
teaching and learning in terms of enhancing students’ engagement and achievement (Bednarz et al., 2008; Kielsmeier et al., 2004; Kolb, 1984). The role of the school principal is also fundamental in making schools effective. In a school context, the quality of leadership reflects the extensive, incremental, and profound change that schools experience (Fullan, 2006; Sparks, 2005). School leaders such as principals play a vital role in facilitating change, supporting innovation, and bringing improvement to school (Fleming, 1999; Hord, 1998). Principals wear many hats, juggle responsibilities, and manage tensions. According to Fullan (2002) well equipped principals are the key players in handling complex situations and implementing reform that results in sustaining student achievement. Principals are one of the primary sources of successful leadership. Their success in leading the school contributes to the improvement of student learning (Leithwood and Riehl, 2003 as cited in Mulford & Moreno, 2006). Hence, the principal and the external and internal members of the school community played a vital role in supporting teachers’ implementation of their pedagogical innovations.

Based on the findings, there are also some structural regulations of the school system – physical and substantive attributes of the school – that inhibit how teachers implement their pedagogical innovation. In the case of these Philippine teachers, these include high student ratio over teacher, lack of artefacts for learning, conflict between the school calendar and the observance of cultural practices of indigenous peoples, inadequate professional development, impassive curriculum, and poor student attendance.

**Standards for effective pedagogy.**

The activity systems of Amihan, Bituin, and Celia – that is, their pedagogical innovation, artefacts for learning, appreciative mediation, and including the factors affecting the implementation of pedagogical innovation – show evidence of meeting some of the indicators of each of the five standards of effective pedagogy. Illustrative examples from each activity system were described. Not all indicators per standard were observed from Amihan, Bituin, and Celia; however, at least two to three indicators for each standard were evident across the three teachers’ practice. According to Mulford and Moreno (2006) “these standards express criteria and crucial elements for the transformation of classrooms from the 'receptacle-recitation' model to that of the socially productive, actively engaged, dialogically based CHAT model” (p. 182). Hence, fundamental features for classroom reform towards quality teaching were
present in Amihan, Bituin, and Celia’s pedagogy. This proved that teachers’ pedagogical innovations mediate and improve student learning.

New Zealand Case Study

This section describes findings of cross case analysis of the six individual cases in the New Zealand schools in the study. A brief description of the themes that emerged from the teachers’ activity system based on pedagogical innovation and factors affecting implementation of pedagogical innovation is presented (see Table 19). The second part compares teachers’ activity systems against the five standards for effective pedagogy and their indicators.

Activity system.

Based on the within case analysis of the activity systems of participant teachers in New Zealand, the themes that emerged concerning pedagogical innovation were categorised into two: artefacts for learning and appreciative mediation for learning. All six teachers utilised artefacts for learning or “human-made objects that are found in learning environments” Dalton and Tharp (2002). Examples of these artefacts for learning used were blackboard, musical instruments, books, and various visual aids like posters, drawings, and diagrams.

Artefacts for learning also included the utilisation of information and communications technology (ICT), creation of student modules, and use of teaching instruments. Dan, Eileen, Eden, and Elizabeth used information and communication technologies such as laptops, chromebooks, tablets, Internet, websites, smart boards, and LCD projectors.

Danica, Dan, Eileen, and Eden produced student modules and reflection book for students to assist them with their learning. Modules included a brief discussion of the topic and exercises for students to answer. For Eden, reflection books were more of a personal journal that narrated the progress of the students when it comes to music. The reflection book of the students assisted Eden in assessing their development and areas that needed improvement.

In terms of appreciative mediation for learning, the main themes were teachers’ genuine appreciation and collaboration with students, teachers’ teaching initiatives, teachers’ positive disposition, and teachers’ self reflection. Teachers’ genuine appreciation and
collaboration with students involved having positive relationship with students, valuing students’ feedback, knowing the students and their backgrounds, home visitation, having high expectations for students, and boosting their self-confidence. These were manifestations of Darla, Danica, Dan, Eileen, Eden, and Elizabeth’s appreciation of their students and an acknowledgement of their abilities and capabilities.

Teachers’ teaching initiative refers to the leadership of the teacher inside the classroom. It combines teachers’ creativity and knowledge about how best he or she can lead students toward learning. In the case of the New Zealand teachers, this involved making learning relevant to students, knowing students’ learning needs, chunking down students’ work, dividing and grouping students wisely, maximum and proper use of space and making it safe, giving clear instructions, integrating learning with other subject matter, scaffolding, tapping resource persons for class discussion and story telling.

In this study, teachers’ positive disposition pertained to the teacher being personable, valuing equality, appreciating technology, and pride in his or her ethnicity. These were the personal traits and beliefs of all six teachers that made them work well with students.

Self reflection after each class was used by Darla and Eden to personally assess their own performance. It was their way of reflecting on what worked, what did not work, and what could be improved in their pedagogy.

Various factors from the teachers’ individual environments, such as the social support system or the social group of the teacher, affect teacher’s activity systems in New Zealand. The social support systems identified by the six teachers as affecting their activity systems were family, community, students, school staff, teacher aide, and translator. These individual groups supported and influenced the teachers in terms of student learning, either directly or indirectly.

The teachers’ activity systems were also affected by structural regulations of the school system. For the six teachers in general, the top common limitations on implementing pedagogical innovation were limited artefacts for learning, heavy workload, impassive
curriculum, time constraints, inadequate teacher training, poor student attendance, and implicit rules.

Table 19

**New Zealand Case Study Activity System**

<table>
<thead>
<tr>
<th>New Zealand Case Study: Activity System</th>
<th>Darla</th>
<th>Danica</th>
<th>Dan</th>
<th>Eileen</th>
<th>Eden</th>
<th>Elizabeth</th>
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<tbody>
<tr>
<td>1. Pedagogical innovation</td>
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<td>1.1. Artefacts for learning</td>
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<td>1.1.1. Information and communications technology (ICT)</td>
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<td>1.1.2. Student modules, kit exercises</td>
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<td>1.1.3. Teaching instruments</td>
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<td>1.1.4. Resource person</td>
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<tr>
<td>1.2. Appreciative mediation for learning</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>1.2.1. Teacher’s genuine appreciation and collaboration with students</td>
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<td>1.2.1.1. Positive relationship</td>
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<td>1.2.1.2. Students’ feedback</td>
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<td>1.2.1.3. Knowledge on student background</td>
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<td>1.2.1.4. Home visitation</td>
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<td>1.2.1.5. High expectation</td>
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<td>1.2.1.6. Boosting students’ self confidence</td>
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<td>1.2.2. Teacher’s teaching initiative</td>
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<td>1.2.2.1. Making learning relevant to students</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>1.2.2.2. Knowing student’s learning needs</td>
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<td>1.2.2.3. Chunking the lesson</td>
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<td>1.2.2.4. Group work</td>
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<td>1.2.2.5. Use of space and making it safe</td>
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<td>1.2.2.6. Clear rules and instruction</td>
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<td>1.2.2.7. Integrated learning</td>
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<td>1.2.2.8. Scaffolding</td>
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<td>1.2.2.9. Tapping resource person</td>
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<td>1.2.2.10. Story telling</td>
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<td>1.2.3. Teacher’s positive disposition</td>
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<td>1.2.3.1. Personable</td>
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<td>1.2.3.2. Providing equality</td>
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<td>1.2.3.3. Appreciation of technology</td>
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<td>1.2.3.4. Valuing ethnic identity</td>
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<td>1.2.4. Teacher’s self reflection</td>
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<td>2. Factors affecting implementation</td>
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<td>2.1. Social support system</td>
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<td>2.1.1. Family</td>
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<td>2.1.2. Community</td>
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<td>2.1.3. School staff</td>
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<td>2.1.4. Students</td>
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<td>2.1.5. Teacher aid</td>
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<td>2.1.6. Translator</td>
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<tr>
<td>2.2. Structural regulation of the school system</td>
<td>X</td>
<td>X</td>
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<tr>
<td>2.2.1. Limited artefacts for learning</td>
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<td>2.2.2. Inadequate professional development for teachers</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>2.2.3. Heavy workload</td>
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<td>2.2.4. Impassive curriculum</td>
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<td>2.2.5. Time constraint</td>
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<td>2.2.6. Poor student attendance</td>
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<td>2.2.7. Implicit rules</td>
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</tbody>
</table>
**Standards for effective pedagogy.**

Comparing the activity systems of Darla, Danica, Dan, Eileen, Eden, and Elizabeth against the five effective pedagogical standards reveals evidence that individual teachers met some of the indicators of the standards for pedagogy. Tables 20 to 24 provide brief summaries of how the teachers’ activity systems correspond with the indicators of each standard for effective pedagogy.

**Standard I: Joint productive activity.**

**Table 20**

*New Zealand Case Study Activity System in Relation to Standard I*

<table>
<thead>
<tr>
<th>Indicators for Standard I are that the teacher:</th>
<th>Darla</th>
<th>Danica</th>
<th>Dan</th>
<th>Eileen</th>
<th>Eden</th>
<th>Elizabeth</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Designs instructional activities requiring student collaboration to accomplish a joint product.</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
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<tr>
<td>2. Matches the demands of the joint productive activity to the time available for accomplishing them.</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
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<tr>
<td>3. Arranges classroom seating to accommodate students' individual and group needs to communicate and work jointly.</td>
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<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
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<tr>
<td>4. Participates with students in joint productive activity.</td>
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<tr>
<td>5. Organizes students in a variety of groupings such as by friendship, mixed academic ability, language, project, interests, etc. to promote interaction.</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
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<tr>
<td>6. Plans with students how to work in groups and move from one activity to another such as from large group introduction to small group activity, for clean-up, dismissal, and the like.</td>
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<tr>
<td>7. Manages student and teacher access to materials and technology to facilitate joint productive activity.</td>
<td>☑</td>
<td>☑</td>
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<tr>
<td>8. Monitors and supports student collaboration in positive ways.</td>
<td>☑</td>
<td>☑</td>
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</table>
Indicators 1, 2, 5, and 8 (designs instructional activities requiring student collaboration to accomplish a joint product; matches the demands of the joint productive activity to the time available for accomplishing them; organizes students in a variety of groupings such as by friendship, mixed academic ability, language, project, interests, etc. to promote interaction; and monitors and supports student collaboration in positive ways) of Standard I were observed in the activity systems of Darla, Danica, Dan, Eileen, Eden, and Elizabeth. All six teachers designed instructional activities that necessitated student cooperation to accomplish the said activity on time. Their students were grouped based on mixed academic ability and interests during the activity. It was also evident that the constant monitoring and support teachers gave to students affirmed the importance of student collaboration.

Darla divided her class into two groups: the group of students who were ready to take the individual test and the group of students who needed more time to catch up with the lesson. The second group sat together to answer exercises prepared by Darla. They were allowed to consult with their fellow students and the teacher aide in terms of understanding the exercise. While the second group of students was answering the exercises, Darla moved around the table to check on each student. Similarly, Danica grouped her students based on their common interest to accomplish a collaborative project. Both students who liked skateboarding were grouped to produce a static image with written explanation about skateboarding and it worked for the students. Likewise, Dan prepared activities based on the interest of his students who were English for Speakers of Other Languages (ESOL). His students did a lot of writing on topics that captured their interest and were relevant to them; for example, where they came from, what they were doing in New Zealand, or describing events from their past that were important to them.

Eileen did an integrated learning project in collaboration with three other subject teachers. The theme of the project was the Pacific. For science, students studied astronomy and how early Pacific Peoples navigated the ocean. In social studies, students discussed Pacific culture. In English, students wrote about their personal experiences as Pacific Peoples. For Maths, which was taught by Eileen, they studied Pacific patterns using Match concepts of reflection, rotation, and transformation and students produced posters afterwards. Everything was incorporated, which worked out
well. Though it was extra hard work on teachers, the students enjoyed it. Similarly, presenting a group performance showcasing what they had learned from class was the task given by Eden to her students. The teacher organised the grouping of students based on their interest in music – for example, genre or the artist – based on friendship, and based on ethnicity or language. Each group was expected to prepare and present a musical number at a given schedule. Eden moved around the room to check each and every group about their preparation and where they were. Similarly, Elizabeth divided the class into small groups and assigned each group to weave a mat symbolising the students’ culture and its importance to them. Each student would share five important pieces of information about his or her culture with the group. After the sharing, the group was required to come up with a list of ten significant cultural facts and values, which would be written in the mat that they were weaving. As the activity was being done, Elizabeth moved around the room to monitor students. She even showed a video clip on how to weave a mat to guide and remind students of the process.

Indicator 3 (arranges classroom seating to accommodate students' individual and group needs to communicate and work jointly) was observed in the classrooms of Eileen, Eden, and Elizabeth. The seating arrangement was set in such a way to accommodate and facilitate students’ needs to communicate and work together. All three teachers maximised the space of their classrooms including using available space or rooms nearby. Students were given time and space to discuss and work on their respective projects.

Indicator 7 (manages student and teacher access to materials and technology to facilitate joint productive activity) of Standard I was observed in Dan, Eileen, Eden, and Elizabeth’s classes. All four teachers utilised laptops, chromebooks, and Internet website such as YouTube to facilitate joint activity and manage students’ access to technology and other resources.

Indicators 4, and 6 were not evident in Darla, Danica, Dan, Eileen, Eden, and Elizabeth activity systems.
Standard II: Developing language and literacy across the curriculum.

Table 21

New Zealand Case Study Activity System in Relation to Standard II

<table>
<thead>
<tr>
<th>Indicators for Standard II are that the teacher:</th>
<th>Darla</th>
<th>Danica</th>
<th>Dan</th>
<th>Eileen</th>
<th>Eden</th>
<th>Elizabeth</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Listens to student talk about familiar topics such as home and community.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>2. Responds to student talk and questions, making 'in-flight' changes during conversation that directly relate to student comments.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Assists language development through modeling, eliciting, probing, restating, clarifying, questioning, praising, etc., as appropriate, in purposeful conversation.</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>4. Interacts with students in ways that respect student preferences for speaking that may be different from the teacher's, such as wait-time, eye contact, turn-taking and spotlighting.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>5. Makes explicit connections between student language and literacy and academic content.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>6. Encourages students to use content vocabulary to express their understanding.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>7. Provides frequent opportunity for students to interact with each other and the teacher during instructional activities.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>8. Encourages student use of first and second languages in instructional activities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For Standard II, Darla, Danica, Dan, Eileen, Eden, and Elizabeth practised indicators 1, 4, and 7 (listens to student talk about familiar topics such as home and community; interacts with students in ways that respect student preferences for speaking that may be different from the teacher's, such as wait-time, eye contact, turn-taking and spotlighting; and provides frequent opportunity for students to interact with each other and the
teacher during instructional activities) in their respective classes. All teachers showed attentiveness in listening to what students were saying especially on familiar topics such as home and community. They interacted with students with respect to their manner of talking such as giving time to answer and making eye contact. The teachers also provided time and opportunity for students to relate to their fellow students and to dialogue with them.

Knowing students and their background provided Darla the opportunity to foster good relationship with her students. Thus, students easily opened up to her because she listened and they trusted her. Darla also believed in equality and respect among students. She gave time for students to get into their craft but not implying that they were not as good as the other students. This gesture was more about making students feel comfortable and allowing them a little more time to be ready. Darla also believed in giving students time to interact with one another, as well as a “down time” to work on their own because her students knew that there is time to learn and a time to laugh. Danica made sure that the classroom was safe and wholesome, and students show respect for each other. This was how she motivated students during their speech session in class. Students talked for three minutes about any topic of their interest, about themselves, or family. Danica gave them time to warm up and speak up. Likewise, Dan made sure that topics in his English for Speakers of Other Languages class were relevant to his students’ experiences because he believed that this was how students get motivated to write and speak up. Dan supported his students by helping them not only academically but also with other things that mattered to them. He made them feel that they were important by giving them time, finding out where they come from, and the challenges they encountered.

In doing integrated learning, Eileen’s students were able to express part of their culture and themselves creatively through Maths in conjunction with the English, Physical Education, and Arts subjects. In her classroom discussion, Eileen was observed to frequently ask students questions for clarification to know if they understood the lesson. Eileen knew that Māori and Pacific Island students were unlikely to raise their hands or say anything because they were too shy or too embarrassed, so, by consistently asking them questions, Eileen was giving them the opportunity to overcome their shyness and encouraged them to speak up when needed. Similarly, Eden promoted a classroom that encouraged an atmosphere where students could be themselves, could feel that they are
valued, and could be safe to take risks in learning. Eden also gave instant and constant feedback and dialogue with students once she heard them practice because she noticed that with young people when they came to do something and went away, they usually would not return to ask question. Likewise, Elizabeth easily encouraged her students to share their knowledge and experiences by making the topic relevant to them. One time, she showed the class a video clip on refugees, which evoked one of her students to speak about her personal journey as a refugee in New Zealand. Through the weaving of the mat activity, Elizabeth provided opportunity for her students to work and discuss their activity together. Once finished, the presentation of the mat in class gave everyone the chance to hear and witness students’ experiences and views.

Being English for Speakers of Other Languages teachers, Dan and Elizabeth exhibited indicators 3, 5, and 6 (assists language development through modeling, eliciting, probing, restating, clarifying, questioning, praising, etc., as appropriate, in purposeful conversation; makes explicit connections between student language and literacy and academic content; and encourages students to use content vocabulary to express their understanding) of Standard II. Since both teachers had students whose English was a second language, they assisted students with their English language development through modeling, eliciting, questioning, praising, discussing, etcetera. Dan and Elizabeth also made sure the topics covered in their classes were relevant to the students so they could actually see and understand the connection with their language and academic content. Moreover, both Dan and Elizabeth, through their language exercises and modules, encouraged students to use content vocabulary and contextual clues to express their understanding of ideas.

Indicators 2 and 8 (responds to student talk and questions, making 'in-flight' changes during conversation that directly relate to student comments; and encourages student use of first and second languages in instructional activities) were not apparent in the activity systems of Darla, Danica, Dan, Eileen, Eden, and Elizabeth.

**Standard III: Making meaning: Connecting school to student’s lives.**

Indicators 1 and 3 (begins activities based on what students already know from home, community, and school; and acquires knowledge of local norms and knowledge by talking to students, parents, community members, and by reading pertinent documents)
for Standard III were apparent in the classrooms of Darla, Dan, Eileen, Eden, and Elizabeth. All teachers started their activities based on what their students already knew especially from home and school. Their connection and relationship with students, parents, and the community resulted to acquire local norms and knowledge, which was helpful in their teaching. Reading pertinent documents and resources also helped these teachers to be aware and in tune with their students and environment.

Table 22

*New Zealand Case Study Activity System in Relation to Standard III*

<table>
<thead>
<tr>
<th>Indicators for Standard III are that the teacher:</th>
<th>Darla</th>
<th>Danica</th>
<th>Dan</th>
<th>Eileen</th>
<th>Eden</th>
<th>Elizabeth</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Begins activities based on what students already know from home, community, and school.</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>2. Designs instructional activities that are meaningful to students in terms of local community norms and knowledge.</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>3. Acquires knowledge of local norms and knowledge by talking to students, parents, community members, and by reading pertinent documents.</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>4. Assists students to connect and apply their learning to home and community.</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>5. Plans jointly with students to design community-based learning activities.</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>6. Provides opportunities for parents to participate in classroom instructional activities.</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>7. Varies activities according to students' preferences, from collective and cooperative to individual and competitive.</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>8. Varies styles of conversation and participation to include students' cultural preferences, such as co-narration, call-and-response, choral, among others.</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
</tbody>
</table>
By enquiring what was given and what was asked in the problem Darla allowed the students to share what they knew about the topic. She drew a diagram and students pointed out where the given should go. Darla’s classroom activity encouraged students to help one another and share what they knew, so the topic could be understood more clearly. Because she had lived in the community for a long time Darla’s positive relationship with her students extended to their parents and the community. This connection had helped her not only in teaching her students but also with how to deal with them. Likewise, Dan usually started his activity with students based on what was important them, what was relevant, and what they knew and believed. Dan believed that the way to motivate students, especially English for Speakers of Other Languages, was through capturing their interests. Dan received support from the community including a local iwi and a local organisation. He had connections with local iwi since there were lots of Māori students in school. Local organisations which Dan belonged to helped with English for Speakers of Other Languages courses and student exploration by linking with other communities. Dan was also a member of the English for Speakers of Other Languages teacher cluster whose members gather together and share information about the different tools and experiences of English for Speakers of Other Languages teachers.

Eileen regularly started her Maths class with a practice test composed of a skills test and a problem solving test before the start of the class. This activity would test what the students already knew and what needed to be improved in their learning. Eileen’s connection with the students, the parents, and the community assisting her with learning about local norms and knowledge. Having lived in the same neighborhood for quite a long time, she did home visitations among her students to catch up with their families. She also read a lot journal articles that provided her with knowledge about Pacific and Māori students. Eden required her students to write in their personal reflection book after each class. Students could write about what they had accomplished, what they had not done yet, and what they needed to do for the next lesson, what the barriers were, and how these can be addressed.

Another activity that Eden did with her class, which focused on students’ interest and choice, was the group presentation. Each group prepared a presentation that would
showcase their talent, interest, culture, and knowledge. Together with students, Eden also received support from the community, which she had established relationships with. The group presentation activity of Eden also implied Indicator 7 (varies activities according to students' preferences, from collective and cooperative to individual and competitive) for Standard III. Likewise, Elizabeth’s mat weaving activity demonstrated what the students already knew about their culture. If students weren’t sure about it, they could ask their family as to the value of their culture and what part of it was important to them. Being a Pacific person herself, Elizabeth was aware of and immersed in the community where she had lived for a long time. This meant that when assistance was needed, she knew she could always call on the family and the community, especially when it concerned the students. The mat activity of Elizabeth also exhibited Indicators 2, 4, 5, and 7 (designs instructional activities that are meaningful to students in terms of local community norms and knowledge; assists students to connect and apply their learning to home and community; plans jointly with students to design community-based learning activities; and varies activities according to students' preferences, from collective and cooperative to individual and competitive) for Standard III. All these examples, then, show that these teachers made meaning to what they teach in class by connecting school to students’ lives.

Indicators 6 and 8 (provides opportunities for parents to participate in classroom instructional activities; and varies styles of conversation and participation to include students' cultural preferences, such as co-narration, call-and-response, choral, among others) for Standard III were not apparent in the activity systems of Darla, Danica, Dan, Eileen, Eden, and Elizabeth.

**Standard IV: Teaching complex thinking: Cognitive challenge.**

Table 23

*New Zealand Case Study Activity System in Relation to Standard IV*

<table>
<thead>
<tr>
<th>Indicators for Standard IV are that the teacher:</th>
<th>Darla</th>
<th>Danica</th>
<th>Dan</th>
<th>Eileen</th>
<th>Eden</th>
<th>Elizabeth</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ensures that students, for each instructional topic, see the whole picture as the basis for understanding the parts.</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
</tbody>
</table>

205
3. Designs instructional tasks that advance student understanding to more complex levels.

4. Assists students to accomplish more complex understanding by relating to their real-life experience. ✓ ✓ ✓ ✓ ✓

5. Gives clear, direct feedback about how student performance compares with the challenging standard.

Indicators 1 and 4 (ensures that students, for each instructional topic, see the whole picture as the basis for understanding the parts; and assists students to accomplish more complex understanding by relating to their real-life experience) for Standard IV were evident in the activity systems of Darla, Dan, Eileen, Eden, and Elizabeth. All five teachers showed students how topics could be broken down into parts to make it easier to link and associate with the whole picture. In terms of assisting students to understand complex ideas, these teachers related complex thinking to students’ real-life experiences. For example, Darla believed in chunking down Maths topics into small portions so students could easily understand an individual idea and not be overwhelmed by the entire topic. Then she reinforced the understanding and moved on to teaching students the Maths skills that students needed before putting the small chunks altogether to produce the whole. In this way, students learned the background first in order to help them to appreciate the big picture. Having knowledge and experience with Māori and Pacific cultures, Darla could easily relate with the students, especially in the classroom. When difficulty struck in explaining mathematical concepts, Darla used her knowledge of students to explain the complexity of the matter by relating to their real life experiences. Similarly, Dan used students’ real-life experiences whenever they were stuck with their writing. Relevance was an important factor in the learning of English for Speakers of Other Languages students. During discussion, Dan would link things based on his students’ interests or what they were doing in class. He made students understand parts of the lesson before he presented the whole idea to the class. This was his way of making the topic simpler and less complex especially for English for Speakers of Other Languages students, who with had limited English and learned better when the topic was first divided into small parts before presenting the whole.
When Eileen did integrated learning with three other subject teachers, she explained the whole project by looking at the small parts that each participating teacher and student should accomplish. Every part of the project together composed the total concept, which in this case was the theme Pacific. Using students’ real-life experiences made it easier for students to grasp the whole concept of integrated learning, especially since the topic was something very familiar to them. Likewise, Eden applied the scaffold approach to teaching her students. She took a part of what they knew and showed them where they were supposed to be at the end. Her students worked their way up gradually until they reached what they were aiming for. Eden also kept the discussion simple by unpacking big ideas into small chunks and relating the topic to students’ life experiences such as their culture. Once students were hooked on the idea, Eden allowed them to carry on to “do their thing”, especially with their chosen musical instrument. This situation occurred when students were preparing for their group presentation. Similarly, Elizabeth assisted her English for Speakers of Other Languages students through an inductive way of coaching and practice. She started the drill from pronouncing English words properly, providing an understanding of their meanings, putting words together, and using words in a sentence. Just like Dan, Elizabeth also believed that relevance was key to student learning especially when they could relate to what was being talked about. She used examples that were close to the hearts of the students. This strategy motivated students to open up and at the same time inspired them to write.

Indicators 2, 3, and 5 (presents challenging standards for student performance; designs instructional tasks that advance student understanding to more complex levels; and gives clear, direct feedback about how student performance compares with the challenging standard) for Standard IV were not evident in the activity systems of Darla, Danica, Dan, Eileen, Eden, and Elizabeth. While no indicators for Standard IV were evident in the activity system of Danica.
Standard V: Teaching through instructional conversation.

Table 24

New Zealand Case Study Activity System in relation to Standard V

<table>
<thead>
<tr>
<th>Indicators for Standard V are that the teacher:</th>
<th>Darla</th>
<th>Danica</th>
<th>Dan</th>
<th>Eileen</th>
<th>Eden</th>
<th>Elizabeth</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Arranges the classroom to accommodate conversation between the teacher and small groups of students on a regular and frequent schedule.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Ensures that a clear academic goal guides conversation.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Ensures that student talk occurs at higher rates than teacher talk.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Guides conversation to include students' views, judgments and rationales, based on text evidence and other substantive support.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Ensures that all students are included in the conversation.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>6. Listens carefully to assess levels of student understanding.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>7. Assists student learning throughout the conversation by questioning, restating, praising, encouraging, etc.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>8. Guides the students to prepare a product that indicates the instructional conversation's goal was achieved.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Indicators 5, 6, and 7 (ensures that all students are included in the conversation; listens carefully to assess levels of student understanding and assists student learning throughout the conversation by questioning, restating, praising, encouraging) for Standard V were observed from Darla, Dan, Eileen, Eden, and Elizabeth. These teachers made sure that all students were included in the conversation such as class discussion. They carefully listened to students and assessed their levels of understanding. In Darla, Dan, Eileen, Eden, and Elizabeth’s classes, student learning happened throughout the conversation by the teachers questioning, restating, praising, and encouraging their students.
In the following transcripts from the classes of Darla, Eileen, and Elizabeth with their respective students, notice how these teachers focused on the topic and on how they guided students to increase their understanding through a series of questions, restating, praising, and examples.

**Darla:** What is the answer if you look at point A to E in the diagram?

Student 1: 7.77

Darla: Ok, let’s have a look. It’s 8.5. Put this in your calculator 7.6 do the power of two plus 3.8 power of two equals to. So what did you get?

All students: 8.4 (in chorus)

Darla: That’s great.

Student 2: That was my first answer.

Darla: You should go with it then. You should listen to yourself.

Student 3: So what do we do now?

Darla: This one (she drew a diagram)

Student 4: It’s A-C-E.

Darla: That is right. Kapai! Wait! I believe Student 5 is disputing the answer. What did you get Student 5?

Student 5: 8.24

Darla: Class, Student 5 is disputing our first answer. Let’s check. Do you agree with his answer? 8.24 it is! Well done!

**Eileen:** Why do you use longer not larger in describing arm span?

Student 1: Because it is not about the size or length.

Eileen: Yes, it’s not the length. Men have tentatively longer arm span. Why do we use tentatively?

Student 2: Because it’s on average.

Eileen: Yes, because it’s on average. You are not saying they are or they aren’t. That’s why you use the word tentatively.

Eileen: Is there anything more that is wrong with her sentence? Has she got her statistical parameter? Is she comparing two things? Has she a prediction? Has she got a reason why?

**Elizabeth:** Remember before we talked about what our culture meant to us. Now what are we going to do about it?

Student 1: We are going to weave a mat.

Elizabeth: Yes, we are going to weave symbolically our culture together; and why are we weaving it all together?

Student 2: To make it stronger.

Elizabeth: Yes, to make it strong. If we look around, there are five different ethnicities on the classroom. So we are going to weave five different mats. Given that we are all different. What will happen if you will just do your own thing?

Student 3: Nothing.

Elizabeth: But if we come all together with our ideas, what will happen?

Student 4: We will be stronger and we will learn from each other.

Elizabeth: Good. We will be stronger and learning together.
In the case of Dan and Eden, both started their classes by addressing all their students. However, Dan and Eden were more focussed on individual or small group of students with their instructional conversations due to the nature of their subject and topic. Since he was teaching English for Students of Other Languages subject, Dan’s approach was more individualised. He had a one on one dialogue with his students. This involved coaching and tutoring, which consisted of question and answer on part of both students and teacher. By listening to his students, Dan was able to assess their level of progress and understanding. Similarly, since Eden and her students were preparing for their group performances, Eden had to visit each small group to assess their progress, ask questions, encourage, and praise students about their performance plans and what they were doing correctly and creatively. Eden listened and watched as students practised their number for the group presentation. She also commented on how students could improve their performance and commended them on their effort and persistence.

Indicators 1, 2, 3, 4, and 8 (arranges the classroom to accommodate conversation between the teacher and small groups of students on a regular and frequent schedule; ensures that a clear academic goal guides conversation; ensures that student talk occurs at higher rates than teacher talk; guides conversation to include students' views, judgments and rationales, based on text evidence and other substantive support; and guides the students to prepare a product that indicates the instructional conversation's goal was achieved) for Standard V were not explicit in the activity systems of Darla, Dan, Eileen, Eden, and Elizabeth, while no indicators for Standard V were evident in the activity system of Danica.

**Discussion of New Zealand cross case analysis.**

**Artefacts for learning.**

Various artefacts for learning were identified in the activity systems of Darla, Danica, Dan, Eileen, Eden, and Elizabeth. Four of the six teachers namely Dan, Eileen, Eden, and Elizabeth used information and communications technology in their respective classes. These technologies included laptops, chromebooks, tablets, Internet, websites, smart boards, and LCD. The use of information and communications technology inside the classroom has been found to be an effective tool in increasing student motivation and improving learning (Dalton and Tharp (2002). For instance, the use of interactive whiteboards promotes whole class teaching, teacher-student interaction, student
engagement, and open discussion (Chu, Minasian, & Yi, 2012; El-Mouelhy, Poon, Hui, & Sue-Chan, 2013; Mihai, Stanciu, & Aleca, 2011; Togia, Korobili, & Malliari, 2012). This shows that use of the interactive whiteboard does contribute to effective pedagogy (Smith et al., 2006; Webb & Vulliamy, 2007). Moreover, information and communication technologies also enables students to efficiently and effectively access and share information inside and outside the classroom (Beauchamp & Kennewell, 2013).

In support of the learning of their students, Darla, Dan, Eileen, and Eden crafted learning modules. According to Ali et al. (2010), learning modules are either “a single element of subject matter content or a group of content elements forming a discrete unit of subject matter or area of skill that is self-contained, self-instructional packages, with learning paced by each student according to his/her individual needs and ability” (p. 50). In their study Ali et al. (2010) recommended the use of learning modules as an instructional approach to other subject areas and levels because of their effectiveness in supporting student learning. Dockter (2012) argued that learning modules motivate and benefit students, targeting their learning needs. Learning modules are also considered to be one of the effective strategies in promoting active learning, especially for high-risk students (Barnes et al., 2000).

As with the Philippines case study, the utilisation of artefacts for learning was also apparent in the practice of all six teachers. Examples of these artefacts were blackboard, musical instruments, books, and various visual aids like posters, drawings, and diagrams. As defined earlier, artefacts for learning are human-made objects available in the learning environment such as classrooms (Lloyd & Abbey, 2009). They are essential in engaging students in learning (Levin et al., 2003). Simple chalk and talk have proved to have positive effects on learners especially when indigenous knowledge is incorporated to teaching in a culturally diverse classroom (Gellert, 2004). Similarly, the use of visuals is an effective tool in promoting student learning especially from those who come from diverse backgrounds (Nelisi, 1999). Hence, the use of artefacts for learning as part of teachers’ pedagogical innovations in this study supported the findings in the literature and added value in improving student learning based on this study.
Appreciative mediation for learning.

Genuine appreciation and collaboration with students.

In terms of appreciative mediation for learning, four main themes were identified: teachers’ genuine appreciation and collaboration with students, teachers’ teaching initiatives, teachers’, positive disposition, and teachers’ self reflection. Teachers’ genuine appreciation and collaboration with students included having positive relationship with students, knowing the students, getting students’ feedback, boosting their self-confidence, and having high expectations. The literature indicates that importance of these.

Forming positive relationships, knowing your students, and caring for their learning have great impact on their achievement (Hemphill & Hemphill, 2007). Positive relationships between teachers and students are essential to successful learning. According to Hill (2014) and MacSuga-Gage et al. (2012), this kind of relationship with the teacher, which is based on reciprocity, respect and teacher self-efficacy, is a prerequisite to students’ learning. The idea of a quality relationship is important to Māori and Pacific students in terms of improving their educational achievement (Hawk, Hill, & Seabourne, 1996). According to Eileen, one of the participant teachers in this study, some teachers were unsuccessful to establish positive relationship and good connection with students because their teaching practices and relation to students were already affected by their personal biases against the students due to his or her ethnicity.

Receiving student feedback is an indicator of teacher’s appreciation and collaboration with students. Honest student feedback determines student needs and at the same time assists teachers by informing them about how they can be effective and efficient in class (Hawk, Cowley, Hill, & Sutherland, 2001). Furthermore, Eden, one of the participant teachers in this study believed that teachers should always be generous in giving compliments, affirmations, or praise to students when due and deserving. This gesture boosts student confidence.

Teachers’ expectations are “inferences that teachers make about the future behaviour or academic achievement of their students, based on what they know about these students” (Demetriou & Wilson, 2010; Hopkins, 2010; Webb & Vulliamy, 2007). Research shows that “teacher’s expectation could positively and/or negatively effect student’s performance and achievement” (Good, 2002, p. 67). The effects can be categorised as
sustaining expectation effects or self-fulfilling prophecy effects (Babad, 1993; Weinstein, 2002). The former occurs when teachers’ established expectations of students are continuously upheld or maintained despite the evidence of change or improvement made by the students (Cooper, 1983; Good, 2002). It is like putting the students in a box and assessing them based on the general perception or stereotype of the teacher. The latter occurs when teacher’s erroneous expectation of students eventually leads to its realisation, which can either be negative or positive (Cooper, 1983; Good, 2002). Weinstein (2002) emphasised the value of teachers’ expectations on Pacific students’ achievement. She explained that Pacific students are sensitive and aware when teachers proclaim they have high expectations and yet teachers’ actions are mismatched to what is enforced on students. Tuioti (2002) believed that “some teacher behaviour… obstruct or deny Pacific students the right to achieve at a level for which they have the potential” (Tuioti, 2002, p. 135). Thus, genuine appreciation and collaboration with students was one of the ways teachers in this study mediated student learning as part of their pedagogical innovations. This was demonstrated through positive relationship, students’ feedback, knowledge of student background, high expectations, and boosting students’ self confidence, which supported the findings in the literature and effective in improving student learning based on this study.

**Teaching initiatives.**

Indicators of the New Zealand case study teachers’ teaching initiatives were making learning relevant to students, knowing student’s learning needs, chunking down student’s work, dividing and grouping students wisely, the maximum and proper use of space and making it safe, giving clear instructions, integrating learning with other subject matter, scaffolding, and use of resource persons. The literature indicates that importance of these.

When students believe that schoolwork is not relevant to their lives or interest, students became less motivated (Tuioti, 2002). Mahdi (2015) concluded that the success of a learning programme is due to sustaining student motivation through the relevance of learning to the students and the presence of real life situations, opportunities, and examples. Hence, teachers need to be conscious on making learning connected with student’s reality and world.
Central to effective teaching and learning is the identification of student’s learning needs and teacher’s flexibility to these needs and context of the student and classroom (Jokinen & Mikkonen, 2013). Therefore, teachers must be responsive to the needs of students without losing the essence of equity and quality education for all (Christenbury, 2011; Roberts & DeMatteo, 2012).

Another part of the New Zealand teachers’ teaching initiatives was chunking or breaking the topics down into parts so students could easily understand each part’s connection to the whole picture. Part of an creating an effective learning environment is the ability of the teacher to simplify learning (Tomlinson, 2015). Furthermore, according to Harkrider et al. (2013), apart from acknowledging individual differences in context and motivating students through engagement in a complex, authentic, and hands-on tasks, an effective learning environment is created through chunking information overload.

Group work or dividing the class into small groups to perform a task was part of the teacher’s teaching initiative in this study. Group work promotes student engagement and development in learning (LaFrance, 2014). A number of studies have documented the benefits to students of learning in groups: enhancing motivation, gaining confidence, listening carefully, respecting opinions of others, sharing and working with others, listening and questioning (Barkley, 2005; Cavanagh, 2011; Griffiths, 2009; Leach & Zepke, 2011; Zepke & Leach, 2010). Other studies show that teachers believe in the effectiveness of group work in an instructional environment and identify the benefits that students would gain from this; for example, developing social and cognitive skills (Hammond, Bithell, Jones, & Bidgood, 2010; Hillyard, Gillespie, & Littig, 2010). Çakmak (2014) showed that group oral presentation had the most influence on improving students’ speaking ability. He added that other forms of group or cooperative learning activities increased students’ learning motivation. Similarly, English as a foreign language (EFL) students indicated that doing group writing had improved their interpersonal skills and English vocabulary (Chou, 2011). Group work also involves students in active learning, especially when topics seem unexciting (Mutwarasibo, 2014).

Another marker of teacher’s teaching initiatives in this study was the creation of a learning space. The creation and arrangement of the learning space has been found to
impact teacher and students teaching and learning behaviours (Kroning, 2014). Traditional classroom spaces are aligned to support new ways of learning especially with the advancement and usage of information and communication technology in present learning activities (Beery, Shell, Gillespie, & Werdman, 2013; Sommer & Olsen, 1980).

Teacher’s classroom management techniques, such as rule on clarity, are essential to student learning. Desirable behaviours for the classroom must be identified; this can be achieved through teachers’ communication and maintenance of clear rules inside the classroom (Beckers, van der Voordt, & Dewulf, 2015). Studies show that rule on clarity in classrooms resulted in positive effects on students (Emmer & Stough, 2001; Kunter et al., 2007).

Integrated learning as part of teacher’s teaching initiative was established in classroom subjects. Promoted as a best educational practice, establishing an environment for integrated learning involves brainstorming in order to come up with the same assignment and expectations for students, teachers sharing a mission rather than competition, and teachers being pushed out of their individual expertise in order to think collaboratively (Skinner & Belmont, 1993; Walberg & Paik, 2000; Weinert & Helmke, 1995). As an approach, integrated learning starts with selecting a theme over two or more subject areas and developing learning experiences to meet the objectives set for the activity (Humphries, Bidner, & Edwards, 2011). Positive gains in learning have been achieved through integrated learning (Arredondo & Rucinski, 1998).

Scaffolding was identified in this study as another one of the teachers’ teaching initiatives. Scaffolding, a term coined by Jerome Bruner (Hinde, 2005; Lewis & Shaha, 2003; Thomson, Anderson, Haesler, Barnard, & Glasgow, 2014) and associated with the ideals of Vygotsky, refers to support strategies being provided temporarily to learners in order to assist them to complete a task or achieve the best possible learning outcome. According to Bruner (1960), there are three characteristics of scaffolding: contingency, fading or gradual withdrawal, and transfer of responsibility. Contingency refers to the teacher’s response and support for the learner’s needs and performance, especially in times of difficulty. As soon as the learner gains capacity, teacher support is gradually withdrawn so that responsibility can be transferred to the learner for full control. Studies have shown the effectiveness of scaffolding as a teaching technique and
learning approach for students, especially for diverse youths (van de Pol, Volman, & Beishuizen, 2010).

Finally, the use of a resource person or practitioners was one of the pedagogical innovations used by Elizabeth to motivate student learning. As an educational learning instrument and an example of an active learning strategy, the use of guest speakers adds real life experience to the subject or course (Carrier, 2005; Vaughn et al., 2003). According to the studies of Cowden and Sze (2012) and Loeb (2015), the impact of the use of guest speakers resulted in higher-order thinking and longer student engagement during discussion. Therefore, teaching initiatives were one of the ways teachers in this study mediated student learning as part of their pedagogical innovations. This was demonstrated through making learning relevant to students, knowing students’ learning needs, chunking the lesson, group work, use of space and making it safe, clarity in rules and instructions, integrated learning, scaffolding, and tapping resource person, which supported the findings in the literature and effective in improving student learning based on this study.

Positive disposition.

Teacher’s positive disposition was evident in participants of this study, with the indicators included being personable, appreciating the use of technology, valuing equality, and valuing ethnic identity. Studies reveal that teacher’s personal traits and outlook contribute to their effectiveness in the classroom. These traits include friendliness, open-mindedness, supportiveness, tactfulness, respectfulness, and humour (Athanases & de Oliveira, 2014; Hood & Chapman, 2011; Masters, 2013; Raes, Schellens, De Wever, & Vanderhoven, 2012; Valkenburg, 2010). Similarly, part of the positive outlook of teachers is their appreciation for learning and using technology inside the classroom. Technology provides new opportunities for promotion of learning, higher-level thinking, and student-centred instruction; however, studies have found that teacher’s attitudes and beliefs tend to prevent the full integration of technology in classrooms (Alemu, 2014; Flynn, 2007; Koutrouba, 2012). Some teachers have negative attitudes such as fear towards the use of technology in school (Abbas Pourhosein, Lai-Mei, & Ismail, 2013). Hence, Li (2007) argued that in terms of using technology effectively in the classroom, teachers’ educational beliefs, including their disposition towards technology, should be considered.
Valuing and ensuring equality inside the classroom is especially important when the class is ethnically diverse. The values teachers adopt are the values that will be developed inside the classroom. According to Levin and Wadmany (2008) “Providing equality should include both the learning process and classroom activities” (p. 233). This is significant for meeting the needs of the students and at the same time beneficial to them. Likewise, how teachers value their own ethnic identity and culture is significant to teaching and learning. Teachers incorporating and showing cultural and ethnic competence and sensitivity towards students influenced learning (Kesici, 2008). Thus, positive disposition was one of the ways teachers in this study mediated student learning as part of their pedagogical innovations. This was demonstrated by teachers being personable, providing equality in class, appreciation of technology, and valuing ethnic identity, which supported the findings in the literature and effective in improving student learning based on this study.

**Self reflection.**

The last category formed based on teacher’s appreciative mediation for learning is teachers’ self reflection. Self reflection helps teachers through deconstructing the complexities involved in their teaching practice (Clausen, 2008; Nam et al., 2013; Ungar et al., 2014). A reflective teacher employs “thoughtful observation and analysis of their actions before, during and after” teaching (Lu, 2014). The result of this exercise is beneficial to both teachers and students (Snowman, Dobozy, Scevak, Bryer, & Bartlett, 2009). It has even been recommended that engaging in self reflection be integration in teacher education programmes (Garza, 2011). Hence, self reflection was one of the ways teachers in this study mediated student learning as part of their pedagogical innovations, which supported the findings in the literature and effective in improving student learning based on this study

**Factors affecting implementation.**

In this study two categories were formed based on the factors identified in individual teachers’ school environments that inhibit or promote how teachers implement pedagogical innovation. These categories are social support system and structural regulations of the school system. The social support system refers to the social group or the microsystem of the teacher. The teachers’ social support systems in this study that were found to promote the implementation of pedagogical innovation and its objective include the families of students, the community, the students, the school staff, teacher
aides, and translators. Elsewhere, community involvement and the society at large have been identified as important factors in the educational process and effectiveness in teaching (Khan, 2014; Wu & Wu, 2014). Active participation of community members in schools – such as being a tutor, teacher aide or a resource person – has been found to have a positive effect on student learning (Anderson, 2009; Thuwayba Ahmad Al et al., 2012).

The structural regulations of the school system refer to the limitations, as identified by teachers in this study, that hinder how teachers implement pedagogical innovation and its objectives. These are limited artefacts for learning, heavy workload, impassive curriculum, time constraints, inadequate professional development for teachers, poor student attendance, and implicit rules. Structural regulation of the school system refers to the physical and substantive attributes of the school system that may inhibit implementation of teacher’s pedagogical innovation.

Standards for effective pedagogy.

The activity systems of Darla, Danica, Dan, Eileen, Eden, and Elizabeth – that is, their pedagogical innovation, which include the artefacts for learning and appreciative mediation, and the factors affecting the implementation of pedagogical innovation – showed evidence of the five standards of effective pedagogy based on the respective indicators. Illustrative examples from each activity system were described. Not all indicators per standard were observed from Darla, Danica, Dan, Eileen, Eden, and Elizabeth; however, at least two to four indicators for each standard were evident across three teachers. According to Levin et al. (2003), the five standards of effective pedagogy are not “quick fix” recipes for teaching but statements of ideals toward which teachers strive. Hence, fundamental features for classroom reform towards equity and quality teaching were present in Darla, Danica, Dan, Eileen, Eden, and Elizabeth’s pedagogy. This proved that teachers’ pedagogical innovations mediate and improve student learning.

Across the Case Studies

This section describes the findings across all case studies – that is, Philippine case study and New Zealand case study – in relation to the activity systems (see Table 25) of all teacher participants and later in congruence with the five standards of effective
pedagogy. Parallelism across all cases will be analysed in terms of identifying the commonalities and frequency in the categories formed in the activity system and the indicators based on the standards of effective pedagogy. Tables 26 to 30 are presented as a summary of each sub-heading: activity system and standards for effective pedagogy.

**Activity System.**

Table 25 shows a summary of the activity systems of participant teachers from the Philippines and New Zealand.

Table 25

*Summary of Activity Systems*

<table>
<thead>
<tr>
<th>Activity System</th>
<th>Philippine Case study</th>
<th>New Zealand Case Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pedagogical Innovation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1. Artefacts for learning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1.1. Lesson plan</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>1.1.2. Student modules or kit</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>1.1.3. Teaching instruments</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>1.1.4. Information &amp; communications technology</td>
<td>✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>1.2. Appreciative Mediation for Learning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.2.1. Teacher’s genuine appreciation and collaboration with students</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.2.1.1. Knowledge on students’ background</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>1.2.1.2. Positive relationship with students</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>1.2.1.3. Boosting students’ self confidence</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>1.2.1.4. Peer tutoring</td>
<td>✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>1.2.1.5. Valuing Students’ feedback</td>
<td>✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>1.2.1.6. High expectation on students</td>
<td></td>
<td>✓ ✓</td>
</tr>
<tr>
<td>1.2.2. Teacher’s teaching initiative</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.2.2.1. Integration of indigenous culture</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>1.2.2.2. Knowing students’ learning needs</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>1.2.2.3. Constant monitoring of students</td>
<td>✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>1.2.2.4. Clear rules and instructions</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>1.2.2.5. Making relevance</td>
<td>✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>1.2.2.6. Chunking the lesson</td>
<td></td>
<td>✓ ✓</td>
</tr>
<tr>
<td>1.2.2.7. Group work</td>
<td></td>
<td>✓ ✓</td>
</tr>
<tr>
<td>1.2.2.8. Creating learning space</td>
<td></td>
<td>✓ ✓</td>
</tr>
<tr>
<td>1.2.2.9. Integrated learning</td>
<td></td>
<td>✓ ✓</td>
</tr>
<tr>
<td>1.2.2.10. Scaffolding</td>
<td></td>
<td>✓ ✓</td>
</tr>
<tr>
<td>1.2.2.11. Motivational activity</td>
<td>✓ ✓</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>1.2.2.12. Tapping resource person</td>
<td></td>
<td>✓ ✓</td>
</tr>
</tbody>
</table>
Pedagogical innovations common to all teacher participants in the Philippines and New Zealand were the creation of student modules or kits to support student learning and the use of available artefacts for learning. In appreciative mediation for learning, four categories were formed to group the themes. For the first category, teachers’ genuine appreciation for and collaboration with students, the three common themes across all case studies were knowledge of students’ backgrounds, positive relationship with students, and boosting students’ self-confidence. In the second category, teacher’s teaching initiative, the common themes across all case studies were knowing students’ learning needs, and having clear rules and instructions. For the third category, teachers’ positive disposition, the common themes for all case studies were personable, providing...
equality, and valuing ethnic identity. Finally, the fourth category, teacher’s self reflection or being a reflective teacher, was common to all teacher participants both in the Philippines and in New Zealand.

Two categories constituted the factors affecting implementation of pedagogical innovation: social support system and the structural regulation of the school system. Under social support system, the common findings present across case studies were family, community, school staff, and students. These were the social groups that supported the participant teachers and students in their teaching and learning, respectively. In terms of structural regulation of the school system, the common themes for both Philippines and New Zealand case studies were the lack of and/or limited artefacts for learning that teachers can use inside the classroom, inadequate professional development and training for teachers, impassive curriculum, and poor student attendance.

**Standards for effective pedagogy.**
The activity systems of all teachers demonstrated some of the indicators of each of the five standards for effective pedagogy. Based on the findings there were common indicators for each standard that were observed in the activity systems of all teachers. For Standard I, indicators 1, 2, and 8 were practiced in the classrooms of all the teachers. These indicators are that teachers designed instructional activities requiring student collaboration to accomplish a joint product (1); matched the demands of the joint productive activities to the time available for accomplishing them (2); and monitored and supported student collaboration in positive ways (8).
Across Case Studies in Relation to Standard I

<table>
<thead>
<tr>
<th>Indicators for Standard I are that the teacher:</th>
<th>Amihan (PHL)</th>
<th>Bituin (PHL)</th>
<th>Celia (NZ)</th>
<th>Darla (NZ)</th>
<th>Denise (NZ)</th>
<th>Dan (NZ)</th>
<th>Ellen (NZ)</th>
<th>Eden (NZ)</th>
<th>Elizabeth (NZ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. designs instructional activities requiring student collaboration to accomplish a joint product.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>2. matches the demands of the joint productive activity to the time available for accomplishing them.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>3. arranges classroom seating to accommodate students’ individual and group needs to communicate and work jointly.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>4. participates with students in joint productive activity.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>5. organizes students in a variety of groupings such as by friendship, mixed academic ability, language, project, interests, etc. to promote interaction.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>6. plans with students how to work in groups and move from one activity to another such as from large group introduction to small group activity, for clean-up, dismissal, and the like.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>7. manages student and teacher access to materials and technology to facilitate joint productive activity.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>8. monitors and supports student collaboration in positive ways.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

Standard II indicators present in all teachers’ practice were indicators 1, 4, and 7, in which teachers listened to student talk about familiar topics such as home and community (1); interacted with students in ways that respect student preferences for speaking that may be different from the teacher’s, such as wait-time, eye contact, turn-taking and spotlighting (4); and provided frequent opportunity for students to interact with each other and the teacher during instructional activities (7).

Across Case Studies in Relation to Standard II

<table>
<thead>
<tr>
<th>Indicators for Standard II are that the teacher:</th>
<th>Amihan (PHL)</th>
<th>Bituin (PHL)</th>
<th>Celia (NZ)</th>
<th>Darla (NZ)</th>
<th>Denise (NZ)</th>
<th>Dan (NZ)</th>
<th>Ellen (NZ)</th>
<th>Eden (NZ)</th>
<th>Elizabeth (NZ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. listens to student talk about familiar topics such as home and community.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>2. responds to student talk and questions, making ‘in-flight’ changes during conversation that directly relate to student comments.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>3. assists language development through modeling, eliciting, probing, restating, clarifying, questioning, praising, etc., as appropriate, in purposeful conversation.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>4. interacts with students in ways that respect student preferences for speaking that may be different from the teacher’s, such as wait-time, eye contact, turn-taking and spotlighting.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>5. makes explicit connections between student language and literacy and academic content.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>6. encourages students to use content vocabulary to express their understanding.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>7. provides frequent opportunity for students to interact with each other and the teacher during instructional activities.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>8. encourages student use of first and second languages in instructional activities.</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
For Standard III, the common indicators for all teachers except Danica were 1 and 3; that is, teacher began activities based on what students already knew from home, community and school (1); and acquired knowledge of local norms and knowledge by talking to students, parents, community members, and by reading pertinent documents (3).

Table 28
Across Case Studies in Relation to Standard III

<table>
<thead>
<tr>
<th>Indicators for Standard III are that the teacher:</th>
<th>Amihan (PHL)</th>
<th>Bituin (PHL)</th>
<th>Celia (PHL)</th>
<th>Darla (NZ)</th>
<th>Danica (NZ)</th>
<th>Dan (NZ)</th>
<th>Eileen (NZ)</th>
<th>Eden (NZ)</th>
<th>Elizabeth (NZ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. begins activities based on what students already know from home, community, and school.</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>2. designs instructional activities that are meaningful to students in terms of local community norms and knowledge.</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>3. acquires knowledge of local norms and knowledge by talking to students, parents, community members, and by reading pertinent documents.</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>4. assists students to connect and apply their learning to home and community.</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>5. plans jointly with students to design community-based learning activities.</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>6. provides opportunities for parents to participate in classroom instructional activities.</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>7. varies activities according to students’ preferences, from collective and cooperative to individual and competitive.</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>8. varies styles of conversation and participation to include students’ cultural preferences, such as co-narration, call-and-response, choral, among others.</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
</tbody>
</table>

The common indicators for all teachers except Danica for Standard IV were 1 and 4: teachers ensured that students, for each instructional topic, saw the whole picture as the basis for understanding the parts (1); and assisted students to accomplish more complex understanding by relating to their real-life experience (4).

Table 29
Across Case Studies in Relation to Standard IV

<table>
<thead>
<tr>
<th>Indicators for Standard IV are that the teacher:</th>
<th>Amihan (PHL)</th>
<th>Bituin (PHL)</th>
<th>Celia (PHL)</th>
<th>Darla (NZ)</th>
<th>Danica (NZ)</th>
<th>Dan (NZ)</th>
<th>Eileen (NZ)</th>
<th>Eden (NZ)</th>
<th>Elizabeth (NZ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ensures that students, for each instructional topic, see the whole picture as the basis for understanding the parts.</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>2. presents challenging standards for student performance.</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>3. designs instructional tasks that advance student understanding to more complex levels.</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>4. assists students to accomplish more complex understanding by relating to their real-life experience.</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>5. gives clear, direct feedback about how student performance compares with the challenging standard.</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
</tbody>
</table>
Finally, the common indicators for Standard V that were observed from all teachers except Danica were indicators 5, 6, and 7. Indicators for Standard V depicted that teachers ensured all students were included in the conversation (5); listened carefully to assess levels of student understanding (6); and assisted student learning throughout the conversation by questioning, restating, praising, encouraging, etcetera (7).

Table 30

Across Case Studies in Relation to Standard V

<table>
<thead>
<tr>
<th>Indicators for Standard V</th>
<th>Amihan (PHL)</th>
<th>Bituin (PHL)</th>
<th>Celia (PHL)</th>
<th>Darla (NZ)</th>
<th>Danica (NZ)</th>
<th>Dan (NZ)</th>
<th>Eileen (NZ)</th>
<th>Eden (NZ)</th>
<th>Elizabeth (NZ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. arranges the classroom to accommodate conversation between the teacher and small groups of students on a regular and frequent schedule.</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>2. ensures that a clear academic goal guides conversation.</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>3. ensures that student talk occurs at higher rates than teacher talk.</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>4. guides conversation to include students’ views, judgments and rationales, based on text evidence and other substantive support.</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>5. ensures that all students are included in the conversation.</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>6. listens carefully to assess levels of student understanding.</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>7. assists student learning throughout the conversation by questioning, restating, praising, encouraging, etc.</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>8. guides the students to prepare a product that indicates the instructional conversation’s goal was achieved.</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>

It was also found that for each standard certain indicators were lacking in the activity systems of all teachers. For example, as shown in table 26, indicator 6 of Standard I was not ticked for any teacher. This indicator states that the teacher should plan with students how to work in groups and move from one activity to another such as from large group introduction to small group activity, for clean-up, dismissal, and the like. Likewise, indicator 2 of Standard II was the one missing from all teachers’ practice (see table 27). This indicator states that the teacher should respond to student talk and questions, making “in-flight” changes during conversation that directly relate to student comments. For Standard III, indicators 6 was lacking for all teachers. These indicators describe teachers who plan jointly with students to design community-based learning activities, provide opportunities for parents to participate in classroom instructional activities, and vary activities according to students’ preferences, from collective and cooperative to individual and competitive, respectively. Furthermore, it is noted that for one teacher, Danica, all indicators for Standard III were lacking. Likewise indicators 2, 3, and 5 of Standard IV were not evident for Amihan, Bituin, Celia, Darla, Dan, Eileen, Eden, and Elizabeth while all indicators for Standard IV were missing from Danica’s
practice. The indicators 2, 3, and 5 represent teachers who present challenging standards for student performance, design instructional tasks that advance student understanding to more complex levels, and who give clear, direct feedback about how student performance compares with the challenging standard, correspondingly. Finally, Standard V indicators 1, 2, 3, 4, and 8 were lacking for teachers Amihan, Bituin, Celia, Darla, Dan, Eileen, Eden, and Elizabeth, while Danica did not demonstrate any indicators of Standard V. Indicators 1, 2, 3, 4, and 8 describe a teacher that arranges the classroom to accommodate conversation between the teacher and small groups of students on a regular and frequent schedule; ensures that a clear academic goal guides conversation; ensures that student talk occurs at higher rates than teacher talk; guides conversation to include students' views, judgements and rationale, based on text evidence and other substantive support; and guides the students to prepare a product that indicates the instructional conversation's goal was achieved.

Most of the teacher participants in the Philippines and in New Zealand showed indication of effective pedagogy in their respective practices based on the indicators per standard. These standards were identified based on the works of different scholars (Whap, 2001; Williams & Lundsteen, 1997; Wilson, 1996). To be more specific, teachers Eileen, Eden, and Elizabeth demonstrated six out of the eight indicators for Standard I, making them teachers with most ticked indicators. The result indicates that collaboration was happening between these teachers and their students. For Standard II, Dan and Elizabeth garnered six out of eight indicators. This denoted that these teachers were promoting language proficiency and literacy in their classrooms. Amihan showed the most evidence from her teaching practice for Standard III, which earned her five out of eight indicators. This signified that this teacher used various direct and indirect approaches to contextualize her lessons and draws from students’ knowledge, culture, and experiences. With the exception of Danica who had none, all teachers met two indicators – namely one and four – of Standard IV. This shows that teachers were showing evidence of encouraging their students in complex thinking or cognitive complexity. Finally, indicators 5, 6, and 7 of Standard V were observed from all teachers, except Danica, indicating that teachers engage students in an instructional conversation where students are urged to ask questions, challenge, rationalise, and justify, thus achieving critical thinking and higher learning.
Chapter Summary
This chapter has reported the findings across the case studies. It has presented the findings of the cross case analysis of the three individual cases in the Philippines, the six individual cases in New Zealand, and across all nine case studies. Themes that emerged from the teacher’s activity system have been described. For a more in depth analysis, themes from teachers’ activity systems when compared against the five standards for effective pedagogy and their indicators are also presented. The next chapter provides the discussion and conclusion of the study.
Chapter Six
Discussion and Conclusion

Introduction
The purpose of the study is to understand and identify teacher’s pedagogical innovation in public secondary classrooms with ethnic minority students in the Philippines and New Zealand using Cultural Historical Activity Theory and Appreciative Inquiry perspectives. For this purpose, the study addressed the following three questions: What pedagogical innovations do secondary teachers use to improve student learning in cultural minority classrooms? How do secondary teachers mediate student learning through their pedagogical innovations in cultural minority classrooms? What are the factors in individual teachers’ school environments that inhibit or promote how they implement pedagogical innovation in cultural minority classrooms?

The study used a qualitative multiple case study approach. A total of nine teachers and their classes from five public or state secondary schools in the Philippines and New Zealand participated in the study. Data were collected using observations, talanoa, audio-visual recordings, and documents, which consisted of lesson plans, school newsletters, and publications. Data were analysed within and across cases using a thematic approach and a comparative approach in relation to (Dalton & Tharp, 2002) five standards of effective pedagogy.

This chapter provides a discussion on Cultural Historical Activity Theory and Appreciative Inquiry as an amalgamated theoretical and analytical framework of the study. It also summarises the main findings, presents the pedagogical innovation framework, considers implications of the findings and makes recommendations arising from these, acknowledges the study’s limitations, and identifies areas for further research. The chapter closes with a brief summary.

Cultural Historical Activity Theory and Appreciative Inquiry Methodological Amalgamation
Cultural Historical Activity Theory has been integrated with other theoretical models to produce better evaluation of an activity or phenomenon (Darwin, 2011; Oswald & Perold, 2011b; Timmis, 2014; Wells, 2011) and to create frameworks for analysis (Amory et al., 2011; Botha, 2012; DeWitt & Osborne, 2007). In this study, Cultural Historical Activity Theory is combined with Appreciative Inquiry to create a model to
better understand the nature of teachers’ pedagogical innovation. The activity systems analysis of Cultural Historical Activity Theory analyses complex context of human activities into manageable units while Appreciative Inquiry provides an inclusive positive-focused lens to understand what works best in people, communities, or programmes. The amalgamation of Cultural Historical Activity Theory and Appreciative Inquiry into a single methodological model is first used in this study to investigate the nature of teachers’ pedagogical innovation in cultural minority classrooms. This approach was employed not only to address the research questions of the study but also to contribute to research that moves away from a deficit perspective to strengths-based thinking, and to highlight the human qualities of teachers, which are usually overlooked in research. By combining Cultural Historical Activity Theory and Appreciative Inquiry an appreciative pedagogical innovation framework was created based on the findings. This can be used as a platform or tool to understand effective pedagogical innovation to improve student learning.

Main Findings
The main findings are summarised into three sections. Section one outlines the findings related to the research questions one and two under the subheading “Pedagogical innovation”. Section two summarises the findings associated with research question three under the subheading “Factors affecting implementation”. Finally, section three, under the subheading “Critical analysis”, provides a discussion about pedagogical innovation and factors affecting its implementation in relation to student learning and outcomes, and effective pedagogy.

Pedagogical innovation.
As defined in this study, pedagogical innovation refers to a new idea or a development of an existing product, process, strategy, or method in teaching and learning that is applied in a specific context with the intention to create added value or the potential to improve student learning (Kirkland & Sutch, 2009). In this study, two main aspects of pedagogical innovation used by all teachers to improve student learning were identified: these were 1) artefacts for learning and 2) appreciative mediation for learning.

According to Levin et al. (2003) artefacts for learning pertains to any human-made objects available in the learning environment such as classrooms, which are essential in
engaging student learning. Based on this study, all teachers utilised various artefacts for learning inside the classroom, ranging from the humble chalk to the sophisticated information and communication technologies. The common artefacts for learning that teachers used across all case studies were student modules or kits and teaching instruments such as visual aids like diagrams, lesson plans, manila paper, chalk, blackboard, paper ball, photos, publications, memorabilia, musical instruments, and information and communications technology. The use of artefacts for learning such as those that were identified in this study has also been acknowledged as effective pedagogical innovation in the findings of earlier studies. For example, the use of lesson plans as an effective tool for teaching, classroom management, and classroom instruction (Koslofsky, 1984; Schumacher et al., 2015); the benefits of learning modules to student motivation and learning (Barnes et al., 2000; Lloyd & Abbey, 2009); and the use of visual aids, including the simplest learning tools – like chalk when properly used – results in positive effects on students (Carrier, 2005; Gellert, 2004; Nelisi, 1999). Furthermore, the use of information and communications technology, if properly utilised in classroom teaching, has been recognised to be an effective tool in increasing student motivation, encouraging sharing and accessing information, and improving learning (Beauchamp & Kennewell, 2013; El-Mouelhy et al., 2013; Togia et al., 2012).

The second aspect in teacher’s pedagogical innovation in cultural minority classrooms is appreciative mediation for learning. This refers to the positive and strengths-based operations and/or actions of teachers that result in student learning. Operations are unconscious procedures that constitute the execution of conscious actions (Shanahan, 2010a). Four common themes were generated under the category of teacher’s appreciative mediation for learning. These include teachers’ genuine appreciation and collaboration with students; teachers’ teaching initiatives; teachers’ positive disposition; and finally, teachers’ self reflection. Under these main themes were specific findings that identified and described the operations and actions of teachers, which lead to student learning. Teacher’s appreciative mediation for learning identified in this study, as found in other studies, is an effective pedagogical innovation. For instance, under teacher’s genuine appreciation and collaboration with students, the appreciative mediation for learning across all studies were teacher’s knowledge about students (MacSuga-Gage et al., 2012), nurturing positive relationships (Hawk et al., 2001; Hill, 2014; Popp et al., 2011), encouraging students to build their self-confidence (Komos, 2013), peer tutoring (Allison & Rehm, 2007; Snowman & Biehler, 2003), valuing
students’ feedback (Demetriou & Wilson, 2010; Hopkins, 2010), and high expectations of students (Babad, 1993; Tuoti, 2002; Weinstein, 2002). In this study these were considered as positive operations and actions of teachers that affect student learning. All of these operations and actions were evidenced in the participant teachers’ practices. The common appreciative mediation for learning across all participant teachers under this theme were knowledge of students’ backgrounds, nurturing positive relationship with students, and boosting students’ self-confidence.

Another theme across all case studies was teacher’s teaching initiatives. The identified appreciative mediation for learning for all teachers in this study, as in the findings in earlier studies, were recognised as effective pedagogical innovation. These were integration of indigenous culture in teaching (Lewthwaite et al., 2015; Nam et al., 2013), knowing students’ learning needs (Christenbury, 2011; Roberts & DeMatteo, 2012; Tomlinson, 2015), constant monitoring of students (Phillips, 2013; Weinert & Helmke, 1995), clear rules and instruction inside the classroom (Kunter et al., 2007; Walberg & Paik, 2000), making the topic relevant (Jokinen & Mikkonen, 2013; Mahdi, 2015), chunking the lesson (Harkrider et al., 2013; LaFrance, 2014), doing group work (Cavanagh, 2011; Hammond et al., 2010; Hillyard et al., 2010; Leach & Zepke, 2011), creating learning space (Beckers et al., 2015; Beery et al., 2013), integrated learning (Hinde, 2005; Lewis & Shaha, 2003; Thomson et al., 2014), scaffolding (Athanases & de Oliveira, 2014; Masters, 2013; Raes et al., 2012), motivational activities such as story telling and classroom games (Dillon et al., 2012; Nietzke, 1988; Wirth & Gamon, 1999), and inviting resource persons into the class (Cowden & Sze, 2012; Hemphill & Hemphill, 2007; Loeb, 2015). In this study, the findings enumerated above were positive operations and actions of teachers that influenced student learning. All of these operations and actions were evidenced in the participant teachers’ practices. The common appreciative mediation for learning across all teachers under this theme were knowing students’ learning needs and clear rules and instruction inside the classroom.

In relation to appreciative mediation for learning, teachers’ positive disposition was another theme that emerged across all case studies. Teachers’ positive disposition in this study is described in teacher’s operations and actions such as being personable, viewing teaching as a vocation, providing equality in classroom, appreciating information and communication technology despite being daunted by learning them, and valuing ethnic identity. As found in earlier studies, teachers’ positive disposition as a pedagogical
innovation influences student learning. For example, being personable is an attribute of an effective teacher (Alemu, 2014; Flynn, 2007; Koutrouba, 2012). Teachers’ positive view on learning and using technology in the classroom was also helpful in providing new learning opportunities for students (Abbas Pourhosein et al., 2013; Levin & Wadmany, 2008). Valuing and providing equality inside an ethnically diverse classroom is important towards student learning (Clausen, 2008; Kesici, 2008; Nam et al., 2013; Ungar et al., 2014).

Finally, being a reflective teacher was identified as a theme in the appreciative mediation for learning category of this study. All participant teachers in this study practiced self reflection as a way to unpack, recall, and understand the complexity of their pedagogy inside the classroom: in other studies this has been found to help teachers to be more creative and open-minded in their teaching (Khan, 2014; Lu, 2014; Snowman et al., 2009). Teachers’ self reflection is beneficial to both teachers and students (Garza, 2011). Through self reflection participant teachers from both countries in this study indicated that they were able to re-connect within themselves and reflect on their pedagogy to analyse how they could improve their teaching and their relationships with their students.

Factors affecting implementation.

Two categories constituted the factors in individual teachers’ school environments that affected implementation of pedagogical innovation: these included the social support system, which fostered implementation, and structural regulation, which tended to impede it. The social support system pertains to the immediate setting and social groups of teachers where interaction, engagement, and influences occur. In this study, across the cases the social support systems that promoted implementation of pedagogical innovation included the families, communities, school staff, students, local government, religious groups, teacher aides, and translators. However, the common social support systems across all case studies were family, community, school staff, and students. The families of students, particularly their parents, participated in the school activities of their children. They were part of the teacher’s social group that assisted the school whenever extra support was needed; for example, organising fund raising projects, or parent and teacher gatherings and meetings. The community pertains to the elements beyond the actual school communities that also served as support for teachers. For example, a local government unit helped in nurturing the talents of Aeta Magbukon
children by training them as an official provincial children’s choir. As uncovered in earlier studies, the role of home-community-school engagement has positive effects in enhancing student engagement and achievement (Bednarz et al., 2008; Kielsmeier et al., 2004; Kolb, 1984; Thuwayba Ahmad Al et al., 2012).

The second category, found to impede the implementation of pedagogical innovation, was structural regulation of the school system. Structural regulation of the school system refers to the physical and substantive attributes of the school system that inhibited implementation of teacher’s pedagogical innovation. The structural regulations identified in this study were high student ratio over teacher, lack of or limited teaching instruments, conflict between the school calendar and the cultural practices of Indigenous peoples, inadequate professional development for teachers, heavy workload of teachers, impassive curriculum, time constraints, poor student attendance, and implicit rules inside the classroom. The common structural regulations across all case studies were the lack of or limited teaching instruments available for teacher’s use inside the classroom, inadequate professional development and training for teachers, impassive curriculum, and poor student attendance. Teaching instruments or aids were lacking in the case of participant teachers in the Philippines. Teachers needed to rely on whatever was available to them to the point that some activities in their lessons had to be discarded due to insufficient resources. On the other hand, teaching instruments or aids for participant teachers in New Zealand were available but limited. One school had to share one set of laptops between several classes, which affected teachers’ ability to implement class activities involving the use of computers.

**Critical analysis.**

The elements that make up effective pedagogical innovation are the tangible and intangible aspects of teaching and learning innovation applied to a specific context. The tangible aspects of pedagogical innovation refer to the artefacts for learning. These are human-made objects that are concrete manifestations of teachers’ creativity utilised in teaching and learning. Artefacts for learning are conceived based on the learning needs of students. Teachers conceptualise and create teaching and learning tools as means to support students in understanding the lesson and to bridge the gap between the current position of students and where they should be in their learning. Artefacts for learning are also created based on the availability of resources that teachers have at hand. For example, the utilisation of information and communications technology was common
for all participant teachers in New Zealand because of its accessibility in the classroom, while participant teachers in the Philippines had to make use of whatever was available in their environment since information and communication technology was lacking. As such, artefacts for learning are also developed, based not only on what is readily available for the teachers, but also based on teachers’ adaptation to their surroundings and on their being resourceful.

Artefacts for learning can also be produced in response to obligations as per school regulations; for example, in the case of participant teachers in the Philippines who were required to generate lesson plans for every teaching session in class. Though the creation of artefacts for learning has similar objectives in relation to student learning regardless of the context, their implementation is not uniform. Implementation is dependent on how teachers execute the development and usage of artefacts for learning.

Another element of effective pedagogical innovation is the intangible aspects. These are attitudes, actions, outlooks, and behaviours of teachers that are essential to effectively mediate and improve student learning. These intangible aspects are usually overlooked in research. However, with the help of a theoretical amalgam, Cultural Historical Activity Theory and Appreciative Inquiry, these intangible aspects were observed and identified. They are collectively termed appreciative mediation for learning. As identified in this study, appreciative mediation for learning pertains to teachers’ genuine appreciation and collaboration with students, teachers’ teaching initiatives, teachers’ positive disposition, and teachers’ engaging in self reflection.

Clearly, the teacher’s attitude can affect student learning. In this study, therefore, it was expected that when teachers showed genuine appreciation of students’ capabilities and abilities and worked together with students for a common objective or goal, the outcome would be that learning would occur. This is underpinned by the assumption that there are more benefits in working collaboratively than alone; that, in order to unleash the power in collaborative work, teachers, as experts in their fields, are fully engaged with students in classroom activities.

Teaching initiatives are teacher’s actions toward improving student learning. Based on the findings of the study it can be seen that the teaching initiatives of participant teachers were the products of teachers’ responsive, creative, and intuitive teaching.
They were actions done by teachers to motivate and support student learning. These actions were continuously modified and developed to suit the needs of the students, which eventually became part of teacher’s practices and pedagogy.

In this study, teachers’ positive disposition refers to their optimistic approach to being a teacher. It is the lens teachers used in dealing with challenges that they encountered. It is the stimulus that motivated teachers to push and achieve with their teaching. Positive disposition also includes the values that teachers believed in, and which they wanted to instil among students. It is through teachers’ positive disposition that they become agents of change by influencing student learning.

Another highly influential part of teacher’s behaviour is the habit of self reflection. Self reflection involves the constant re-examination and reflexivity of teachers in terms of their pedagogy whereby teachers look back on what transpired in their classrooms, re-evaluate their practice, and make the necessary changes for improvement. In this way, teachers can be more effective in their teaching, which results in better learning.

The four aspects that comprise appreciative mediation for learning – genuine appreciation of and collaboration with students, teaching initiatives, positive disposition, and engaging in self reflection – are products of both the minds and the hearts of teachers. However, it can be argued that appreciative mediation for learning comes more from the heart because it represents the innate greatness of teachers in terms of teaching practice and commitment to developing quality relationships with students. Just like skills, some practices in appreciative mediation such as knowledge of students’ backgrounds, peer tutoring, monitoring of students, group work, and integrated learning, can be learned; other traits, however, such as being personable, valuing ethnic identity, reflexivity, and having high expectations for students, are intuitive and innate.

Appreciative mediation for learning is an affirmation that teachers desire to be the agents of positive change. The study shows that despite all odds and limitations – such as lack of resources, conflict in the school calendar with the observance of cultural practices of Indigenous peoples, heavy workload, impassive curriculum, and inadequate professional development – teachers’ desire to improve student learning and outcomes
can outweigh the challenges that potentially hinder them from implementing their pedagogical innovation.

**Appreciative Pedagogical Innovation Framework**

When formal education is not responsive and relevant to the needs of ethnic minorities, the only bright spot left for these students could be the teachers, who can infuse their ability to create equal opportunity for students and equity into the system. A manifestation of teachers’ ingenuity is the ability to design pedagogical innovations to create added value to learning, thus promoting equity in education.

Given the potential impact of teachers’ effective pedagogical innovation, it is clear that the creation of a feedback mechanism that would help sustain and enhance this would be of great value to schools. Further to this is the value of documenting effective pedagogical innovation so it can be publicly shared to generate wider interest and influence others. Hence, the following framework is designed as a tool to guide teachers in identifying effective pedagogical innovation. Teachers need to identify both the tangible and intangible aspects of their pedagogical innovation; the artefacts for learning and appreciative mediation for learning, respectively. They also need to ascertain who are their social support groups and what structural regulations in the school system they need to consider. It is noted that these factors of structural regulation in teachers’ school environment may directly or indirectly either inhibit or promote effective pedagogical innovation of teachers; however, as the study shows, it is possible for teachers to find ways to become flexible within the constraints of the system.

In the framework, the end core represents teachers’ effective pedagogical innovations, which is echoed through artefacts for learning and appreciative mediation for learning. The artefacts for learning and appreciative mediation for learning (genuine appreciation and collaboration with students, teaching initiatives, positive disposition, and self reflection) are indicators of teacher’s effective pedagogical innovation. However, there are factors to be considered that can affect the implementation of pedagogical innovation. These factors run parallel to the axis of the funnel framework. They are social support system and structural regulation of the school system, which influences teachers’ implementation of pedagogical innovation. Based on the study, the social support system promoted the implementation of pedagogical innovation while the structural regulation hindered the implementation. Through the pedagogical innovation
framework (Figure 16), teachers or observers can now visualise how new ideas or further development of an existing pedagogical product, process, strategy, or method can be explored from its context in a manageable unit.

![Image of Appreciative Pedagogical Innovation Framework](image)

**Figure 17. Appreciative Pedagogical Innovation Framework**

**Implications and Recommendations**

For the study teachers to properly implement pedagogical innovations inside the classroom, thus promoting equity in education, a number of recommendations are offered.

The very high student to teacher ratio (e.g. 70:1) has been a perennial problem in Philippine’s public schools. This is due to lack of teachers, lack of classrooms, or lack of funding from the government. Therefore, the Philippine government should increase its expenditure on education to the amount recommended by United Nations of at least 6% of its GDP to support its education goals. Based on the available data, the Philippines expenditure on education is only 2.65% of its GDP (UNESCO Institute for Statistics, 2016). Moreover, due to the bureaucracy involved, resolving this issue is extremely time-consuming; therefore, it must be asked what teachers can do to immediately in response to the situation. This is clearly a situation for the creation of a
pedagogical innovation that will benefit the students and, at the same time, ease the load of the teacher without sacrificing the quality of teaching. For example, Darla, one of the study teachers in New Zealand, divided her class into two based on their level of learning and readiness about the topic. While the half of the class who were ready took the exam, the other half was doing an exercise to further their learning and to prepare them for the exam.

The availability and accessibility to teaching instruments are still limited particularly to participant teachers in the Philippines especially when it comes to learning that needs to be explored hands on, such as laboratory experiments and science research. Teaching instruments such as test tubes, microscopes, and computers are just some of the necessities for learning that teachers and students need. Again, solving this problem is likely to take some time since asking for additional funds or requisition of costly items like computers and other technological gadgets need to go through the bureaucratic process. However, teachers can find alternative ways to meet this need. One option would be to partner with non-government agencies that support the educational needs of the students. Another is through networking with big, private schools that can adopt the class or school in general so that assistance can be extended as part of community service or service learning. Teachers can also write to profitable companies that are engaged in outreach programmes or that advocate corporate social responsibility. Most of these companies are willing to help and just waiting to be tapped especially for a good cause.

All the study schools in the Philippines acknowledged the conflict of the school calendar with the observance of cultural practices, such as harvesting season, of Indigenous peoples; this conflict results in non-attendance of Indigenous students in school during this time. One particular indigenous school in the Philippines, which catered only for Indigenous students, starts their school year in September to accommodate the cultural practices of its Indigenous students, and this has been found to work. This suggests that it would be possible for the Department of Education to give exemption and authority to mainstream schools with ethnic minority students to be flexible with the school’s timetable in order to accommodate the cultural needs of its students. Such a move could lessen the absences of students and their missing out on lessons.
Professional development for teachers contributes to student’s success and enhances positive outcomes for teachers. Based on other studies, professional development equates with effective teachers (Arms, 2012; Lattuca, Bergom, & Knight, 2014). Hence, this suggests that supporting teachers to continuously take part in discipline-specific professional development benefits not only teachers’ personal and professional growth but also results in good outcomes for students as well. Therefore, it is recommended that continuous education or training of teachers be institutionalised rather than optional because such training is likely to promote their holistic wellbeing, especially in terms of being culturally sensitive and knowledgeable (Chew, 2011; Perso, 2013).

Impassive curriculum pertains to the lack of relevance and cultural sensitivity of mainstream curriculum towards ethnic minority context. Samu (2006) asserted that the New Zealand education system does not accommodate all students well, particularly those who have different ethnic and cultural backgrounds from the majority, which is Pakeha. Others found the content of the curriculum was largely biased towards New Zealand’s dominant culture (Esera, 1996). An evident example of this was the lack of Pacific indigenous knowledge or culture in the New Zealand curriculum (Samu, 2009). Incorporating indigenous knowledge or culture into classroom teaching has positive effects on student learning. For example, the use of written materials that reflects indigenous concepts makes Pacific students appreciate their cultural identity and heritage and empowers their thinking and understanding of the world (Nelisi, 1999). It has been claimed that this approach will not only foster cultural awareness among students, but it will also develop better understanding and sensitivity towards fellow Pacific students among non-Pacific New Zealanders (Samu, 2009).

Integrating indigenous cultural ways into the mainstream curriculum is effective for student learning. For example, mastery of indigenous mathematics is primary to teaching and learning new mathematics (Bakalevu, 2001). Similarly, Samu (2009) points out that, to establish relevance of the subject among Pacific students, the secondary social studies curriculum must incorporate Pacific material. As pointed out in this study making relevance is one of the participant teachers’ teaching initiatives that were effective on students. Thus, integrating topics on indigenous culture or cultures of ethnic minorities are essential to capture the interest of students, motivate them to learn, and aspire to succeed in school because students can actually relate and fully understand the subject.
With the growing population of Pacific students, the need for dynamic and meaningful Pacific learning programmes is, therefore, clear. The lack of responsiveness of the curriculum to the educational needs of Pacific students was depicted in an appeal for a well-established and funded Pacific bilingual education (Hunkin-Finau, 2006; Tuioti, 2002). In particular, Tuafuri and McCaffery (2005) advocated that an organised, theoretical and community-based bilingual education is a powerful approach in empowering and raising the academic achievement of Pacific students. Moreover, research has revealed that proficiency in reading using the English language is better attained by Samoan students who first learned to read in their mother tongues (Coxon et al., 2002; Long, 1994). Furthermore, continued support and study of home language combined with teaching English in a two-year bilingual pre-school setting contributed to successful learning (Coxon et al., 2002). More importantly, the maintenance of Pacific language has positive effects on the individual’s confidence, identity, and heritage particularly to young Samoans (Fetui & Malaki-Williams, 1996; Tuafuri & McCaffery, 2005). The literature indicates that importance of these. Therefore, a culture-responsive and inclusive curriculum that appreciates the context of Pacific peoples, respects their identities, and promotes their cultural and historical heritage is strongly recommended. To ensure that appropriate education pedagogy, content, and assessment are adopted, the use of the pedagogical innovation model generated in this study is suggested.

Similarly, the mainstream curriculum in the Philippines lacks responsiveness on accommodating the diverse characteristics of indigenous peoples; for example cultural relevance, language learning, and appreciation of indigenous values and knowledge, which enhance the learning success of indigenous peoples in mainstream schools. The mainstream education system in the Philippines has failed to address this lack. Its main goal is to facilitate the assimilation of indigenous learners into mainstream society and, thus, neglects the indigenous community context (Episcopal Commission on Indigenous Peoples, 2014). Hence, integration of Indigenous peoples’ cultures and histories in mainstream curriculum is vital to make learning more relevant to students and to improve academic performance. In 2011, the Philippine government through the Department of Education has implemented the National Indigenous Peoples Education Policy Framework that recognises the right of Indigenous Peoples to an inclusive and culturally appropriate education. The Department of Education identifies the need to
consolidate existing models and best practices on Indigenous Peoples education based on successful projects and interventions the agency and its people and other participating groups as a major step towards an educational system that is truly inclusive and respectful of the diversity of learners (Department of Education, 2011b). Hence, a pedagogical innovation tool, which is created in this study, is recommended to identify and analyse pedagogical practices that work well with Indigenous students.

It was found that managing both a teaching load and administrative responsibilities at the same time meant a heavy workload for study teachers. Clearly, in such case where teachers cannot turn down administrative positions, they need to plan and create pedagogical innovations that would help them lessen their load in teaching without sacrificing student learning. Therefore, through the pedagogical innovation model in this study, teachers are able to identify, analyse, improve or create practices that target improvement in student learning.

Time constraint is another of the factors affecting the delivery of effective classroom learning. Teachers often ignore or minimise student collaboration, especially when lessons need to be accomplished based on schedules or time targets. Thus, a simple way of encouraging the use of pedagogical innovation in the classroom, despite the constraints of time, is by arranging classroom seating to accommodate student's individual and group needs to communicate and work jointly. This simple technique is often overlooked or not given importance. Student-centred discussions and activities can promote this ideal classroom practise that would result in high impact learning. Careful planning for activities in every lesson and flexibility on the part of the teacher when it comes to time is essential to carry this out.

There are various reasons why students have poor attendance in school. It can be personal, economics, cultural, structural, or organisational. Whichever way, it is recommended that teachers make an effort to be aware of the reasons why their students are disengaged with schooling. Based on the study, one of the best ways to find out is for these teachers to do home visits, check the situation of the student, and dialogue with their parents.

Implicit rules refer to the conscious and unconscious biases of teachers toward their students. It refers to the perceptions and expectations of teachers that somehow dictate
how they handle their students. Having expectations is natural. It cannot be suppressed or avoided. However, it can also cause damage, particularly if teachers communicate negative expectations unconsciously. Therefore, teachers should be aware of their expectations and monitor these so they will change appropriately based on the current progress of the students (Good, 2002). Furthermore, in developing expectations, teachers should consider students’ full range of abilities. He or she should keep his or her expectations flexible, current, and positive while still remaining realistic. Good (2002) reasoned:

Remember, teaching attitudes and expectations can be your allies and tools if properly maintained and used. However, if accepted unquestioningly and allowed to solidify, they can become defence mechanisms that lead you to ignore or explain away problems rather than solve them. Therefore, learn to control your attitudes and expectations --- don’t let them control you! (p. 96)

Clearly, the structural regulation of the school system hindered the implementation of pedagogical innovations of the participant teachers in this study. This structural regulation include high student ratio over teacher, lack and/ or limited artefacts for learning, conflict between the school calendar and the observance of cultural practice of the Indigenous peoples, inadequate professional development for teachers, heavy workload, impassive curriculum, time constraint, poor student attendance, and implicit rules. However, in spite of these impediments, there are recommendations in place that improve, change, and rethink the situation such as the use of the pedagogical innovation framework.

**Limitations**

Utmost care has been given in every stage of this study to ensure the findings were trustworthy. From the data gathering process to analysis, a step-by-step process and procedures were followed. However, it is acknowledged that, despite the strength of the study, there are limitations to be acknowledged.

The small sample size is one of the limitations of this study. Though the study was not aimed at creating statistical generalisations based on a population or universe but focuses on analytic generalisation, given more time and resources a larger sample may have obtained a deeper understanding of the lessons learned from the research.
Another limitation is the number of classroom observations conducted within the period available. This was due to constraints in the research timeframe and conflict in the schedule of participant teachers. An average of two to three observations per participant teacher was done. This may have restricted the opportunity for the researcher in terms of capturing the fullness and richness of the phenomenon being observed.

Five out of nine participant teachers were observed in a variety of different classrooms while working with different groups of students. However, the other four participant teachers were only observed in one class. It is acknowledged that observing participant teachers with different groups of students yields richer data and, potentially, more trustworthy findings than those observed in just one class.

Lastly, due to time constraints and conflict in the schedules of teacher participants, each of the participant teachers had only a single one-off interview with the researcher. It is acknowledged that this may not have been enough to fully grasp and elaborate on their responses after transcription and analysis. However, while follow up interviews may improve the findings of the study, this is not always possible.

Areas for Further Research
Since the parameter of the study focuses only on the pedagogical innovations of teachers and the factors in the individual teachers’ school environments that inhibit or promote implementation of the pedagogical innovation, potential future studies relating to this study are suggested. It would be of great value to explore the impact of pedagogical innovations from the perspective of the students. Since students are the main receivers and one of the main stakeholders in education, their perspective deserves to be heard. In the literature review conducted by Chu et al. (2013a) on Pacific education research regarding effective teaching, the authors concluded that the majority of the available data focus on attitudes and perceptions of adult learners like teachers “without evidence of actual impact on the students…” (p. 46).

Aside from exploring the impact of teacher’s pedagogical innovation from the perspective of students, it would also be interesting to understand the context and experiences of the teacher’s social support systems identified in this study since these groups shared the task with teachers in terms of promoting student learning. Another scenario for future study is using the same research process but with different groups of
ethnic minority students. In such situations it could be asked: would the teachers’ pedagogical innovation be totally different from what was identified? Are the factors similar or different to what was known? Is there a relationship between teacher’s pedagogical innovation and the ethnic make up of classrooms in a formal school system?

Finally, since this study has identified structural regulations in the school system, it would also be thought-provoking to investigate these factors that hinder the implementation of pedagogical innovation, especially those factors that are beyond the control of the teacher and the learner. Who should be accountable?

Chapter Summary
A discussion on Cultural Historical Activity Theory and Appreciative Inquiry as an amalgamated theoretical and analytical framework of the study has been presented. Using Cultural Historical Activity Theory and Appreciative Inquiry perspectives, this study has shown teachers’ pedagogical innovation and the factors that affect its implementation. Through these lenses, teachers’ pedagogical innovation has been explored. Two aspects were identified in understanding pedagogical innovation particularly inside the classroom. These are artefacts for learning and appreciative mediation for learning. There were also factors involved that promote and hinder the implementation of pedagogical innovation. These factors were categorised as the social support system of teachers and the structural regulation of school system. Specific details on the findings were discussed throughout the study.

This chapter also provided a pedagogical innovation framework that is a tool in identifying and analysing effective pedagogical innovations of teachers. Implications of the findings and recommendations arising from these were also offered. The chapter also acknowledged the study’s limitations and identified areas for further research.

Thesis Summary
Teachers are agents of positive change. They are the catalysts of educational opportunity and equity for all students including students of ethnic minority groups. This study seeks to understand the ingenuity of teachers through their classroom-based
pedagogical innovations using Cultural Historical Activity Theory (CHAT) (Engeström, 1999) and Appreciative Inquiry (AI) (Cooperrider et al., 2003) perspectives. It explores and identifies teachers’ pedagogical innovations and the factors in individual teachers’ school environments that inhibit or promote their implementation in cultural minority classrooms. A total of nine teachers and their classes from five public or state secondary schools in the Philippines and Aotearoa New Zealand participated in the study. Data were collected using observations, talanoa, audio-visual recordings, and documents, which consisted of lesson plans, school newsletters, and publications. Data were analysed within and across cases using a thematic approach and a comparative approach in relation to the five standards of effective pedagogy (Dalton & Tharp, 2002).

The data suggest that there are two aspects to understanding pedagogical innovation: the tangible aspects or artefacts for learning, and the intangible aspects or appreciative mediation for learning. Artefacts for learning pertain to any human-made objects available in the learning environment such as classrooms, which are essential in engaging student learning (Levin et al., 2003). These are concrete manifestations of teachers’ creativity utilised in teaching and learning. Common examples of artefacts for learning used by teachers across all case studies were student modules or kits and teaching instruments such as visual aids, photos, and information and communications technology. Appreciative mediation for learning pertains to the positive and strength-based operations and/or actions, attitudes, behaviours, and outlooks of teachers, which result in student learning. These include genuine appreciation and collaboration with students, teaching initiatives, positive disposition, and self reflection.

Factors that affect the implementation of teachers’ pedagogical innovations are grouped into two: the social support system and the structural regulation of the school system. The social support system identified in the study that promoted teachers’ pedagogical innovation, and are common across all case studies, were family, community, school staff, and students. The structural regulation of the school system was found to hinder teachers’ pedagogical innovation. Examples common across all case studies are lack of and/or limited artefacts for learning, inadequate professional development for teachers, impassive curriculum, and poor student attendance.
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Appendices

Appendix A: Ethics Committee’s Approval Letter

20 December 2013

Ivy Abella
PhD student
Victoria University of Wellington Faculty of Education
C/- School of Te Kura Maori
Donald Street
Wellington

Dear Ivy

RE: Ethics application TKM/2013/88 RM 20425

I am pleased to advise you that your ethics application ‘Exploring Configuration of Pedagogical Innovations: a Multiple Case Study Analysis of Teaching Innovations and Their Impacts on Pacific and Indigenous Filipino secondary School Students in New Zealand and the Philippines’, with the required changes, has been approved by the Victoria University of Wellington Faculty of Education Ethics Committee. Please note that the approval for your research to commence is from the date of this letter.

Best wishes for your research.

Yours Sincerely

Dr Judith Loveridge
Co-Convener
Victoria University of Wellington Faculty of Education Ethics Committee
Appendix B: Individual Talanoa Questions

Teachers will be asked to elaborate and provide detailed accounts of their personal experiences and views in relation to the questions below. Also, questions will be asked about teachers’ reasons on their behaviour and actions of the observed lessons.

1. Tell something about yourself:
   a. Name:
   b. Gender:
   c. Age:
   d. Ethnicity:
   e. Country of Birth:
   f. Highest educational attainment:
   g. Years in service (as a teacher):

2. What inspired or made you to stay at (name of school)?

3. Please share a story of what you consider your most outstanding, significant achievement as a teacher in this school.

4. What type of classroom atmosphere do you promote in your classroom?

5. What type of teaching style do you prefer?

6. What type of relationship do you have with your students?

7. Reflecting on the past year, have you noticed any changes in your teaching practices or styles? If yes, what were they and what affect this change?

8. Describe thoroughly the teaching activity or practice you presented in class.
   a. What were your objectives or inspiration in creating such activity?
   b. What were your considerations in doing the activity or practice?

9. What do you think made the teaching innovation, activity, or practice worked well with the students?

10. If you were to deconstruct the teaching innovation, activity, or practice, what is/are the key element/s behind it?

11. Are there any challenges that hinder the success or effectiveness of the teaching innovation in class?

12. If you will recreate your innovation, activity, or practice all over again, how would you improve it? Why?

13. Does the teaching innovation, activity, or practice affect students’ learning and development? Why do say so?

14. How does creating teaching innovation, activity or practice affect you?

15. In a word, how would you describe your over all experience in relation to the teaching innovation you have created and presented to the class?
Appendix C: Participant Information and Consent Form

INFORMATION SHEET
Teacher Participant

Research Title: Exploring Configuration of Pedagogical Innovations: A Multiple Case Study Analysis of Teaching Innovations and Their Impacts on Pacific and Indigenous Filipino Secondary School Students in New Zealand and in the Philippines

Dear Participant:

I would like to invite you to voluntarily participate in a research project I am conducting as part of my PhD study. I would like to explore and investigate effective teaching innovations and their impacts on students, which are practised in your school. This research has had the approval of Victoria University of Wellington, Faculty of Education Ethics Committee.

The aim of the project is to explore teaching innovations, their configuration and impact on Pacific and Indigenous Filipino students in New Zealand and in the Philippines, respectively. It will not only showcase teaching innovations in classroom but more importantly it will try to investigate how the innovation works, why it is effective, and how it affects students. In this way equal educational opportunity can be obtained through demonstrating the ability and creativity of teachers leading to better educational outcomes for students.

The objectives of the study are to:

1. identify teaching innovations that contribute in enhancing students’ learning and achievement;
2. describe the innovation and how it looks like in practice; and
3. deconstruct and analyse teaching innovations and their impact on Pacific and Indigenous Filipino secondary students’ learning and achievement.

It is anticipated that results from the study can help develop new approaches to teaching and learning that is instrumental to students’ learning and achievement in education and eventually institutionalised through policy development. It is hoped that this research will inform institutional and sectoral improvements in supporting Pacific and Filipino Indigenous learners in secondary institutions.

We invite you to participate in a 50-minute actual class observation and 30-minute talanoa session. A digital camera will be used to record the whole class observation. The video recordings will only be seen by the researcher and the supervisors. The names or features that will reveal the identity of the school or participants will not be used. Talanoa as a research tool has no enforced, artificial and arbitrary boundary for
it is simply about talking, story-telling, sharing, debating based on the interest of the participants that builds better understanding and good human relationships where the researcher and participants are engaged as equals. The talanoa session is an informal discussion and will be audio recorded. I will be talking with you about your positive experiences inside the classroom in relation to the teaching innovation and its effects. Food and drink will be provided. You may withdraw from the talanoa session at any time.

The findings from the research will be written up in the form of a case study that will build up to a thesis, which will be submitted for examination and to be deposited in the University Library. Results will also be published in an academic or professional journals and disseminated at academic or professional conferences. For the purpose of the write-up, you will be given a pseudonym to protect your identity.

Please be informed that by consenting as participant:

• You have the right to withdraw up until the end of the data gathering period.
• Data files and any comments reported in this research will be kept strictly confidential.
• You will have the themes of the talanoa and class observation returned to you so you can check for accuracy.
• The final report will be shared with you

My Supervisors (Dr. Cherie Chu and Dr. Kabini Sanga) and myself will only have access to the data and it will be kept locked in a secure filing cabinet and password protected files. Data and other recordings will be kept for a period of five years and then destroyed and electronically wiped out.

I would like to request your consent to the involvement in the project. If you agree to this request I would appreciate it very much if you would sign and date the consent form attached.

If you have any further questions or would like some more information, please do not hesitate to contact me. You can email me at Ivy.Abella@vuw.ac.nz or call me at 021 0328 029. You can also contact my supervisors: Dr. Cherie Chu (Cherie.Chu@vuw.ac.nz; Phone 04 463 5316) and Dr. Kabini Sanga (Kabini.Sanga@vuw.ac.nz; Phone 04 463 6894).

The research has been approved by the Faculty of Education Human Ethics Subcommittee under delegated authority from the Victoria University Human Ethics Committee. If you have any ethical questions about this research please contact Dr Allison Kirkman, Chair of the Human Ethics Committee, Victoria University of Wellington (Allison.Kirkman@vuw.ac.nz, ph: 04 463 5676)

Sincerely yours,

Ivy Abella
PhD Student, Te Kura Maori
Victoria University of Wellington
Teacher Consent Form

Research Title: Exploring Configuration of Pedagogical Innovations: A Multiple Case Study Analysis of Teaching Innovations and Their Impacts on Pacific and Indigenous Filipino Secondary School Students in New Zealand and in the Philippines

| I have received the information letter outlining the purpose of the study. |
| I have had the purpose of the data gathering explained to me. |
| I consent to participate in the research study. |
| I understand that I may withdraw from the study at any time until the completion of the talanoa and class observation. |
| I understand that a pseudonym will be used to protect my identity. |
| I understand that the themes of the talanoa and class observation will be sent back to me to check for accuracy. |
| I understand that all audio and video recordings made of my responses will be kept in a password protected file and will be kept strictly confidential. |
| I understand that after a period of five years, all data and recordings of my talanoa session and class observation will be destroyed. |
| I understand that the results of the project will be written up in form of a thesis which will be submitted for examination and to be deposited in the University Library. Results will also be published in an academic or professional journals and disseminated at academic or professional conferences. |

Tick the box to confirm that you have read and agreed with the information provided here.

Teacher’s name: __________________________
Teacher’s signature: _______________________
Date: __________________________

Please complete and return this form to me ASAP.
INFORMATION SHEET
Student Participant

Research Title: Exploring Configuration of Pedagogical Innovations: A Multiple Case Study Analysis of Teaching Innovations and Their Impacts on Pacific and Indigenous Filipino Secondary School Students in New Zealand and in the Philippines

Dear Participant:

I would like to invite you to voluntarily participate in a research project I am conducting as part of my PhD study. I would like to explore and investigate effective teaching innovations and their impacts on students, which are practised in your school. This research has had the approval of Victoria University of Wellington, Faculty of Education Ethics Committee.

The aim of the project is to explore teaching innovations and how they impact on Pacific students in New Zealand and Indigenous Filipino students in the Philippines. It will examine how and why the innovation works and how it affects students. It is hoped that the research will lead to better educational outcomes for students.

The objectives of the study are to:
1. identify teaching innovations that contribute in enhancing students' learning and achievement;
2. describe the innovation and how it looks like in practice; and
3. deconstruct and analyse teaching innovations and their impact on Pacific and Indigenous Filipino secondary students' learning and achievement.

It is anticipated that results from the study can help develop new approaches to teaching and learning that is instrumental to students’ learning and achievement in education and eventually institutionalised through policy development. It is hoped that this research will inform institutional and sectoral improvements in supporting Pacific and Filipino Indigenous learners in secondary institutions.

We invite you to participate in a 50-minute actual class observation and a 30-minute talanoa session. A digital camera will be used to record the whole class observation. The video recordings will only be seen by the researcher and the supervisors. The names or features that will reveal the identity of the school or participants will not be used. Talanoa as a research tool has no enforced, artificial and arbitrary boundary for it is simply about talking, story-telling, sharing, debating based on the interest of the participants that builds better understanding and good human relationships where
# Student Consent Form

**Research Title:** Exploring Configuration of Pedagogical Innovations: A Multiple Case Study Analysis of Teaching Innovations and Their Impacts on Pacific and Indigenous Filipino Secondary School Students in New Zealand and in the Philippines

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**Tick the box to confirm that you have read and agreed with the information provided here.**

Student's name: ____________________________

Student's signature: ____________________________

Date: ____________________________

*Please complete and return this form to me ASAP.*