DIGITAL SPACES – PASIFIKA PARENTS AND CAREGIVERS TALANOA ON THE IMPACT OF DIGITAL TECHNOLOGIES

By

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ABSTRACT

21st Century education now requires students to learn using digital technologies. This allows for learning to occur any place and at any time. This requirement, however, involves access to the internet and digital devices in order for learning to continue beyond the classroom. This study investigates perspectives of Pasifika parents and caregivers from low-socio communities and the impact of digital technologies on children's education, family and culture.

Using talanoa qualitative methods within the Teu Le Va construct, allowed participants to talanoa through semi-structured interviews. Ten parents and caregivers of Pasifika descent namely from the Cook Islands, Tonga, Samoa, Niue and Fiji took part in the study.

The data analysis revealed three key themes: (1) Disconnections of parents/caregivers within cyberspace from their children; digital exclusions because of access and skill (2) Reconnections to disadvantaged traditions with traditional inequalities and (3) Interconnections of parents/caregivers with digital technologies and how they currently navigate the digital space.

Recommendations are made for equitable access for families in low-socio communities around wifi and digital devices. The importance of upskilling parents and caregivers from these communities so that they remain connected with their children in cyberspace and the digital economy. The need for schools to review how parents and caregivers are involved in creating culturally responsive pathways in children's digital learning.

Key words: access, digital space, cyber separation, digital inclusion, digital literacy, e-colonize

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inspiration for us all to do better for all our kids.   I hope that this study makes a difference for all our communities.

Finally, I want to thank my best friend, the love of my life Nanai John Tuitama who has walked with me throughout all the difficult times in sickness and in health! Your strength and humility has enabled me to persevere. You have been my rock and have championed me to get this study completed and I am forever grateful.

Fa'afetai, fa'afetai, fa'afetai tele lava.

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CHAPTER 1

INTRODUCTION

By 2020 the new Digital Technologies Curriculum is expected to be introduced and implemented throughout New Zealand schools. Digital devices are now part of education - much like pen and paper was in the 20th century. As a classroom teacher of 20 years-experience, I have seen many educational changes and initiatives. The introduction of digital technology is one change that has made an impact on learners and their families.

1.0 IMPACT ON MY FAMILY

As a Samoan mother of three children, I have experienced firsthand the impact of digital technologies on my family particularly around the usage of digital devices and the need for such devices in home learning. Our eldest daughter Nia finished secondary school at the end of 2014. In 2015, Nia started at the University of Auckland. It was during this time at tertiary that we had to purchase a laptop for Nia to access her lecture notes and assignments. The use of digital devices in education was slowly becoming more and more prevalent in schools. It then became an issue when it came to our two younger children. Elias started in the same year as a Year 9 student attending the local high school. It was not a compulsory requirement for students to bring in their own device in 2014. However, by 2016, BYOD (bring your own device) became compulsory for all students. Our youngest child Hope was finishing primary school. The New Zealand school sector had already introduced online learning and the use of information communication tools (ICT) technologies was progressively growing in both the primary and secondary sectors (Johnson, Hedditch & Yin, 2011).

As a teacher in an intermediate school setting at the time, digital learning was implemented as part of the learning program. Digital devices were provided for all students to be used at school. Some classes operated in 1:1 modes – each child had a device to use during class

time.   Teachers set up learning for students through online sites to be accessed at home. This suited families who had wifi access and personal devices, but for other students, they had to wait until they returned to school to continue their learning.   Our children always used school devices and so we did not need to purchase devices.   However, as the school curriculum was moving more and more into digital learning at home, our family had to adjust accordingly. The school stationery list was no longer just exercise books, but included digital devices. Not only did we have to purchase digital devices and software but also unlimited internet access at home.

My husband Nanai John and myself have salaries that enable us to provide sufficiently for our family and extended families. We own our home and we are first generation Samoans born in New Zealand. Our parents and grandparents came from Samoa to forge a life for us. A life steeped in God, Samoan culture and family.   We raised our children as we were raised – God first, family, education and service. The values of fa'aaloalo (respect) mafutaga fealofani (good relationships) fa'amaoni (sincere service) were threaded into our family life. We were the first marginalized Pasifika communities who were raised in a dominant white culture. We managed to survive and navigate through the system because of our grounding in the faa-Samoa (Samoan way) and our belief in God. We worked hard to give our children all the opportunities that our own parents fought and strived for to give to us. We are now at cross roads with our own children, second generation New Zealand born Samoans who are literally growing up in the digital technological age.

1.1   NEW LANDSCAPE SAME PROBLEMS

The digital landscape is new for all and unless one has the necessary tools to navigate successfully, once again marginalisation will occur. Even though our children grew up in the faa-Samoan way and we had the means to provide the necessary technologies for our children - we still did not have the digital skills or knowledge to monitor or supervise our younger two children on the internet. Elias and Hope would come home with online homework – we had

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no idea what or how to help them. My only access to this learning platform came through my experience as a classroom teacher. I was in charge of digital learning and so I had the skill and knowledge base to monitor their learning at home. However, in most cases when it came to cyberspace, our children were often the lead navigators.

There is an element of trust when your children say that they are "doing homework" online. The lure of social media is ever present and as a parent you are constantly checking to see if they are online doing homework and not being invaded by online influences that requires constant monitoring. The threat of possible cyber invasions were real.

If I, as a Samoan educated woman, living in a middle-class part of society found it difficult to manage the impact of digital technologies on my own family, how do the parents and caregivers of my school community who predominantly live in low-socio environments manage the impact of digital technologies on their own families? Could the Pasifika values that helped my grandparents and parents successfully navigate life in the 1960s and 70s also be the same cultural values used by todays Pasifika parents and caregivers facing the unchartered waters of the so-called Digital Moana? (Ministry of Business Innovation & Employment, 2018)

1.2   RATIONALE

I have chosen to undertake this research to shed some light on how Pasifika families from low-socio communities are coping with digital technologies. Zwimpfer, et al., (2017) states that a small percentage of New Zealanders will miss out from this digital explosion. Reasons behind this are related to access, skill, trust and motivation (p. 4). Digital technologies are meant to provide solutions for these inequities but in some cases it is widening the gap. This research is based on Pasifika Parents and Caregivers perspectives on the impact of digital technologies. For the purposes of this chapter we will begin with Pasifika in New Zealand.

1.3 PASIFIKA – A DEFINITION

According to Samu (2010) reference is made to Macpherson (1996) who states that the historical context in which New Zealand grouped migrants was to implement:

> A Euro-centric school curriculum; New Zealand's role after World War One as a colonial administrator for Western Samoa, the Cook Islands, Niue and Tokelau (where often these islands were grouped together as a simple entity for administrative purposes); and what MacPherson (1996, p. 129) described as "..the high degree of residential and labour market concentration" of Pacific peoples. (Samu, 2010, p. 5)

The action of grouping migrants continued into the 20th century with the terms Pacific Polynesian in the 1970s; Pacific Islander in the 1980s and Pacific nations' people in the late 1990s. People were grouped using social constructs as a matter of convenience (Samu, 2010, p. 6). A further expansion of this action of social construction are people:

> who seem to share some rather general, possibly even superficial similarities in the way they look and sound; where they live and work in the urban areas of Auckland and Wellington and other centres; their relative socio-economic position within this society; and the Pacific (that vast area covering one third of the earth's surface) islands from which at least half have directly originated from (Samu, 1998, pp. 177–178). (Samu, 2010, p. 6)

Samu (2010) believes it is important to note these beginnings as a way to develop a "historical and conceptual analysis to critique terms and constructs that have become common-sense understandings in 21st century New Zealand such as ... Pacific/Pasifika" (p. 1). Within the paper there is much debate around the use of blanket terms of reference with the term Pacific Islander in which Coxon, Foliaki & Mara (1994, as cited in Samu, 2010, p. 6) asserts these terms "conceals and undermines the historical social, political and cultural uniqueness of each

Pacific Islands society". However, as Samu (2010) points out the use of a unifying concept can unify against oppositional forces such as neo-colonialism, assimilation, social, economic and cultural marginalisation (p. 145).

According to the Pasifika Education Plan 2008-2012 the term Pasifika is a:

> collective term used to refer to people of Pacific heritage or ancestry who have migrated or been born here in Aotearoa New Zealand ..... Pasifika people have multiple world views with diverse cultural identities and may be monolingual, bilingual or multilingual.   (Ministry of Education, 2012)

The term Pasifika according to Crocombe (1976, as cited in Samu, 2010, p.6) states it was never used to "imply homogeneity; rather it has been developed and used when the common interests of all island peoples can be served by collaboration". In addition to this statement, I would like to add (Airini, Anae & Mila-Schaaf, 2008, as cited in Samu, 2010, p. 7) commentary "that whether the term or phrase is Pacific Islanders, Pacific peoples, or Pasifika ... at best … encapsulates both unity and diversity". It is with this understanding, that the term Pasifika is used in this research – to 'encapsulate unity and diversity' of Pacific people in navigating the digital landscape.

1.4 PASIFIKA IN NEW ZEALAND

People of Pasifika descent born in New Zealand and people born in the Pacific Islands include Samoans, Cook Island Māori, Tongans, Niueans, Fijians, and Tokelauans to name a few. There are also people from smaller island communities.   The two largest and fastest growing ethnic groups are Samoan and Tongan (Ministry of Education, 2013, p. 6).

According to the New Zealand Census 2013 the Pacific peoples' ethnic group was the fourth-largest major ethnic group behind the European, Maori, and Asian ethnic groups. The New

Zealand Census 2013 states that Pacific peoples numbered at 295,941 lived in New Zealand making up approximately 7.4% [1]of the total population. There has been a significant growth both in number and proportion of the population since 2006.

The report to the New Zealand Business Innovation Enterprise on Pacific Economic Trends and snapshot (Krieble & Gamperle, 2016) state that the Pasifika population is expected to grow on average 1.7 percent per annum over the next two decades – reaching a population level of more than half a million. Pasifika will make up 11 percent of the New Zealand population by 2038, up from 7.8 percent (p. 7). Pacific peoples had the highest proportion of children (0-14 years) at 35.7%. The Pasifika Education Monitoring Report (Ministry of Education, 2013) states that by 2050 an estimated increase from 10% to 20% of the total school population is expected in ECE, schooling and tertiary sectors (p. 6).

In 2013, sixty-two percent of the Pasifika population was born in New Zealand as referred to in Figure 1 Percentage of New Zealand born and overseas born Pasifika as a proportion of all Pacific (Statistics New Zealand Census, 2013) (Appendix 1). This will impact Pasifika communities in New Zealand in the present and in the future. The majority of the Pasifika population (92.9 percent or 274,806) live in the North Island with almost two thirds (65.9 percent or 194,958 people) live in Auckland. (Krieble & Gamperle, 2016, p. 1)

In terms of digital access research undertaken by Digital Inclusion Research Group for the Ministry of Business Innovation and Department of Internal Affairs 'Digital New Zealanders:The Pulse of our Nation' (Zwimpfer, et al., 2017) states that Pasifika families from low-socio communities are digitally excluded and are not benefiting from digital technologies due to issues of access, skill, motivation and trust.

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[1] This is the latest "full" NZ census. The national census information for 2018 has not yet been released.

1.5 DIGITAL ACCESS

The New Zealand Government's Ministerial Advisory Group on the Digital Economy and Digital Inclusion (the Group) context states the following:

> If New Zealand is to be a future-focussed, modern, strong, democratic nation then we need to ensure every New Zealander, and every New Zealand business and organisation, is able to take advantage of the opportunities provided by digital technology. (Ministry of Business Innovation & Employment, 2018)

As part of this drive to connect New Zealanders, there are many organisations set up to ensure access and affordability is provided. InternetNZ is a charitable NGO wanting to create a better world through a better Internet. InternetNZ released a position paper 'Solving the Digital Divides Together' (Strickland, 2017) which stated the potential of the internet to transform people's lives. InternetNZ is aiming to create universal access for New Zealand.   The paper claims that New Zealand is one of the most digitally advanced nations in the world having world-class fibre networks together with fast 4G mobile internet. Closing the digital divide could be worth $280 million to the New Zealand economy by people saving time, communicating online, learning new skills, increasing their employability and earning potential together with interacting with the government online (p. 1). The term 'universal access' refers to accessibility and affordability to get online (Strickland, 2017, p. 4).

The World Project Internet New Zealand Internet Trends Report 2007-2015, also confirms New Zealand as a nation which is positioned as a country with a high level of internet expansion. New Zealand stands alongside countries such as Australia, Sweden, Qatar, Switzerland, Spain, Saudi Arabia and Bahrain, which all have internet penetration of more than 80 percent (Smith, Bell, Miller & Crothers, 2016, p. 5).

However, with this ever changing dynamic of digital expansion, there are some groups within

New Zealand that will inevitably miss out on the economic, educational and social benefits that will come from being connected to this digital pipeline.   The impact of this on Pasifika families is explored in this study.

1.6   RESEARCH AIMS AND QUESTIONS

The aims of this research study were:

1. To identify Pasifika Parents' and Caregivers' perspectives on digital technologies.

2. To identify existing cultural funds of knowledge which will enable integration of digital literacies.

3. To identify key factors/strategies that will ensure digital inclusion for Pasifika Parents/Caregivers

Research Questions:

1. What are Pasifika parents and caregivers perspectives on the access and use of digital technologies?

2. What are Pasifika parents and caregivers beliefs about using digital technologies at school and the connections with home learning?

3. How do Pasifika parents and caregivers view digital technologies and the impact on family life and cultural responsibilities?

THESIS SETTINGS

The thesis is made up of six chapters.

CHAPTER ONE

Chapter One introduces the research project. It outlines the rationale behind the research and presents the aims and questions of the study.

CHAPTER TWO

Chapter Two presents a literature review that unpacks research themes relating to Collective Cultural views and the connection to Pasifika spaces; inter-connection within Digital Technological spaces of family, trust and motivation.

CHAPTER THREE

Chapter Three describes the methodology applied through the use of the application of the construct of Teu Le Va together with Talanoa aligned with a qualitative approach. Description of the data gathering and analysis using semi-structured interviews together with aspects of validity and ethical considerations presented.

CHAPTER FOUR

Chapter Four presents the findings and emerging themes that have arisen from talanoa with the Pasifika parents and caregivers.

CHAPTER FIVE

Chapter Five contains a discussion of the findings based on the emerging themes that have come from talanoa with my participant groups. These are aligned against the literature review in Chapter 2.

CHAPTER SIX

Chapter Six outlines limitations, conclusions from the research and possible recommendations for future research.

Chapter 2

LITERATURE REVIEW

2.0 INTRODUCTION

There is limited research relating to Pasifika parent and caregiver communities and their perspectives on digital technologies. The purpose of this study is to investigate the impact of digital technologies on Pasifika families in low-socio communities; and how parents and caregivers manage the effect of digital technologies on their children's education, family life and culture. Research provides evidence in terms of digital exclusion for Pasifika in low-socio-communities related to access, skill, trust and motivation. In order to explore these variables this literature review will examine access, skill, trust and motivation firstly through identifying and expanding on Pasifika World Views and the connections with self, relationships and space. Secondly, examining the concepts within digital technologies that create digital inclusion and exclusion and lastly the implications of digital technologies for education and for Pasifika families.

2.1 COLLECTIVE CULTURAL WORLD VIEWS

Connecting To a Maori World View

To begin to unpack the forms of impact on Pasifika communities, it is important to recognise the bicultural foundations in which these communities live which are borne out of the Treaty of Waitangi/Tiriti O Waitangi. Understanding these connections to tangata whenua help in navigating the cultural responses and perspectives of the multi-ethnic communities to which this study is based. This study explores some aspects of the Treaty in order to weave a fabric of understanding and connection to biculturalism and the Pasifika participants of this study.

Signed in 1840, the Treaty was an agreement between two parties - the tangata whenua (indigenous people) and the British Crown about the future political organisation of the country (Ritchie, 2003, p. 81). According to Glynn (2015) for Māori the Treaty is a "charter" for "power

sharing" particularly in the processes of decision making for government and for "self-determination" as indigenous people (p. 103).   Glynn (2015) also believes that the "... most critical article is article 2 (a) by which the Crown ceded to the chiefs tino rangatiratanga over their lands, forests and fisheries and all other taonga (treasures or resources)".

Grace (2000, as cited in Ritchie, 2003, p. 80) points out that the Treaty provides the foundation for a bicultural ethos in New Zealand.   The effective implementation of the Treaty requires "... all Crown agents to honour the guarantee of tino rangatiratanga (self-determination for Maori) and to protect 'taonga katoa' (all things of value to Maori)."

Although the Treaty is a platform for bicultural ethos as referred to by Ritchie (2003), Glynn (2015) states that despite the promises of the Treaty the relationship between Maori and Pakeha does not represent partnership and power sharing but one that is characterised by political, economic and social control by the majority.   What can be seen here is the Maori struggle against biased legislation, successive educational policies; impositions of English language and Western European knowledge at the expense of Maori (Bishop & Glynn, 1997a, as cited in Glynn, 2015, p. 104).   Within education the adoption of   "...a critical perspective described as Kaupapa Māori, a grass roots theory of social change and resistance," the Maori way of doings; Maori control; Maori autonomy" (Smith, 1990, as cited in Glynn, 2015, p. 104) challenges these very same dominant structures using a self-determinative and reactive resistance initiative for language and cultural survival (Smith,1995, as cited in Glynn, 2015, p. 104).   It is therefore, crucial to give the bicultural ethos that the Treaty provides.   Kaupapa Maori provides tangata whenua voice in education, to be heard.

In terms of digital inclusion there is a need to step in and allow the voice of the marginalized to be heard.   Digital inclusion is more than access to tools as it is also about access to "ways of knowing".   The Maori medium of the new Digital Technologies Hangarau Matihiko describes the new curriculum as connecting indigenous knowledge with digital confidence (MOE, 2018).

Raised here is the question, does it take a digital curriculum to ensure Maori an equitable voice and correspondingly is this also the case for Pasifika communities?

In terms of education Gorinski & Fraser (2006) states:

> A significant, and growing body of research supports the call for an alternative paradigm, in which all partners in the education process: parents, children, schools, teachers, and communities are involved in the co-construction of shared knowledges. Proponents of an alternative paradigm (Airini, 1998a; Bishop, 2003; Podmore and Sauvao, 2003), propose a bicultural/multicultural perspective, which includes an equity pedagogy within a holistic approach that supports learners physically, emotionally, spiritually and communally. (Gorinski & Fraser, 2006, p. 1)

In order for transformational change in education to occur, it needs to move from a monocultural to a bicultural approach as the Treaty of Waitangi has been created to provide. The "co-construction of shared knowledges" Gorinski & Fraser (2006) helps frame this "alternative paradigm" which can lead to embracing biculturalism. This then gives premise to understanding multicultural perspectives. As Ritchie (2003) states that:

> restoring the mana (power and status) of the Treaty would provide both a symbolic and practical framework for positive intervention, based on three key precepts: the tangata whenua status of Maori people; the partnership which the Treaty imposes upon them and the Crown, and the idea of biculturalism which grows out of it (Jackson, 1992b, as cited in Ritchie, 2003, p. 82).

For Pasifika in the context of Aotearoa, whatever impacts Maori will almost always impact Pasifika as both cultures are submerged in the dominant majority.

2.2 CONNECTING TO PASIFIKA SENSE MAKING SPACES

Pasifika Sense of Self and Relationships

Sense-making is defined as "the action or process of making sense of or giving meaning to something, especially new developments and experiences" ("sense-making", 2018). The action or processes which determine Pasifika world views always begin with 'self'. In Tamasese, Parsons, Sullivan & Waldegrave (2010). *A qualitative study into pacific perspectives on cultural obligations and volunteering* the concept of the Pasifika self is:

> defined by and located in relationships, connections and interconnections to aiga [Samoan family] magafaoa [Niuean family], kainga [Tongan family], groups, clans, village, motu, province, confederacy and country. These are the organising and interrelating structures that define roles and responsibilities for care and support of their members throughout their lives. From a Pacific perspective they are all spiritual. The self is also identified by genealogy and by its 'places of belonging'. The self that relates through genealogy to ancestors and to the land and the waters also relates through genealogy to the God(s) or Atua within the sacred space of va [space] (Tamasese et al, 2010, p. 189)
>
> [added translation]

It can be seen therefore, that relationships are key Tamasese et al (2010) further states that interrelationship of the self occurs in differing levels of emotional, spiritual, physical, mental and cultural elements and cannot be separated as it constitutes the whole self in relationships. From this stems the responsibilities to care for family within all these levels (p.189 -190). Tamasese et al (2010) contend that within familial structures is the assignment of roles and responsibilities and it is within these structures that provide, " ... a frame on which daily family rituals and ceremonies of significant life events are organised" (p. 190). The family therefore, is the space where life skills are introduced, nurtured and developed through the interrelationships of parents and their children, extended family members and village as a

whole. Belonging creates strength in identity.

Pacific Sense of Space

With reference to Tamasese et al (2010) description of 'self' being located in relationships, connections and interconnections (p. 189) it is important therefore, to define the Samoan concept of "va" or space.   I make reference therefore, to the concept of the va through the Samoan lens.   In Albert Wendt's (1996) *"Tatauing The Post Colonial Body"* he states the importance to the Samoan view of reality is:

> the concept of Va or Wa in Maori and Japanese. Va is the space between, the betweenness, not empty space, not space that separates but space that relates, that holds separate entities and things together in the Unity-that-is-All, the space that is context, giving meaning to things. The meanings change as the relationships/the contexts change.... A well-known Samoan expression is 'Ia teu le va.' Cherish/nurse/care for the va, the relationships. This is crucial in communal cultures that value group, unity, more than individualism: who perceive the individual person/creature/thing in terms of group, in terms of va, relationships.

> (Wendt, 1996, para 14)

Once again, the centrality of relationship in "betweenness" and the binding effect of which unites all and gives meaning is prominent in this space. It is a shared concept and can be found in all Pacific cultural communities.   In terms of contextual spaces, Anae (2010) further makes reference to other places within the va:

> the Samoan self as a 'relational self' .... Samoan self is described as   reliant on relationships that are occurring in the va, or space between. Samoan discourses on the va, va fealoa'i (spaces between relational arrangements), va tapuia, (sacred spaces of relational arrangements) and teu le va (to value, nurture, look after, and if

necessary to tidy up the va)

<div style="text-align: right;">(Anae, 2010, p. 12)</div>

The aspects of the va are further enlarged for this research focusing on va fealoa'i (spaces between relational arrangements) in particular familial relationships of parents, caregivers and children; maintaining these relationships by teu le va (to value, nurture, look after) and revealing the va fa'apouli'uli which is defined as a "hidden or concealed space" (Muliaumaseali'i, 2017, p. 91).

The Village Space

The African proverb "It takes a village to raise a child" is also true in the Pasifika culture. To have an understanding of a village setting and the relational spaces within, a Samoan perspective is shared in *"The Space in-between: An Ethnographic Study of Mobile Technology and Social Change in Rural Samoa."* Muliaumaseali'i (2017) makes reference to the village or *nu'u* as more than a place a person is from. It encapsulates their cultural backdrop. There are two questions often asked when Samoans are introduced – what village you come from and your family name. Regardless of whether or not you were born in Samoa, the expectation is that you carry this knowledge everywhere. It is passed in *aiga* (family) from generation to generation through oral traditions. Fulfilling core roles around social and cultural structures are integral in village life and these are referred to as *matai* (chiefs), *fono* (village council) and the men and women's groups (p. 43).   The importance of knowing how to operate in these roles within this system enables for such structures to remain throughout generations. Niusulu (2018) makes reference to the importance of fa'amatai in Samoan society:

A key aspect of Sāmoan society which is crucial to the assessment of its resilience is fa'amatai because the organization and governance of 'āiga [extended family unit] and nuu [village] in Samoa is based upon this system. Fa'amatai ensures participation by

all related members... Each Sāmoan family comprises matai [holders of chiefly titles], tama tane [sons], feagaiga [daughters], paolo [in-laws] and children. The sa'o [main chiefly titleholder] is the head of the 'āiga. In the Sāmoan context, pule [authority] over resources is held in the chiefly title, yet the person who holds that title is only the trustee or caretaker (Aiono Le Tagaloa 1992; Vaai 1999, as cited in Niusulu, 2018, p. 16).

These same structures are reproduced in Samoan communities throughout the world. Even though I was not born in Samoa, I experienced the fa'amatai (chiefly system) in my own household. My late grandfather was the sa'o (main chiefly titleholder) of his village and many village fono (meetings) were held in our house.

To explain the construct of aiga (family) Muliaumaseali'i (2017) states *aiga* (family) is not limited to the immediate family, but extends to cousins, in-laws, and even encompasses members of the village where the concept of *aiga* is also linked to cultural land ties (p. 41). These understandings and/or practices although Samoan can be found in similar dimensions throughout Pasifika cultures.

In "Atafu He Matafu He Matauala – A Tokelau Project of Pride" a description of a village household as:

Village households are often multi-generational and may be composed of parents, grandparents, aunties, other adult siblings and children. There is a communal approach in raising the children and young people which allows for them to be consistently supervised and cared for. (Vulu & Faiva, 2010, as cited in Tamasese et al, 2010, p. 59).

There are connections and relationships within these structures and it is within these elements that the dimension of the shared concept of space or "*va*" is lived out.   The commonality of

va in Pacific cultures is connected via sociospatial, genealogy, land and values (Kaili 2005, Lilomaiva-Doktor 2008, as cited in Muliaumasealii, 2017, p. 24).   The need to understand the Pasifika concept of va and the relationship between digital technological spaces is important. It is within these spaces that digital technologies are beginning to take centre stage creating challenges for inclusion.   The biggest challenge facing Pasifka within digital spaces is access and knowing how to operate within this space.

It is important to give voice to the Pasifika communities who live out these digital challenges on a daily basis. Therefore, understanding and breaking down the concepts of space and/or va are critical.   There is reference to the critical standpoint when researching Pacific communities that one must "honour the wisdom of native/local traditional knowledge" (Benham, 2006, as cited in Anae, 2010, p. 4).   Anae (2010) argues that there is a need to further create and participate in dialogue which must include the "... socio-political history, spiritual and/or religious values, mother-tongue language, cultural as well as contemporary traditions, sub-cultures .." (p. 4).   In other words adopting a holistic approach to research.

The Ocean A Shared Space

The term 'Digital Moana' is taken from the Ministry of Business Innovation & Employment (MBIE) Tech Forum 2018 which focused on Pacific People succeeding and navigating the different parts of the tech sector (MBIE, 2018). The ocean is used as a metaphor in much literature to create a visual gateway into discussing issues relating to the Pacific. In this case the moana (ocean) has been used by MBIE as a business term digitising Pacific peoples' navigation of the tech sector.   Yet to Pasifika people the ocean represents so much more.

The perception of the sea and the ocean in relation to Pasifika people has been varied throughout early history and written from colonial viewpoints. According to Hau'ofa (1993) to view the Pacific as 'islands in a far sea' compared to 'a sea of islands' has belittling connotations. The 'islands in a far sea' view depicts 'dry surfaces in a vast ocean far from the

centres of power' which therefore, depicts the smallness and remoteness of the islands. Yet the second view of 'a sea of islands' reveals a more holistic perspective encompassing the importance of relationships (p. 5). Hau'ofa (1993) goes further to state that it was Europeans and Americans who confined ocean peoples to tiny spaces which in turn set a mindset of smallness and dependency.

Yet the following description by Hau'ofa (1993) paints a different picture:

> Oceania' connotes a sea of islands with their inhabitants. The world of our ancestors was a large sea full of places to explore, to make their homes in, to breed generations of seafarers like themselves. People raised in this environment were at home with the sea. They played in it as soon as they could walk steadily, they worked in it, they fought on it. They developed great skills for navigating their waters, and the spirit to traverse even the few large gaps that separated their island groups. (Hau'ofa, 1993, p. 8)

Hau'ofa (1993) further states how Pacific peoples navigated unhindered by imperial boundaries between these islands through trading, marrying, expanding social networks for greater wealth and maintaining family ties (p. 8). These are the roots of Pacific peoples long established before the arrival of colonial empires and their confining imperial boundaries.

According to Hau'ofa (1993) Pacific peoples moved in thousands carrying on what their ancestors had done before them:

> enlarging their world as they go … on a scale not possible before ... they strike roots in new resource areas, securing employment and overseas family property, expanding kinship networks through which they circulate themselves, their relatives, their material goods, and their stories all across their ocean
>
> (Hau'ofa, 1993, p. 10)

The expansion of the oceanic view continues into the 21st century. Hau'ofa (1993) reiterates the importance of understanding one's identity and in particular in terms of the ocean knowing that the depth and breadth of the ocean lies within its people to be able to overturn hegemonic views. This can be seen in the diasporic transition of the Pacific into western nations. As communities move a replication of culture, traditions and beliefs are taken with them and embedded into new frontiers using the past to inform, create and innovate the future.

Pasifika in Diaspora Space

The term diaspora refers to the 'The dispersion or spread of any people from their original homeland' ("diaspora" 2018). In Georgiou (2006) *Diaspora, Identity and the Media: diasporic transnationalism and mediated spatialities* defines diasporization as "the relocation of people in space and their ability, desire and persistence to sustain connections and commonality across the globe" (p. 2). Georgiou (2006) spatial perspective refers to the existence of space when:

> one takes into consideration vectors of direction, velocities, and time variables. Thus space is composed of intersections of mobile elements. It is in a sense actuated by the ensemble of movements deployed within it. Space occurs as the effect produced by the operations that orient it, situate it, temporalize it, and make it function in a polyvalent unity of conflictual programs or contractual proximities ... In short, space is a practiced place. (de Certeau, 1984, as cited in Georgiou, 2006, p. 4)

It can be seen therefore, that the understanding of the concept of space requires a global understanding and is not limited to Pacific peoples or more importantly euro-centric notions of what counts. Georgiou (2006) goes further to state the significance of "space, copresence and absences" with reference to "participation, access, restrictions to economic, including communication technologies" all become mechanisms for the construction of identities and "imagining communities" (p. 5). The terms "copresence and absence" in space become a

platform whereby information communication and/or media are the mediating levers for these diasporic communities. Georgiou (2006) believes that the:

> Diasporic family, community and global networks are increasingly sustained in connections and relations of absent co-presence become possible through mediated communication (Georgiou, 2006, p. 6)

New Zealand hosts the largest Pacific Island diaspora communities in the world (McCarthy, 2005; Spickard et al, 2002; Spoonley et al, 2004, as cited in Papoutsaki & Strickland, 2008, p. 2). The transnational nature of Pacific Islands diasporic communities is dependant on media and communication technologies for sustaining relations (p. 3). As this research is the study of the impact of digital technologies on Pasifika communities and in particular families, Papoutsaki & Strickland (2008) have indicated that there is limited research on Pacific diasporic communities around communication within private and public arenas; their representation in mainstream media; information needs; and how diasporic media provides for their communities (p. 3). What is significant in this space is the growing importance of electronic media in connecting these communities. Georgiou (2006) believes there is a saturation in the diasporic space by electronic media which in turn mediates communication defining the "meanings, uses and appropriations of cultural and social space" (p. 12). Georgiou (2006) points out a "multicentered and mediated everyday life" is:

> shaped in the complex, interlinked mediated spaces of diasporic life ... the local, public, urban, (the national) and the transnational .. information is no longer linear nor singular; ... spaces where possibilities for belonging, for choosing not to belong ... combining belonging in multiple communities ... struggles for inclusion and exclusion are not between two sides ... powerful and subordinate ... but between different powerful and subordinate actors ... media actively get involved in everyday life ... debates .. identification ... symbols of the imagined self ... the Other ... the community ... how

boundaries around communities and places are appropriated (Georgiou, 2006, p. 13)

The diasporic media therefore, can become symbols of empowerment and potentially mediate a group's participation in different spheres of community both locally, nationally and transnationally.   Digitization increases the potentiality, participation and inclusion of communities and opens boundaries and spatial specificity (p. 13).   According to Lee (2004, as cited in Muliaumaseali'I, 2017, p. 91) mediated spaces creates a feeling of presence connecting people, creating community and nurturing relationships with kin in diaspora. It can therefore, be seen that as the Pasifika self is located in "relationships, connections and interconnections" (Tamasese et al, 2010, p. 189) to relocate means to re-create often new places and communities through everyday life experiences whilst maintaining ties to cultural beliefs, values and systems.   The mediated spaces around connecting with homelands through provision is also seen through the monetary remittances:

> One of the features of this Pacific diaspora is the transfer of money, goods, and human resources from expatriate kin to their islands of origin … The strong cultural and kinship ties and obligations among Pacific peoples remain dynamic and there is a constant flow of money and human resources to and from the Pacific Islands. …Their place in the world is defined by their interrelatedness and interconnectedness with their aiga and spiritual dimension. (Tumama Cowley, 2004, as cited in Tamasese et al., 2010, p. 42)

Pasifika in the Literacy Space

Literacy at its basic sense is the ability to read and write.   However, in terms of Pasifika, literacy has a more expansive and in-depth meaning. In the Adult and Community Education (ACE) Aotearoa, (2014) *Pasifika Success as Pasifika: Pasifika Conceptualisations of Literacy for Success as Pasifika in Aotearoa New Zealand* report, literacy is seen as " … a (construct) complex idea … intimately interwoven with the constructs of society, politics, history,

economics, education, equity, and discrimination" (p. 27). In terms of indigenous peoples, literacy " ... is inextricably tied to languages, ways of knowing, and positive cultural identities, which nurture the spirit, heart, mind, and body equally" (George, 2003:29, as cited in ACE Aotearoa, 2014, p. 45).

The notion of self (Anae, 2010) and in terms of the concept of va or "betweeness" (Wendt, 1996) it recreates meaning and understanding in the constructs of literacy relative to socio-cultural contexts. The report further highlights that literacy must be seen as a "social practice" and to be "literate" requires – a fuller understanding of the connection between literacy and language, culture and identity (p. 30).

The understandings around literacy are therefore, defined as:

- technical skills and set/s of prescriptions about using knowledges
- exercising socially approved talents
- a historically based ideology and a collection of complex, situated, context-bound communicative practices
- a set of practices to understand the world around us and a set of statements about the value/necessity of these activities.

(ACE Aotearoa, 2014, p. 30-31)

The findings of the ACE Aotearoa (2014) report confirms literacy as a 'socio-cultural practice' developed over time through reshaping perspectives due to interactions with other cultures; encompassed by technologies and the development of new technologies responding to globalisation (p. 102) the "Literacy as Pasifika" therefore, is made up of the following dimensions:

1. Reading and Writing i.e. the skills to read and write in English, and, to speak, read and write one's own Pacific heritage language/s to a high level of proficiency.

2. Oral and Non-verbal Communication i.e. skills in oration, and expressing one's self well; ability to read non-verbal communication, understand it, and respond appropriately.

3. Strength in Identity i.e. knowledge of one's Pacific cultural heritage,   knowing one's history and genealogy, and personal collective identity; knowledge of and respect of other cultures within Aotearoa New Zealand

4. Possessing and living out a shared Pasifika Values Base i.e. possession of and understanding of Pasifika values, principles and beliefs; possessing the knowledge of ways of doing and being appropriate to both one's Pacific heritage/s and the New Zealand context; understanding and fulfilling obligations and responsibilities to self and family.

5. The Arts i.e. having the ability to produce and read cultural designs, patterns, and art forms, with understanding.

6. Digital and Information Technology i.e. understanding the benefits of and utilising digital/information technology knowledge.

To be digitally literate and competent therefore, requires connections between "literacy … language, culture and identity" (p. 30).

2.3 PASIFIKA SENSE OF CAPITAL

As the Pasifika population increases in New Zealand the question arises around the cultural capital that exists within these communities. Bourdieu (1986) explains the three forms of cultural capital as:

the embodied state, i.e., in the form of long-lasting dispositions of the mind and body;

in the objectified state, in the form of cultural goods (pictures, books, dictionaries,

instruments,   machines, etc.), which are the trace or realization of theories or critiques of these theories, problematics, etc.; and in the institutionalized state, a form of objectification which must be set apart because, as will be seen in the case of educational qualifications, it confers entirely original properties on the cultural capital which it is presumed to guarantee.

(Bourdieu, 1986, p. 17)

According to Erel (2010) study of Turkish and Kurdish migrant women in Britain and Germany *"Migrating Cultural Capital: Bourdieu in Migrations Studies"* research paints migrants cultural capital as reified and ethnically bounded from the country of origin to the country of migration fitting or not fitting (p. 642).

Yet Erel (2010) argued that:

migration results in new ways of producing and re-producing (mobilizing, enacting, validating) cultural capital that builds on, rather than simply mirrors, power relations of either the country of origin or the country of migration. Migrants create mechanisms of validation for their cultural capital, negotiating both ethnic majority and migrant institutions and networks. Migration-specific cultural capital (re-)produces intra-migrant differentiations of gender, ethnicity and class, in the process creating modes of validation alternative to national capital (Erel, 2010, p. 642)

Erel (2010) focused on the "embodied and institutionalized states of capital and the expressions of these states in terms of bodily comportment ... speaking as markers of distinction and formal education" (p. 643). Erel (2010) goes further to state that the information education transmitted through family, political parties, cultural groups etc is also converted into forms of capital (economic, social, symbolic) which in turns creates more resources (p. 643). This again is another example of the utilization of 'self' embedded with social and

cultural capital to create, negotiate and in some cases mitigate new lives in new global settings.

Polycultural Capital

This sense of mobilisation, enactment and validation of capital Erel (2010) can also be seen in Mila-Schaaf & Robinson (2010) *'Polycultural' capital and educational achievement among NZ-born Pacific peoples* where the adaption of Bourdieu's theory of social space leads to a theoretical construct called 'polycultural capital'. This describes the potential advantage for Pacific second generation (New Zealand-born) exposure to culturally distinctive social spaces (p. 1).   The approach that Mila-Schaaf & Robinson (2010) applies is one of a "...positive deviance or strengths-based approach which requires an emphasis on learning from strengths and positive outcomes already achieved within the Pacific population ..." (p. 1). It is not one based on deficit thinking.

Mila-Schaaf & Robinson (2010) theorise that:

> having Pacific forms of capital, as well as capital sourced to dominant social spaces, puts participants in a stronger position to have agency to dip in, dip out, opt in, opt out, adjust to cultural cues and respond strategically to what will suit their purposes in different cultural contexts. Polycultural capital is associated here with cross-cultural resources, knowledge, skills and agency to potentially realise cumulative advantage. (Mila-Schaaf & Robinson, 2010, p. 11)

These strengths facilitate transferable behaviours and enabling factors, proven, practical and affordable (Marsh et al 2004; Berggren & Wray 2002 as cited in Mila-Schaaf & Robinson, 2010, p. 3).

2.4 FUNDS OF KNOWLEDGE & IDENTITIES

To further expound this concept of capital in a global context, the Pasifika sense of "self" "space" and "relationships" (Wendt,1996; Tamasese et al, 2010; Anae, 2010; Muliaumasealii, 2017) can be found in an educational setting in terms of funds of knowledge and funds of identity. Moll, Amanti Neff & Gonzalez (1992) in their study *'Funds of Knowledge for Teaching: Using a Qualitative Approach to Connect Homes and Classrooms'* to develop innovations in teaching that draw upon the knowledge and skills found in local households (p. 132). The authors worked towards coordinating three interrelated activities: the ethnographic analysis of household dynamics; the examination of classroom practices, and the development of afterschool study groups with teachers. (Greenberg, 1989; Tapia, 1991; Velez-Ibanez, 1988 as cited in Moll et al., 1992, p. 133) defines the funds of knowledge as "... historically accumulated and culturally developed bodies of knowledge and skills essential for household or individual functioning and well being".

To build further on the concept of funds of knowledge Esteban-Guitart & Moll (2014) *Funds of identity: A new concept based on the funds of knowledge approach* further state that these funds are a result of people's lived experiences and these experiences are grounded in everyday processes of life and daily activities. In terms of the concept of 'Funds of Identity', Esteban-Guitart & Moll (2014) state that:

> Identity is embedded in culture and vice versa it is always mediated (Penuel & Wertsch, 1995), distributed among people, artifacts, activities and contexts. People define themselves through other people and through the artifacts and resources visible and invisible—of their social and cultural worlds. In that sense, social relationships, significant others, particular activities and practices, political ideologies, religious beliefs or any other artifact, such as a flag or a song, become resources for making and expressing identity. (Esteban-Guitart & Moll, 2014, p. 36)

Moving into the New Zealand context of applying Funds of Knowledge, Hogg (2016) applies this framework with a study focused on Pasifika and Maori high school students and teacher practice.   The study looks at identifying students Funds of Knowledge (FoK) and using this knowledge to inform practice Hogg (2016) makes reference to:

> González (2005) explains, many individuals are cultural hybrids, because within a globalised environment, we take up (or resist) aspects of culture from many sources. In New Zealand, application of FoK theory could be transformative because stereotyping and subsequent unhelpful teacher behaviours affect both Māori (Turner, Rubie-Davies & Webber, 2015) and Pasifika school students (Spiller, 2013). An important feature of applying FoK theory successfully is attending to the dynamic complexity of people's lives, evidencing, for instance, the many ways to be Māori, or to be Pasifika (Hogg, 2016, p. 49)

Pasifika in diasporic spaces carry within themselves poly-cultural capital which can be expressed in varying spaces through funds of knowledge and identities (Mila-Schaaf & Robinson (2010); Moll, Amanti Neff & Gonzalez (1992); Esteban-Guitart & Moll (2014). These are levers which can be activated naturally or intentionally (Hoggs, 2016) to allow Pasifika communities the opportunity to mediate and operate within inequitable spaces. Pasifika have been operating in these spheres of cultural capital, funds of knowledge and identity since first migrating to Aotearoa.

2.5 DIGITAL TECHNOLOGY SPACES

Digital Literacies

Martin (2008) believes that today's society is "...permeated by the digital ... mediated by digital tools … shaped by digital intervention" (p. 152). Digital literacy concepts are complex and diverse, connected within a web of "literacies of the digital" which includes "ICT/computer literacy, information literacy, technological literacy, media literacy, communication literacy,

visual literacy, network literacy, e-literacy, digital competence" (p. 153-162).

These are the literacies of the 21st century and the ability to understand these literacies is a required life skill. Digital literacy, therefore, is defined as:

> the ability to understand and use information in multiple formats from a wide range of sources when it is presented via computers. The concept of literacy goes beyond simply being able to read; it has always meant the ability to read with meaning, and to understand. It is the fundamental act of cognition. Digital literacy likewise extends the boundaries of definition. It is cognition of what you see on the computer screen when you use the networked medium. It places demands upon *you that were always present, though less visible*, in the analog media of newspaper and TV. At the same time, it conjures up a new set of challenges that require you to approach networked computers without preconceptions. Not only must you acquire the skill of finding things, you must also acquire the ability to use these things in your life. (Glister, 1997, as cited in Martin, 2008, p. 164)

The acquisition of the "skill of finding things" and the "use of these things in your life" Glister (1997, as cited in Martin, 2008, p. 164) becomes the necessity to navigate the digital spaces. The core skill of digital literacy is "critical thinking" rather than "technical competence" which are in fact "life skills".   The notion that these skills "were always present, though less visible" gives a platform for participants to work from.

According to Søby (2008) a study based in the Norwegian context around digital competence, policy and pedagogy states that the concept of digital competence is multimodal and complex always changing with digital developments (p.119).   Søby (2008) seeks to address digital competencies and knowledge reforms in the Norwegian education system from policy to pedagogy through a number of approaches.

Digital competency is defined as:

> [. . .] the sum of individual ICT skills, such as reading, writing and maths, and more advanced skills ensuring a creative and critical use of digital tools and media. ICT skills include making use of software, searching, finding, processing and controlling information from various digital sources, while critical and creative ability also requires ability to evaluate information and sources, interpretation and analysis of digital genres and media types. Thus, digital competence can be regarded as a *very composite form of competence*. (Kultur for læring 2003-2004, as cited in Søby, 2008, p. 119)

The concept of space is once again in the forefront when unpacking the impact of digital technologies. Pierre Levy states, "The prosperity of a nation, geographical region, business or individual depends on their ability to navigate the knowledge space" (as cited in Søby, 2008, p. 119). It is the navigation of the knowledge space that is, and has always been the issue regardless of whether it is digital or otherwise.

The incorporation of technologies into culture has not always been received as a natural progression. Historically cultures based on the spoken word regarded writing as "unnatural" yet with the advent of print throughout schools and society writing is no longer viewed as technology (p. 123). Technologies therefore, " ... are not mere exterior aids but also interior transformations of consciousness .." (Ong, 1982, as cited in Søby, 2008, p. 123). What is described here is the interior transformation of writing, to interiorize is to make it a part of one's own mental or spiritual being ("interiorize" 2018). Søby (2008) further makes reference to the relationship of pedagogy theory and practice being based on an oral and written culture, yet the students' world is largely infiltrated by the internet and this is their natural world. There is a need to ensure that technology and culture are not separate but are connected (Snow, 1950, as cited in Søby, 2008, p. 124). To elaborate on this connection, the development of

knowledge through ICT is stated as a "cognitive prosthesis" (Castell, 2003, as cited in Søby, 2008, p. 124) or "mankind overcomes its natural limitations by using the media as prostheses" (McLuhan, 1968, as cited in Søby, 2008, p. 124).

Digital Inclusion

According to Digital New Zealanders (2017) the definition of digital inclusion:

> A digitally included person is someone who has access to affordable and accessible digital devices and services at a time and place convenient to them, as well as the motivation, skills, and trust to use the internet to pursue and realise meaningful social and economic outcomes. (Zwimpfer, et al., 2017, p. 5)

The benefits of access for a digitally included person can range from social interactions to shopping, entertainment, employment, and education. The utilisation of the internet has allowed many conveniences, better connectivity between people, and improved access to public services. Studies have found that digital technologies improve the livelihoods of traditionally disadvantaged groups. (Zwimpfer, et al., 2017, p. 5). This research focused on gaining further insight into the New Zealand context to deepen the evidence base for the development of policy, programmes and initiatives around digital inclusion.

The issues however, remain unchanged, the same groups that are marginalised already in socio-economic, health and education situations are the same communities being digitally excluded. Access to phones, fax and internet Figure 2 (Appendix 2) show some movement in accessibility for Pasifika.

The Statistics New Zealand Digital Divide (2001) report stated that total household income had the single largest effect on whether a household would be connected to the Internet, with the level of education being the second determinant of whether connection to the internet was

viable or not. The 2013 Census estimated around 150,000 children did not have access to the internet in their homes. Most of these lived in low socio-economic areas. In line with the Statistics NZ Digital Divide (2001) statement of income being a factor for lack of access, (Smith, Bell, Miller & Crothers, 2016) confirming that internet use increases with household income, from 68% for households with incomes below $35,000 to 99% for incomes over $100,000 (Zwimpfer, et al., 2017, p. 9).

Digital Divides

The literature builds a picture of the importance of digital inclusion for survival in the 21st century. According to Huffman (2018) the old digital divide referred to the inequality of access to information services.   However, the new 'digital divide' is not just about access but is about how to use the internet and computer technology efficiently and effectively.   The author offers an explanation around redefining the digital divide from merely stating it as the "haves" and "have nots" of technology, to the access of information resources.   Huffman (2018) also further states five elements that contribute to the digital divide: 1) income level, 2) age, 3) race, 4) education, and 5) physical abilities. Bridging the gap in some areas come in the form of mobile smartphones for poorer communities and local communities providing free internet access in libraries and community centres. The author describes new issues facing society in terms of adequate number of technology personnel to update, maintain, and train students, staff and communities.

Huffman (2018) further supports the idea that having access is not enough but understanding how to use technology effectively and efficiently is critical. Government initiatives Computer In Homes (CiH) report (2016/17) research findings identify confidence and use of the internet contributes towards digital inclusion.   Reports focused on internet usage and trends revealed Maori and Pasifika as not accessing or using the internet as readily as other ethnic groups as outlined below:

The Internet in New Zealand 2015 (Crothers, Smith, Urale & Bell, 2016)

Usage Index by age and ethnicity for New Zealand Europeans (NZEs), Maori, Asian and Pasifika split usage into two age groups – under 40 and over 40 years of age. Pasifika featured lowest scores in both categories. (p. 27)

Online Activities By Ethnicity - Pasifika people are much more likely to visit religious sites …. Asian and NZE respondents are matched for buying things online, followed by Māori; Pasifika people are least likely to do so. (p. 27)

Importance of other people as an information source by ethnicity - Pasifika users stand out as valuing other people for this purpose more than do members of other groups (80% listed other people as 'Very Important' or 'Important'). (p. 27)

Internet Trends 2007-2015 (Smith, Bell, Miller & Crothers (2016)

User status: Ethnicity (ages 16–49 only) Looking at user status by ethnicity only for those under the age of 50 gives a clearer picture of the digital divide according to ethnicity. Māori and Pasifika tend to have the most non-users. NZ European and Asian people under the age of 50 have similar high usage rates – reaching 100% in 2015. (p. 30)

Overall importance of the internet to everyday life: Ethnicity Across all the WIP surveys, Asian respondents assign a much higher importance to the internet than all other ethnic groups. Fewer Māori people consider the internet to be important than do the members of other ethnicities. Note the relatively high *importance rating for Pasifika despite their tendency to lower usage.* (p. 32) italics added

These findings give a snapshot around internet usage of Pasifika peoples. Within the age element Maori and Pasifika tend to have the most non-users in the age range 16-49.   Pasifika

are more likely to visit religious sites and are least likely to purchase online or use search engines in comparison to other groups. Yet the Pasifika attitude towards using the internet is relatively high despite low usage and Pasifika have a high frequency to utilize people as an information source.

These findings raise further questions as to why is Pasifika internet usage considered low usage yet attitude towards the internet is of high importance for Pasifika?

As stated earlier access is but one part of utilizing digital technologies where emphasis is made in understanding how to use technology effectively and efficiently is seen as critical (Huffman, 2018). Is this a matter of equity and equality? Digital inequality encompasses five main variables:

> technical means (inequality of bandwith); autonomy (whether users log on from home or at work, monitored or unmonitored, during limited times or at will); skill (knowledge of how to search for or download information); social support (access to advice from more experienced users); and purpose (whether they use the Internet for increase of economic productivity, improvement of social capital, or consumption and entertainment) (DiMaggio & Hargittai, 2001, as cited in Warschauer, 2004, p. 200).

Warschauer (2004) begins to unpack these variables making reference to community initiatives that are implemented by outside 'Western' organisations that are more interested in reaching numbers than reaching people. Warschauer (2004) points out that social context, social purpose, and social organisation are key factors when implementing meaningful information and communication technology (p. 201). The author moves on to discuss the social embeddedness of technology.

While the focus of this study is to research the 'impact of digital technologies on Pasifika

parent/caregiver communities', Warschauer (2004) points out that the concern should be on the 'role' of technology in these spaces.   What then can one take from looking at the 'role' of technology in our marginalised communities?

According to Warschauer (2004) there are two theories that underpin the role of technology – determinism which views technology as "existing apart from society exerting an independent impact on it" and neutralist which views technology as "devoid of any particular content or values" (p. 202).

If we are to consider these perspectives then the definition by (Zwimpfer, et al. 2017) that digital technologies will " improve the livelihoods of traditionally disadvantaged groups" should be revisited.   This definition can be likened to Dede's (1995; 1997 as cited in Warschauer, 2004, p. 202) reference to technology as the "ominipotent machine" or the "fire" model of education technology which has the notion that placing a computer in a classroom will automatically generate learning in the same way fire generates warmth.

Would placing a device or access to the internet "improve the livelihoods of traditionally disadvantaged groups"?

According to Attewell (2001) the first digital divide related to access and the second divide as being social differences in the ways computers were used at school and at home (p. 253). The author continues to outline the inequalities stating that it is a naive expectation that the provision of computers would reduce educational disparities but could compound already existing problems (p. 257).   Livingstone & Helsper (2007) findings reveal inequalities by age, gender and socio-economic status in relation to quality of access and use of the internet. The study looks at internet use through gradiations of digital inclusion. It therefore determines that the amount of time the internet is used can contribute to inclusion and exclusion.

According to Sánchez-Valle, de-Frutos-Torres & Vázquez-Barrio (2017) who extends this understanding about exclusion - as no longer based on accessibility to the web or possession of devices, but around the ability to behave analytically. The real digital divide is empowerment as regards to digital literacy, defined by (Area, Gutiérrez, & Vidal, 2012: 9) "acquisition of the intellectual skills needed to interact both with the existing culture and to recreate it critically and freely, and consequently, as a right and need for citizens of the information society" (as cited in Sánchez-Valle et al, 2017, p. 104).

There are four elements in summarizing the digital divide concept according to Ballestro Fuente-Cobo (2017, as cited by Sanchez-Valle et al 2017, p. 104), it is the fourth element that is possibly the most critical element and that is "the user's competence to convert the information reached on the web into knowledge".

What is the 'competence' referred to in this study? As mentioned earlier, Sanchez et al (2017) refers to this as the "ability to behave analytically" or in other words being digitally literate and competent (Martin, 2006).

Spennemann's (2004) article 'Digital divides in the Pacific Islands' makes reference to these inequalities on a global scale and reviews the divides on a number of levels from within the Pacific region, within countries, between countries, the Pacific nations and the rest of the world. Spennemann et al (1996) makes a pointed reference to the World Wide Web as dangerously leading towards cultural imperialism which entails the electronic colonization of small nations:

> rather than being a leveller, the Web has the potential to create even greater inequalities between the so-called rich and the third countries. Since the currency of the twenty-first century is information the dichotomy between the haves and have-nots will widen... (Spennemann 2004, p. 48)

Spennemann (2004) makes reference to divides at differing levels between and within countries. He furthers points out that the "currency of the 21st century is information" the issue therefore arises around the register in which this "currency" is currently operating in New Zealand communities. Spennemann's reference to "electronic colonization" by the internet can set a scene of replicating the inequitable structures already in place for marginalized communities. In terms of Pasifika access and use current literature is showing that access is less of a barrier with the decrease of costing for digital devices the second digital divide lies in the lack of digital skills (Zwimpfer, et al., 2017, p. 90). Could gaining digital capabilities be an answer to closing the gap? Or is it a pathway to de-colonize the e-colonized? It seems therefore, logical to start this pathway in and through education.

2.6 DIGITAL EDUCATION

The 21st Century Learner

According to MOE (2018), "Technology is changing fast and our education system needs to grow and adapt with it. We are changing how we equip our children and young people to participate, create, and thrive in this fast-evolving digital world." Bolstad, Gilbert, McDowall, Bull Boyd & Hipkins (2012) report on Future Oriented Learning indicate that education systems must move away from the Industrial Age model of "one size fits all". (Bolstad et al. 2012) further states that the system, "is built around the learner, rather than the learner being required to fit with the system" (p. 15). The 21st Century Learner therefore, will be in need of a more personalised model for learning.

There are three key ideas that will be needed to develop these learning systems and rebuild a 21st century future oriented education system in New Zealand and these ideas are "diversity", "connectedness" and "coherence" according to (Bolstad et al. 2012). It can be seen that a significant paradigm shift will be needed across the board if these three ideas are to be implemented for effecting transformative change. According to Warschauer (2004) schools are facing a number of divides which cut into different directions and although they

are a lot to do with access to computers, it is more focused on how computers are used to educate children (p. 10).

The achievement of success for learners from all backgrounds creates meaning for learners and enables them to be active participants in 21st century society, it requires diversity to be recognised as a strength and to be actively fostered. To acknowledge diversity as a strength "encompasses *everyone's* variations and differences, including their cultures and backgrounds" (Bolstad et al, 2012, p. 3).

Mackey et al. (2015) study unpacks key strategies and principles for leading transformative change. Key findings underpinning the analysis of the study are borne from an "inclusive and collaborative school culture" (p.19). The authors make reference to the importance of relational trust between staff to enable a more collective response to improve learning. Identified issues relating to the lack of technological knowledge, understanding and capabilities on all levels. Strategies are employed to address these issues. Besser (2001, as cited in Mackey et al. 205, p. 20) states the placement of computers and internet connections is not enough. Students need to learn how to utilise digital technologies effectively. Teachers therefore, need to learn how to effectively incorporate this in their teaching. Connections between culture and innovation provided a strong base for transformative changes. This study confirms the importance of leadership in the direction of any change within a school setting. The new Digital Technologies curriculum outlines opportunities for New Zealand teachers to provide learning experiences for students to build skills towards becoming innovative creators and not just users or consumers of digital technologies. (MOE, 2018).

The Future Focused Learning in Connected Communities (2014) report outlines strategies to meet the needs of 21st century learners and preparing these learners with the necessary knowledge, skills and digital competencies to navigate effectively the current 21st century

landscape.   Building digital capabilities across the education sector by fostering innovative teaching and leadership can ensure these first priorities are implemented. Teacher education and Professional Learning and Development to enable connection between students, computers and learning – is critical for digital inclusion. (Zwimpfer, et al., 2017, p. 17). Digital fluency has also been adopted (MOE 2015) with the official integration of digital technology into the New Zealand curriculum by 2018. It is hoped that this will lift digital capabilities in both teachers and students. But how will this translate to parents and caregivers of Pasifika communities?

Initiatives using low cost wireless infrastructure and companies providing subsidised wireless internet packages for students is a means to making equitable access from home and school. (Zwimpfer, et al., 2017, p. 3).   Hipkins, Whatman & MacDonald (2015) report outlined the beginnings of The Manaiakalani Trust.   The Trust was formed in 2011 and is a major change agent allowing digital technologies to bridge the digital divide for low socio-economic students and families. The meaning of the name is significant:

> Manaiakalani is the name of a star line, translated 'The Hook from Heaven' and the name of the demi-god Māui Tikitiki a Taranga's fish hook, which he used to pull up a giant fish at the bottom of the ocean—a metaphor for the discovery of new islands at the bottom of the earth. It's also a perfect metaphor for our journey of discovery using digital learning tools as a hook and a guide to deliver the knowledge our children need to be successful citizens of the 21st century.
> (Manaiakalani, para 4)

The Manaiakalani approach is focused on accelerating the learning of every child/young person attending school in the Manaiakalani cluster. The key is for all students to achieve as 21st century learners and citizens. The Trust supports parents to buy a personal digital device for each learner, and the overall infrastructure makes it possible for families to access

information about the school and their own children and to engage in their children's learning. The objective is that young people will learn "anywhere, anytime and at any pace" (Hipkins et al 2015, p. 1-2).

A key component of 21st century learning is – anywhere – anytime – any place.

The 21st Century Pasifika Learner

> There was a time in the Pacific, not so long ago, when there was no such thing as "school." Learning took place everywhere in the home, learning to plait pandanus into finely woven mats and baskets; in the fields, learning to cultivate taro and yams; on the sea, learning to navigate between islands. Family and community were inextricably interwoven, like strands of pandanus, into a coherent "school" of learning. (Onikama, Hammond & Koki, 1998, p. 5)

Samu (2006) explores the forms of diversity under 'The Pasifika umbrella' and Quality Teaching. According to Alton-Lee (2003, as cited in Samu, 2006, p. 35) "in order for teaching to be responsive to student diversity it requires teachers to have deep contextualised understandings". Key themes that arise throughout the paper relate to the inseparable notion of quality teaching and responsiveness to diversity and identity. It indicates that although the New Zealand education system serves most students well it does not serve all students well. The paper draws out the inequitable access to quality teaching. Alton-Lee (2003, as cited in Samu, 2006, p. 38) argues that, "the overall weakness of our education system in New Zealand is the inability to be responsive to the diversity of its learners".

Teachers are directed to a starting point in the paper referring to, "A Framework for Exploring and Understanding Pasifika: The Ethnic Interface Model" Figure 3 (Appendix 3). This framework guides educators to see how the two world models represented might take a more

pro-active role in becoming aware and informed of Pasifika diversities and creatively adjust their own practices to respond to the diverse realities. The model demonstrates the broader power relations between the two worlds.

The common thread presented by Samu (2006) is reference back to the interaction and relationship of teacher and student:

> the most immediate determinant of student success or failure in school depends on the interactions of teachers and learners at that interface between two culturally embedded worlds – worlds that reflect the unequal, imbalanced power relations of wider society. (Samu, 2006, p. 46)

How can digital technologies create a platform for equity in education? Airini (2013) explores the possible components of a model for equity through Initial Teacher Education (ITE). The author makes a contribution to the discourse by linking theory to action via a critical theory lens. This leads to the critical stance of seeing ITE as contributing to changes to society for greater equity - this is the core challenge for ITE: The challenge therefore, is to prepare high-quality teachers effective with all New Zealand learners having core values and practices around bicultural education and diversity (p. 57). The paper reinforces the importance of teacher training in both theory and more importantly on the job research. Critical reflection around the interconnectedness of professional development with a means to create lifelong learning framework for teachers in training and in practice.

While the country's education system performs well overall, large equity gaps still remain for Maori, Pasifika and low-socio-economic status students (Bolton, 2017, p. 3). Research by Fletcher Parkhill Fa'afoi Taleni & Regan (2009) found that Pasifika students' overall learning was enhanced when Pasifika values, language identities and cultural knowledge was made an implicit part of teaching and learning practices.

2.7 THE FAMILY

Digital Learning In The Home

Pacific parents often see themselves as their children's first teachers, providing their child with a strong foundation that includes their first language, religion, and values (Coxon et al., 2002, p. 7). Joint interventions involving parents and teachers together have the biggest impact on student outcomes. According to Chu, Glasgow, Rimoni, Hodis & Meyer (2013) there is urgent need for validated organisational approaches for home-school community engagement. The focus around teacher development for cultural responsive approaches to promote positive connections to family and community for Pasifika must be a priority. The need to also identify and support Pasifika parent aspirations for their children and to ensure Pasifika families gain the knowledge and understanding to support the future academic and career choices of their children is further stated (p. 3).

> If individualism is the essence of the mainstream culture then 'being part of a family: aiga, anau, magafoa, kaiga, kainga and kawa' is the essence of Pacific Islands cultures. Recognition of the fundamental differences would be a step in the right direction. (Pasikale and George, 1995, as cited in Tamasese et al., 2010, p. 34.)

Gorinski & Fraser (2006) highlights the disparities that exist for Pasifika students and their families and communities, in terms of their engagement in, and full benefit from the education system in Aotearoa New Zealand. The attitudes, values and behaviour of the family and community within which they live, strongly affect social and academic behaviour and learning (Comer, 1980; Nissani, 1993 as cited in Gorinski & Fraser, 2006, p. 31). It is paramount then, that home and school work together to support one another in educating children.

Tuafuti (2010) refers to Samoan traditional pedagogies making connections to Pasifika past and present so that "the future is planned accordingly, without assimilation in the dominant discourses" (p. 5). The author makes reference to Collaborative Empowerment model

identifying four major characteristics: minority child's language; parents' participation and contribution; promoting the learner as an active seeker of knowledge; assessment is for making change (Cummins 1989, 1996 & 2000 as cited in Tuafuti, 2010, p. 6).

Tuafuti (2010) makes a power statement around collaborative learning, "collaborative empowerment is practiced in discourses of all levels of education Pasifika children and parents feel secure, and blessed that their language, culture and power are shared" (p. 6). Tuafuti (2010) found that Pasifika parents want an education system that values their language/culture and empowers their active participation and contributions.

This leads into a study involving Spanish communities by Nogueron-Liu (2017) *Expanding Notions of Digital Access: Parents' Negotiation of School-Based Technology Initiatives in New Immigrant Communities* which discusses the integration of technology by including minority culture parents in technology decisions. This is to avoid repeating the cycle of inequalities in home-school relationships (p. 387). The author points out some critical perspectives on family literacies in new migration contexts. Defining 'family literacy' as "a set of practices and beliefs about literacy in households" (Compton-Lilly, Rogers & Lewis, 2012as cited in Nogueron-Liu, 2017, p. 388). The study discusses how difficulties arise when mainstream practices are used to socialize children because of deficit assumptions of minority families.

The emphasis on lack of devices or training can lead to the use of digital innovation to replicate these patterns. In order to circumvent this cycle of deficit outcomes, technology at home is analyzed together with family beliefs about literacy and language. (p. 389). The article states that current home school partnerships dictate dominant discourse around how and what parents should contribute to student learning and achievement. This is referred to as framing parents as "learners" and "partners" excluding family funds of knowledge (Bacquedano-Lopez, Alexander & Hernadez, 2013, as cited in Nogueron-Liu, 2017, p. 397).

Nogueron-Liu (2017) believes that an equity-oriented vision for technology at home must be built in collaboration with families; so that digital tools are used to empower collaboration and dialogue. Doing so, allows for inclusive and responsive ways to support students' digital learning (p. 398). Tuafuti (2010) encourages Pasifika peoples to challenge the dominant discourses in order for Pasifika peoples' expectations and aspirations to be heard (p. 11).

The author looks to contribute to research around connecting Pasifika parents to strategies that will ensure equity around the use of digital technologies in education and the intended outcomes for the future of Pasifika students and their families.

Jesson, Meredith & Rosedal (2015) conducted a study to look at home learning for schools that had moved to digital learning environments. The focus was to gather perspectives on the type of learning at home that would support school learning via digital devices and access to the internet (p. 1). Parents viewed the learning as an opportunity to develop literacy and numeracy skills but also develop a wider set of digital skills for engaging in a digital society and economy (p. 38)

Parents wanted to enforce a 'balanced life style' which meant monitoring screen time and differentiating between school work and other online activities. Parent support directed from the school involved caring, ".. for digital devices .... prevent breakages … actively involved in keeping the child safe online ... monitor appropriate use ... going only to appropriate sites". Generally, the majority of the school advice given to parents was tool related (p. 39).

Key findings identified a potential barrier in terms of the lack of clarity about learning in a digital environment and how this was to be carried out at home with parental support. In addition to this was the suggestion that parents' roles needed to be communicated clearly in order to involve them in the process of learning (p. 41). As pointed out in several studies (Moll et al 1992; Tuafuti, 2010; Nogueron-Liu, 2017) key factors to improving digital literacy involved

inclusiveness, the understanding of families' cultural and social contexts, together with the recognition of family funds of knowledge as key to creating a collaborative platform for making connections with communities.   Creating the environment and understanding that parents/caregivers have a shared responsibility around the online wellbeing of their children is key in creating safe online and offline environments (Parsons, 2017, p. 31).

2.8 TRUST

Parents Lost In Digital Space

Trust is an important aspect to developing online literacy. According to (Zwimpfer, et al., 2017) trust is defined as:

> the confidence and online literacy to distinguish between information that is right and information that is misleading or wrong.. understand about harmful digital communications and know how to protect personal and private information. (Zwimpfer, et al., 2017, p. 5)

The World Project Internet New Zealand Internet Trends in New Zealand (2007-2015) outlines the The Harmful Digital Communications Act 2015. The Act was put in place to deal with deliberate sending or posting of material online causing serious emotional distress. Through this act, cyberbullying became legally punishable in New Zealand. Netsafe, an independent non-profit organisation was appointed by the government in 2016 to resolve complaints under the Act (p. 3).

According to Parsons (2017) *Keeping Your Children Safe Online: A Guide for New Zealand Parents* the author provides strategies that are not technological in terms of skill, but rather relational in terms of values and boundaries. Parsons identifies three steps in keeping young people safe online:

1. educating them to understand the value of self

2. educating them to respect and protect family and friends

3. educating them to broadcast decency and positive values across the internet (Parsons, 2017, p. 18)

Parsons goes on further to state that protecting young people from the dangers of cyberspace is dependent on when the child:

> realise how invaluable they are as a person … when they find a strong sense of self-worth .. all values that can be found in a home .... In coping with the online world, the most important relationship a child has is the one with their family, not with the technology. (Parsons, 2017, p. 18)

In terms of Pasifika, we see here the correlation of the va fealoa'i Anae (2010) and Parson's (2017) reference to familial relationships.   The importance of staying connected with children is key when they enter the cyber world. Cyber-separation occurs when communication lines are shut down because parents do not know how to keep these lines open. Parson (2017) describes this as the "…disconnection between the child and their parent when the parent has little understanding of or involvement in their child's online world" (p. 26).   To maintain trust in the va fa'apo'uliuli (hidden space) Muliaumaseali'i (2017) becomes more pressing as children navigate without parental support.

Jesson Meredith & Rosedale (2015) report that twenty per cent of students' parents were concerned about appropriate online behaviour, particularly bans on Facebook ("Rule—not to go on Facebook. I'm too young") and not going to "bad sites" or doing "bad stuff".   Parent key roles were to act as supervisors for access to sites and using strategies around visibility of the device while in use; giving warning around going onto bad sites; and tracking students browsing history (p. 39).

Valcke, Bonte, Wever & Rots (2010, as cited in Sanchez-Valle et al. 2017, p.104) states the impact of parental control style and confidence in the medium enables empowerment of minors in the use of the internet. The way children approached the technology was connected to parental control; internet use; attitude and experience online. Age of the parents also factored in the children's use of the internet.

The literature reveals a common thread concerning parents "fears" around the use of the internet. According to Mikelic Preradovic Lesin & Sagud (2016) parents were anxious and frightened for children, they feared that they would not be able to help their children due to negative media reports about the harmful effects of digital technologies on children. (p. 128). The study is focused on "Parents' Attitudes Towards Technology Use in Early Childhood", outlining arguments regarding negative effects of excessive digital technology use. The authors cite Birch Parker & Burns (2011) belief that digital technologies overuse lead to overweight and obesity (p. 129) with a recommendation to set limits for time spent in front of the screen. Parents concerns also were connected to the impact on children's social lives and health, particularly in terms of lack of activity.

Although this generation are able to navigate these spaces confidently and without parental assistance and/or supervision - the reality of safe boundaries and online protection falls upon the shoulders of parents and caregivers.

2.9 MOTIVATION

Meaningful Purpose

Motivation in terms of the internet is defined as having a "meaningful purpose or specific reason to use the internet" (Zwimpfer, et al., 2017). In this same report reference is made to families in low-socio-economic areas relating to motivation experiencing the following issues (p. 5):

- support for children's learning

- health of children

- improvement of economic position

- independent living

- increasing confidence to engage with others

Yet are these not the same issues already existing in these low-socio communities? The concept of replication of culture in diasporic communities can also be seen in this report – a replication or perpetuation of current socio economic inequalities in health, education, housing and social issues. As stated earlier "Pacific parents often see themselves as their children's first teachers, providing their child with a strong foundation that includes their first language, religion, and values" (Coxon et al., 2002 p. 7). Are these factors regarding Pasifika parent aspirations not considered motivation?

If the focus is only on access and use - it is limiting. This is reinforced by (Crothers, Smith, Urale & Bell, 2016) where Pasifika attitude towards the internet is high despite low usage and Pasifika high frequency in using people as an information source is a further indication of social-spatial relationships in the digital space. Meaningful purposes is seen as deploying digital tools in social-cultural contexts for educational and self-improvement opportunities (as cited in Nogueron-Lui, 2017, p. 389). Meaningful purpose creates participation. An example of participation can be found whereby Pasifika usage of the internet featured highly in visiting religious sites (Crothers, Smith, Urale & Bell, 2016, p. 27), which makes reference to the spiritual belief systems of Pasifika communities.

To explore "participation" in terms of education can be seen that it is often associated with the term "under-representation" in relation to achievement statistics. According to Benseman, Coxon, Anderson & Anae (2006) the lack of "motivation and attitude" amongst a number of

other factors contributes to poor outcomes for Pasifika tertiary students in terms of retention. Although these factors are common in most student groups, there is a Pasifika aspect around these factors that showed that Pasifika students new to tertiary culture could not cope with the "freedom" and "unregulated nature" of tertiary life style which resulted in the inability to fulfil studies (p. 154). Benseman et al (2006) made reference to student families' lack of "cultural capital" and accumulated experiences in terms of the requirements of tertiary education as another factor to student withdrawal. There were other students in the study who were able to navigate the tertiary field by applying cultural skills, "... so I had to take my skill learnt in my Pacific Island heritage and transfer them to this system here which is basically the Palagi [European] system. (Samoan female, age 30–35)" (p. 154).

Benseman et al (2006) study related motivation and attitude indicated a "Pasifika aspect" as an influencer in the lack of Pasifika student retention. Of the two examples one aspect related to the lack of cultural capital and the inability to cope with the 'unregulated nature' of student life. To interpret that statement may be to infer the rigid and controlled cultural lifestyle of Pasifika students where the respectful guidance of elders is more highly considered as opposed to thinking and acting on their own. This can offset inability to cope with such freedoms. However, in the last example, the transference of cultural capital or polycultural capital (Mila-Schaaf & Robinson (2010) demonstrates the ability of Pasifika to make the dominant culture work for them and their cultural heritage becomes their attitude and motivation.

The literature thus reveals motivation in different views dependent upon the social and cultural context in which it is practised and/or observed. In terms of Pasifika parents and caregivers the 'Pasifika aspect' of motivation is and will always be connected to their sense of self and relationships.

SUMMARY

In this chapter, I have reviewed the literature around identified themes relating to Pasifika World Views and the connections with self, relationships and space; digital technological concepts; the implications for education and the impact on families. This review has laid a platform to answer the research questions:

1. What are Pasifika parents and caregivers perspectives on the access and use of digital technologies?

2. What are Pasifika parents and caregivers beliefs about using digital technologies at school and the connections with home learning?

3. How do Pasifika parents and caregivers view digital technologies and the impact on family life and cultural responsibilities?

CHAPTER 3

METHODOLOGY

3.0   INTRODUCTION

The purpose of this chapter is to explain how this study was conducted and the reason behind the research design.   I am a first generation Samoan born in New Zealand. I was raised in an inter-generational extended family household. This was a common living arrangement for Pacific families in Auckland in the period of the 20th century and continues on in the 21st century.

Our family was one of the first families to set up a dwelling house in Auckland city central in the late 1950s. Not only did my grandparent's house our immediate family, but they also provided accommodation for uncles, aunties and cousins who had emigrated to New Zealand from Samoa for a better life. Living in this environment afforded me the opportunities to see, feel and experience relationships on many levels.   Firstly, in terms of parent and child, secondly as grandparents and grandchildren, thirdly aunties, uncles, cousins and lastly within our Pacific Island church communities.

Upon reflecting on these connections and the ensuing experiences that governed our household, my worldview was therefore, formed at the feet of my grandparents with whom I learnt how to speak, act and think Samoan.   As aptly shared by Anae (1998), Fofoa-i-vao-'ese: the identity journeys of NZ-born Samoans this is how most if not all first generation Samoans grew up in Auckland:

> The only world I knew was the fa'aSamoa that my parents bought with them … and that was further moulded by our Pacific Islanders Church ... it found expressions to family and aiga [family], tautua [service] and fa'aaloalo [respect] in taking care of grandparents, and aunties, uncles and younger children, in discipline and respecting

elders … in accommodating visiting aiga often playing musical beds (be it on the floor or wherever else), in endless cups of tea ..

<div align="right">(Anae, 1998 p.11)</div>

These experiences helped shape my worldview - a Samoan (born in New Zealand) worldview that was grounded and maintained in and through relationships; nurtured in the Samoan culture; founded in faith and raised in a Pacific Island community.   Coupled with this heritage I also acknowledge my position as a researcher on three fronts.   Firstly, as a Pasifika woman of Samoan descent; secondly as a mother and wife; and lastly as an educator who works in the community from which this study is based. It is with these contributing factors that I have chosen to apply the Pasifika construct of Teu Le Va together with Talanoa aligned with a qualitative approach to ensure the Pasifika worldviews of the participants were respected, upheld and portrayed throughout this research.

The study involved Parents and Caregivers of a South Auckland community.   Participants were invited to be a part of the study which involved a short online survey followed up with one on one semi-structured interviews.   Ten parents and caregivers signed up for the study and a brief online survey involved questions regarding socio-economic and educational status was completed by the participants (Table 1).   This led to an indepth inquiry into the correlation of the online survey data and the qualitative analysis taken from the semi-structured interviews. The use of these methods explored parent and caregiver perspectives in context.

3.1 RESEARCH PARADIGM

To look at theory is to understand it as explanations:

Theories are statements about how things are connected. Their purpose is to explain why   things happen as they do. Theories vary in size, density, abstractness, completeness and quality. (LeCompte & Preissle, 1993, as cited in Mutch, 2013, p.

56) To research is to have theory, "Theory without research is mere speculation; research without theory is mere data collection" (Davidson & Tolich, 1999, as cited in Mutch, 2013, p.61).

There are varying levels of theories:

Macro-level theories

· influence a researcher's theoretical position,

· determine a researcher's methodological choices,

· influence the choice of topic

Mid-range theories are often

· used to analyse and interpret data,

· used to explain findings

Micro-level theories often provide propositions to be further researched or tested, arise out of the research data (Mutch, 2013, p. 62)

With reference to these three definitions, I place my theoretical positioning within the macro-level and it is from this level that confirms the choice of Teu Le Va as the construct for this research. To unpack theory further the link between approach and method can be considered as positivist, interpretive and critical. The interpretive approach can operate within the Teu Le Va and is also included as a tool in this study. It is defined as:

the systematic analysis of socially meaningful action through the direct detailed observation of people in natural settings in order to arrive at understandings and interpretations of how people create and maintain their social worlds (Neuman, 1994, p. 68 as cited in Mutch, 2013, p.64)

TEU LE VA

In order to capture the perspectives of Pasifika Parents and Caregivers, it was important to provide a framework to present their perspectives in culturally appropriate ways. Teu Le Va provided this framework for our participants to talanoa and story lived experiences freely and openly. The Va can be found in other Pasifika nations and for this study I will make reference to the Samoan and Tongan understandings of the Va.

To unpack this concept is to make reference to Wendt's (1996) term of "betweenness" which speaks of space that "holds separate entities and things together" (p. 14). As a Samoan concept "teu le va" is:

> to value, cherish, nurture and take care of the va, the relationship. This provides an essential and significant contribution to research praxis in highlighting the need for both parties in a relationship to value, nurture and, if necessary, "tidy up" the physical, spiritual, cultural, social, psychological and tapu "spaces" of human relationships (Ponton, 2018, as cited in Anae, 2010, p. 2).

Paea (2018) explains the importance of the Va in Tongan culture:

> The deep theoretical assumption underpinning Tongan culture is found in the concept of Tauhi Vā or Tauhi Vaha`a, both referring to the process of caring for the Vā – the social spaces or relationships among people (Ka`ili, 2005; Thaman, 2004) … Vā refers here to the interconnected spaces that relate one`s knowledge, beliefs, feelings, and skills to others. (p. 29-30)

Once again the importance is placed on relationships and to respect not only one self but others. To understand where the va is and who exists in the va is to unpack the construct further. Anae (2010) further explains these other connections in terms of the 'self' within the

relationships and the differing spaces:

> Samoan self is described as reliant on relationships that are occurring in the va, or space between. Samoan discourses on the va, va fealoa'i (spaces between relational arrangements), va tapuia, (sacred spaces of relational arrangements) and teu le va (to value, nurture, look after, and if necessary to tidy up the va) (Anae, 2010, p. 12)

As the participants were of Samoan, Tongan, Niuean, Cook Island descent it was important to have a paradigm that embraced a pan Pacific approach as Ponton (2018) makes reference to Teu Le Va as one such paradigm that is cross-culturally sensitive (p. 3). The Teu Le Va paradigm recognises the special connections people have within Pasifika communities and as this research is based on the perspectives of Pasifika Parent and Caregivers and the impact of digital technologies, the recognition of engagement with digital technologies within the home and within the relationships of parents, caregivers and their children.

It is important therefore, to step into this research with a Pasifika lens in order to unpack the community perspectives on which this study is based. This approach has a 'decolonising' effect as Stewart-Withers, Sewabu & Richardson (2017) state:

> Pacific research approaches favour a non-reductionist, non-linear, holistic approach to understanding their world as they know it. Knowledge is learned through hands-on experience; it is understood to be experiential and pragmatic. This knowledge is non-linear, and non-reductionist. Knowledge, which is local, is informed by creators and ancestors and looks to connect humans with non-human aspects. Knowledge is collective and cumulative, and is to be shared.
> (Stewart-Withers, Sewabu & Richardson, 2017, p. 58)

3.2 RESEARCH DESIGN

Talanoa

According to Vaioleti (2006) Talanoa is "... a personal encounter where people story their issues, their realities and aspirations" (p. 21). It can be referred to as a conversation, a talk, an exchange of ideas or thinking ... formal or informal ... almost always carried out face to face ..." (p. 23). This approach lends itself to the perspectives of participants as "lived reality" and it is in this lived reality that allows for the enablement of participants' voices. The co-production of knowledge is a key tenet of Talanoa as it is founded on Pacific values and thereby an acceptable and safe way to engage Pacific people in research. Vaioleti (2013) states:

> I endeavoured to develop a methodology that was better aligned to Pacific worldviews, a methodology that would better enable the researcher to authentically experience and capture the phenomenon being researched ... drawn from Tongan culture, the product of oral tradition ... 'tala' means to command, tell, relate, inform and announce ... 'noa' as common, of no value, without exertion ... referred to as a conversation, a talk, an exchange of ideas ... an activity used for creating and transferring knowledge ... guided by a set of beliefs and frameworks ... Tongans, Samoans, Fijians and other Pacific communities in the Pacific, New Zealand ... wherever the diaspora is located use variations of the talanoa .... (Vaioleti, 2013, p. 192)

Furthermore, Vaioleti (2013) believes that Talanoa is a philosophy which involves 'an open dialogue where people can speak from their hearts and where there are no preconceptions (as cited in Farelly & Nabobo 2012, p.2). What is key here is the advocation of empathy and the centrality of empathy to the effectiveness and authenticity of Talanoa (p. 194).   Talanoa can be seen as a qualitative approach which is "... concerned with understanding how people choose to live their lives, the meanings they give to their experiences and their feelings about their condition" (Newby, 2014, p. 115).

Qualitative

Qualitative is a holistic and integrative approach. Newby (2014) states it as "...understanding how people choose to live their lives, the meanings they give to their experiences and their feelings about their conditions" (p. 115) a "naturalistic enquiry ... obtaining data in as natural a setting as possible" (p. 117) . Mutch (2013) explains the purpose of qualitative research as "...to uncover the lived reality or constructed meanings of the research participants" (p. 43).

Talanoa as a Qualitative Data Research Methodology can be seen as a mechanism to allow for two different Pasifika research methodologies threaded together to create a platform which enables participants to experience their cultural identity in the relational – which is welcomed in the va or space. Anae (2010) states both presenting the context of the community as well as one's own positioning (in regard to that context) is extremely important in qualitative work (p. 4).

3.3 PARTICIPANTS & INSTRUMENTATION

With reference to participants:

> No researcher can demand access to an institution, an organisation or to materials. People will be doing you a favour if they agree to help, and they will need to know exactly what they will be asked to do, how much time they will be expected to give and what use will be made of the information they provide.
> (Bell, 1999, as cited in Mutch, 2013, p. 82)

Mutch (2013) refers to making contact with the participants involving two approaches, one is practical and the other is ethical (p. 82). The practical approach in this case involved my participation at a school community meeting. All parents and caregivers were canvassed at a school community meeting. A presentation was made regarding the outlines of the research where parents and caregivers were given an Information Sheet (Appendix 4) Researcher

Information Sheet (Appendix 5) and a contact number should they wish to participate. Ten (10) parent and caregivers agreed to be interviewed and consent forms were issued and signed (Appendix 6). Parent and caregiver participants were of Samoan, Tongan, Niuean and Cook Island descent.

All participants were asked if they wished to have an interpreter and/or translated materials and all participants opted to undertake the interviews in the English language. There were two parts to the data collection. The first part of the investigation involved a self-administered online survey. This was carried out via email and enabled confidentiality for the participants. Parents and caregivers were able to complete the survey in their own time prior to the semi-instructed interviews.

According to O'Leary (2010) a survey is:

> Surveying involves gathering information from individuals using a questionnaire. Surveys can be descriptive or explanatory, involve populations or samples of populations, capture a moment or map trends, and can be administered in a number of ways. (p. 181)

3.4 THE INTERVIEW

According to Punch (2009):

> other persons' constructions of reality, we would do well to ask them ... and to ask them in such a way that they can tell us in their terms (rather than those imposed rigidly and a priori by ourselves) and in a depth which addresses the rich context that is the substance of their meanings. (Jones, 1985, as cited in Punch, 2009, p. 144)

In the case of this study, semi-structured interviews were used and can be defined as:

> neither fully fixed nor fully free, and are perhaps best seen as flexible. Interviewers generally start with some defined questioning plan, but pursue a more conversational style of interview that may see questions answered in an order more natural to the flow of conversation. They may also start with a few defined questions but be ready to pursue any interesting tangents that may develop.

One on one interview incorporates:

> the interviewer and a single interviewee. It is thought that 'one-on-one' allows the researcher control over the process and the interviewee the freedom to express his or her thoughts … One-on-one interviews are generally face-to-face, but can also be done over the telephone.

> (O'Leary, 2017, p.177)

Understanding the "va" and allowing for Talanoa to take place during this study, enabled the participants freedom to talanoa openly and candidly about the impact of digital technologies. As participants unpacked some of the questions with me, there was an unspoken understanding between myself and the participants, simply because I was a Pasifika researcher who understood the cultural values which underpinned their family lifestyles. It was more than an interview, it was storying life experiences which had been impacted by the digital world.

Time and Place

All interviews were set at a time and place suitable for each participant. These were either at parent and caregiver dwelling places or places of work. Five parent/caregiver's had interviews

in their homes; 3 at their place of employment and 2 at a venue of their choice.   To balance and apply these Western methodologies and designs within a Pasifika setting needed the understanding of the constructs of Teu Le Va and Talanoa. The tools are established but the application of the design are culturally centred. This was key in creating a safe environment for parent and caregiver.

For example, in entering a parent and caregiver house involved the removing of one's shoes at the front door; bringing food to share not only for the participant but for the whole family; when attending a work place or other was to take food for the participant and/or purchase a meal. All of these actions signify an understanding of protocol and respect.   Participants received each gesture with humility and often telling me that I should not have gone to this trouble.   I understood the importance of their time and this acknowledgement of gifts opened the door metaphorically into their cultural spaces.

The duration of interviews varied between 45mins to 1 hour. Each interview varied in time of length dependent upon participant's response to the set questions.   All participants consented to interviews being recorded and transcribed.   Before recording of interviews, parents and caregivers were also advised that they had the opportunity to stop recording at any point. Once again, this gave the parent and caregiver the assurance that consent was not only to be interviewed but that the interview was a partnership along the tenets of Teu Le Va and Talanoa constructs.   Transcripts were available for participants to review after completion.

The Interview Questions

The construction of questions for the semi-structured interviews were created in the open format of questioning. The process of unpacking the research questions through interview questions involved the construction of questions that could allow for parent and caregiver participants to give voice to their perspectives.   The use of open questions can do the

following:

> use to obtain a richer picture of some aspect under investigation ... questions to reveal insights … give personality … provide an authentic voice .. add emotion and passion and   enables us to convey in a powerful way issues and perspectives that are important .. (Newby, 2014, p.299)

Once again, the importance of understanding the space of where I as the researcher stood in terms of building relationship with the parent and caregiver was crucial in receiving their responses. The Pasifika constructs of Teu Le Va and Talanoa was evident throughout the interviews. In some cases participants responses to certain questions overlapped and this was evident in reviewing the transcripts.   Rephrasing of the question helped when such moments occurred.   As the study was focused on parent and caregiver perspectives, I needed to review my own understanding on what participants were actually answering. This only added to the richness of the information gathered. The questions used in the semi-structured interview were originally formatted in the order below but as participants began to share some of the questions began to overlap and the need to ask did not eventuate as participants' dialogue through Talanoa often covered the set questions.

What does technology mean to you as a Pasifika person?

How important are digital technologies?

How do you rate your use of digital technologies? 1-5

How do digital technologies affect your family life?

How do you cope with access to the internet?

How do you manage your children around the internet?

What do you find difficult when your children are on online?

What do you believe is the best way to use digital technologies in the home?

What do you think about learning with digital technologies?

How important is it for your child to learn with digital technologies at school?

How do you communicate with the school about ways that you can help your child's learning at home?

How do you help your child with online homework?

What do you believe is the biggest problem facing our Pasifika people around digital technologies?

How do digital technologies affect your cultural values?

How well do you feel school is preparing your children for a future in digital technologies?

What do you see is a strength as a Pasifika person that could help with your child's learning?

How do you see digital technologies helping your children in the future?

How do you believe Pasifika parents can be helped around digital technologies?

Parent and caregiver transcripts demonstrated responses to each of these guiding questions and from these responses developing themes were examined as parent and caregiver perspectives were unpacked. Throughout the process of the interview, participants were given ample opportunity to review questions and/or responses. Once participants felt that they had fully answered their questions, then the interview was considered finished. Participants were invited to contact the researcher at any point after the interviews should they wish to review any of their responses.

3.5 ETHICAL ISSUES

Ethics Approval

Prior to the study, ethics approval was sought and granted through the UNITEC Ethics Committee. Ethics approval was granted on 22 June 2018 with the UNITEC reference number 2018-1036.

Morals underpin ethics, but the two terms are not quite synonymous. An 'ethic' is a moral principle or a code of conduct which actually governs what people do. It is concerned with the

way people act or behave. The term 'ethics' usually refers to the moral principles, guiding conduct, which are held by a group or even a profession. (Wellington, 2000, as cited in Mutch, 2013, p. 76)

The following encounters of ethical issues came about in this study. This section outlines the efforts made to address these issues.

Informed Consent

All participants were fully informed about the purposes and parameters of the study (Appendix 4). Parents and caregivers had the understanding of voluntary participation and could withdraw at any time. Participants were assured of confidentiality and anonymity. All data provided would remain confidential and stored in a secure manner.

Permission to Conduct

Permission to undertake the study at the researcher's place of employ involved working alongside parents and caregivers of the research site.   Relationship to participants came in the form of parents/caregivers of past and/or present students. Permission was applied for and granted.

Insider Researcher Teacher and Pasifika

The research site was my place of employment. Participants were from the community connected to the place of employment and were of Pasifika heritage.   An insider researcher allows for different world views settings to be respectfully unpacked:

Indigenous methodologies tend to approach cultural protocols, values and behaviours as an integral part of methodology. They are 'factors' to be built in to research explicitly, to be thought about reflexively, to be declared openly as part of the research design, to be discussed as part of the final results of a study and to be disseminated

back to the people in culturally appropriate ways and in a language that can be understood. (Tuhiwai Smith, 1999, as cited in Mutch, 2013, p. 86)

It therefore, confirms the importance of using the construct of Teu Le Va, in being able to make connections with the participants in their own cultural space and setting up the research to enable pathways for both researcher and participant to engage accordingly.

3.6 DATA ANALYSIS

Qualitative research analysis involves identifying common patterns within participant responses and critically analyzing them in order to achieve research aims and objectives. Thematic analysis was used in this study and is commonly used when analyzing qualitative data. Braun & Clarke (2013) makes reference to thematic analysis as working for a "wide range of research questions, from those about people's experiences or understandings" (p. 2). According to Braun & Clarke (2013) there are six steps when applying a thematic analysis to data:

1) *Familiarisation with the data*: is common to all forms of qualitative analysis – the researcher must immerse themselves in, and become intimately familar with, their data; reading and re-reading the data (and listening to audio-recorded data at least once, if relevant) and noting any initial analytic observations….

2) *Coding*: this involves generating pithy labels for important features of the data of relevance to the (broad) research question guiding the analysis….

3) *Searching for themes*: A theme is a coherent and meaningful pattern in the data relevant to the research question.

4) *Reviewing themes*: Involves checking that the themes 'work' in relation to both the coded extracts and the full data-set.

5) *Defining and naming themes*: Requires the researcher to conduct and write a detailed analysis of each theme.

6) *Writing up*: Writing-up involves weaving together the analytic narrative and (vivid) data extracts to tell the reader a coherent and persuasive story about the data, and contextualising it in relation to existing literature.

(Braun & Clarke, 2013, p. 4)

Validity

Validity relates to the trustworthiness of the findings and conclusions formed by the researcher.   Research needs to be reliable and valid. As a Samoan researcher to define validity lies solely on my relationship with the participants of this study. They have entrusted me with their talanoa – their life stories.   Although validity has to do with the trustworthiness of the findings, as a Pasifika researcher it has a lot to do with the researcher themselves. It is the responsibility of the researcher to "teu le va" - nurture the space beyond the talanoa and truly present their voices in written form.

SUMMARY

This chapter has outlined the methodology and research method used in this research.   The use of Teu Le Va construct has been explained, the selection of Talanoa alongside qualitative approach has been explained and the use of semi-structured interviews for data collection and analysis has been clarified.

Chapter 4

FINDINGS

4.0 INTRODUCTION

The purpose of this study is to investigate the impact of digital technologies on low-socio Pasifika families; and how parents and caregivers manage the effect of digital technologies on their children's education; family life and culture.

RESEARCH QUESTIONS

In this section, Parents and Caregivers (participants) talanoa were unpacked through semi-structured interviews. The questions were connected to pre-set variables around access, skill, trust and motivation. As outlined in the Literature Review, the Pasifika world-view of self and relationships came into play throughout the interview process. Ten participants agreed to be a part of the study. Participant perspectives are unpacked within this section with underlying key words and/or phrases threaded throughout the talanoa which provided a common platform for themes to arise.

- What are Pasifika parents and caregivers perspectives on the access and use of digital technologies?

- What are Pasifika parents and caregivers beliefs about using digital technologies at school and the connections with home learning?

- How do Pasifika parents and caregivers view digital technologies and the impact on family life and cultural responsibilities?

Participants were invited to complete an online survey outlining: ethnicity; education; pay scale and age. These are not participant real names. Aliases are used to protect participant privacy. This information is varied as can be seen in Table 1.

(Table 1: Parents and Caregivers Self-Administered Survey)

Participant Code	Gender	Ethnicity	Age range	Highest level of education	Combined Total Income	Dependant children	Devices in household	Internet Connection	Type of connection
NINA	F	Cook Island	30-39	School Cert	$25K-$49,999	4	Mobile Phone Laptop	Yes	Ultrafast Broadband (UFB)
TIPI	F	Tongan	50-59	Bachelor	$100K-$124K	2	Mobile Phone Desktop Laptop iPad	Yes	UFB
AMU	F	Samoan	40-49	UE	$150K-$174,999	1	Mobile Phone Desktop Laptop iPad	Yes	UFB
CECE	F	Niuean European	30-39	Diploma	$125K-149K	4	Mobile Phone Desktop Laptop iPad Chromebook	Yes	UFB
DEIDRE	F	Samoan	30-39	Other	$25K-$49,999	1	Mobile Phone Desktop Laptop iPad Chromebook	No	Mobile Data
HIVA	F	Samoan	50-59	Masters	Other	3	Mobile Phone Laptop Tablets	Yes	UFB
PETI	F	Tongan	40-49	Bachelor	$100K-$124K	4+	Mobile Phone Laptop	Yes	UFB
ALE	F	Samoan	40-49	Bachelor	$25K-$49,999	2	Mobile Phone Desktop Laptop	No	Mobile Data
FANO	F	Samoan	40-49	Bachelor	$150K-$174,999	4	Mobile Phone Desktop Tablets	Yes	UFB
SIAKI	M	Niuean	40-49	Other	$25K-$49,999	3	Mobile Phone	Yes	UFB

(Table 1) outlines parents and caregivers combined income ranged from $25k-$150k with levels of education ranging from 'other' to a 'Masters' degree. Total household income had the single largest effect on whether a household would be connected to the internet. The level of education being the second determinant. The higher the income the more internet usage (Statistics NZ Digital Divide, 2001). This information is nothing new - yet we are well into the 21st century and families from low socio-economic communities are still struggling.

4.1 IMPACT ON FAMILY

The nature of talanoa allowed participants to story responses beyond the set questions. Each participant perspective gave invaluable insights into how digital technologies had impacted the family dynamics. Participants' backgrounds are introduced briefly as their talanoa is weaved in and throughout these findings.

Loss of family time and communication

The impact on family time or mafutaga (Samoan term) was a worrying issue. Children/teenagers disappearing into rooms after household chores were completed, presented trust issues. Amu shared how the television was the biggest technological advance and impact of the 20th century and quite often located in the living room area. Families would gather in one room to watch television. Monitoring what was viewed on television was less stressful than supervising children on the internet. With the advent of the internet the living room space was vacated for bedrooms. Ale a Samoan mother married with two dependent children, shared about family lotu (devotionals) now compromised because of children/teenagers being online either doing school work or frequently found surfing social media.

> Amu: .. people are always concerned with their digital devices .. with TV back in the
> days everyone was in front of the TV but now everyone has a device so they go into

the room and they'll be no conversation.   (Amu, a Samoan solo mother with 1 dependent child)

The family room or living room was central to all participants. Yet this space was now not used as much. Reference was made to children/teenagers being in the space physically but mentally and emotionally still focused on social media, usually through the use of mobile phones.   Participants highlight that the use of the internet had fast become a barrier to communication within their families.

Hiva referred to her younger days with her father and the conversations that they had in the household growing up. She made comparisons to the relationships that she had with her daughters and how the internet had replaced these parent-child conversations:

Hiva: ... when I was little I always had time with mum and dad TV was a big thing ... now each girl has their own laptop and phone … (Hiva a Samoan mother, married with 3 dependent children)

Fano: … the challenge is when the kids not talking when they're little and then when they get older it's hard to talk … (Fano, a Samoan mother married with 4 dependent children)

Lack of conversation was evident in participant responses. Relationships are affected because of the lack of talk as Hiva states around talking to parents or engaging with family. Unless it is intentional, it will not happen.   Sitting down to have loku (devotion) was a huge cultural undertaking for families. Participants who practiced this in the past now see this disappearing due not only to the internet, but the fast pace of life and bombardment of the information age. Family time has to compete with global living - the result of being connected 24/7.

> *Ale: .. in Samoa in those days family time was beautiful because there was no technology .. if we didn't have anything to do we would sit around and talk to one another … parents and kids … kids and kids, children's behavior was better too … children's behavior is affected now because of the device … they don't want to get off it ..* (Ale a Samoan mother, married with 2 dependent children)

Being connected to the internet all day everyday also presented issues. Participants' perspectives of what they saw happening in other families noticed that not only were young people online but parents were also online. This was seen as an erosion of the family dynamic and with that came the challenge of authority and cultural values.

Cultural values tested

For a large part participants commented on the cultural values that underpin family that of respect, language and identity. In some cases digital technologies was seen to enhance and improve one's understanding of language and culture. This was particularly so for those participant families whose children were born in New Zealand. The internet opened up a gateway of cultural knowledge that otherwise could not have been exposed to them had it not been for Youtube, Facebook and other social media platforms. Direct contact with families back in the islands was also an advantage. Participants commented on being able to be present via the internet at family funerals and celebrations.

Language apps that help grow and nurture native tongue was a part of digital technologies that encouraged participants' perspectives to appreciate the resource at their fingertips.

> *Tipi: .. I show my kids a lot of stuff that's important … they look at the children in Tonga that's got nothing but they have a lot and they take it for granted* (Tipi a Tongan mother, married with 2 dependent children)
>
> *Amu: ... it's increased their exposure to our culture ... video, music but on the other*

hand people filming inappropriate stuff … fights in Samoa … posting funeral coffin pics

Yet for some participants they felt that the very threads that hold cultural identity were being eroded by the misuse of social media platforms. The amount of time young people are on the phone becomes a respect issue for some participants. Deidre makes reference to the lack of respect shown by this generation in terms of 'talking back'. She attributes these behaviours to the internet influence.

Deidre: … You just don't speak to your parents like that .. the more they feed their minds with things outside of their own surroundings they think it's okay because one culture does it here so it should apply to them. But in actual fact it doesn't because we come from different backgrounds different cultures and we have our own values and we can't always adopt others because we feel like it because technology says so … (Deidre a Samoan solo mother with 1 dependent child)

The lack of respect shown by members of some Pasifika communities struck a nerve with some participants.

Peti: … I can see people online gossip .. fight online … the value of respect and the respect of others is not there … even swearing online very disrespectful … the values of brothers and sisters … Tongan language … people are using slang words they're using shortened words ... they're not using proper Tongan .. it doesn't really help. (Peti a Tongan mother married with 6 dependent children)

For Ale the impact of technology came in the form of loss of culture. Without one's culture then there is no way to live life. Culture and identity was pivotal.

Ale: ...there is a lot of new technologies so the faa Samoa (Samoan way) is lost they

have forgotten ...we forget about our ways of living ..

Nina: ... respect changes because everyone could be here for dinner but they're on

their phones … it happens all the time … (Nina a Cook Island mother married with 4

dependent children)

Social Media A Constant Distraction

The common response given by participants centered around the negative impact of digital

devices on the family unit. Authority is often being challenged and the device is referred to as

a constant distraction.   For many of the participants managing the use of devices was a huge

issue.   Devices were magnets for some children. Mealtimes were often referred to as 'device

free zones' i.e. no electronics were allowed at the dinner table. However, the older the child

i.e. intermediate and/or secondary school age - the higher the usage. This was common for

all participant households. According to some participants, children only wanted to go onto

devices to interact with games; social media and onscreen relationships; and were not focused

on doing schoolwork.   Amu shared that her son was introduced to Instagram by one of his

friends at school.   Instead of the devices helping their children, some participants considered

it hindering their education:

Ale: ... it affects their school work because kids go on Facebook .. all the kids know

how to do the Facebook because of the digital technologies most of their time is spent

talking to their friends on the Facebook or using those Instagram … that's another thing

or they send messages through the technologies ... spend the whole time

communicating with friends on Facebook

Internet time had to be monitored religiously, otherwise nothing would be done. A new set of

parenting skills had to be employed to monitor the impact of devices on family dynamics. For

most participant households - doing the household chores was paramount. It was the first

thing children were expected to do before anything else.

It was a common place understanding that chores produced maturity because it entailed fulfilling a responsibility within the household. If children completed these duties quickly and quietly then there would be enough time to do homework. Creating new household rules around the usage of devices had to come into play. Everyone had a part to play in the family home.

> *Cece: We've had to create some rules ...meal times they're not allowed on their technology .. if chores are not done they're not allowed on technology …we've had to monitor it a lot closer especially with social media … we like to do spot checks and things like that just because of the bullying and things like that I'm very wary of ...* (Cece a Kiwi/Niuean mother married with 4 dependent children)
>
> *Siaki: ...chores don't get done … frustrating to keep repeating myself to get it done* (Siaki a Niuean widower with 3 dependent children)
>
> *Tipi: ... they spend a lot of time on it ... I have to call them to come to dinner ... family time is compromised by it … I'm not sure if it's technology or the kids … sometimes they're going online doing their work .. I can't be bothered to go around and have a look …*

4.2 ACCESS TO WIFI AND DEVICES

Not enough devices

For some participants the lack of digital devices presented many problems within already struggling households. Participants had to come up with innovative ways to ensure that children were getting enough time on the device to complete homework. The need was more pressing for secondary students as a large percentage of their work was online. Participants often refer to using 'work' devices or using their mobiles to supplement children's homework being completed online.

> *Nina: The first thing our children ask for when they come home is can we use your phone … we have had to upload apps on our phones that allows for homework to be done. My husband's work laptop is also used. We say to our kids 20 mins on subjects like Maths and Reading.*
>
> *Peti: Sometimes I find it very hard it's pressure on me ... I've got 6 children and the technology that we use here is only a few … 3 devices … they all want to do their homework and school stuff mainly at the same time so yeah they take turns .. we are thinking of getting computers for the little ones because they are taking turns they feel sleepy that they haven't taken a turn on the computer … it's hard*

For families where devices were limited participants had to organise a roster so that children could get access to a device. The need was pressing for the secondary aged children. For one family the school in which their daughters attended was a high decile and high profile girls' school in an affluent part of Auckland city. They applied out of zone and were accepted. The need to have a device became more and more pressing as the year progressed. One daughter had a device and the other used the school's device through a loan-out program. The school saw that the younger daughter had been borrowing the device on a regular basis and in turn organised the old girls' association to purchase the device for the younger daughter. This has helped the family tremendously.

The ideal is to have sufficient devices for each child in the home as Nina shared. Getting home in time to take her children to the library before it closed was a major stress. Finishing work early to get children to the library to use the devices and free wifi was the only way to have each child access a device and complete online school work. This was an ongoing pressure for participants who did not have enough devices for their children.

The lack of devices within a household can have an effect on sibling relationships. Children will often miss out on completing work and argue with each other. This can be a continuous

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bone of contention with older siblings. The use of participants' mobile phones is often mentioned as the next device for children to use if there are not enough devices.

> *Nina: ...we have to let them use our phones … there's an app now that you can get on a phone with reading ability maths ability … we say to our children spend 20 minutes on either   maths or reading ... so we got this app on both our phones which is helpful*
>
> *Cece: ... it does cause a lot of arguments definitely because you know like with our work life.. sometimes we have to be on our phones at those times and kids are wanting to use our phones ...so we've had to turn our phones off and get to that later on*

Access to the internet presented problems for a number of participants. Most if not all participants had unlimited wifi access. The main reason for having wifi was for school purposes. The bone of contention arose between parents/caregivers and older aged children who were using the wifi only for social media and not for school work. This was often the case for most participant families.

For Ale the decision to cut the wifi came about by older children abusing the trust and constantly going onto social media. This presented much stress and tension with Ale often sharing her frustrations at always having to check up on her secondary aged children to see if they were on task or on Facebook. Ale decided that using 'top ups' for data would alleviate that situation in the household. A limited supply for wifi usage also meant limited distraction at home.

For other participants wifi had to be unlimited simply because of children needing access to online school tasks. The need to have access to wifi at home saved in other ways. Tipi had children at university and having access at home saved bus and train fares. There was a common understanding coming through from participants that access and devices was

integral in their children's learning even though it came at a price in terms of family dynamics and other pressing needs.

Cece saw the need to provide access to wifi not only for her own children but that of her children's friends. This in turn became the catalyst for a make-shift home hub.

> *Cece: .. you see the ones that don't have the tech at home and they're having to go around to their friends or they're down at the library … we'd rather have our kids at home safe with us rather than down at the library till late at night .. we have an open door the parents are happy because they know that the children are safe at our house*

Participants identified the lack of access to the internet and devices as being the biggest problem facing Pasifika families.

4.3 VA FEALOA'I RELATIONAL TRUST

Monitoring My Children Online

The lack of knowledge on how to manage children around the internet became added stress on participants' families. Paper homework was far more manageable. Tipi commented that she sat with their children when they were on the internet.   It was common place that participants would not allow children to go to their rooms with devices:

> *Tipi: .. they sit where I am or both of us (me and my husband) just sit and see what they're doing and I don't allow them to go to the room with any technology .. I don't know what they do when I'm not there*
>
> *Hiva: … trust is massive in the family dynamic … when they come on to my laptop it's open and they can go through all of that .. I give them full access I'm not hiding anything … I have to trust that they will make the right decisions because we can't be filtering everything … we can't be there all the time so we have to trust them*

to be responsible.

It is evident that the management of children around the internet was a huge trust issue, participants were fearful of inappropriate material that might come through during screen time and felt powerless to prevent it. This made some participants feel like the 'internet police' and added to the stress of managing learning as well as how to digitally monitor children's welfare whilst online.

Deidre a solo mother created a routine for her only child. They had an understanding that once her daughter arrived home, household duties would be carried out and an allocation of time was given. Usually an hour for 'personal use' namely, watching Youtube videos about DIY projects.

The fear of the unknown relating to the internet was an underlying theme throughout the talanoa and participants went on the continuum from being overly strict to trusting the child to do school work without parent monitoring. The older the child, the less involvement of the parent/caregiver.   This was common place for most participants - it was easier, however, they often were not sure whether their child was completing school tasks or once again, surfing the net.   To deal with evening time use, participants stipulated that use of the internet is only when the parents were awake.   This was to safeguard any undue use of the device:

> *Peti: … while we are still awake that's the only best time that I trust them to use the devices for their homework .. when I go to sleep I'm expecting them to go to sleep too … my husband will ask them to bring the devices to be charged in the lounge that's one way of keeping them away …*

Discussions with children around cyberbullying came from information shared by the school, either via newsletter and/or website. Parents/caregivers are aware of the huge amount of

time children are online. This becomes worrying when parents/caregivers often do not know how to monitor what their children are accessing online. They are often busy with other children; extended family and church commitments. This then hampers them from monitoring children who are working online which was common place with households with large families.

> *Peti: … I can't track them all the time I can't keep an eye on them all the time because I got other commitments as well I'm doing the cooking I'm doing the church commitment .. I have my own work … I find it hard but it's just the trust on them*
>
> *Fano: … I go into privacy searching and do this and that trying to find stuff ... pressing this ... I try to limit the amount or eliminate the not so good stuff that gets through*

Role reversals - Parent to Child vs Child to Parent

In some households, helping children with online tasks was shared between parents/caregivers. This was often the case when one of the participants worked in an office with access to digital devices. Nina made reference to this when homework tasks were difficult. Doing homework the old way - pen and paper was easier to address and monitor. However, a large amount of the time children were either teaching the parents/caregivers how to use the device/computer or helping other siblings. A shift of power relations occurred where the child knew more than the parent/caregiver

> *Amu: … he already knows he teaches me … like if he's stuck with something … to be honest I get him to Google it ask Dr Google*
>
> *Cece: ... they kind of don't really need us because they just push a button and it shows you how to breakdown the answers .. but it still good to be with them for the relationship side of things as well*
>
> *Ale: .. sometimes I help but most of the time they just come and do it themselves .. only if they ask .. providing the internet for them is the way I can help*

Parents/caregivers realise that their children are learning from school and so when they come home they are able to teach parents. Participants see their children as already obtaining their digital skills from schools and feel that their role as the helper - in terms of homework - has been made redundant because of the internet. This was a common thread throughout the talanoa around parents/caregivers feeling that their kids knew much more because of this new found knowledge; it caused some participants to feel isolated and their roles of authority slowly diminishing. This type of independence from parents/caregivers was somewhat hard to receive. Participants reflected on how families could be helped around accessing and using digital devices effectively.

> *Deidre: … schools need to take a better leading role … they have the technologies so why don't they open up their schools and have places where they have workshops … schools have the info and the people are there to help the parents*
>
> *Ale: ... they need training on how to use .. if there is a family that has no digital learning or technology how can that mum know how to use it, so maybe we encourage parents to attend courses … because that's how I learnt how to use this .. I did a computer course … the diploma certificate … I started how to learn to type ... then documents… how to email …*

4.4   MOTIVATION

It's important to us

For all parents/caregivers digital technologies plays a part in their children's future. They have an understanding and yearning to see their children succeed and learning how to use digital technologies is part of that success. They have seen the impact on their own lives around day to day usage. Tipi makes a comparison to banking. She no longer has to go to the bank but can check her bank statement online and she sees the advantage of doing it this way. Siaki the only male participant; a widower raising 3 dependent children; can see the impact on his 6 year old son. He comments that his son already knows a lot about technology and

he does not wish for his son to struggle in the future. Siaki realises that knowing how to use digital technologies will afford his son a better pathway.

> *Cece: ... for our children that are coming through the school systems it's very important … it is important that we're embracing what our children are learning .. for me it's in the schools that's the best opportunity for kids to learn*
>
> *Amu: … learning is great because it's easier than flicking a page and looking … I've seen it with my son ... it's helped him in his language especially*

Yet for Hiva, she believed although schools provided the technological equipment and access to wifi, she pointed out that it could actually widen the gap:

> *Hiva: … the divide can be greater if they're coming to school with a whole lot of things happening and go home to nothing ... whenever I went home I never thought I was poor ... until you come to a place where its fully resourced*

This then puts pressure on families to get the latest digital devices because children need it for their learning. Participants reflected on how they and families could be helped around accessing and using digital devices effectively. There is no question around motivation as can be seen in participant responses to what is happening in their local communities. They see the huge need for the parent communities to be upskilled in order for them to help their children. The difficulty arises when courses are not accessible and/or they are not able to attend because they have underage children and no home help to care for them should they attend a course.

> *Fano: … the obvious answer is go to a course but that's always hard when you got 4 kids .. I'm not going to take 4 kids to the course ... no one can put their kids aside to go off to a course for 2 hours … it's too hard it's that struggle .. so you muddle through*

4.5   SUMMARY OF FINDINGS

IMPACT OF DIGITAL TECHNOLOGIES ON FAMILY AND CULTURE

Parents/caregivers shared on both the negative and positive impact of the internet on family and culture. Many perspectives related to the erosion of family time due to the distraction caused by the digital devices. It was widely accepted that digital technologies was the future however, not to the expense of family values and culture. A review of how to parent around digital technologies became a major focus for all participant families. The need to implement extra routines around where and when digital device usage was to be carried out became a strategy to ensure children were on task and not going on to social media sites. The family meal time was not negotiable. In some homes it was a 'device free zone' indicating the need to maintain traditions of family meals and devotions.

The cultural values of respect and obedience were also challenged. The pull of social media platforms often challenge positions of authority in some participant households. This often played out in household chores not being carried out; having to call children more than once; lack of conversation and quality time.   The role reversals relating to who knew more around the internet was also a major impact facing families.

ACCESS AND USE OF DIGITAL TECHNOLOGIES

Accessing the internet, digital devices and places of help was a major issue for parents/caregivers.   This was an ongoing problem particularly for large families who had children attending both primary and secondary schools.   Parents and caregivers acknowledged that there was a need for all Pasifika parents and caregivers to be skilled in using digital devices and navigate the internet.

MONITORING CHILDREN ONLINE

Participants were conscious of their inability to monitor what their children were doing on the internet. It was clear that the digital devices were used for education, but participants were unsure if children were being exposed to outside influences that might affect or compromise child safety whilst online. One participant shared how social media was becoming a large influence on her older children. This was a common feature in discussions with participants. Older children disappearing into rooms; children on devices when in family group gathering; a growing lack of communication in terms of conversations. Participants saw these issues arising as negative impacts of device usage – a constant distraction in all family spaces.

A large part of the routines around device usage lay in parents and caregivers sitting next to their children whilst online. This routine often would fall by the wayside due to the number of children in the family and other family commitments which needed attending to by the participants.

Chapter 5

DISCUSSIONS

5.0 INTRODUCTION

In this chapter I will discuss the key themes that have arisen out of this study making connections to the literature review. The findings of the study have produced three key themes:

1. Disconnection - Lost in space
2. Reconnection to disadvantaged traditions
3. Interconnection

5.1 DISCONNECTIONS - LOST IN SPACE

The literature review highlighted the importance of understanding and making connections to Pasifika World Views and their relationships within spaces. These world views and relationships were often challenged in the digital spaces. This study highlighted the impact of digital technologies on Pasifika participants' sense of self and relationships as is defined by Tamasese et al (2010) and their responses and actions within digital spaces.

It is important to expand the construct of the 'va' in terms of the digital space in relation to Parsons (2017) construct of cyber separation. Parsons makes reference to the importance of self. In particular, Anae (2010) focuses on 'va fealoa'i' (spaces between relational arrangements) and in this study it highlighted the importance of familial relationships. These findings show parents and caregivers struggling to maintain relationships within the digital space and their desire to find ways to make it work. The palpable reality of the digital space became evident for parents and caregivers.

We see these digitally relational spaces highlighted in the work of Muliaumaseali'i (2017) who expands on relationships in the digital space revealing the 'va fa'apouli'uli' a hidden or concealed space in the use of the mobile phone in culturally conflicting spaces. The

disconnect therefore, arises on a number of fronts as will be outlined further in this chapter.

Parents/Caregivers and Children – A Cyber Separation

Parents and caregivers believe strongly in the importance of family relationships and how these interactions help their children in the future. This finding is supported by the work of Tamasese et al (2010) which states that the Pasifika world view is "…defined and located in relationships, connections and interconnections to aiga .." (p. 189). The importance of family is a foundational element of the Pasifika way of life - a space in the development of relationships for parents, children and extended family or va fealoa'i (Anae, 2010), a place for the exercise and application of the cultural values of language, respect and service. The findings reveal that parents and caregivers experienced the internet as a major distraction in family relationships, cultural norms and values and communication. Even though the use of digital technologies was purportedly for education, participants still felt it disrupted the family dynamic. The family traditions of sharing a meal together; or gathering in one place, namely the living room was fast becoming a casualty of digital interruption.

Understanding the digital space - was challenging for parents and caregivers. Wendt (1996) outlines this understanding of space by defining it using the Samoan term 'teu le va' nurturing the importance of relationships within a context. Valuing the relationship is central in the Pasifika world-view and these relationships were being challenged within the digital space.

Parents and caregivers worked hard at maintaining the values of the va fealoa'i in a 21st century setting. Even though there was little or no technological skill on the part of the participants - the strategies used to try and bridge the gap related to family and culture. This key finding is supported by the work of Parsons (2017) who when making reference to child online safety identifies that the child's connection and understanding of who they are as a person within the relationship of their family, as integral to being safe online (p.18). Differing levels of separation can be found throughout this study. Whether it be within family dynamics;

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socio; education; location; or access, the separation is evident and impactful.

In terms of digital spaces, communication lines were being shut down because parents did not know how to navigate the digital landscape (Parsons, 2017, p. 26). Reliance fell heavily upon school aged children to navigate this landscape particularly with regards to education. Parents and caregivers defaulted to the position with their children teaching and leading the way through the digital spaces. Cece makes reference to her children not really needing their parents anymore. Another parent shares the same experience of not being needed and refers to the provision of the internet by parents as their way of helping. These were initial reactions by participants but as their experiences within this new space began to expand, so did the ways in which participants responded. Parent and caregiver reactions within the digital space in this study are further supported in other studies (Jesson, Meredith & Rosedale, 2015; Preradovic Lesin & Sagged, 2016).

This research showcased how participants tried to make sense of this digital space by the relationships within a known space (Tamasese et al, 2010). The space maybe a cyber-environment, but the tenets of being Pasifika transcended these very spaces. The importance of participants' cultural knowledge and understanding came to the forefront in all aspects of this study. The understanding of va or space is critical and this is highlighted by Anae (2010) who states the importance of recognising the implications of the uniqueness of a groups' world views in these spaces.

One is not separated from the family because of venturing outside the front door - on the contrary, one carries the family with you wherever you go (Muliaumaseali'i 2017). If this be the case in the social, physical, spiritual and emotional spaces - then it has to be the case in the digital spaces.

The parents and caregivers attributed this separation to children being inundated with online

information 24 hours a day, 7 days a week.   The pervading influence of the digital world into the cultural space of the va is evident or as Martin (2006) makes reference to society being "permeated by the digital" and "mediated by digital tools" and "shaped by digital intervention". This reference naturally leans into participants scrambling to look outside the va for tools of navigation yet - as is already mentioned - they already had the tools within the cultural spaces of the va as can be seen further in this chapter.

Parents/caregivers and Digital Exclusion

The findings pointed towards participants deferring to their children to help navigate the digital space.   Martin (2006) makes reference to digital literacies and complexities within the "literacies of the digital".   It is no wonder therefore, that parents and caregivers felt lost in the digital spaces due to the myriad of skills needed to guide their children through cyberspace. Understanding these literacies becomes a life skill Martin (2006).

If we are to refer back to the cultural spaces within the va and in this case the va   fealoa'i Anae (2010), where can these digital 'life skills' be found and/or built upon?   Digital literacies as Glister (1997) states is the importance of 'understanding' information in multiple formats - the fundamental act of cognition. If we place the terms of "fundamental" and "cognition" in the cultural space of the va - then the act of relationship and the act of understanding relationship is a fundamental act of cognition within the Pasifika world view of space. Glister (1997) further makes statement of the demands of digital literacies as going beyond and making a demand on what you already have 'though less visible' in this case analog media of newspaper and TV.   The skills of acquisition, finding and using become key.

Glister's (1997) definition of digital literacies opens up a dimension for our parents and caregivers to refer back to what they already have within themselves in helping their children - not only the abilities to make sense of self, space and relationships, but also to make sense of the analog world. The natural progression to follow on from this, is to make sense of the

digital world and to do that one must have access to this knowledge.

This study clearly reveals the lack of access the parents and caregivers have to the knowledge space of the digital world and in turn lack access to the prosperity of a nation Søby (2006).

The terms, 'interior transformations of consciousness' Ong, (1982); 'cognitive prothesis' Søby, (2006) have a place within this study simply because the participants were trying to overcome limitations using technology as prostheses.   The fundamentals of cognition were in operation. The interiorization of knowledge with digital technologies being an extension of man has already begun.   It is critical therefore, that marginalized communities realize that they already possess the skills Glister (1997) to be digitally literate and competent – the key is to create visibility for these skills to be practised within their community space and the beginning of this visibility is to provide access.

To address access is to address digital inclusion:

> A digitally included person is someone who has access to affordable and accessible digital devices and services at a time and place convenient to them, as well as the motivation, skills, and trust to use the internet to pursue and realise meaningful social and economic outcomes.
>
> (Zwimpfer, et al., 2017, p. 5)

This study paints a reality of life that participants are facing in South Auckland. For Nina the lack of devices and having to revert to their phones for online learning for their children is an ongoing issue or Peti and her six children having to share three devices. Where is the convenience for these families?

The literature review makes reference to the position paper of InternetNZ (2017) which states

the potential of the internet to transform peoples' lives. It states New Zealand as one of the most digitally advanced nations in the world or in other words providing universal access (IntenetNZ, 2018, p. 4). Yet, as can be seen in some of the participants' responses above, this study does not support this transformation especially so in Mangere East, South Auckland where this study is placed. Participant income once again confirms the existence of these inequities. Lack of access to all things digital deepens the exclusion.

If we are to make reference to Huffman (2018) who stated the old digital divide as "inequality of access to information services" then this study clearly reveals that this divide is still apparent. However, the broadening of the definition around 'digital divide' is also prevalent, that being the use of the internet and computer technology efficiently and effectively.

All contributing factors already stated by the different reports mentioned in the literature review (Statistics NZ Digital Divide, 2001; InternetNZ, 2017/18) all confirm why marginalised communities are not connected to the digital pipeline. Many of the parents and caregivers in the study used mobile smartphones and accessing digital spaces to free access at libraries (Huffman, 2018). For students and their families, knowing how to use digital technologies effectively is a major finding of this study and is a major step forward in closing the digital divide (Glister, 1997; Seby, 2006; Zwimpfer, et al, 2017; Huffman, 2018).

The study points to the role of technology in these communities as one of creating better outcomes for traditionally disadvantaged groups Warschauer (2004). However, this is dependent upon how computers are used both at home and at school Attewell (2001). Participants have stated that their children are constantly on the internet whether it be for education or social media. In some cases, it is the first space children refer to when arriving home. This is particularly so if homework is online. As stated earlier, parents and caregivers were mindful of what their children were doing online. We are again directed to the necessity to behave analytically and critically in the digital space, not only for navigation but to

competently convert information from the internet (Sanchez-Valle, de-Fruitos-Torres & Vazquez-Barrio, 2017)

Spennemann's (2004) reference to the world-wide web as leading to cultural imperialism begins to sound loud and clear in this study. Although Spennemann (2004) is referring to digital divides in the Pacific Islands, the parallels can be made to minority communities within this study and their lack of access to the 21st century currency - information.

Participants have made reference to the biggest problem facing Pasifika communities lay not only in the lack of internet access and devices but in how to use the internet.

In this study, participants articulated the need for workshops or training around the use of digital technology for parents and caregivers, as a way of supporting their children. This research therefore, reveals that most if not all Pasifika parents and caregivers are accessing digital technologies mainly for their children's education. It is vital therefore, that parents and caregivers not only need to be up-skilled in order to close the cyber separation between parent and child, but to also access the online benefits that come from being digitally connected.

Parents/caregivers and 21st Century Education

A key component of 21st century learning is – anywhere – anytime – any place.

The greatest influences on success at school points to the relationships of children and parents, schools, effective teaching and leadership (Statistics NZ, 2010). I have touched on the va fealoa'i Anae (2010) and the importance of familial relationships. The participants within this study saw the importance in being connected digitally in order for their children to have access to their online homework. Moving from paper homework to digitally based homework was a big shift for these families; from newsletters to emails and school management systems - updates and changes almost always ongoing. Keeping up with the

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shift was a matter of being connected on every level.

For participants whose children were at secondary school, the digital connection was vital not only for students but for parents and caregivers. Tipi knew how to access Kamar and used it regularly to communicate with school and to keep up with her son's grades. However, for Hiva she voiced her concern to her children's high school (located outside of the study community) around the lack of parent engagement in using the student management system Kamar. She questioned the school on whether they had engaged the Pasifika communities who had not accessed the parent portal.

This leads into the need for better approaches for home-school community engagement - this study confirms Pasifika parents and caregivers desire to gain the acquired knowledge and understanding to support the future academic and career choices of their children Chu Glasgow Rimoni Hodis & Meyer (2013). Participant's talanoa around trying to make her daughter's secondary school aware of the parent community not engaging in the digital space due to access - makes it all the more vurgent for the education system to be more intentionally culturally responsive. Pasifika parents want an education system that values their language/culture and empowers their active participation and contributions (Tuafuti, 2010).

This study has revealed that families first point of call for digital technologies is through their children's learning needs. Participants have felt at a loss as to how to support their children with online learning. Pasifika families from low-socio communities are digitally excluded (Zwimpfer, et al, 2017) and this is evident in this research. Resources need to be made available to extend and/or create programs to upskill parents and caregivers. It should not fall solely on schools to provide digital support for families.

Participants voice how they want to see help provided for parents and caregivers of Pasifika communities. It is important to see how this can be linked into expanding notions around

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digital access for parents. Nogueron-Liu (2017) points to the involvement of parents and caregivers in the decision making process for the integration of technology in learning. Questions arise around what constitutes home school partnerships?   Does it embrace Pasifika parents and caregivers' family funds of knowledge - are they "partners" or "learners" Nogueron-Liu (2017)?

The gateway for most families into the digital space in this study come from children's homework. Participants are left to navigate the homework using their children as guides. Research Jesson, Meredith & Rosedal (2015) confirms schools need to be clear on the expectations around digital home learning and to involve parents. The difficulties that have arisen from this study sit with participants not having the digital knowledge and schools assuming parents and caregivers know what to do.

We can see from the findings in this study, parents and caregivers using cultural values of family, respect and service as a means to try and monitor children online.   This relates directly to safety. Parsons (2017) states this is a key strategy to implement cyber safety.   The cyber disconnection does exist however, with parents and schools.

Participant main communication with school came via newsletters and phone calls. The local primary school in which this study is based around provides a website and a Facebook page for families to find information.   Even though these digital avenues are available, participants opted for face to face communication if needed citing parent interviews as a valuable time to connect with the school.   Parents and caregivers often found it easier to approach primary school as opposed to secondary school. With some of participants' children attending secondary school digital access was compulsory.   We therefore find that as children progressed into secondary school, devices were a compulsory item on the stationery list. With participants with several children funding devices for each child became a financial stress on families.

The Digital Technologies curriculum became compulsory in 2020 for Years 1-13 (MOE 2018). Samu (2006) 'A Framework for Exploring and Understanding Pasifika:The Ethnic Interface Model' in reviewing this framework where would digital technologies sit? Does it sit in the European sphere only? The internet can open all communication lines to knowledge and in doing so digital technologies can create a mediated space for all.

However, this study unfortunately reveals that it can present an even wider divide for families from low socio communities. To reiterate this, participants talanoa around the high cost of digital devices and the internet and how difficult it is to keep up. The costs not only lie in the purchase of equipment but in the maintenance and additional learning application licenses that are needed for children's learning online.

How can this research contribute to Pasifika parents/caregivers use of digital technologies for learning at home? As can be seen in this study the access to the digital pipeline is dependent on money and knowledge - a cultural hegemony in operation. The structures that are in place are once again catering only for those who have access. Digital online learning at school - remains at school. There is no "anytime any place" learning for some students because there is no wifi or devices.

5.2 RECONNECTION TO THE DISADVANTAGED TRADITIONS

When the power bill is not paid a disconnection letter is sent by post mail. Today you will receive a text or an email. Once this has been paid then a reconnection is undertaken by the power company. I have used this simple analogy to present the reconnection aspect of this study. A reconnection to already existing inequalities for low socio communities. Zwimpfer, et al. (2017) states that digital technologies improve the livelihoods of traditionally disadvantaged groups. (p. 5). Yet for some participants of this study the lack of access to digital technologies reinforced the inequities within their environments. Children returning

from school where access to technology is readily available - upon arriving home are reconnected to the reality of lack.

> rather than being a leveler, the Web has the potential to create even greater inequalities between the so-called rich and the third countries. Since the currency of the twenty-first century is information the dichotomy between the haves and have-nots will widen ... (Spennemann, 2004, p. 48)

5.3 INTERCONNECTION

> interconnection:
>> a mutual connection between two or more things
>
> Interconnect:
>> interconnect - intransitive verb: (no object)
>>
>> Connect with each other - the way human activities interconnect with the environment (with object) - a high-speed data service can interconnect the hundreds and thousands of host computers and workstations
>>
>> ("interconnection" "interconnect" 2018)

Breaking down the concepts of space in relation to the Zwimpfer, et al. (2017) report alongside this study, does in fact show that these Pasifika parents and caregivers are using traditional and cultural knowledge (Anae, 2010), namely, family values to explore the digital landscape. Why are Pasifika families identified as being digitally excluded within their own spaces? There is a lack of cultural responsiveness in the digital world and this is creating exclusion for Pasifika families.

The Maori medium of the new Digital Technologies Hangarau identify a form of knowing as: "traditional Maori practices and knowledge with digital confidence ensuring the past inform

future practices and knowledge with digital confidence ensuring the past inform future practices for people and the environment." (MOE, 2018).   We can see therefore, the Pasifika parents and caregivers within this study are exercising their "ways of knowing" to help navigate cyberspace with their children.   This is the first instance in this study where the bicultural ethos (Ritchie, 2003; Glynn, 2015) of the Treaty of Waitangi is identified and the world-views of Tangata Whenua and Pasifika interconnect.   The e-colonization of marginalized people groups – indigenous and Pasifika communities has begun.   The new Digital Technology curriculum is seeking to empower students to be creators and not just users or consumers (MOE 2018).   Yet Pasifika families consumer access is limited and controlled due mainly to socio-economic reasons.   The digital divide therefore, is no different to the social, health and educational divides – same inequities existing throughout.

From Frustration to Innovation

Unbeknown to the participants and their children, they were and still are navigating what the Ministry of Business Innovation & Employment (MBIE) refer to as the Digital Moana.   As Hau'ofa (1993) makes reference to Pacific peoples as boundless navigators seeking to expand their horizons, we can liken the participants in this study as doing the same. They are responding to the struggles of getting access to wifi; acquiring digital literacy skills; building trust online and activating motivation.

Borne out of these frustrations are innovations. As can be seen with Nina who did not have enough devices and turned to using her television with teletext subtitles for her children's reading time at home; or Cece who opened up her home as a makeshift digi hub for families who could not get their children to the library to use the wifi.   Participants utilising social media to grow their children's cultural knowledge around language and protocol. Tipi using Youtube to show Tongan cultural protocol; Nina accessing Cook Island language apps to learn her native tongue; participants creating routines around access and use of devices; Hiva focusing on transparency with her daughters when sharing devices within the family.

The parents and caregivers of this study know full well the importance of being connected.

Ale shares how she is unable to attend family events overseas but will make a virtual attendance via Facebook live, Facetime or Messenger.   Participants sending money via online transfer to families in the islands.   I make reference to Georgiou (2006) who refers to 'absence and co-presence' whereby sustained connections are possible through mediated communication.   Papoutsaki & Strickland (2008) refer to diasporic communities being dependent on media and communication technologies for sustaining relations (p. 166).   As New Zealand holds the largest Pacific Island diasporic communities in the world Papoutsaki & Strickland (2008), it is crucial that Pasifika communities be equipped with the infrastructure around operating digital technologies.

Can these mediated spaces, therefore create equitable spaces for marginalized communities? Georgiou (2006) answers this in saying that digitization increases the potentiality, participation and inclusion of communities and opens boundaries and spatial specificity (p. 13).   If digitization can increase the potential for participation and inclusion - why is this not evident?

Hipkins et al (2015) Manaiakalani Trust report indicates that the provision of low cost wireless infrastructure alongside the provision of support for parents to purchase digital devices for their children allows for digital access anywhere, anytime, any place. Is the Manaiakalani Trust a culturally responsive model to provide equitable means for an inequitable issue? This may be the case for educational purposes but for socio-economic reasons parents and caregivers need access to digital skills and knowledge to utilize the internet effectively.

5.4   SUMMARY

This chapter has discussed the three themes that have arisen from the data in relation to the literature presented in Chapter Two. The discussions have been focused on the themes of (1) Disconnections of parents/caregivers with cyberspace; digital exclusions and 21st century education (2) Reconnections to disadvantaged traditions of parents/caregivers with traditional inequalities and (3) Interconnections of parents/caregivers with digital technologies.   In Chapter Six I will respond to the research questions using the findings and formulate conclusions.   Considerations in regards to the limitations of the study will be drawn and recommendations will be made for future research.

CHAPTER 6

CONCLUSION

INTRODUCTION

The purpose of this study is to investigate the impact of digital technologies on low-socio Pasifika families; and how parents and caregivers manage the effect of digital technologies on their children's education; family life and culture. This chapter will outline conclusions from the findings; respond to the research questions; make recommendations; evaluate any limitations of the study and a make final conclusion.

6.1 REVISITING THE RESEARCH QUESTIONS

1. What are Pasifika parents and caregivers perspectives on the access and use of digital technologies?

CONCLUSION 1: Pasifika parents and caregivers see the need for the digital upskilling of parents and caregivers.

This research revealed the need for parents and caregivers to have access to   courses that can help with gaining digital skills. This would in turn help parents and caregivers navigate cyberspace alongside their children. Parents and caregivers believe Pasifika communities would benefit greatly if resources for digital skills were made available free of charge.

CONCLUSION 2: Pasifika parents and caregivers believe that many families   are digitally excluded because of the cost of wifi and devices.

Nine out of the 10 participants had access to unlimited wifi at home. One family had to use the library. The main problem related to the cost of devices. All families had use of school devices whilst their children were at school, however, when coming home children had to share devices. This was a growing problem.

2. What are Pasifika parents and caregivers beliefs about using digital technologies at school and the connections with home learning?

CONCLUSION 3: Pasifika parents and caregivers understand the importance of digital technologies for their children's future.

Pasifika parents and caregivers understand the change in education. They see the importance of being digitally connected. They are aware of the changing nature of learning as they too are being bombarded with digital technologies within their workplaces; social environments and cultural spaces. Pasifika parents and caregivers see digital learning can be educational but at the same time they see it can be a distraction.

CONCLUSION 4: Pasifika parents and caregivers believe that schools need to do more to bridge the gap on how to do digital learning at home.

In line with the need for access, Pasifika parents and caregivers would like to see schools take a more proactive approach in terms of how to help their children with digital homework and online learning. They believe schools assume that all families have access and are digitally skilled in coping with children's learning via the internet. This is not the case.

How do Pasifika parents and caregivers view digital technologies and the impact on family life and cultural responsibilities?

CONCLUSION 5: Pasifika parents and caregivers believe that digital technologies can be a distraction and take away from family life.

Parents/caregivers shared on both the negative and positive impact of the internet on family and culture. Talanoa related to the erosion of family time due to the distraction caused by the digital devices. Youth aged family members were often on social media and not completing homework. The mobile phone gave access to the internet for most family members. It was widely accepted that digital technologies was the future however, not to the expense of family values and culture. The cultural values of respect and obedience were also challenged. The pull of social media platforms often challenging positions of authority in some participant households. This often played out in lack of devotionals; household chores not being carried

out; children not listening; lack of conversation and quality time. The role reversals relating to who knew more around the internet was also a major impact facing families.

CONCLUSION 6: Pasifika parents and caregivers have managed to develop strategies to monitor their children online.

This research demonstrated the need to implement extra routines around where and when digital device usage was to be carried out.   Building into already established family values strategies were created to ensure children were on task and not going on to social media sites. The family meal time was not negotiable. In some homes it was a 'device free zone' indicating the need to maintain traditions of family meals and devotions.

CONCLUSION 7:   Pasifika parents and caregivers believe digital technologies can assist in building cultural knowledge and communicate with families overseas.

Parents and caregivers see the advantage of accessing the internet to build cultural understandings for their children.   This was found with learning heritage languages via Youtube.   Opportunities to view cultural traditions alongside parents also provided opportunities for building cultural capacities for children.   Communications with loved ones overseas via Facebook Messenger was more cost effective than telephone calls.

6.2   RECOMMENDATIONS

RECOMMENDATION 1: MAKING DIGITAL ACCESS FREE ANYWHERE ANYTIME ANY PLACE (Hipkins et al 2015 p. 1-2) report of the Manaiakalani Trust demonstrates that it is possible to provide access for low socio families to the internet and provide payment schedules for the purchase of devices that are affordable for low socio communities.

RECOMMENDATION 2:   SCHOOL COMMUNITY DIGI HUBS - UPSKILL ANYTIME ANYPLACE - this study has demonstrated that there is a huge need for parents and

caregivers to have access to courses that can help bridge the digital skill gap that is evident. Families are introduced to digital technologies through their children's education needs. Children and parents and caregivers working alongside each other navigating the digital moana together.

RECOMMENDATION 3: STRENGTHEN HOME SCHOOL PARTNERSHIPS Nogueron-Liu (2017) Expanding Notions of Digital Access: Parents' Negotiation of School-Based Technology Initiatives in New Immigrant Communities points to possibilities in creating opportunities for Pasifika parents and caregivers to incorporate family literacies or funds of knowledge in understanding Technology.

RECOMMENDATION 4: CULTURALLY RESPONSIVE DIGITAL PATHWAYS

The new digital curriculum makes reference to Maori ways of knowing. There is a need to create culturally responsive digital pathways to navigate the digital moana by implementing and incorporating Pasifika worldviews in the implementation of the digital curriculum both within schools and communities. Pasifika parents and caregivers already possess family funds of knowledge to implement digital skills within their own va or spaces.

6.3 RECOMMENDATIONS FOR FUTURE STUDY

This research has uncovered the need for more support for our Pasifika families in gaining access and skill to navigate the digital space. A further study could be undertaken in terms of how schools engage Pasifika parents and caregivers in unpacking the digital technologies of the curriculum. How can Pasifika cultural ways of knowing and responsiveness help in making digital connections with technologies and beyond?

6.4   LIMITATIONS OF THE STUDY

Include the children: This study is only focused on parent and caregiver perspectives. Focus group interviews with the children of the families involved would open up child perspectives of digital technologies at home.   What are Pasifika children's view of using digital technologies at home?   Making a comparison of parents and caregivers with children's perspectives of digital technologies could be helpful in navigating the digital moana using a shared focus.

Focus on one group: There are four Pasifika ethnic groups represented in this group. However, to get a deeper study would be to focus on one ethnic group to unpack the impact of digital technologies on that selected group.   Comparisons and contrasts could be made between different Pasifika groups. How do different Pasifika groups deal with the inequalities of access and skill in terms of digital technologies?

Number of participants: Although there were ten participants in this study, to get more depth and breadth could involve a larger number of participants. This could involve collection of more quantitative data of the number families who had access to wifi and devices.

FINAL CONCLUSION

At the outset of this study, there was limited research around the perspectives of Pasifika parents and caregivers and the impact of digital technologies. It is hoped that this research has now given voice to the Pasifika families who are navigating the difficult and sometimes unpredictable currents of this digital moana. They are making their way through the digital spaces with their children, using whatever they have in their hands and they are surviving despite the odds.   Pasifika communities are ready and waiting to receive support – anytime, anywhere and any place!

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Appendix 1

Figure 1 Percentage of New Zealand born and overseas born Pasifika as a proportion of all Pacific
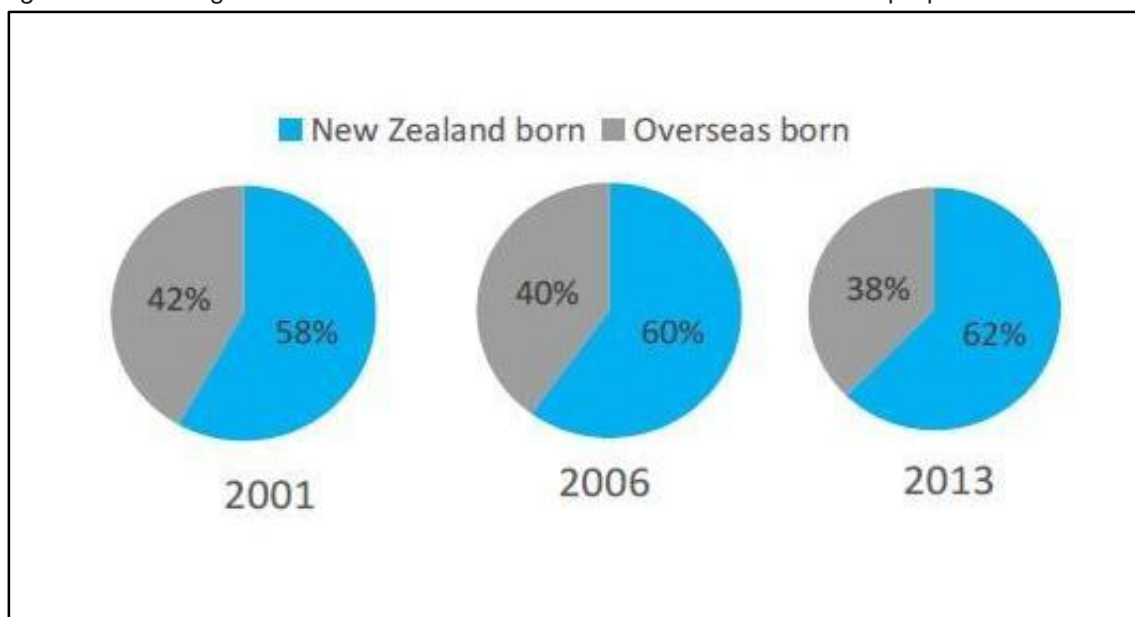
Source: Statistics New Zealand Census 2013.

Appendix 2

Figure 2 Access to phones, fax and Internet

	Pacific Peoples nfd		Pacific Peoples		NZ population	
	2006	2013	2006	2013	2006	2013
Access to phones, fax, and Internet	Percent					
No access	4.2	4.1	4.8	2.8	1.8	1.3
Access to a cellphone/mobile phone	74.3	84.3	72.6	85.2	79.2	86.9
Access to a telephone	86.9	76.8	82.1	76.5	92.0	86.5
Access to a fax machine	24.1	12.3	12.1	6.2	28.7	15.4
Access to the Internet	58.2	77.1	37.7	65.0	66.5	82.0

Note: Percentages do not add up to 100 as households can have access to more than one telecommunication system.

Source: Statistics New Zealand Census 2013

APPENDIX 3: *Fig 3.* A Framework for Exploring and Understanding Pasifika:The Ethnic Interface Model

Source: The 'Pasifika Umbrella' and Quality Teaching: Understanding and Responding to the Diverse Realities Within (Samu) 2006

Information for participants

Research Project Title: "Our Digital Footprints - Pasifika Parents' Voices On The Impact of Digital Technologies" (working title)

Synopsis of project
New Zealand education is now in the digital age where the New Zealand curriculum has now strengthened the Technology learning area by the inclusion of the new Digital Technologies curriculum.   It will be compulsory that all schools have the Digital Technologies integrated by 2020. How will this affect our Pasifika communities? In this project I will explore Pasifika parents' perceptions of digital technologies and will explore Pasifika parent knowledge to create strategies to support digital learning for Pasifika students.

What we are doing
This research study is based on Pasifika parents' perspectives on the impact of digital technologies on children's learning; family life and culture in South Auckland.

What it will mean for you
Participation in a one to one interview with the researcher and completing an online questionnaire.

If you agree to participate, you will be asked to sign a consent form. This does not stop you from changing your mind if you wish to withdraw from the project.   However, because of our schedule, any withdrawals must be done within 2 weeks after we have interviewed you.

Your name and information that may identify you will be kept completely confidential. All information collected from you will be stored on a password protected file and only you, the researcher and my supervisors will have access to this information.

Please contact us if you need more information about the project. At any time if you have any concerns about the research project you can contact our supervisor:

My supervisor is Dr Jo Mane, phone 815-4321 ext.7146 or email jmane@unitec.ac.nz

UREC REGISTRATION NUMBER: *2018-1036*
This study has been approved by the UNITEC Research Ethics Committee from *22 June 2018*t o *November 2018*If you have any complaints or reservations about the ethical conduct of this research, you may contact the Committee through the UREC Secretary (ph: 09 815-4321 ext 8551). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

APPENDIX 5: RESEARCHER INFORMATION SHEET

Participant Information Form

My name is **Rosalind Fuailelagi Tuitama**. I am currently enrolled in the **Masters of Applied Practice degree** in the   **Te Miro Postgraduate Studies**   at Unitec New Zealand and seek your help in meeting the requirements of research for a Thesis course which forms a substantial part of this degree.

The aim of my project is:
To identify Pasifika parents' perspective on digital technologies; recognise Pasifika parent knowledge to help create strategies to support digital learning for Pasifika students.

I request your participation in the following way:
I will be holding interviews which will involve:

- Completing a short questionnaire either online or hardcopy
- Interview (40-50 minute)
- Audio recording (by permission)

You will not be identified in the Thesis. It will be anonymous – all features that could identify you will be removed. Audio recording will be deleted once transcription (typing out the recording) is done. The results of the research activity will not be seen by any other person without the prior agreement of everyone involved. You are free to ask me not to use any of the information you have given, and you can, if you wish, ask to see the Thesis before it is submitted for examination.

I hope that you find this invitation to be of interest. If you have any queries about this research, you may contact my principal supervisor at Unitec New Zealand.

My supervisor is Dr Jo Mane, phone 815-4321 ext.7146 or email jmane@unitec.ac.nz

UREC REGISTRATION NUMBER: *2018-1036*
This study has been approved by the UNITEC Research Ethics Committee from 22 June 2018 *)* to *November 2018*. If you have any complaints or reservations about the ethical conduct of this research, you may contact the Committee through the UREC Secretary (ph: 09 815-4321 ext 8551). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

Appendix 6: PARTICIPANT CONSENT FORM

Participant Consent Form

Research Project Title: "Our Digital Footprints - Pasifika Parents' Voices On The Impact of Digital Technologies"

I have had the research project explained to me and I have read and understand the information sheet given to me.

I understand that I don't have to be part of this research project should I chose not to participate and may withdraw at any time prior to the completion of the research project.

I understand that everything I say is confidential and none of the information I give will identify me and that the only persons who will know what I have said will be the researchers and their supervisor. I also understand that all the information that I give will be stored securely on a computer at Unitec for a period of 10 years.

I understand that my discussion with the researcher will be recorded and transcribed.

I understand that I can see the finished research document.

I have had time to consider everything and I give my consent to be a part of this project.

Participant Name: …………………………………………………………………......

Participant Signature: ………………………….. Date: ……………………………

Project Researcher: …………………………….. Date: ……………………………

UREC REGISTRATION NUMBER: *2018-1036*
This study has been approved by the UNITEC Research Ethics Committee from *22 June 2018* to *November 2018*. If you have any complaints or reservations about the ethical conduct of this research, you may contact the Committee through the UREC Secretary (ph: 09 815-4321 ext 8551). Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

APPENDIX 7

GLOSSARY
fa'aaloalo - respect

mafutaga fealofani - good relationships

fa'amaoni - sincere service

Va – space

Va fealoa'i – spaces between relational arrangements

Va tapuia – sacred spaces

Va fa'apouli'uli – hidden concealed space/darkness

Tauhi Va – nurture caring for the Va (Tongan)

Teu le va – value, nurture, look after

ICT – information communication technology

Kamar – student management system

Institute of Technology

TE WHARE WANANGA 0 WAIRAKA

Full name of author: **ROSALIND FUAILELAGI TUITAMA**

ORCID number (Optional): ……………………………………

Full title of thesis/dissertation/research project ('the work'):

DIGITAL SPACES – PASIFIKA PARENTS AND CAREGIVERS TALANOA ON THE IMPACT OF DIGITAL TECHNOLOGIES

School: Health Care and Social Practice..

Degree: Masters of Applied Practice

Year of presentation: 2020

Principal Supervisor: Dr Jo Mane

Associate Supervisor: Dr Falaniko Tominiko

Signature of author:

Date: ....4.... / ...4...../ ...4.....