# Digital Stepping Stones:

# Exploring Pasifika students' uses and views of digital media and their effect on the transition to postsecondary education and employment

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# Attestation of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

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Hans Tommy

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Date

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# Ethical Approval

Ethical approval was granted for this research by the Auckland University of Technology Ethics Committee on the 4th of October, 2012. Reference number 12/250.

# Abstract

The purpose of this study is to examine the uses and perceptions of digital media held by Pasifika students and how these relationships affect their transition from secondary school to further study or employment. This study utilised the views and experiences of forty one Year 13 Pasifika students from a secondary school in Auckland. The use of a mixed methods approach combined multiple techniques. A quantitative approach, consisting of a survey and utilising correspondence analysis to analyse the data explored how access, confidence, competency and perceptions of digital media affected the students' transition process. A qualitative approach, consisting of two student focus group sessions and an interview with the school Careers Advisor, was analysed using Inductive analysis. The combination of quantitative and qualitative methods provided the basis for triangulation, allowing the exploration of both sets of data, in order to gain a deeper, richer understanding of the relationship the students have with digital media.

The findings from this study indicated that Pasifika students that use digital media, especially computers and the internet more frequently have higher levels of certainty about their transition. These students indicated higher levels of confidence with utilising computers and the internet, especially in regards to researching their transition options. Students recognised the benefit of a high level of digital literacy and experience, but often showed uncertainty in utilising a wide range of newer digital media. Access to computers and the internet was not seen as an issue by Pasifika students in this study, although access to newer technologies is limited for many of these students. Although being confident with computers and the internet, students often showed confusion and a lack of competency when utilising websites relevant to their transition. This study reinforces the need for guidance and support during this transition phase, with the recommendation that this support must include clear instruction and guidance in regards to the digital media tools that are being offered to students. This has become increasingly important in an age which increasingly relies on the use of digital information and an ever-increasing range ways for students to access, store and share this information.

# Chapter 1

# INTRODUCTION

This research study seeks to explore the relationship that Pasifika students have with digital media. Specifically, the research will look at how this relationship affects their transition from secondary school to post-secondary education or employment. The use and understanding of digital technologies are increasingly important for students as they decide what they want to do after secondary school and how they are to achieve it. For Pasifika students, a population often associated with lower levels of academic achievement and socioeconomic status, it is important to recognise how they use and perceive different forms of digital media. This research aims to investigate the relationships that Pasifika students have with a range of digital media and how these relationships may affect how they navigate their transition out of secondary school. Pasifika students, like all other students, must be able to navigate an ever-increasing digital landscape, both in their education and everyday lives. As a proud Pasifika postgraduate student, I support the view that Pasifika researchers provide important opportunities to gain a better understanding of the educational issues for Pasifika students in order to contribute to better outcomes for Pasifika students and the wider Pasifika community.

## BACKGROUND

For a large proportion of Pacific peoples, New Zealand is seen as the first and best option when migrating to seek a better life. People from these small island nations, which largely rely on an agricultural lifestyle, are attracted to the promise of opportunities for employment, education and a prosperous setting to raise a family. The 1950's opened the floodgates for Pacific migrants, as New Zealand suffered from a considerable labour shortage, especially in the manufacturing sector. Fig1.1 showcases the rapid increase of migration from the Pacific Islands since 1945. In that time, the population of Pasifika in New Zealand has risen from 2,200 in 1945, to 266,000 in 2006

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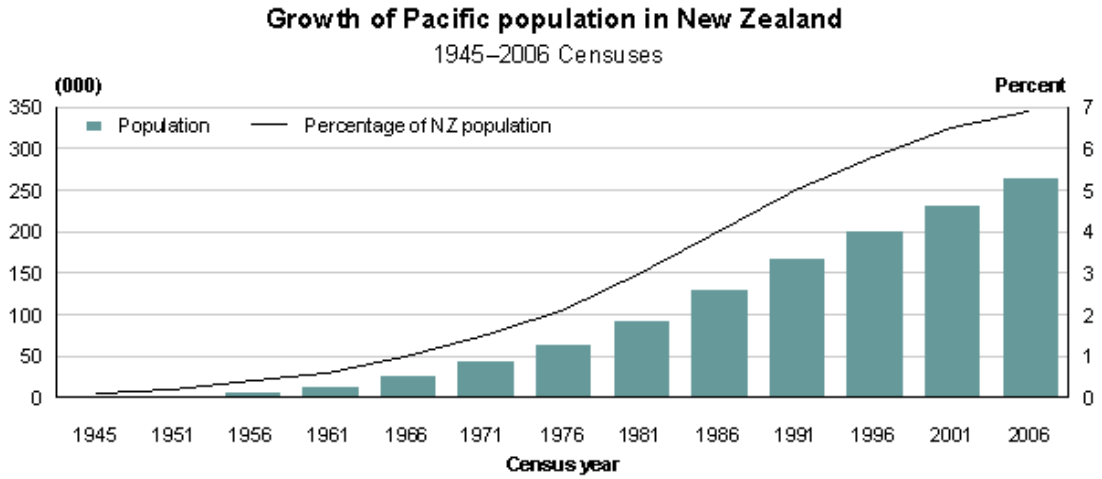



**Figure 1 Growth of Pasifika population in New Zealand.**

The 2006 Census reports that Pasifika peoples make up 6.9% of the New Zealand population. However, Pasifika are projected to rise to at least 9.6% by 2026 (Statistics New Zealand, 2010). Reasons for this include immigration, but high rates of natural increase, a youthful population and a growing level of inter-ethnic births continue to promote growth and diversity in an ethnic group already made up of a multitude of cultures and ethnicities. The ever-diversifying nature of Pacific peoples have resulted in a change from a small migrant population to a rapidly growing diasporic melting pot. Sixty percent of Pacific peoples were born in New Zealand and 60% of those born overseas arrived to live in New Zealand after 1985. Since 1991, the amount of Pacific peoples identifying with one ethnicity has dropped from 80% to 70%. A quarter of Pacific births are attributed to non-Pasifika mothers and Pasifika fathers. These observations indicate that the dynamics of the population of Pacific peoples includes an increasing mix within its inter-ethnic makeup as well as with non-Pacific ethnicities.

Pasifika are extremely urbanised, with 97% found in New Zealand urban areas. Auckland is the site of greatest concentration with 67% of Pasifika being found in Auckland alone. This reinforces the need for Pasifika-relevant research conducted within Auckland. Pasifika students are comprised of a very youthful population, especially in comparison to the rest of the New Zealand population. The median age for Pasifika in 2006 was 21, compared to the national median of 36. The youthfulness of Pasifika population is further reflected when observing the proportion of Pasifika children in New Zealand. Pasifika children make up 12.4% of the child (0-14 years of age) population, but this is projected to increase to 17.7% in 2026. These statistics are used to outline the need for better outcomes for Pasifika who are growing as a significant ethnic group in New Zealand.

## DEFINING THE PROBLEM

The lack of academic achievement of Pasifika students has long been an issue which plagues the Pasifika community, as well as the wider landscape of New Zealand society. With a youthful population and an ever-increasing number of New Zealanders identifying as Pasifika, the need to explore effective ways of promoting Pasifika success is of great importance. As the literature grows in exploring and understanding the issues for Pasifika students, the importance of identifying the challenges for students during key educational transitions is equally matched by the need to identify the subtle ways in which Pasifika students' views and experiences may differ from their non-Pasifika counterparts.

The Ministry of Education (2010), or MoE, reports some levels of achievement which are of relevant concern. Pasifika students, in comparison to their non-Pasifika counterparts, show significantly lower rates of achievement at all NCEA levels and a higher tendency to complete NCEA achievements later than non-Pasifika students. Twenty five percent of Year 13 Pasifika students attained University Entrance (UE) in comparison to 53% of non-Pasifika Year 13 students. Recent statistics show that Pasifika peoples continue to suffer from high rates of unemployment and low average income when compared to the national average. Pasifika have an unemployment rate of 16% compared to 6.9% for the entire country (Statistics New Zealand Household Labour Force Survey, 2012). This is the highest rate of unemployment for any ethnic group. Pasifika earn an average weekly income of $479 compared to a national average of $721 (Statistics New Zealand New Zealand Income Survey, 2012). Again this figure stands out negatively as the lowest of all ethnic groups included in this survey. Statistics New Zealand included the "European', 'Maori', 'Asian', 'MELAA' and 'Other' ethnic groups in their 2012 New Zealand Income Survey. This indicates that Pasifika are more likely to be in low-skilled, low-paying jobs than any other ethnic group.

The MoE identifies that an important goal is to see that Pasifika secondary school leavers are "academically and socially equipped to achieve their goals for further education, training and/or employment" (MoE, 2013, p. 8). Therefore, the transition between secondary school and tertiary study or employment is a pivotal phase in need of research and a better understanding. This sentiment is supported by the Tertiary Education Commission (TEC) in their Pasifika Framework 2013-2017. They outline their first focus area as "successful transitions (into tertiary education, higher levels and onto employment)" (p. 2). This focus confirms the need for further research into the relevant issues for Pasifika students and discussion on practical ways to improve the outcomes for these students.

Of considerable concern is the scarcity of research regarding Pasifika students' interactions with digital technology. Studies within the field of education have largely focused on students at the tertiary level and have largely taken for granted the role that digital media has, or can play, in the lives and academic journeys of Pasifika students. Although the use of internet and computers are part of the recommendations and suggestions to assist in better academic outcomes for Pasifika students (Koloto, Katoanga & Tatila, 2006), little discussion has occurred as to how digital technologies play a role in their academic and general lives. Neither has there

been a clear discussion on how digital media can better serve Pasifika students, especially in regards to their transition out of secondary school.

Students of the information age, described as “digital natives” (Prensky, 2001, p. 1), have grown up surrounded by digital media. However, this spread of technologies has created a ‘digital divide’ between those that have ready access or competence with these technologies and those that do not. Pasifika, an ethnic minority group that is traditionally associated with low rates of income, educational achievement and socio-economic standing, display many characteristics associated with being on the wrong side of the digital divide. This includes lower rates of access, confidence and skills with computers, the internet and other digital technologies in an age where technology skills are increasingly necessary in our everyday lives. Such disadvantages can often result in missed opportunities in obtaining employment and enhancing their lives using these technologies (Friedman, 2001). Research is therefore needed to better understand the issues for Pasifika and their relationship with digital technologies, uncovering how perceived digital divides may affect Pasifika students.

## DEFINITIONS OF TERMS

For the readers’ clarification, some of the key terms for this study are defined:

The term **‘Pasifika’** has largely been adopted by the Ministry of Education (MoE) to define people with heritage stemming from the Pacific Islands. The MoE website uses ‘Pasifika’ as the official title for this ethnic group in their technical definition of ethnicity. There are varying terms used to encompass people from the Pacific. Such variations as ‘Pacific peoples’, ‘Pacific Islanders’, PI’s, Pacific Island Background Students (PIBS) have been used. In this thesis, the term ‘Pasifika’ is used, unless used in referencing other authors’ work.

The term **‘Digital media’** refers to any electronic means of delivering, accessing and storing digital information or content. Feldman (1997) describes ‘digital’ as expressing “a world belonging exclusively to computers” (p. 1) and outlines the characteristics of digital information as manipulable, networkable, dense and compressible.

For the purpose of this study, the forms of digital media mentioned are:

- ***Desktop computer*** – A computer designed to stay in a single location. These cannot be powered internally and therefore require a connection to a wall outlet.
- ***Laptop computer*** – A small, portable computer designed to achieve all necessary computer functions in a singular unit. These use either a rechargeable internal battery or connection to a wall outlet.
- ***Data Storage Device*** – Any device used to store digital data. Most common forms are an external hard drive, flash drive or CD’s.
- ***Internet*** – Global system of interconnected computer networks. Most common use of the internet is utilising a web browser to access the World Wide Web.

- ***Tablet*** – Handheld computer which utilises a touchscreen as its primary input device.
- ***Mobile phone*** – (aka cell phone) is a handheld device used to communicate through radio link. Mobile phones require connection to a cellular network, provided by a mobile phone provider, in order to access the public phone network.
- ***Mobile Smartphone*** – A mobile phone that uses advanced functionality beyond making phone calls and sending text messages. Smartphones are capable of running third party applications.
- ***Digital Television*** – Television which decodes picture information, transmitted in digital form.
- ***Digital Radio*** – Any form of digital audio broadcasting.
- ***MP3 Player*** – Portable electronic device used to store and play audio MP3 files. MP3 players can often use other file formats, such as Windows Media Audio (WMA) files.
- ***Digital Video Recorder*** – Electronics device or software application that records video in digital format.
- ***Digital Camera*** – A camera that records and stores images in digital format.
- ***Gaming Console*** – Interactive computer designed primarily for playing video games. Console is most commonly used in conjunction with a TV, but can also be used with a monitor or projector.
- ***Gaming Handheld*** – Small portable handheld device designed primarily for playing video games.

The term **"Information and Communication Technology"** is used within the literature review. This term has been adopted in international and national literature to describe any communication device or application, almost exclusively relying on digital means. Gokhe (2011) describes ICT as "technology that supports activities involving information" (p. 1). Gokhe acknowledges that these activities have increasingly involved collaboration and communication, which outlines the term: Information and Communication Technology. This term is used in place of 'digital media' when in relation to referenced literature.ā

## PURPOSE OF THE STUDY

The purpose of the study is to directly investigate the relationship that Pasifika students have with digital media and the effect this relationship has on their transition out of secondary school. This study is designed to utilise a combination of quantitative and qualitative inquiry. Through quantitative inquiry, this study is constructed to investigate the levels of accessibility, confidence, awareness and use of digital media, as well as the perceptions that the students hold of these factors. Qualitative inquiry is used to provide in-depth feedback from a group of Pasifika students and the host school Careers Advisor, enriching and diversifying the investigation into the research problem. This study is designed to provide transition specific

perspectives of digital media held by Pasifika students. This is in order to add to the current yet limited literature concerning Pasifika students' relationship with digital media, in particular focusing on their transition from secondary school.

## KEY RESEARCH QUESTIONS

Within this study, it is my aim to explore the issues within the relationship between Pasifika students and digital media, specifically within the transition process between secondary school and their post-secondary options. The study aims to explore and examine this research problem guided by specific key questions. These questions are:

1) How do Pasifika students utilise digital media in the transition process between secondary and post-secondary life?
2) How do Pasifika students perceive digital media in the transition process between secondary and post-secondary life?
3) How does the relationship Pasifika students have with digital media affect their transition process?

## SUMMARY OF CHAPTERS

**Chapter 1 (Introduction)** introduces the study, firstly providing brief background information about the demographics and history of Pasifika in New Zealand. Establishment of the research problem is followed by stating the purpose of the study. This chapter outlines the study's research questions, as well as providing definitions for key terms used within the study. This chapter concludes with a summary of all the chapters.

**Chapter 2 (Literature Review)** includes a review of relevant literature. Discussion begins with a review of literature concerning the 'Pasifika learner' in education. This discussion tracks the progress of Pasifika students in New Zealand, followed by an examination into the concepts of culture and identity and perceived issues for Pasifika student success. This chapter explores the concept of this transition period, with a focus on digital information seeking behaviour. A necessary part of this review was to explore the dimensions of the digital divide in New Zealand, investigating the impact on Pasifika, as well as looking at the developing literature surrounding culturally-relevant ICTs.

**Chapter 3 (Methodology)** outlines the methodology used in this study. This chapter discusses the utilised research paradigm, followed by an outline of the use of a mixed methodology. The research design is explained, including all methods used within the study's concurrent triangulation research design. This chapter also includes an outline of the study's participants and an outline of ethical issues.

**Chapter 4 (Results)** details the results and findings of the study. This firstly reports quantitative data descriptive statistics, followed by the results of further exploration through correspondence analysis. Secondly qualitative data is explained, outlining themes identified in the inductive analysis procedure. This chapter then reports the findings of both sets of data.

**Chapter 5 (Discussion)** is where the triangulation of quantitative and qualitative data occurs. This is achieved through a discussion of key findings, which serves to draw together the key themes emerging from the analysis.

**Chapter 6 (Conclusion)** summarises both the research and the research findings. This chapter outlines limitations of the study, implications of the research and concludes with recommendations for further research and exploration.

# Chapter 2

# LITERATURE REVIEW

The purpose of this study is to investigate the relationship that Pasifika secondary students have with digital media, specifically in relation to the transition to post-secondary life. Such a research problem requires an exploration of a wide variety of literature. This chapter will begin by examining literature which explores issues regarding Pasifika educational issues and outlining the progress of Pasifika students in New Zealand. Key issues are explored in further detail, exploring concepts of 'culture and identity', 'participation and retention' and 'barriers to success'. This is followed by an exploration of transition, relevant for Pasifika students leaving secondary school.

The review then focuses on concepts surrounding digital technology and the effects of a digital divide which can be argued to affect Pasifika students. An outline of ICT use of New Zealand further informs the use of ICT by Pasifika. This is further explored by examining the integration of 'culture' into ICT and what this may mean for Pasifika. Lastly, the review attempts to investigate how information seeking behaviour is relevant for Pasifika students, in relation to the aforementioned transition period and digital technology.

## DEFINING PASIFIKA

Statistics New Zealand, when outlining their guidelines for statistical standards, defines ethnicity as a self-perceived "measure of cultural affiliation, as opposed to race, ancestry, nationality or citizenship (2005)." This definition shows a viewpoint of ethnicity, which is not based on biological factors and means that people can identify with multiple ethnic groups. In the instance of Pasifika, this can be problematic, as ignoring the subtleties of race, ancestry and nationality can sometimes take for granted the individual cultural identities within Pasifika peoples. The obvious diversity found within Pasifika demography issues a challenge for a more thorough and culturally relevant approach to Pasifika research (Anae, 2010). This diversity also challenges how we use the term 'Pasifika'. This has largely become a term of convenience, for use in both statistics and research literature. It has become widely used, although terms such as 'Pacific peoples', 'Pacific Islanders' (PIs), or 'Islanders' are used interchangeably and are commonly used in New Zealand. The term 'Pasifika' is used to represent those in New Zealand that identify with an ethnic background from the nations of the Pacific Islands. Although in the past this was initially used to portray Polynesians, this has grown to include the peoples of Melanesia and Micronesia, inviting all cultural backgrounds of the Pacific.

# THE PASIFIKA LEARNER

The initial section of the review is centred on four key pieces of literature. These four pieces have been identified as relevant and extensive explorations, indicative of New Zealand based research into the educational issues for the 'Pasifika learner'. These are:

- Coxon, Anae, Mara, Wendt-Samu & Finau's (2002) *Literature Review on Pacific Education Issues*
- Gorinski & Fraser's (2006) Literature Review on the Effective Engagement of Pasifika Parents & Communities in Education
- Ferguson, Gorinski, Wendt Samu & Mara's (2008) Literature review on the experiences of Pasifika learners in the classroom
- Amituanai-Toloa, McNaughton, Lai, Airini, Turner, Widdowson, McClue, Hsiao & Pale's (2009) *Ua Aoina le Manogi o le Lolo: Pasifika Schooling Improvement Research*

These four pieces of literature are used as a foundation for discussion, outlining key points which are relevant to this study and key points of discussion in regards to some of the issues for Pasifika students in general.

## *CULTURE, ETHNICITY AND IDENTITY*

In examining Pasifika educational issues, it is firstly important to understand the dimensions of culture, ethnicity and identity and how they shape the worldview and experiences of Pasifika students. Coxon et al. (2002) contend that a "lack of conceptual clarity" (p. 5) consequently results in a conflicting blending of terms such as 'culture' and 'ethnicity'. Their observations of literature revealed that often Pacific cultural groups are often used interchangeably with pacific ethnic groups. They cite the work of Simon (1996) in describing culture as a way of life which belongs to members of a group, but further emphasize the dynamic nature of culture. They underline culture as being "neither static nor fixed" (p.6), describing the notion that generations do not necessarily transmit the same culture to subsequent generations. Gorinski et al. (2006) embraced this more "fluid understanding of culture" (p. 8). However, I believe it is difficult to describe 'Pasifika' culture along ethnic lines. The myriad of ethnicities and cultures within the umbrella term 'Pasifika' reflect the problematic nature of attributing a definitive definition of 'culture'. I agree with Anae (2010), who describes 'Pasifika' as "a term of convenience" (p. 49). Anae further explains, "at best, the term Pasifika encapsulates both unity and diversity. At worst, it homogenises and glosses over cultural, linguistic and experiential diversity in a manner that captures all, but relates to none" (p. 49). It is therefore important not to take for granted the complex nature of the Pasifika population and to be cautious in treating them as a single, homogenous group.

Strauss and Quinn (1998) say that the individual is a convergence of an "infinite number of partially overlapping cultures" (p. 7). I see this as a very important dimension to the view of culture within this research. Even in addressing the imbalances of living with a dominant culture/s, elements of these dominant cultures are also adapted by any individual. As well as 'Pasifika', students in this study are recognised as components of different 'digital' cultures, as

well as ‘non-digital’ cultures. They must be seen as not just Pasifika students, but as students of the information age.

However, I agree with the views of Minkov (2013), who argues that “culture can be whatever the researcher wants it to be” (p. 9). He emphasizes that what is needed is not a singular, indisputable theoretical definition of culture, but instead a clear explanation of how researchers measure the concept of culture based on their personal conceptualisations, no matter what they are. I adopt a fluid nature of culture, although underpinned by the diverse ethnic and cultural backgrounds found within Pasifika as equally defined by the view of accepting all relevant cultures found within the individual. This includes cultures not drawn along ethnic lines. In terms of this research, this especially involves the digital and educational cultures of Pasifika students within a New Zealand setting.

I support the view that ethnicity is not a form of cultural categorisation, or external classification (Coxon et al., 2002), but a self-perceived measure of cultural affiliation. Coxon et al. (2002) cites Gibson (1976) in explaining that “ethnic groups are essentially social and political rather than cultural” (Gibson, 1976 found in Coxon et al., 2002, p. 8). This is so that traditional customs act as mechanisms which serve to produce boundaries which maintain the group’s exclusiveness. Coxon et al. (2002) agrees with Simon (1989) that when analysing ethnicity, it is not the enclosing of cultural elements within an ethnicity which defines the group, but the identifying of ethnic boundaries. For minority groups and indigenous peoples, this can result in the forced assertions of identity from a dominant culture.

The concept of identity is intrinsically linked to any discussion of culture and ethnicity. For Nakhid (2003), the issue of identity is paramount to gaining an accurate understanding of Pasifika academic under-achievement within the Anglo-European educational system of New Zealand. Seeing representation as the link between our identity and what we wish to identify, Nakhid believes that without representation, identity is “unsubstantial” (p. 304). I agree with this perspective and the view that identity, or rather “identification” (Hall, 1998, p. 2), is a process that is never completed. It is what Nakhid describes as an “identifying process” (p. 301). Nakhid describes this as how students form their identity. This is “the process of constructing and exhibiting their identity” (p. 301). Nakhid sees this as more than the acculturation of students into an educational system or the acknowledgement of cultural differences that students may bring to an institution. This process must allow students to be able to recognise themselves and also how they wish to be represented in the school. In acknowledging Gorinski et al’s (2006) observation of a “monocultural paradigm” (p. 1) and the dominance of an Anglo-European education system in New Zealand, I acknowledge and support the importance of an identifying process for Pasifika students.

Conditions for success for Pasifika students have largely called for the changing of the monocultural nature of New Zealand education. This is in acknowledgement that Pasifika students are required to “operate within dual learning settings: that of their home cultures, and that of the school, formal schooling” (Coxon et al., 2002, p. 78). This involves the need for a

recognition and acceptance of the cultural diversity that Pasifika students bring to New Zealand's Anglo-European educational setting. This is a common theme of Pasifika-referenced literature and underlines the importance of culture and identity to understanding how to provide better outcomes for Pasifika students.

Coxon et al. (2002) utilise Samu's (1998) Ethnic Interface Model (Figure 2.1), as a basis for understanding the complex and conflicting nature of the relationship that Pasifika students have with education. This model outlines a framework, illustrating the interface between Pasifika students and the educational institution. The model explains the characteristics inherent in the Pasifika learner and the characteristics which are largely within the control of institutions. The model was seen as beneficial as it enabled "educators to unravel and take these complexities into account" (Coxon et al., 2002, p. 11).

A key finding for Ferguson et al. (2008) was a need for cultural distinctiveness, coupled with higher levels of consciousness of cultural difference. Schools were commonly places where Pasifika students and their teachers experience ethnic diversity for the first time. This experience, for Pasifika students, can often be where they construct their views of their own social positioning and that of their cultural and ethnic groups in wider society. As the number of Pasifika increase, especially with a large youthful population, the need to better understand this cultural interaction is important for both Pasifika students and teachers charged with their education.

## *CULTURALLY RESPONSIVE INSTRUCTION*

The role of the teacher is pivotal to every student's chances of success. For Amituanai-Toloa et al. (2009) a generic feature of quality instruction was that it is culturally responsive. This involved Pasifika pedagogy (Coxon et al., 2002; Gorinski et al., 2002) that would reflect the involvement of cultural background knowledge and forms of interaction, as well as build positive relationships and mutual respect (Amituanai-Toloa et al., 2009). This wasn't just relevant for Pasifika students. In essence, all minorities should expect the same respect and approach. "Modern educational institutions are no longer institutions that have the same kind of student i.e. male, heterosexual and Christian" ( Matai'a, Faaiuaso, Taumoepeau & Talakai, 2010, p. 4) and the inherent diversity in New Zealand demands diverse responses.

A danger of a monocultural perspective from institutions and teachers can also lead to deficit labelling of Pasifika students and their issues. Gorinski et al (2006) note the danger of institutional practices affecting student achievement as well as the interactions between the school, parents and the community. They contend that a historical belief within school communities that there will always be disparities in the achievement between Māori and Pasifika students when compared to European can often lead to teachers having low expectations of students from a low socio-economic background. A similar observation by Nakhid (2003) noted that teachers often linked Pasifika students with low socioeconomic status and low academic motivation, therefore leading to low academic achievement. Pasifika students were often seen as "newly arrived immigrants" (p. 307) and this led to many conflicting

perspectives with how Pasifika students identified themselves and how they wanted to be seen by their teachers.

Part of the MoE's Pasifika Education Plan 2013 – 2017 is to develop more Pasifika teachers. This view is supported in local literature (Rio & Stephenson, 2010; Koloto et al., 2006), however research also suggests that ethnicity is not necessarily the primary factor in effective teaching of Pasifika students. What is more important is cultural responsiveness as well as empathy for the issues for Pasifika students, along with other minority groups (Coxon et al., 2002; Allen, Taleni & Robertson, 2009). Fletcher, Parkhill & Harris (2011) support the need for culturally responsive teachers, with added suggestions of incorporating small group work as an effective method for engaging Māori and Pasifika students, especially at the Primary level. Their research encouraged the use of ICT tools as a part of inclusive teaching methods. This was seen as a creative and dynamic strategy which showed positive results for Māori and Pasifika students. In fact they concluded that they believed that "an ICT-rich environment may well provide important support for culturally diverse learners" (p. 124). Fletcher, Parkhill, Fa'afoi, Taleni & O'Regan (2008) cite examples of teachers that utilise Pasifika stories to engage the knowledge of the students' cultural backgrounds. Methods such as these not only serve to engage Pasifika students, but also instils the importance of "cultural capital" (p. 29) for Pasifika students.

## *INVOLVEMENT OF PARENTS AND COMMUNITY*

Often there is a culture mismatch which can result in misconceived views of parental engagement with their children's education (Gorinski et al. 2006). Nakhid's (2003) study examined the views of Pasifika students and their teachers, revealing a lack of understanding from the teachers about Pasifika parents and their children as students. Her findings revealed that teachers and schools decide the position of students in education, without acknowledging the students' own interpretations. Teachers often perceived that Pasifika parents were uninterested in their children's educations, whereas Pasifika students revealed that to be inaccurate. Gorinski et al. (2006) also suggest that school personnels' discomfort at involving parents is often due to viewing parents as incapable or incompetent in dealing with educational issues. It is also suggested that a lack of expertise of teachers and school administrators in developing the involvement of parents in education can be a distinct barrier. Nakhid suggests the need for teachers to "involve Pasifika parents more regularly and in more significant ways" (p. 310) in order to overcome their own cultural differences and to understand what really happens in the home lives of Pasifika students.

Gorinski et al. (2006) further outlines a detailed description of issues regarding effective engagement of Pasifika parents and communities. Language proficiencies are often barriers, but it is recognised that this can be overcome by Pasifika parents reinforcing educational concepts taught in the classroom, in the home. Gorinski et al. (2006) cite research from Walberg (1985) that indicate that this can be an extremely effective mechanism to engage parents in supporting their child's education.

Gorinski et al. (2006) also cite cultural frameworks which outline certain beliefs and ways of thinking for Pasifika peoples. They found that Pasifika parents often believed that teachers have the qualifications and the responsibility to educate their children. This often leads to Pasifika parents choosing not to engage with schools in fear of interfering with their children's learning. Issues of parental confidence were also seen as a potential barrier for parents as they may have low self-esteem due to their own personal negative experiences or failures in education. It is also important to recognise that employment demands can often limit the time available for Pasifika parents' involvement in school activities.

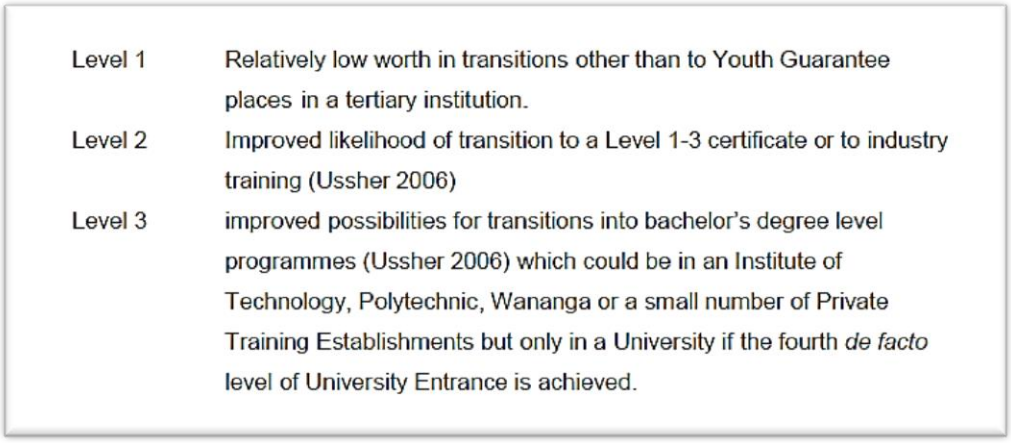
Amituanai-Toloa et al. (2009) report that schools that are effective in engaging Pasifika students will have "well developed communities and families" (p. 10). This involves a reciprocal relationship which freely gives information both ways and allows for a wide range of ways for parents to be involved in their child's education. Successful schools were seen to embrace this philosophy of connection and viewed parents and the community as more than just points of contact. They were seen as essential resources for their children's success at school. The cultural resources of parents and the community were also used to assist in cultural activities, arts and school sports, reinforcing an inclusive, reciprocal connection.

## *ACADEMIC PREPARATION*

The issue of academic preparation has been a consistent issue within Pasifika academic literature. Recent figures show positive progress in academic achievement standards by Pasifika students (NCEA, 2012), but they still trail behind the proportions of non-Pasifika students. The reasons for this are varied, but further research is shedding light on the issues which are specific to Pasifika students.

It is noted that Pasifika students display slower rates of achievement (Harkess, Murray, Parkin & Dalgety, 2005) with the suggestion that "the real issue for Pasifika candidates is the number of credits they achieve in a year" (p. 4). Their report suggests that the cumulative nature of the National Qualifications Framework (NQF) is being utilised by Pasifika students but this adds to further complicate the problematic nature of Pasifika academic underachievement. Pasifika students are seen to achieve, but at a much slower rate than their non-Pasifika counterparts. This is further compounded by the fact that Pasifika students are less likely to achieve Level 3 requirements. Their study also discusses misconceptions from students and their families regarding the differences in unit and achievement standards. They argue that unit standards are often seen as less valuable but that Pasifika students commonly took advantage of the diversity offered by unit standards. This can prove detrimental for these students as it is achievement standards which provide the stronger relationship with the acquirement of qualifications. Further research is needed to establish the extent to which this focus on unit standards affects the outcomes for Pasifika students.

Manukau Institution of Technology's (2011) utilises Ussher's (2006) findings in an effort to paint a picture of the relative worth of the three levels of NCEA:



| | |
|---|---|
| Level 1 | Relatively low worth in transitions other than to Youth Guarantee places in a tertiary institution. |
| Level 2 | Improved likelihood of transition to a Level 1-3 certificate or to industry training (Ussher 2006) |
| Level 3 | improved possibilities for transitions into bachelor's degree level programmes (Ussher 2006) which could be in an Institute of Technology, Polytechnic, Wananga or a small number of Private Training Establishments but only in a University if the fourth *de facto* level of University Entrance is achieved. |

**Figure 2.1 Relative worth of NCEA levels. Source: Manukau Institute of Technology (2011, p. 6).**

NZQA (2012) figures show that although Pasifika students have shown a steady increase at all NCEA achievement levels over the past five years, they still average significantly lower than their European and Asian counterparts. In UE attainment, Pasifika students are more than 30% below these two ethnic groups. This lack of achievement in NCEA results in Pasifika students taking longer to achieve qualifications and by the end of Year 13, are less likely to have the necessary requirements for UE.

NZQA (2012) figures show that attendance and retention are no longer an issue for Pasifika students. They actually score higher in retention to Year 13 than their European counterparts. This further confirms that the issues for Pasifika do in fact lie in the classroom and that Pasifika students require initiatives which provide better outcomes in the classroom.

## PROGRESS OF PASIFIKA PEOPLES IN EDUCATION

It is true that, in general, Pasifika students have reported high levels of academic underachievement in New Zealand secondary schools. However, as the literature increases and research continues to engage with the issues for Pasifika students, it is detailing the complexities of these issues. The past few decades have seen a concentrated focus by government and community initiatives to help improve the outcomes for Pasifika students. These initiatives, as well as a growing understanding of what works with Pasifika learners, seem to show an improving picture of Pasifika students in the New Zealand education system. Although establishing a path of continuing success, this also serves as a challenge to maintain this success, as economic and technological changes demand increasingly diverse skill sets in the labour market.

The New Zealand Qualifications Authority (2012) report that 43% of Pasifika Year 13 candidates attained University Entrance (UE) in 2012. While this was a significant increase from the 32% recorded in 2008, it is still considerably lower than the 2012 proportions of NZ European (74%) and Asian (75%) students. The closest ethnic group were Māori with 49% of students achieving

UE. The participation of Pasifika students in tertiary study has been an important focus within the past decade (MoE, Education Review Office [ERO], Department of Internal Affairs [DIA], and TEC). This has led to an effort to increase the achievement levels at all NCEA levels and University Entrance (UE). Below are MoE statistics which show some of the progress of Pasifika secondary students in the last decade.

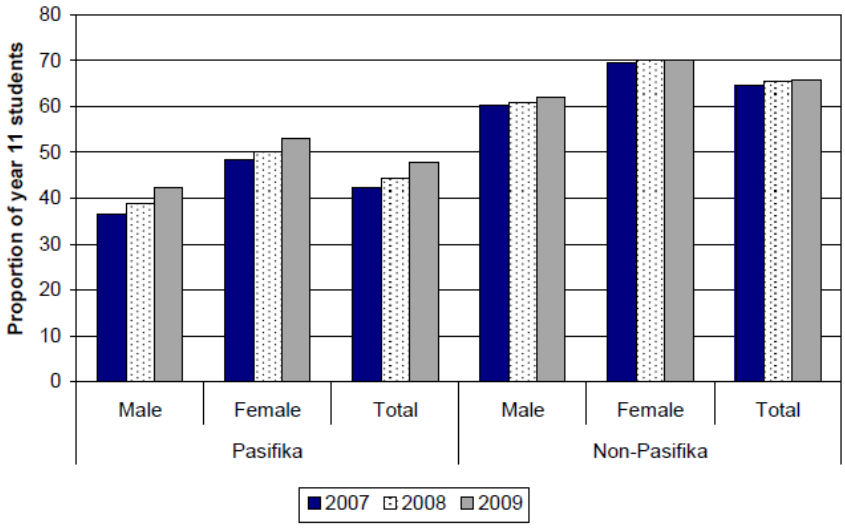



**Figure 2.2 Proportion of Yr11 students that achieved NCEA qualification at typical level.**
**Source: Ministry of Education (2010, p. 3)**

The proportion of Year 11 Pasifika students achieving at their typical NCEA qualification level is steadily increasing. However, this is still significantly lower than for non-Pasifika students.

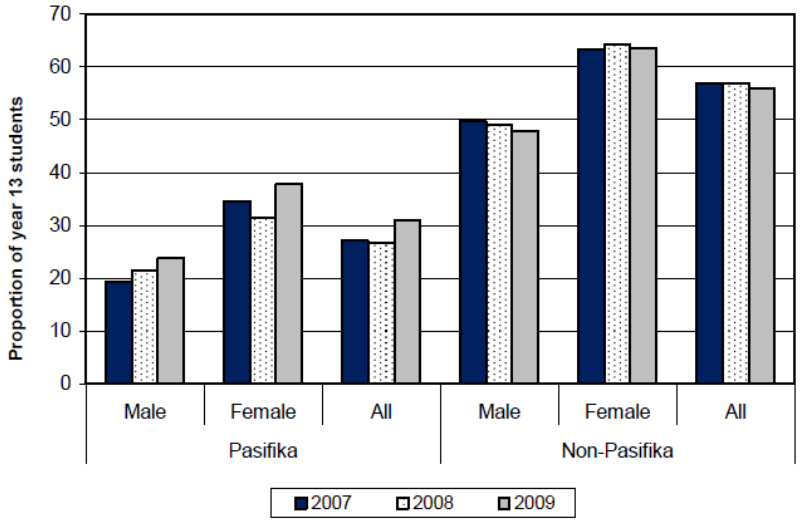



**Figure 2.3 Proportion of Yr13 students that gained an NCEA Level 3 qualification or above.**
**Source: Ministry of Education (2010, p. 7)**

Figure 2.3 shows that Pasifika Year 13 students, although showing a decrease in 2008, are again showing a significant increase in Level 3 NCEA qualification attainment. This is in contrast with a decrease of achievement from non-Pasifika students during this time. However the proportions are still distinctly lower than their non-Pasifika counterparts.

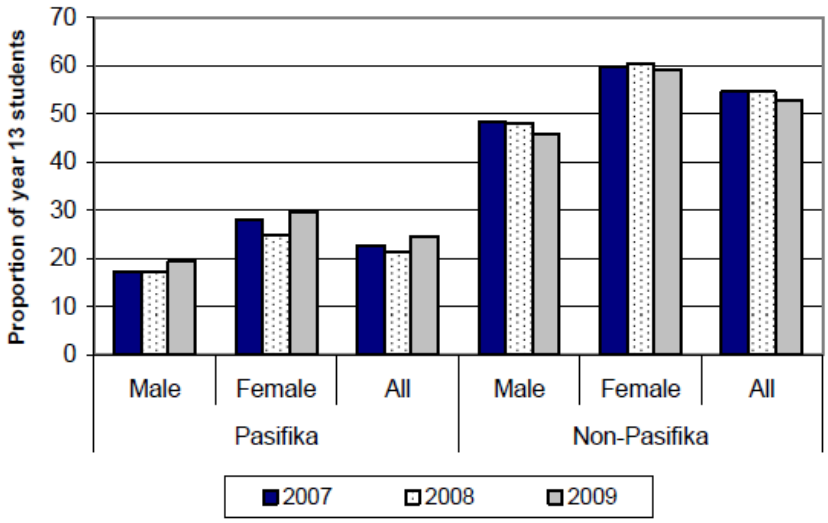



**Figure 2.4 Proportion of students that achieved University Entrance requirements. Source: Ministry of Education (2010, p. 8)**

Similar to Figure 2.3, Figure 2.4 shows a decrease in achievement in 2008. This has again started increasing in 2009, yet the proportion of Year 13 Pasifika students that achieved UE is less than half of non-Pasifika students. This is extremely startling as these three graphs show that despite increasing trends, there is a strong overall trend for decreasing proportions of academic achievement from a Year 11 student to a Year 13 student looking to enter into tertiary study.

## TRANSITION

There is an increasing argument for further research into the transition stage between secondary school and tertiary education, employment or training, where transition is defined as the progression from secondary student to post-secondary life. This study focuses on Year 13 students on the verge of their final year exams. However this transition usually begins a lot earlier and may require preparation throughout the senior years of secondary school. The Manukau Institute of Technology (2011) released a lit review which discusses how issues like disengagement and lack of academic preparation affect secondary students' ability to successfully transition to further education or employment. They observe that New Zealand's 15 – 19 year old age group were the main cause for a high rate of youth unemployment, in comparison to other OECD nations. This review reports a growing concern within international literature requiring an increased "understanding of the extent to which young people fail to make this transition successfully" (p. 3).

The MoE's (2008) *Student Perspectives on Leaving School, Pathways, and Careers* reported the views of 16 year old students in New Zealand secondary school. This included the insights of Pasifika students, although in the case of this study, the reports grouped Māori and Pasifika together. This group were reported to be less likely to plan for full-time study and less interested

in the prospect of a professional career. The students from the Māori/Pasifika group were seen as “less optimistic about their futures, with more of them seeing barriers to achieving the lifestyle they wanted” (p. 59). The teachers of these students held lower expectations for their success and these students were more likely to be unhappy with subject choices.

New Zealand research, especially in relation to Pasifika students, has rarely focused on the specific transition between secondary school and post-secondary life. Although a continual focus has been to see more Pasifika students participating and achieving at the tertiary level, this focus seems to ignore in depth discussion about the mechanics of the transition period. Madjar, McKinley, Deynzer & van der Werwe (2010) research into this transition seems to be the only extensive local study which engages with this transition period, in relation to Pasifika students. Their study looked at the transition to university for low-mid decile school students, especially those in under-represented groups. The transition was broken down into ‘before university’, ‘the summer months’ and ‘the first year at university. The ‘before university’ stage was of particular concern, however, relationships between issues at all stages showed common themes.

For Madjar et al. (2010), the issue of academic preparation is a key concern for Pasifika students. As a prerequisite for university study, it can deny university as an option for low-achieving students as well restrict the first choice of programmes for those that achieve UE. For Madjar et al. (2010), it was important to acknowledge that academic preparation not only included the grades, credits and qualifications that students achieved, but also the school subjects and standards that they study. Their analysis of 2005 NCEA data reported that students that attempted four subjects from the approved subject list were more than twice as likely to achieve UE as students that attempted three approved subjects. On average though, Pasifika students only attempted 2.5 approved subjects. This was in line with (Smith & Timperlay, 2008) who noted that “Pacific Island students studied, on average, only two or three university approved subjects thereby limiting their chances of success in gaining university entrance” (p. 70).

Noted by Madjar et al. (2010) was the importance for students to have role models and mentors with university experience. Coupled with strong family support, this helped students to be able to set clear academic goals, realistic expectations of university study and have relevant support to make decisions. This theme of having relevant support is often problematic, as Pasifika peoples have low rates of tertiary attainment, especially in older generations. Therefore Pasifika students can often be the first of their families to attend tertiary study. In spite of such challenges, Madjar et al. reported that strong personal determination was needed to overcome barriers from challenging life experiences and this was evident from the stories of many Pasifika students.

Madjar et al. also identified the summer months leading up to the first year of University study as an important stage. Lack of appropriate guidance and support during the preparation for University was a key factor for Pasifika students. For those that were unclear or less confident

about their readiness for study, the summer months meant a time of “self-doubt, loss of focus and weakening of resolve” (Madjar et al., 2010, p. 5). Pasifika students were often found to react to peer pressure and external factors in preparation for university. The results were often the delayed enrolment or failure to enrol or failure to engage in other procedures relevant for their courses. It was also noted that students with less confidence and less adequate academic preparation struggled in their first year of University study and needed more support, information and encouragement, both academically and socially.

With the focus of increasing Pasifika participation in tertiary study, there seems to be a lack of literature which examines the other options for Pasifika students, such as employment and training. Although I do not disagree with the belief that tertiary study is important in providing better outcomes for Pasifika students and the wider Pasifika community, it must be remembered that tertiary study is not the only beneficial outcome for an individual student. As well as employment, there are opportunities for training and education within employment. Examples such as tradespeople usually develop their required skills through apprenticeships and practical training. Information on such opportunities should be of similar, if not equal importance to Pasifika students to get a broad, clear picture of their career options and opportunities after secondary school.

An Equal Employment Opportunity Trust (2011) study underlines the importance of understanding issues for young Pasifika workers. They recognise that the proportion of young Pasifika people in the workforce continues to increase, despite a decrease in the overall labour force in New Zealand. Despite this, they contend that young Pasifika are a ”significant workforce but remain little understood” (p. 6). Their research reinforced common themes from Pasifika-referenced educational literature. They recommended the recognition of cultural values in the workplace, emphasizing the importance of family, work-life balance and a sense of belonging in the workplace. It was also important for clear and effective communication, as well as an atmosphere which provided opportunities for further training and development.

New initiatives have been introduced in New Zealand which may reshape the ways that the transition takes place for some students. The Youth Guarantee Initiative has been introduced with the aim of seeing that all students achieve NCEA Level 2 and progress towards further education, employment or training. This has incorporated a range of methods, including secondary-tertiary programmes, vocational pathways, trades academies and fees-free Youth Guarantee places in polytechnics and private training institutes. The Youth Guarantee Initiative is still in its infancy, but it seeks to provide more diverse ways for school leavers to move towards an employment-focused outcome.

## USE OF ICT IN NEW ZEALAND

Literature concerning digital media often uses the term ‘Information and Communication Technology’. Although the term ‘digital media’ is used within the study, it is accepted that these

two terms can often mean the same thing. Therefore these terms have been used interchangeably within this literature review. Information and Communication Technology (ICT) refers to the “electronic technologies used for collecting, processing, or transmitting information, which can be in the form of voice, images or data” (Statistics New Zealand, 2013, p. 8). It is a term, which has largely replaced the phrase ‘Information Technology’ and has grown in importance since the 1990s as technologies have developed and flourished, both globally and locally.

Research into the development and usage of ICT in New Zealand has largely focused on the most commonly used technologies of computers, the internet, and telecommunications. The main studies used to track ICT in New Zealand have been the Statistics New Zealand Use of ICT Report (published every three years) and the biennial World Internet Project New Zealand (WIPNZ) report. The World Internet Project is an international longitudinal study documenting the social, political and economic impact of the internet, as well as including the development of relevant new technologies, such as digital devices and wireless technology. The collaborative nature of this study has shown the ability to compare and contrast results from over 30 countries.

It is important to recognise how quickly technological changes have affected the way society communicates and delivers information. Even in a relatively short space of time, strong trends are evident. Smith et al. (2011) reveal that in 2007, 79% of New Zealanders used the internet, rising to 86% in 2011. Of these internet users, 69% in 2007 had a broadband connection in their home, whereas this rose significantly to 91% in 2011.

The growing range of devices used to access the internet has also outlined new behaviours in the use of ICT’s. Since 2009, the number of households that use more than one device to access the internet has risen from 21% to 40% in just three years. In 2009, the most popular combination of devices was overwhelmingly a desktop and laptop. However, within three years, this has changed to a laptop and mobile phone. Figure 2.5 illustrates the substantial decrease in the use of desktop computers to access the internet alongside a sharp increase in the use of laptops, tablets and mobile phones.

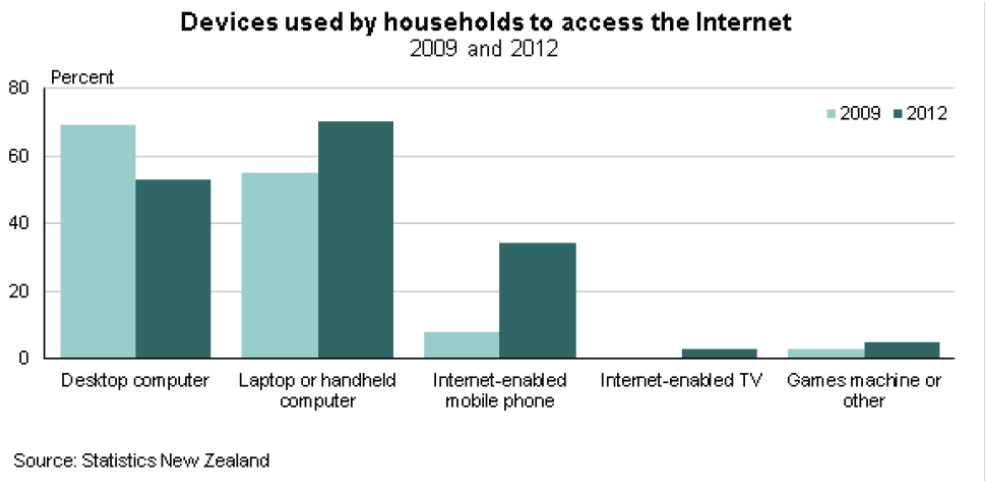



**Figure 2.5 Devices used to access internet by New Zealand households.**

The change in platforms is driven by the changing way in which people incorporate the internet in their daily lives. With the availability of wireless technologies, the internet has become a mobile tool, which has become a widely considered necessity for a person in the 21st century. It is now common place to access 'hotspots' (public Wi-Fi networks) at libraries, coffee shops and restaurants. Cellular internet options, as well as datacards, are also increasing in use. This fundamental change is indicative of how the proliferation of these technologies can cause rapid transformations in all areas of life.

The WIPNZ (2011) also reports a shift in the way New Zealanders access the internet at home. No longer is internet access restricted to computers fixed in the back of a room or study. New Zealanders now choose to access the internet in more mobile formats. This includes the internet being accessed in more communal spaces, such as the lounge. Study responses also showed an increase in utilising wireless technologies to use the internet in multiple places within the home.

There is little published research knowledge regarding the uses and activity of Pasifika peoples and ICT. Recommendations have been made by the DIA (2011) to recognise the contextually relevant cultural identities and perceptions of Pasifika peoples. Although the report admits that it is "unclear" (p. 28) how this is done in relation to ICT, it does advise the recognition of such things as collective thinking, family and community lifestyle, as well as the different cultural practices within the various ethnicities within the umbrella term of 'Pasifika'.

## THE DIGITAL DIVIDE

The term 'digital divide' has been used to identify the gap in most countries between those with access and knowledge of the various tools of ICT's and those that do not have such access and knowledge. Cullen's (2002) *"Addressing the digital divide"* identifies that in the digital information age, those with a lack of access to the internet through the use of ICT's are increasingly disadvantaged. This gap between the ICT haves and have-nots has contributed to an inequality in 'digital literacy' (McNair, 2000). The Organisation for Economic Co-operation and Development (OECD) note that in its' history, the term 'digital divide' has sometimes been criticised as being "unhelpful or negative" (OECD, 2000, p. 51). However, this term has continued to grow in importance, providing the grounds for academic discussion about development, distribution and delivery of ICT's. In fact, research has rejected the notion of a singular divide, but supports the notion that the 'digital divide' acts as a myriad of gaps, some of which may not have their roots in technology at all.

The view of international studies which argue that the technologies themselves, when used wisely, can be a strong influence in helping to overcome inequalities in society (McNair, 2000) has been coupled, in New Zealand, by an attitude that digital literacy and connectedness are essential in the 21st century (MoE, 2011).

In accepting the importance and benefits of this access, Cullen however, also emphasizes key points to remember about technology's impact on human civilisation. Cullen states that "technology does not in itself solve social and economic discrepancies within societies, and can often exacerbate them (Cullen, 2002, P. 2)." In New Zealand, this opinion has been supported by the observation that there seems to be "no evidence of ICT having a positive effect on social mobility" (DIA , 2011, p. 4) for those that sit on the wrong side of the digital divide. This particular DIA report goes on to say that those people who are marginalised in society will remain so, the only difference being that they'll add some ICT skills to their repertoire. McNair (2000) describes how this only encourages in assisting "the educated information rich become richer and the less educated information poor become poorer" (p. 10). Howell (2012) offers warning of the implementation of initiatives aimed at increasing internet access for those with low income or low academic qualifications. She notes that despite there being a positive correlation between internet adoption and income and education levels, the purchase of an internet connection results in a negative trend with income and education levels in terms of the time spent on internet activities. Therefore, the higher your income and education levels, the less likely you are to spend your leisure time on the internet. While Howell admits that the reasons are unclear, she suggests that lower disposable incomes can often restrict the ability to pursue other higher priced activities. This can be further exacerbated by those who are unemployed as they have a high amount of free time to utilise the internet.

Cullen (2002) identifies four key barriers to the use of the internet: physical access, relevant skills and support, attitudes and content. These barriers are largely indicative of the barriers for all ICTs. While physical access is the initial key barrier, Cullen emphasizes the need for further research and understanding of the other three barriers. Statistical research, both internationally and nationally, have largely focused on the attitude that 'access' is the primary gauge of any digital divide. Goode (2010) has critiqued the predominant focus of this 'access divide' found within international literature, noting it as a superficial means of perceiving the digital divide. She also claims that the predominant use of surveys has failed to provide a "holistic picture regarding the digital divide at the individual level" (p. 3). This view outlines a need to be able to engage multiple dimensions of the digital divide to better define the "nuanced causes and effects of these inequalities" (p. 3).

Cullen (2002) notes that indigenous peoples, migrants and ethnic minority groups can often have a very low uptake of ICT's. These groups can already be disadvantaged in terms of income and education, as well as the often profound cultural differences stemming from their relationships with a dominant Western culture. Within New Zealand, Cullen makes the argument that Pasifika communities are "largely excluded from the benefits of the digital revolution that the rest of the country is enjoying (p. 3)." This shows that despite the optimistic view of the spread and access of the internet and emerging digital technology, minority groups, such as Pasifika, still have issues in effectively using and accessing these technologies and receiving the benefits which are often taken for granted by many people.

The problematic nature of defining the main causes of the digital divide, for those marginalised in society, continues to demand further investigation and discussion. The widely recognised Gartner Group report (2001) - *'The Digital Divide and American Society'* outlines findings which indicate a strong relationship between socio-economic status and participation in the digital economy, suggesting cause and effect. Gartner state that while minority groups do suffer in terms of having internet access, the reason isn't because they are minorities. Instead, it should be seen that they are at a socioeconomic disadvantage because of lower incomes and lower education levels. Therefore being a victim of the digital divide is merely one of the symptoms of being poor. This report seeks to emphasize that the internet does provide a very strong opportunity to help the situation by helping to provide equal educational and employment opportunities.

The terms in which we measure and view digital divides are important and require careful consideration. Howell's (2012) economic analysis of the digital divide in New Zealand, deduces that New Zealand policy has utilised a very limited number of indicators to measure the divides, citing an almost exclusive use of broadband connections per capita or the nature and quality (speed) of the available technologies. This is done without any consideration of how the spread of different ICTs to different groups actually contributes to any economic or social wellbeing. Howell suggests that any comprehensive analysis of the effects of digital divides should include the extent of internet usage, as well as the applications that are used. The focus on applications therefore helps to gauge the extent of benefits actually achieved with the utilisation of internet connections. Howell contends that as social and economic benefits do not necessarily arise from the ownership of internet connections, then a "divide in access may not necessarily lead to a divide in the accrual of benefits (p. 17)". Applying this perspective to Pasifika students, challenges us to think about what the exact applications and resources they are actually using. Therefore, gauging what benefits internet connections actually provide requires the examination of the utilisation of these connections. This should also be extended to the utilisation of all digital media tools, to gain a more accurate and contextual picture of the digital divide for Pasifika students.

Howell (2012) indicates that the paucity of literature concerning the digital divide in New Zealand, has led to divides being based on individual characteristics such as "age, gender, ethnicity, income and disability" (p. 18). However the focus of policy is not necessarily the individual, leading to some divides perhaps being better defined along dimensions, such as households, families, or perhaps even business or residential dimensions. The importance of this suggestion is supported by Howell as applications are likely to be catered to specific user groups or markets. I believe that this also suggests an opportunity to explore how this can be defined by schools. Data gauging schools' technological capabilities and their uses of applications, the internet and digital devices may point out how the digital divide affects Pasifika students, as well as students from all backgrounds.

The Statistics New Zealand 'Digital Divide' report (2004), based on 2001 census results, showed that 77% of Pasifika peoples did not have internet access at home. Statistics such as

these though, are scarce, as the introduction of the Household use of ICT report (beginning in 2006), does not break down ICT usage in terms of ethnicity. This has resulted in a difficulty to examine trends specific to Pasifika peoples. The general increase in ICT access and usage of the entire New Zealand population does suggest a general increase for Pasifika peoples, although the extent of this increase is uncertain and should not be taken for granted. The inability to track ethnic-specific data in relation to ICT usage hinders the ability to accurately examine the extent and complexities of the digital divide for Pasifika peoples.

## ICT AND STUDENTS

Research into ICT uses and applications at secondary level is limited, yet generally speaking, the growth and spread of internet use and digital technologies is seen as a reason to advocate for higher engagement with these technologies. Farris-Berg (2005) outlined American studies which looked at the integration of digital technology at all school levels. She observed that digital technology was of high importance to students of all ages and that students also believed that high levels of access to computers and the internet resulted in a distinct academic advantage over those students with low access. Eighty-two percent of students reported that loss of access to the internet would result in a negative impact to their school work, with almost as many saying the same of their personal lives. This reiterated a common theme for students in the information age. Technology is not an 'extra' or an 'option' to choose from. Ever increasingly, we are seeing that digital technology is not just a preferred option, but the 'only' option. Digital technology is already an essential to a lot of, if not most students. In fact Farris-Berg described an emerging trend of digital multi-tasking and the observation that students' approach to life differs greatly to older generations because of digital technology.

Farris-berg also recorded a common complaint of students that digital technology was not integrated into the classroom effectively, if at all. Students commonly reported that the internet was seen as a negative in the classroom. In contrast to this, students reported that they responded poorly to 'how to' instructional forms of teaching learning and claimed to learn more effectively from 'trial and error' techniques which forced them to come to conclusions themselves. The majority of students rate their personal skill levels with communication, word processing and the internet to be high. However it was revealed that these students lacked in-depth application knowledge and problem-solving skills.

Farris-Berg took note though, that digital technology was primarily used for communications and secondly for education. A similar trend is evident in New Zealand, for students of the secondary school age. Statistic New Zealand's *Household use of Information and Communication Technology 2012* report shows that for the 15-24 age category, entertainment is a big part of the reasons for use of the internet. Although this is generally true for all age groups, this particular age group registers the highest proportion of people that use the internet primarily for downloading music, watching movies, playing games and file sharing. This observation

highlights the importance in recognising the importance of digital media uses and how they fit into the lives of students, both within the classroom and in their daily lives.

At the tertiary level, the ability to utilise technology is increasingly critical in order to succeed academically. It is important to note however, that there are rarely explicit technological prerequisites for university entrance. This results in a wide range of knowledge and experience with digital technologies held by these students entering tertiary study. This can often exacerbate issues for students that have more barriers to digital media or less proficiency in their use. Pasifika students, who often struggle to seek help and support in the tertiary environment (Madjar et al., 2010), may find this an additional barrier to overcoming issues in the early stages of tertiary study.

It is also important to acknowledge that some students may have views that differ from their educators or parents in terms of how they perceive effective use of technology. An American study by Project Tomorrow (2011) revealed that although parents and teachers were largely satisfied with schools' use of technology, amongst high school students, the majority of students disagreed. The report surmised that this disconnect between students and adults on the value and use of technology showed that students had clear views on how emerging technologies can increase their learning and achievement levels. The report described how adults are "still not living up to their [students] expectations yet"(p. 15). However, it is unclear how this translates to students who suffer on the wrong side of the digital divide. Reasons for this dissatisfaction need to be explored and an attitude which does not take for granted the digital literacy, access and importance of all emerging technologies for students needs to be given weight.

Not all literature suggests that digital technology has resulted in students that make the best use of these technologies. Mark Bauerlain (2008) criticises the ability of American youth that have grown up in the digital information age. He argues that being accustomed to digital connectivity contributes to students being cut off from world realities. He contends that "for all their (students') adroitness with technology, students don't seek, find, and manage information very well" (p. 113). Although he admits the abundance of benefits from emerging technologies and the information-rich society we live in, he argues that this has not necessarily resulted in a more thoughtful or deeper understanding of the world around them. He also mentions the belief that technologies are often learnt but not understood. He continues by stating that youth are often "comfortable with the tools, but indiscriminate in their applications" (p. 113). This raises a dilemma for students. Digital media serve a multitude of uses and they are often not educational. It is unclear whether a greater digital literacy equates to a greater educational outcome for Pasifika students or what digital literacy even means for Pasifika students. It is also unclear how digital media are used by Pasifika students in their educational journeys outside of the classroom.

The challenge of engaging students suggests the need for creative ways of integrating digital technologies into schools, as well as their academic lives outside of the classroom. It seems common place for digital media to be perceived as forms of distraction (Farris-Berg, 2005) for

secondary students, but a challenge for schools is to find ways that ICTs can be used to better engage students. An example of one attempt is the research conducted by Goh, Seet & Rawhiti (2011), which gauged the impact of a "simple SMS strategy in engaging and stimulating students' self-regulated learning" (p. 15). This study found that basic SMS reminders had a positive effect on undergraduate students and even found that with Māori and Pasifika students it helped to develop a positive time management mind-set in relation to their course. Such initiatives suggest the possibilities both within and outside of the classroom and show that digital media can be used in more subtle and creative ways to assist students.

The challenge however is not just that of students or teachers. International literature has also reviewed the call for the integration of culture within the design of ICTs (Young, 2008; Lee, 2003; Winstead, 2013). The importance of culturally responsive ICT is increasingly relevant in education for those who recognise "the innate bias of technology itself" (Winstead, 2013, p. 1). Technologies which have been designed and developed by a largely western dominant culture are required to better recognise the differences in cultural responses and engagement from minority cultures and those less familiar with ICTs. The answer to this is the "diversification of design" (Young, p. 6) which should reflect both cultural similarities and differences in order to be both relevant and effective for all cultures.

Dyson (2002) acknowledges the "non-neutrality of computer technology" (p.189) by reasoning that technology does embody Western values. However, by placing the student in control of a computer, this relegates the teacher to the role of a facilitator. This therefore balances out the often uneven power hierarchy within the classroom and allows the opportunity for the student's culture to affirm itself. Although this is in relation to indigenous computer literacy courses, it reminds us that computer use allows the assertion of any culture, but this can be influenced by where this digital interaction occurs. In an increasingly mobile digital world, students may assert various cultures or parts of cultures depending on where they are and what platforms they are using to access digital information and content.

When it comes to the transition stage, it is important to remember that it is not necessarily structured and obvious for many students. The interaction with a computer or digital device can often occur with minimal or even no facilitation or instruction. Further research is needed to understand how the students' concepts of culture affect their interactions with digital media, especially during this transition phase.

## ICT AND PASIFIKA

Literature and research concerning Pasifika peoples and the use of ICT's is limited both internationally and within New Zealand. International literature concerning the digital divide and the interactions with ICT's by minority groups or indigenous peoples does seem to provide helpful information, relevant to the challenges facing Pasifika. However, it is important to recognise the unique characteristics of Pasifika peoples and the different dimensions held within

their relationship with ICTs. In an information age society, the need for further research into Pasifika students and their utilisation of ICTs is vital, if Pasifika students are to be understood and seen as 21st century students.

Latu and Young (2004) support the opinions of Powell (1997), who had observed that, up to that point, educational technology literature had failed to recognise the issues related to cultural and ethnic diversity. Powell continued to give warning that society could no longer afford to ignore this, as western classrooms were changing into ever diversifying cross-cultural laboratories. By building on the prior research and experiences of Thaman (2001) and Taufe'ulungaki (2003), Latu and Young assert that, like other services, education introduces new concepts and technologies which are foreign to the culture of Pasifika students. Therefore, it is imperative that education "be made adaptable to and flexible enough to cope with and preserve, as much as possible, the cultural identities of all involved (Latu & Young, 2004, p. 2)."

Clayton, Rata-Skudder & Baral (2004) explored the issues and experiences of Pasifika students enrolled in an e-learning courses provided by an Auckland TEI. They also reported common feedback from Pasifika e-learning students describing an inability of education providers to recognise the diversity of Pasifika cultures. Students recognised that their own identities were not just dominated by Western cultures. With the majority of students and Pasifika teachers being Samoan, non-Samoan students found that Samoan culture and perspectives were often prevalent and sometimes made students feel culturally outcasted. This shows that the challenge for cultural responsiveness needs to also occur within the various ethnic threads within Pasifika communities and not just between Pasifika cultures and a dominant Western culture.

Koloto, Katoanga, & Tatila's (2006) "*Critical Success Factors for Effective Use of e-learning by Pacific Learners"* sought to offer insights into the issues faced by Pasifika learners. This study reviewed a range of Pasifika-focused literature surrounding educational issues for Pasifika students, predominantly at the tertiary level, as well as conducted focus groups and interviewed students of web-based courses. This study outlined what they viewed as critical success factors for e-learning, ranging from access and competency with technology, an informative and supportive ICT environment, awareness of resources and the understanding of online and course content. Pasifika students showed reasonable confidence and perceived competency in using a computer and yet, they often "felt unable to solve error messages caused by software or hardware failures while learning" (p. 38). This suggests it is important to gain an understanding into what students view as 'computer competence' and whether this is truly reflective of what students need in their learning environment.

Koloto et al. (2006) also argued for the need for a 'Pasifika pedagogy', defining it as "an integration of teaching and learning methods that are informed by and validate Pacific values, worldviews, knowledge, and experience" (p. 4). This involved the use of teaching practices which effectively facilitate Pasifika students' learning. Clayton et al. (2004) also argue for the need for "culturally appropriate and supportive learning environments" (p. 8), as well as recognising the effect of the digital divide for Pasifika students.

Socioeconomic factors are a common barrier for Pasifika students in the use of ICTs. This is important to recognise, as technological advances which may be taken for granted as commonplace for some are often not the case for all students. Therefore, growing up in the digital age does not mean that every student fully benefits from the use of emerging technologies. Even in acknowledging these barriers, Shorter's (2012) research with Māori and Pasifika primary school students suggest distinct advantages for incorporating technology in the classroom. Pasifika students responded well to the "kinaesthetic nature of the learning" (p. 6) and were motivated by the ability to manipulate content directly. The use of technology also encouraged the use of peer and collaborative learning opportunities.

It is a common theme from Pasifika educational literature that constant support and guidance is needed for Pasifika students to succeed. Clayton et al. (2004) found that for e-learning to be effective for Pasifika students, there also needed to be consistent face-to-face and online communication with staff. Their study also showed that although the vast majority found e-learning beneficial, a third believed that it should not replace more traditional teaching practices. This suggests that a blending of technological and traditional approaches is best suited for students, but it also reinforces the need for Pasifika students to have strong relationships with those that greatly affect their learning outcomes. This echoes the suggestion that *"new technologies do not always replace the old"* (Cullen, 2002, p. 2). Cullen contends that old and new media do, and often successfully coincide in the same environments. It is therefore important to understand how to get the most out of whatever tools (digital or not) students use effectively. The key is to use what is most relevant and beneficial for their needs.

Many factors for Pasifika students in relation to education and digital technologies are non-technological in nature. Many of these are already familiar within Pasifika education literature. These include factors such as the need for high attendance and retention, motivation and self-confidence, family and community support, individual learning and strong literacy skills. They also include the need for a multi-faceted support system composing of culturally responsive teaching practices, effective educational support and resources, relevant guidance and mentoring and the need for Pasifika students to plan and navigate their educational journeys successfully. The use of digital technologies to better enhance their educational outcomes can be achieved, but a fuller understanding of the relationships Pasifika students have with digital media is required. This can be achieved, but it is dangerous to presume anything of digital technologies or what their perceived benefits are. For many answers may lie in the very non-technological issues which have been mentioned. The purpose is therefore to understand this relationship and how it effects the secondary – post-secondary transition for Pasifika students. The nature of this transition reminds us that this relationship is as important, if not more, outside of the classroom, as it is within it. It involves the perceptions as well as the actual uses of digital media and challenges Pasifika students to define how digital media plays a role in their transition and how effective they will ultimately be.

## SUMMARY

Despite increasing success at the secondary and tertiary levels, Pasifika students continue to display achievement levels significantly lower than their non-Pasifika counterparts. An increased focus on academic achievement requires an understanding of how to effectively assist Pasifika students to achieve and in turn, provide better outcomes for themselves, their families and communities. Despite the growing educational literature concerning Pasifika, there is a paucity of research that looks at the digital literacies of Pasifika students and the relationships they have with digital media. A better understanding of this relationship is needed to utilise digital media in ways which will benefit Pasifika students.

The issues of culture, ethnicity and identity have rarely discussed the concept of digital identities for Pasifika youth. As well as being seen as Pasifika students in a New Zealand educational system, they must also be seen as 21st century students, growing as digital natives in the digital information age. The rapid spread of emerging and developing technologies require educators to recognise how these technologies affect students and their ability to access information and resources. It cannot be taken for granted that technology is of equal benefit for all students or that it is even accessible or engaging for all students. The challenge is often for students to become more familiar and competent in accessing information in the ways most convenient and effective for their personal lives. However, this also involves understanding that cultural differences can often call for creative methods of forging and nurturing strong relationships with digital technologies.

Of equal importance is the role that educators play in the pursuit of academic success for Pasifika students. This is vital in the classroom, in the call for culturally responsive and inclusive instruction. This is teaching which is aware of the cultures that Pasifika students bring to the classroom and to their education. It extends to the ethnic cultures that Pasifika students represent in the classroom, as well as the digital cultures they assert in their interactions with digital media.

During the secondary – postsecondary transition, as well as many other stages, Pasifika students face many issues which affect their educational journeys. Some of these are technological but it can be argued that “the inequalities of concern derive from both within school and within home differences that influence academic aspirations and capacity for self-directed learning” (Venezky, 2000, p. 64). It serves as a challenge to understand how the many challenges for Pasifika students can offer insights into the development of practices which better serve Pasifika students. This may require the inclusion of digital media, but it could also require the need for Pasifika students to better understand their educational journeys and the necessary steps to academically achieve.

# Chapter 3

# METHODOLOGY

The purpose of this chapter is to outline and explain the methods used within this study. The use of a dialectic perspective (combination of pragmatism and transformative-emancipatory, as explained in further detail below) research paradigm was reflected in a mixed methods research design, defined as concurrent triangulation. Parallel branches of quantitative and qualitative data were used to explore, examine and give greater insight into the relationship Pasifika students have with digital media, specifically in their transition out of secondary school. A greater understanding of this relationship was to be achieved by gauging how the students utilised digital media and how they viewed digital media contributing to their ability to navigate this transition.

This research study involved one Auckland secondary school, which was identified as having a high proportion of Pasifika students, especially in Year 13. Participation in the study was offered to all Year 13 Pasifika students, as well as the Careers Advisor of the host school. Students' participation consisted of the completion of a questionnaire survey, as well as the possibility of being randomly selected for participation in a focus group. This focus group consisted of eight students. Directly involving Pasifika students in this study was necessary to gain responses and data from the students' perspective. Utilising a mixed methods approach allowed the ability to gain an in-depth understanding of the research problem. Quantitative inquiry provided an ability to observe trends from the students through empirical data. Qualitative inquiry allowed for more probing and exploration of trends and issues through direct discussion with the participants. The participation of the Careers Advisor was used to provide the perspective of the school. These measures were all used to contextualise the data gained from this particular group of Pasifika students.

## RESEARCH PARADIGMS

A paradigm is described as a "worldview" (Patton, 1990, p. 37) or a general perspective which breaks down the complexities of the real world. For researchers, a paradigm provides a conceptual framework, structured by the way a researcher perceives the world around them. This is significant as the views and beliefs of the researcher shape the research design, as well as data collection, data analysis and the presentation of research results. Patton (1990) underlines the importance of researchers recognising their own individual paradigm, in order to identify the role of the researcher within the research process, determine the research direction as well as distinguish other perspectives.

This study adopts a 'dialectic perspective' paradigm, as described by Creswell and Plano-Clark (2011). This describes the use of multiple paradigms in order to better fit the worldview used

within a mixed methods study. The use of multiple paradigms can sometimes be seen as problematic, as it can be unclear which paradigms can be mixed and how this is achieved. However, the acknowledgement that different paradigms can often give rise to contradictory ideas is embraced as these “contradictions, tensions, and oppositions reflect different ways of knowing about and valuing the social world” (Creswell & Plano Clark, 2011, p. 27). This multi-perspective discourse and dialogue offers to build further upon the rationale behind mixed methods research, which is to gain a wider, more diverse and more in-depth analysis of a research problem.

In the case of this study, the paradigms which have been applied are those of the pragmatism and transformative-emancipatory perspectives. Pragmatism utilises a focus on real-world practice (Creswell, 2003; Mertens, 2005), without being concerned with a commitment to any particular system of philosophy. A pragmatic researcher is concerned with the ‘what’ and ‘how’ of a particular research question (Creswell, 2003). The pragmatism paradigm seeks to centralise the research problem and use any methods which are contextually relevant to greater understand that research problem.

The transformative-emancipatory paradigm is underlined by the philosophy that “inquiry should be intertwined with politics and a political agenda (Creswell, 2003). This arose from criticism by researchers that dominant paradigms in research, at the time, failed to address issues of social justice and marginalised peoples. In response, the transformative-emancipatory paradigm places primary importance on the lives and experiences of marginalized groups (Mertens, 2003; De Lisle, 2011). In the analysis of asymmetric power relationships in society, an inherent action agenda within this paradigm is to advocate for relevant reform which provide positive changes for participants, institutions and even for the researchers themselves (Creswell, 2003; Mackenzie & Knipe, 2006).

The combination of these paradigms is viewed as pertinent to the purpose of this study and to the nature of its research questions. The dialectical perspective provides a comparison and dialogue between quantitative and qualitative data, as well as diversity in methods in data collection and analysis. In applying the pragmatism paradigm, I have combined both inductive and deductive approaches utilising both quantitative and qualitative methods. This has meant a mix of data collection and analysis techniques in an over-arching mixed-methodological research design. The focus of the transformative-emancipatory paradigm on disadvantaged groups, such as ethnic minorities (Mertens, 2003) is important as Pasifika are a recognised ethnic minority, who suffer from low academic and employment achievement rates in New Zealand. This research design therefore serves to explore and examine issues regarding Pasifika students and serves to assist in bringing about positive changes which will ultimately benefit Pasifika peoples in general.

As a Pasifika researcher conducting research with Pasifika students, the use of these paradigms aims to place both the researcher and participants in a central positioning within the research. Although a strictly Pasifika methodology was not outlined or utilised by this study,

Pasifika values were vital in the execution of this research study. Sharing common Pasifika values as respect, integrity and a sense of community with participants was important throughout this study. This utilised the strength of a Pasifika researcher as an insider, able to provide insight into the communication and rapport with Pasifika students.

## MIXED METHODOLOGY

This study utilises a mixed methodology. This is described described as the collection, analysis and mixing of both quantitative and qualitative methods within the research process of a single study. This is used in order to gain a better understanding of the research problem (Cresswell, 2005). A distinct advantage of mixed methods is that it overcomes the limitations of purely quantitative or qualitative methods. Using quantitative and qualitative data in a combination creates a complementary relationship, allowing for "more robust analysis" (Ivankova, Creswell & Stick, 2006, p. 3).

In utilising a mixed methodology, it is important to be able to understand the fundamentals of both quantitative and qualitative research. Quantitative research usually refers to the collection of numeric-based data results. These are widely accepted as reliable and provide for easy statistical analysis. Qualitative research usually refers to text-based data. Contrasts between quantitative and qualitative data have also been distinguished along the lines of "the logic employed (inductive or deductive), the type of investigation (exploratory or confirmatory), or method of analysis (interpretive or statistical)" (Bazeley, 2002, p. 142). Creswell (2003) warns that researchers that use mixed-methods need to be knowledgeable in both qualitative and quantitative designs and in doing so, acknowledge the additional time factor required.

The form of mixed-methodology used in this study is concurrent triangulation (Hanson, Creswell, Plano Clark, Petska and Creswell, 2005; Creswell, 2003). This entails the use of both quantitative and qualitative data to contrast and compare the two sets of results. Data collection and analysis occur at the same time. The rationale behind this approach is that the quantitative and qualitative data are collected and then used to cross-analyse and compare findings from both sets of data, providing a general understanding of the research problem. This methodology is seen as "useful for attempting to confirm, cross-validate and corroborate study findings" (Hanson et al., 2005, p. 229). This method was chosen as it allowed equal weighting to both sets of data, but offered the flexibility to further explore and revisit either set of findings, as well as unexpected findings within one concurrent data analysis stage.

## RESEARCH DESIGN

This section outlines the over-arching research design utilised in this study. The concurrent triangulation design employed within this study utilised both quantitative and qualitative data collection methods. The quantitative data was collected through a student questionnaire. The

qualitative data comes from a student focus group and an interview with the school Careers Advisor. Both quantitative and qualitative data sets were then analysed at the same time. Results were then synthesized and cross-analysed to produce the final points for discussion.

### *QUANTITATIVE DATA*

The quantitative branch of data collection involved the use of a survey, aimed at all the Yr13 Pasifika students within the host school. This survey came in the form of a written or online questionnaire. This was designed to draw out broad data in relation to the students' relationship with digital media, both in relation to their transition out of secondary school, as well as in their general lives. This quantitative foundation of knowledge was vital in understanding the extent to which these Pasifika students interacted with digital media, as well as their views and awareness of what digital media meant to them.

### *QUALITATIVE DATA*

The qualitative branch of data collection involved two data collection methods. The first method was a student focus group. The second was a semi-structured interview with the school Careers Advisor.

The focus group comprised of eight randomly selected students from those that completed the questionnaire. The purpose of the focus group was to gain a richer insight into some of the questions asked within the questionnaire. A distinct advantage of a focus group is the ability to utilise group interaction in response to research questions. This made it a convenient and effective method for gaining a range of views and opinions from students. Morgan and Krueger (1993) note some distinct advantages of focus groups that were relevant for this study. Firstly, it is a research method that is friendly and not condescending to the target audience. This was important when dealing with students that may be apprehensive in discussing their views and experiences in detail. Secondly, focus groups are effective when there is a gap between professionals and their target audience. Morgan and Krueger note that gaps in language and culture can result in professionals, such as teachers and academics, having a substantially different view or logic than the people they serve. As the interactions in focus groups can provide a clear view of how people talk and think, they are "a powerful means of exposing professionals to the reality of the customer, student or client" (Morgan and Krueger, 1993, p. 16). The use of focus groups aimed to provide a 'voice' for Pasifika students within this research problem. This was seen as important as it centralised the focus of the study on the experiences and views of the students themselves. This was beneficial in gaining a more accurate picture of their responses, especially in relation to their views and experiences as Pasifika students. Whereas the quantitative data were broad closed-ended results, the focus groups allowed for further discussion and exploration into some of the questions involved in this study.

The random selection was achieved by aligning all students in alphabetical order and using an online random number generator to pick eight numbers, all attributed with corresponding student names. Two focus group sessions took place on the Tuesday and Thursday of the second week of data collection. These were conducted during the lunchtime sessions, which was suggested and endorsed by the Principal and Careers Advisor of the host school. This was fully supported by the researcher, as it provided timing and logistics which provided the least amount of interruption to the students and Careers Advisor's academic schedule.

The second technique used was a semi-structured interview with the Careers Advisor of the host school. This was conducted at the beginning of the second week of data collection and was largely aimed at comparing some of the student responses with that of a relevant voice from within their school. It also provided the added perspective of an educator. This educator, being the school Careers Advisor, was assumed to be able to provide the most relevant information in regards to the students' discussions of their transition within the school setting.

## PARTICIPANTS

The targeted participants for this study were all Year 13 Pasifika students attending one host school, based in Auckland. Out of a total Year 13 population of 112 students, 66 were identified as being Pasifika. Fourteen of these 66 students were absent at the time of the study and therefore not introduced to the study. In total, 52 potential participants were introduced to the study. In total, 41 students agreed to take part in the study with 11 declining to take part. Participation in this study required the completion of a questionnaire, with the chance of being randomly selected for the focus group. These conditions were explained to each potential participant.

The Pasifika population of the Year 13 population of the host school were identified as Samoan (31), Tongan (26), Fijian (4), Cook Island Māori (4), and Niuean (1). The students that participated in this study were identified as Samoan (20), Tongan (15), Fijian (3), Cook Island Māori (2) and Niuean (1).

Of the forty-one student participants, eight were randomly selected to form a focus group using an online random number generator. The focus group consisted of five males and three females. These students were identified as Samoan (4), Cook Islands Māori (2), Tongan (1) and Fijian (1). One student failed to return their consent form and thus, all responses from this student were removed from the focus group transcriptions. Therefore data collection from the focus group consisted of responses from only seven students.

As part of the qualitative data collection, the Careers Advisor and Principal of the host school were asked to participate in separate, individual interviews. An interview did not take place with the Principal, but an interview was conducted with the Careers Advisor. The study was not reliant on having both interviews take place, so the single interview with the Careers Advisor was sufficient. The purpose of this interview was to give the perspective of the school and of the

educator most relevant to the research problem. The responses from this interview helped to give insight into the school's initiatives and practices with Pasifika school leavers and their uses and views of digital media in this context. This alternative perspective provided further insight and context to the study.

## ETHICAL ISSUES

Prior to the study being undertaken, ethics approval was sought and granted through the Auckland University of Technology Ethics Committee. Ethics approval was granted on October 4, 2012 and the AUTEC reference number was 12/250. This section explains the ethical issues found within this study and the efforts made to address these issues.

### *STUDENT PARTICIPANTS*

An introductory brochure was given to all students (Appendix V). This gave a way for the students to visualise the scope and design of the study. This was accompanied by a letter to the parents of each student, which introduced the researcher, outlined the study's aims and the requirements for the student participants. An information sheet was given to all student participants, which outlined the purpose and significance of the study, the requirements of participation, issues of confidentiality, and the reporting of the findings. Contact details of both the researcher and primary supervisor were given within the brochure, the parental letter and the information sheet. Students and parents were encouraged to contact either the researcher or primary supervisor regarding any concerns. All participants were advised that participation in this study was optional and they were free to refrain from answering any question or withdraw from the study at any time.

All participants were required to complete a consent form, which guaranteed the confidentiality of any given results or information. The consent form also reiterated the opportunity to refrain from answering any question or to withdraw from the study at any time during data collection. All participants were assured of anonymity and confidentiality. Informed consent was obtained from each participant.

All student participants were informed that participation in the study would place them in a prize draw for a $100 Westfield voucher. This was used not only as a way to encourage participation, but also as a practical, cost-effective way to show gratitude for their participation. Focus group participants would also receive the 'koha' of a meal to accompany each of the two focus group sessions. The sharing of food is seen as a "highly communal activity across Pasifika cultures and reinforces the value of reciprocity" (Clayton, Rata-Skudder and Baral, 2004, p. 6).

### *FOCUS GROUP PARTICIPANTS*

The eight randomly selected focus group participants were required to sign a focus group consent form, which outlined the details of participation in the focus group. Focus group members were informed that the focus group sessions would be audio and/or video recorded

for transcription. The consent form also reiterated the students' confidentiality, as well as their right to refrain from answering questions or withdrawing from the focus group.

### *INTERVIEW PARTICIPANTS*

An information sheet outlined the study, the requirements of participation, issues of confidentiality, and the report of findings. Both the Principal and Careers Advisor were also given a copy of all material which was given to students, so they were fully aware of all aspects of data collection within this study. Before the interview was conducted, the interviewee was given a copy of indicative questions for the interview.

## INSTRUMENTATION

### *SURVEY*

A survey is a data collection tool, used to obtain data from individuals. This study utilises the most common form of survey data collection, which is a questionnaire. The questionnaire was a "self-administered questionnaire" (Babbie, 1992, p. 147), meaning that the questions were written down for the participants to complete. In the case of this study, two options of completing the questionnaire were given. These involved the completion of a written or online version of the questionnaire. The option of an online version was used to provide further convenience, as well as reach out to students who were absent from the relevant study period used to introduce the study. The results from online questionnaires are described as being just as reliable as traditional 'pen and paper' questionnaires (Carini, Hayek, Kuh, Kennedy and Ouimet, 2003).

### *QUESTIONNAIRE DESIGN*

The questionnaire was separated into four categories:

- Access
- Awareness and Perceptions
- Confidence and Competency
- Transition so far

These categories were use in order to compare and contrast different dimensions within the research problem. These correlated with the established research questions of the study. Of all the digital media, the internet was given special focus, as it is widely accepted as the key digital source for information in the 21$^{st}$ century and a key focal point for international and national literature, when discussing digital media or ICT's.

This study involved a range of digital media types which were identified as being the most likely to be used in relation to students of secondary school age. It is important that digital media encompasses any form of delivering, sharing and storing information and content in digital form. Thus, the term describes physical devices, as well as networks run through computer systems. The inclusion of gaming devices reflects the development of methods in accessing the internet.

Although these devices may not typically be associated to anything but gaming, it should not be taken for granted that students do not access the internet or relevant content with gaming devices.

This study referenced the following forms of digital media:

- Desktop computer
- Laptop computer
- Data storage device (hard disk drive/flash drive)
- The Internet
- Tablet
- Mobile phone
- Mobile smartphone
- Digital television
- Digital radio
- MP3 player
- Digital video recorder
- Digital camera
- Gaming console
- Handheld gaming device

***ACCESS***

Access has largely been the focus of international and local literature in tracking the use of ICTs. These technologies are almost exclusively dependent on a digital format. It is easy to take for granted that high levels of access to digital technologies provide positive benefits for the individual and society, but the definitions and explanations of what those benefits are for Pasifika students have not been outlined. This is an area within Pasifika educational literature which requires further research and discussion. In the case of this study, determining how much 'access' effected these students was critical. Comparison with national ICT tracking also allowed an insight to what may be a potential access divide for these students. It was therefore important to gauge the levels of access that the students had to various digital technologies in order to investigate the extent to which an 'access divide' may have, if it did exist for these students. The questions from this section were:

How often do you use the following digital media?

How easily can you access the following digital media?

How important to you is access to the following digital media?

Where do you prefer to be when you use the internet?

***CONFIDENCE AND COMPETENCY***

The use of digital technologies requires a certain familiarity with or knowledge of, to be used effectively. Understanding how confident the students are with these various digital media gives an indication whether a lack of perceived confidence or competency may affect their relationship with the digital technologies. The questions from this section were:

How do you rate your skill level with the following digital media?

Would you prefer to be more competent with the following digital media?

How do you rate your skill level in accessing and using the internet using the following digital media?

Would you prefer to be more competent in accessing and using the internet, using the following digital media?

***AWARENESS AND PERCEPTIONS***

Awareness of digital media technologies was also important in recognising how students incorporated knowledge of technologies and services within their transition. This was coupled with the perceptions that the students may have held of particular technologies or services. The questions from this section were:

Which digital media does your school provide you access to?

Which digital media does your school encourage you to use to help provide you with information regarding your options for next year?

Please list any website that you are aware of that has provided you with information about your transition out of secondary school. Leave empty if you have not used any websites.

Which websites have been the most helpful to you? Please leave empty if you have not used any websites.

Would you prefer to have more information regarding digital media tools which can help you with your transition out of secondary school?

Do you think the information you need is easy for you to find?

***TRANSITION SO FAR***

Gaining information relative to the individual students' transition so far allowed the researcher the opportunity to examine how some of the issues regarding digital media affected the students' transitions. The questions from this section were:

Are you looking to study or work after secondary school?

Have you begun investigating your options?

If you answered "yes", when did you start researching your options?

How certain are you about what you will do after secondary school?

What do you think are good ways to get information about your options following secondary school?

Have you visited your Careers Advisor this year?

If you answered “yes” to visiting your Careers Advisor, did you find it helpful?

If you answered “no”, why wasn’t it helpful?

How often do you use the following digital media for researching your options after secondary school?

Questions within the questionnaire utilised different choice formats, depending on the nature of the question and the desired format of data results. Questions which required a response in regards to opinions or attitudes utilised either a five point or three point multiple choice format. The use of these multiple choice formats were to provide ordinal data which could be translated into contingency tables. These tables would then serve as the foundation for the subsequent correspondence analysis of quantitative data. The questions would also provide descriptive quantitative statistics which would help depict the views and responses of this particular group of Pasifika students. This would assist in painting an accurate general picture of the student group in this study.

Some questions required less diverse response ranges and therefore, binary choice formats have been used in some instances. These are reflected in questions which require a ‘yes’ or ‘no’ response. The inclusion of a non-committal response option is present in questions which use a binary choice response format. This entails the inclusion of an ‘unsure’ response option. This is seen as good practice, as forcing a participant to express an opinion when they do not actually have one, leads to false and inaccurate results (De Vaus, 2002). It was also important to note the ethical risk when constructing questions which force a response. Therefore, the inclusion of a non-committal response has been adhered to within this study.

The questionnaire was introduced in the students’ study periods. This was an initiative recommended and endorsed by the school Principal and Careers Advisor. Each student was offered the full period to complete the questionnaire or to take home and return the completed questionnaire the following week. All but two students, who agreed to take part in the study, completed the questionnaire during their study period. The option of completing the survey online was also given, either within study period if computers were available, or at home. This was explained verbally to all students, as well as outlined in their student information sheet and brochure. Three out of the five study periods were held in classrooms which had computer access. Only five out of the forty-one student participants completed the questionnaire online and all of these five did so within the class, during their study period.

The quantitative branch of data collection served to gain a general understanding of the research problem, as well as provide reliable statistical data In the case of this study, the utilisation of mixed methods research was seen as beneficial in that using both sets of data "allow researchers to simultaneously generalize results from a sample to a population and to gain a deeper understanding of the phenomena of interest" (Hanson, Creswell, Plano-Clark, Petska, and Creswell, 2005, p. 224).

## *FOCUS GROUP*

A focus group is a semi-structured interview with a small group of people concerning a specific topic. The goal is to achieve "high quality data in a social context where people can consider their views in the context of the views of others" (Patton, 2002, p. 386). Patton contends that although discussion occurs between participants, it is not primarily a discussion or a decision-making group. A focus group is by definition, an interview (Patton, 2002). Advantages to the use of focus groups are flexibility, quickness of results, high face validity, cost-effectiveness (Krueger, 1994; Babbie, 1992). These advantages are reliant on the interviewer having skills specific to focus groups. Krueger therefore prefers the term 'moderator' over 'interviewer'. The term moderator outlines the need to moderate or guide discussion. This skill can be distinctly different to that of an interviewer and reiterates the disadvantage that focus groups afford the researcher less control than an individual interview.

Focus groups are seen as more effective when they are made up of people who share many of the same key characteristics (Rea & Parker, 2005). In the case of this study, it involved students who all identified as Pasifika, as well as being Year13 students in the same secondary school. An important characteristic was that they were all students in the transition of secondary to post-secondary life. Group size is generally indicated to contain anywhere between 6 to 10 people (Patton, 2002), or as high as 12 to 15 people (Babbie, 1992). In the case of this study, the focus group was aimed at including eight students, although the failure of one student to return their consent form resulted in only seven students being used. This sample was randomly chosen from the 41 students that completed the questionnaire. The seven students consisted of five males and two females. These students were identified as Samoan (3), Cook Islands Maori (2), Tongan (1) and Fijian (1).

The focus group attended two sessions, both held within a study room adjacent to the Careers Advisor's office. The use of school grounds meant no travel costs and a minimal logistical impact on the students, Careers Advisor and the researcher. Both sessions were conducted in the second week of data collection and utilised the school lunchtime periods. This initiative was suggested and preferred by the school and was gladly accepted by me as the researcher. One of the main points of this study was to create as minimal impact on an already busy school schedule for the students and staff. During both sessions, the focus group were given a meal, as a means of 'koha' (gift). The sharing of food was in line with Pasifika cultures' sense of

community and reciprocity. This was also a means of inducement for participation, as well as a 'thank you' for that same participation.

### *FOCUS GROUP DESIGN*

The structure of the focus group sessions mirrored the structure of the questionnaire. The first focus group session focused on issues surrounding 'accessibility' and 'confidence and competency'. The second session focused on issues surrounding 'awareness and perceptions' and the students' 'transition so far'. The focus group predominantly utilised open-ended questions. These are "questions that have no pre-existing response categories and thereby permit the respondent to answer in his or her own words" (Rea & Parker, 2005). The reasoning behind the use of open-ended questions is that it allows the researcher to "understand the world as seen by the respondents" (Patton, 1990, p. 21) by being able to understand the attitudes and opinions of participants without predetermining them with fixed (closed) response options. This is indicative of the main purposes behind qualitative research.

Examples of open-ended questions used within the focus group sessions include:

**Session 1**

*When you first saw the words "digital media" what were you guys thinking?*

**Session 2**

*What influences you guys the most in deciding where to study?*

*What are some of the things that you guys see as barriers for you in preparing for next year?*

Efforts were made to communicate with students in a manner appropriate to their age, as well as their background as Pasifika students. In line with the *Pasifika Education Research Guidelines* (Anae, Coxon, Mara, Wendt-Samu & Finau, 2001) rapport building tools were used, such as "the use of humour, sharing a meal, sharing common experiences" (p. 38), reciprocity and the wording of questions in casual, everyday language. Being attentive to students was also important to best meet the needs of each respective focus group member.

## *INTERVIEW*

Qualitative data collection also incorporated the use of a semi-structured interview with the Careers Advisor of the host school. This interview was conducted at the beginning of the second week of data collection in the Careers Advisor's office. The purpose of any interview is to gain the opinions, perspectives and knowledge of experiences from another individual. As we cannot observe how another person organises the world or the meanings connected to what is contained in that world, questions are needed to learn these things from other people. This is done with the principal belief that "the perspective of others is meaningful, knowable and able to be made explicit" (Patton, 2003, p. 341). The interview was appropriate within this research study in order to gain the insight of 'the educator' and give a voice to the school, within this study. This added insight helped to provide further context and also provide a clearer picture of

how the school treats the transition period. The school, as an institution, is recognised as being an integral part of the students' educational journey, inevitably helping to lay the foundation for what these students would choose to do post-secondary school.

The interview was semi-structured, meaning that the interview had an open framework, which allows for focused, conversational, two-way communication. Semi-constructed interviews are mainly concerned with using open-ended questions to provide an explorative discussion and feedback. This conversation is not to be confused with a casual conversation. A semi-structured interview requires the interviewer to constantly monitor the discussion direction and engage with the interviewee. The interviewer must be able to "listen, think and talk" (Babbie, 1992, p. 294). This characteristic of semi-structured interviews also serves as a fundamental advantage. This advantage being the fact that this method provides the ability for the interviewer to react to responses quickly and probe further into identified topics of interest.

#### *INTERVIEW DESIGN*

Questions were constructed with the intent of probing information relating to the host school's relationship with Pasifika students and their transition to post-secondary life. Although a range of questions were prepared beforehand, these questions were used as starting points to explore and discuss. The majority of discussion flowed from the conversation during the interview. Elaboration and exploration of responses were viewed as an important part of this technique.

Examples of questions asked in the interview include:

*Do you think there are challenges that are unique, specifically for Pasifika students when they're transitioning out of secondary school?*

*What specific initiatives, unique to the host school, are being used with or without digital media?*

*What has proven successful for Pasifika students?*

*What makes the host school a successful place for Pasifika students in general?*

## DATA ANALYSIS PROCEDURES

### *CORRESPONDENCE ANALYSIS*

The method of data analysis employed by this study in analysing the quantitative data is correspondence analysis. Correspondence analysis is a descriptive/exploratory technique. The objective of this technique is to represent data graphically, so that "the nature of the associations among the variables will be seen, and that they can be more easily interpreted" (Remenyi, 1992, p. 80). This statistical visualisation is produced by plotting the levels of a contingency table (or cross-tab) as points in a low-dimensional space. This low-dimensional space results in the use of two or three dimensional graphs. This study utilises two dimensional representations of the data. The results in correspondence analysis involve plotting data as a cloud of points which summarises the relationships and variation within that set of data. This is extremely helpful, as it provides the ability to reveal "the structure of a complex matrix using a

simpler matrix in low dimensions without losing essential information" (Fujita, p. 9). In the case of this study, correspondence analysis is used to contrast and compare the relationships between variables determined in the questionnaire's quantitative data results.

Correspondence analysis is firstly concerned with defining three basic concepts. These are the establishment of points in multi-dimensional space, assigning weight (or mass) to each point and calculating the chi-square distance between points. These three concepts are described as profile, mass and chi-square distance (Remenyi, 1992). Once these are determined, correspondence analysis looks to project these points onto a low-dimensional space (usually a 2-dimensional plane).

The usefulness of this technique is the ability to have a "global view of the data that is useful for interpretation" (Lee, B. L.., 1994, p. 65). The visualisation of quantitative data was a primary reason for the use of correspondence analysis in this study. The technique's visual nature also allowed for the possibility of revealing latent trends which may not be apparent in other forms of quantitative analysis.

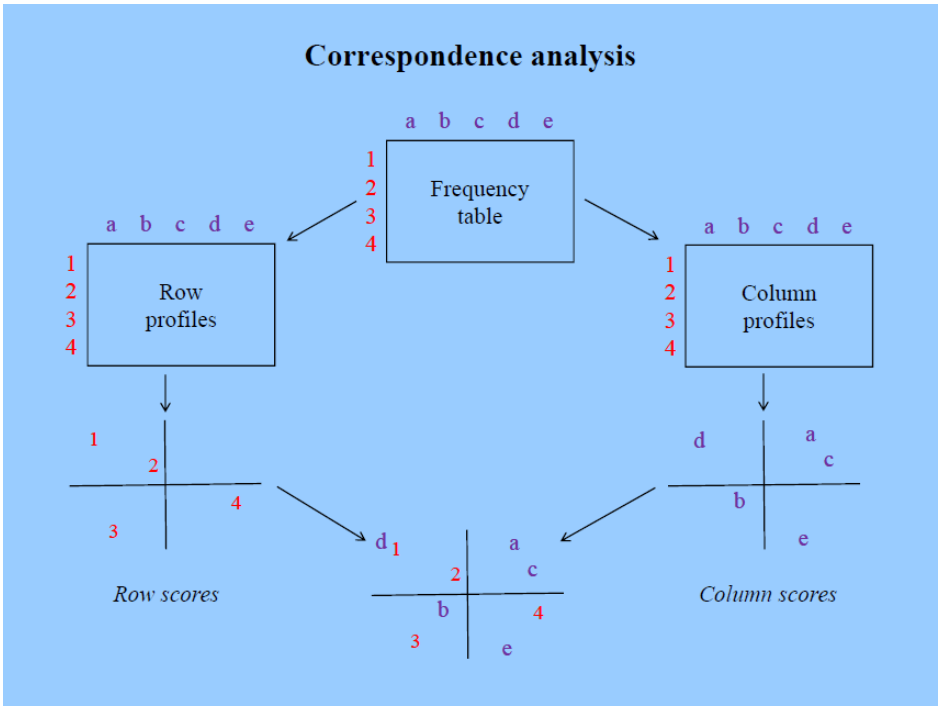



**Figure 3.1 Basic overview of Correspondence Analysis process.**

Figure 3.1 illustrates the process of correspondence analysis in a more simplistic way. Firstly, a 2-way cross-tabulation (frequency table) shows two variables, in this example one is represented by letters and the other by numbers. This table is broken down so that profiles are calculated for both variables individually. These profiles are then used to calculate row and column scores which are used to plot points in two dimensions for both variables individually. The 2 variables are then combined to show both sets of points together on one 2 dimensional

map. This allows the comparison of the variables through the comparison of the proximity of points.

An example, illustrating the use of correspondence analysis, is taken from the study itself in order to further explain the technique and its use in this study. The quantitative data analysis within this study employed the use of IBM SPSS (version 20) quantitative data analysis software. The following example uses actual data from the study and show charts produced from the output of correspondence analysis conducted with this software.

In the case of this study, each set of responses from the survey were constructed with the intention of providing ordinal data which could be broken down into contingency tables. A contingency table, also known as a cross-tabulation or cross-tab, is a table displaying the distribution frequency of one variable in rows and another variable in columns. This is done to examine the association between the two variables. The variables in this study were the categorical responses from the questionnaire. This made it possible to contrast the categorical responses of one question's responses with another.

**Correspondence Table**

| A1 Desktop Computer | D4 How certain are you about what you will do? | | | | |
|---|---|---|---|---|---|
| | No idea | Not much | Somewhat certain | Certain | Totally sure |
| Never | 0 | 0 | 2 | 0 | 2 |
| Less than once a month | 1 | 3 | 0 | 0 | 0 |
| At least once a month | 1 | 1 | 0 | 1 | 1 |
| At least once a week | 0 | 2 | 4 | 4 | 4 |
| Every day | 0 | 2 | 5 | 4 | 4 |
| Total | 2 | 8 | 11 | 9 | 11 |

**Table 1 Correspondence Analysis example: Initial contingency table.**

Table 1 shows a *contingency table, comparing the categorical responses of two questions:*

*– A1 How often do you use the following digital media (Desktop Computer)?*
*– D4 How certain are you about what you will do after secondary school?*

Both questions had five-point response systems. Use of a Desktop Computer (Never – Every day) is measured against certainty of post-school life (no idea – totally sure).

**Row Profiles**

| A1 Desktop Computer | D4 How certain are you about what you will do? | | | | |
|---|---|---|---|---|---|
| | No idea | Not much | Somewhat certain | Certain | Totally sure |
| Never | .000 | .000 | .500 | .000 | .500 |
| Less than once a month | .250 | .750 | .000 | .000 | .000 |
| At least once a month | .250 | .250 | .000 | .250 | .250 |
| At least once a week | .000 | .143 | .286 | .286 | .286 |
| Every day | .000 | .133 | .333 | .267 | .267 |
| Mass | .049 | .195 | .268 | .220 | .268 |

**Table 2 Correspondence Analysis example: Row profiles.**

Table 2 shows the row profiles drawn from the initial contingency table. These profiles are essentially vectors which serve as the multi-dimensional points in correspondence analysis. The first step in calculating categorical profiles is achieved by dividing each entry by the sum of its row. In this example, those students that never use a desktop computer, $\frac{0}{4} = 0$, $\frac{0}{4} = 0$, $\frac{2}{4} = .500$, $\frac{0}{4} = 0$, $\frac{2}{4} = .500$. Repeating this for all categorical responses for the usage of a desktop computer provides all row profiles. Row profiles show the proportion of each column value across each row. The mass values refer to the column proportion of the total sample size. For instance, 2 students represent 4.9% of the total 41 student sample.

**Column Profiles**

| A1 Desktop Computer | D4 How certain are you about what you will do? | | | | | |
|---|---|---|---|---|---|---|
| | No idea | Not much | Somewhat certain | Certain | Totally sure | Mass |
| Never | .000 | .000 | .182 | .000 | .182 | .098 |
| Less than once a month | .500 | .375 | .000 | .000 | .000 | .098 |
| At least once a month | .500 | .125 | .000 | .111 | .091 | .098 |
| At least once a week | .000 | .250 | .364 | .444 | .364 | .341 |
| Every day | .000 | .250 | .455 | .444 | .364 | .366 |
| Total | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | |

**Table 3 Correspondence Analysis example: Column profiles.**

Column profiles (Table 3) show the proportions of each row value down each column. The mass values on the right-side of the table represent each row's proportion of the total sample size. In this case, 4 students responded to 'never' using a desktop computer, out of a total 41 students. This means that this row point is weighted by 4/41 = 0.098 and therefore represents 9.8% of the total sample.

**Summary**

| Dimension | Singular Value | Inertia | Chi Square | Sig. | Proportion of Inertia | |
|---|---|---|---|---|---|---|
| | | | | | Accounted for | Cumulative |
| 1 | .674 | .454 | | | .803 | .803 |
| 2 | .240 | .058 | | | .102 | .906 |
| 3 | .228 | .052 | | | .092 | .998 |
| 4 | .035 | .001 | | | .002 | 1.000 |
| Total | | .566 | 23.192 | .109[a] | 1.000 | 1.000 |

**Table 4 Correspondence Analysis example: SPSS output summary table.**

A key point of correspondence analysis is to determine the appropriate amount of dimensions suitable for the display of data. Table 4 is a summary report which outlines the proportions of inertia explained by the number of dimensions. The far left column shows that 4 dimensions were derived, but 2 dimensions account for a meaningful proportion of the inertia value. In this case, the cumulative proportion of inertia (far right column) show that two dimensions account for 90.6% of the total inertia value. Three dimensions account for 99.8% of inertia and would provide a more complete picture, but 2 dimensions are sufficient for the sake of this example. Inertia describes the total variance in correspondence analysis therefore measuring the dispersion of row and column profile points in their respective spaces. In this case, inertia measures the degree of difference between the students' various use levels of a desktop computer, which we are trying to optimally display graphically. Inertia is calculated by the Pearson chi-squared statistic calculated on the original table (found in summary table –Table 4) divided by the total sample size. In this case: inertia = 23.192/41 = .566. Therefore this example explains 56.6% of the total inertia or variance in this analysis. This seems low, but fractions like these are not uncommon within correspondence analysis and do not necessarily lead to a bad representation of the data (Murtagh, 2005). This is a sign to proceed with caution when drawing conclusions from such data.

This table also shows a chi square test for statistical significance. This is displayed at .109, which would usually result in a failure of statistical significance (<0.5%). However, the chi-square test is problematic in this case. The small sample size, resulting in low expected frequency counts (no more than 20% of expected frequency counts should be below 5), mean that the chi-square test for significance is unreliable. This is to be expected, as correspondence analysis has no customised test for significance. It is important to recognise the exploratory nature of correspondence analysis and the qualitative nature of conclusions which can be drawn (Rogers, 1996). This was embraced in this study as the reason for using correspondence analysis was not to produce definitive statements, but to allow correspondence analysis to explore data results and provide a visual framework for further discussion.

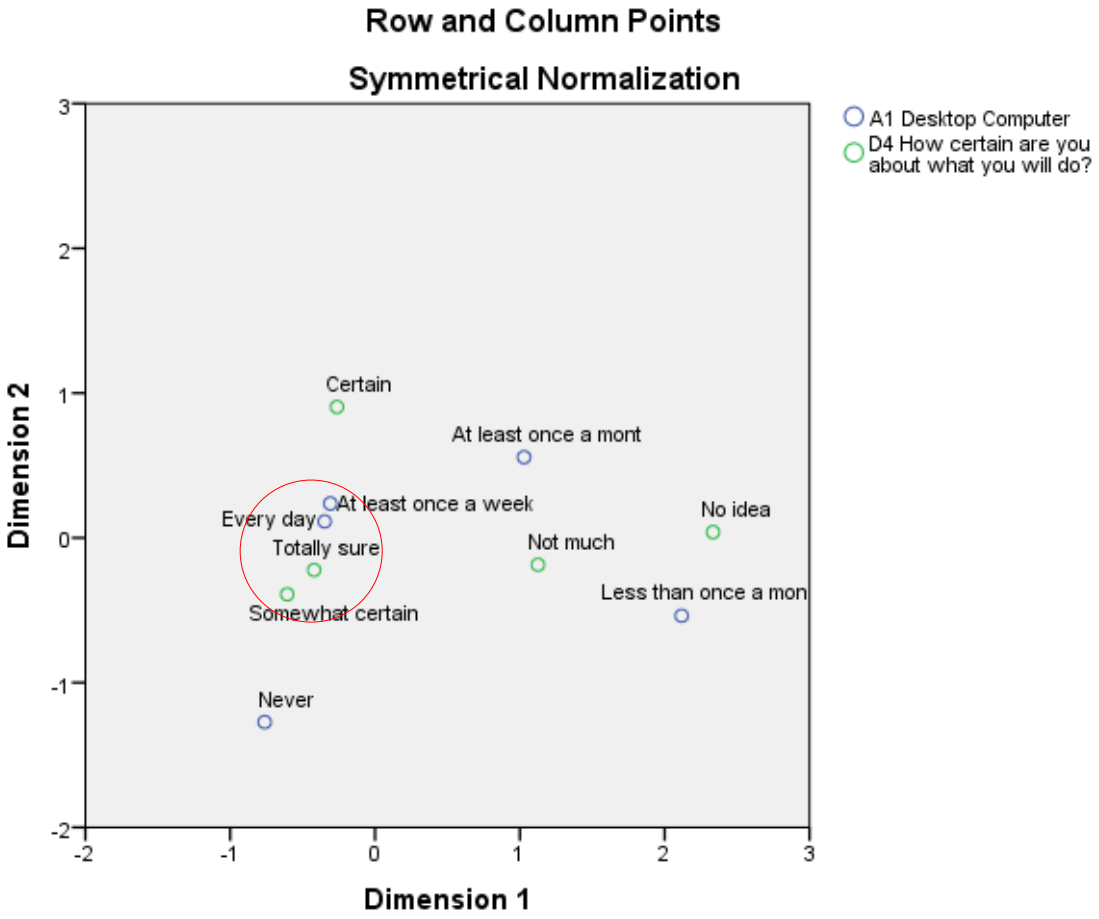



**Figure 3.2 Correspondence Analysis example: correspondence map.**

Finally, the correspondence map displays the category scores on both dimensions for both students' desktop computer use and students' certainty for post-secondary decisions. This provides the ability to compare categorical responses across variables in (this case) a 2-dimensional space. Correspondence analysis suggests that the closer points are to each other, the more associated they are, displaying a relationship between two separate variables.

Figure 3.2 is the resulting correspondence map from the example. The two axes represent the two dimensions which are interpreted in this example. Encircled in red is a small cluster of points which suggest an association between students that use a desktop computer 'every day' or 'at least once a week' and those students who are 'totally sure' or 'somewhat certain' about what they will do after secondary school. Circles are used to illustrate the identification of these associations.

Correspondence maps were produced based on comparing various variables within the survey responses. These variables were chosen and explored, based on the guidance of the key research questions. For example, the exploration of how the students' relationship with digital media affected their transition was conducted in multiple ways. Different facets of this relationship, such as access, frequency of use or skill level were with such variables as:

a) how certain the students were about what they would do after secondary school
b) the perceived helpfulness of the various digital media during their transition
c) ease of finding transition information

This use of relating different variables allow for an extensive exploration of the data and a wider understanding of a complex research problem.

## *INDUCTIVE ANALYSIS*

The method of data analysis employed in this study to analyse the qualitative data utilises the 'Inductive Analysis' as described by Thomas (2003; 2006). This approach is relevant and appropriate, as qualitative inquiry is seen as being "largely oriented towards exploration, discovery, and 'inductive' logic" (Patton, 2002, p. 55). Inductive analysis begins with the making of specific observations in order to build towards the identifications of general patterns and themes. The main purpose of the inductive approach is to "allow research findings to emerge from the frequent, dominant or significant themes inherent in raw data" (Thomas, 2003, p. 2), without being restrained by the rules of structured methodologies. This is important as preconceptions that are imposed by deductive data analysis can often leave key themes hidden or obscured.

Although commonly used within qualitative research, Patton (2002) warns of the challenges which face all qualitative researchers that use inductive methods. He reminds that making sense of multiple data sources, such as transcripts and field notes, cannot be reduced to a standardised formula. Neither is there any concrete guideline to tell the researcher when themes are important or which pieces of text to place under which themes. Therefore, the need to "creatively synthesize and present findings" (p. 58) is critical and is a challenge within all qualitative analysis.

In the case of this study, QSR NVivo 10 software was used to conduct the qualitative data analysis. Inductive analysis was applied to all of the qualitative data sources. This included the focus group transcripts, Careers Advisor interview transcript and questionnaire open-ended questions. Each data type was repeatedly studied in order to identify themes (or categories). Coding frames were then gradually built up from these emerging themes. Thomas (2006) utilises the inductive coding process, as described by Creswell (2002, p.266). Figure 3.3 displays how the repeated reading and examination of text is broken down into themes and refined.

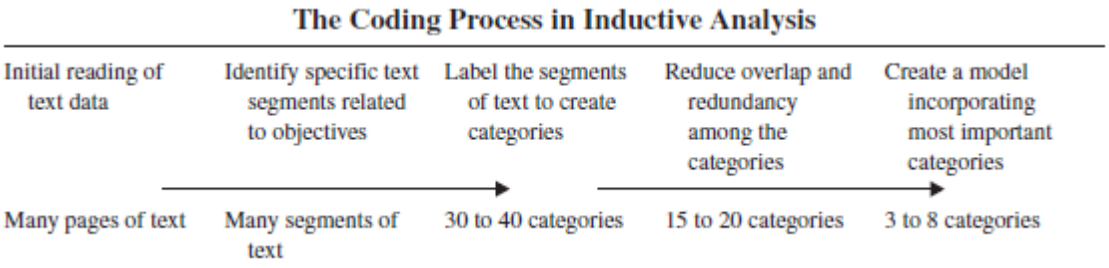



**Figure 3.3 Inductive Analysis Coding Process.**

Thomas (2006) explains that the first step of inductive coding is to prepare raw data files (data cleaning). This involves preparing raw data files into a common, manageable format. This could mean using a uniform font size, margins or highlighting questions or interviewer comments. Coding then begins with the detailed reading of the text. The initial aim for the researcher is to become familiar with the content of the text. This is in order to gain a clear understanding of the themes emerging from the text.

This is followed by the creation of categories. Constant examination of the text allows the researcher to identify themes or categories. Initially the more general categories are often derived from the research objectives. However, the more refined lower-level categories emerge from further readings of the text. In inductive coding, category labels often come from phrases found within the text.

Continual revision of the text aims to then reduce the overlap and redundancy found within the categories. Thomas (2006) notes that there are underlying rules for qualitative coding that differ from those for quantitative coding. A segment of text can be coded in multiple categories and much of the text can often be not assigned to a category at all. This is because much of the text can often be irrelevant to the evaluation objectives. Ultimately, the categories are revised to a model which ideally contains between three and eight categories. These should capture the essence of the text and quotations should be gathered which capture the essence of each individual category.

The coding of certain segments of text enabled the analysis of themes, relationships between themes and also the context of the coded responses. As there were multiple perspectives found within the qualitative data (student, teacher, researcher), this context was imperative. The comparison of the perspectives of the students and the Careers Advisor was seen as an appropriate element of investigation into the research problem.

The use of computer software was advantageous in many ways, including the saving of time and the avoidance of an often confusing and messy ‘pen and paper’ procedure. A specific highlight for this researcher was the ability to visualise the coding frame, emergent themes and overall qualitative analysis using a singular, convenient format.

# Chapter 4

# FINDINGS

This chapter presents the results of the data gained from both the quantitative and qualitative branches of data collection. This involved data gathered from a questionnaire, two focus group sessions and a single interview with the School Careers Advisor. The findings outline the perspectives, attitudes and responses of this study's participants. The reporting of quantitative data is separated into two sequential phases. An initial reporting of survey results is followed by the Correspondence Analysis phase. The initial phase displayed graphical representations of the survey results, allowing for the identification of the dynamics of the students' relationship with digital media in relation to their transition out of secondary school. These dynamics were achieved by creating key statements aligned to each question. These were then further analysed and explored by the use of Correspondence Analysis.

## SURVEY RESULTS

The initial presentation of quantitative data involves the data gathered from the questionnaire survey. As stated previously, the questionnaire, consisting of 26 questions, was broken up into four categories: 'Accessibility', 'Confidence and Competency', 'Awareness and Perceptions' and 'Transition so far'. Questions were constructed to provide ordinal data, which will ultimately serve as the basis for Correspondence Analysis. This ordinal data was used to gauge the various levels of responses to particular aspects of the students' relationship with digital media and their transition (eg. Perceived skill level with different digital media) .Most questions within the study utilise different digital media variations for each question. This results in asking the same question of all the relevant digital media variations. Questions utilised the selection of 14 digital media outlined in the introduction of this study, unless stated otherwise. These digital media were desktop computers, laptop computers, data storage devices, the internet, tablets, mobile phone, smartphone, digital television, digital radio, MP3 Players, Digital Video Recorders, Digital Cameras, Gaming Consoles and Handheld Gaming Devices.

### *ACCESSIBILITY*

The first section of the survey is concerned with issues of accessibility. This is gauged through determining usage, ease of access and the importance of access to the 14 digital media. This section also examines where the students prefer to be when accessing the internet.

**Question 1** (Figure 4.1) asked the question, "How often do you use the following digital media?" This question was asked of 14 different forms of digital media, outlined and defined earlier in the 'Introduction' chapter. The question offered a five point response system. Answers could

include: Every day, At least once a week, At least once a month, Less than once a month or Never.

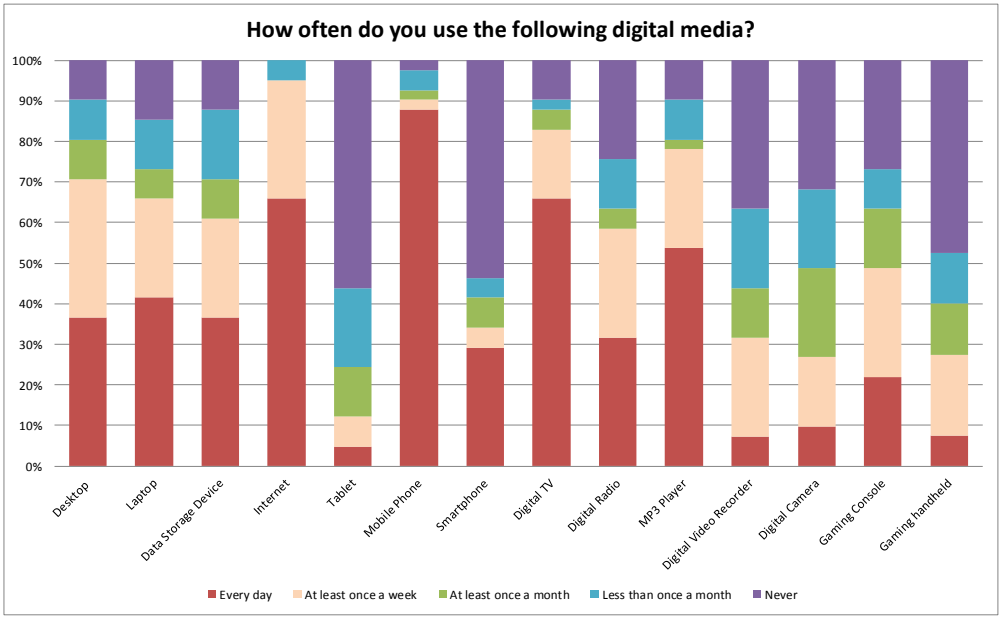



**Figure 4.1 Frequency of use of digital media.**

40 students responded to the ‘digital TV’ and ’gaming handheld’ variations of this question. Therefore there was 1 missing response for those variations. All other digital media variations were answered by all 41 students.

In terms of everyday usage, the digital medium most often used was mobile phone, with 36 (87.8%) students responding that they use it every day and only 1 student (2.4%) reporting that they never use one. The most commonly used digital medium overall though, was the internet, with 39 (95.2%) students using it at least once a week.

The least often used digital medium was a “tablet”, with 23 (56.1%) responding that they never use one and only 2 (4.9%) students using a tablet every day. High rates of use were reported with Desktop, Laptop, Data Storage Device, Internet, Mobile Phone, Digital TV and MP3 Player. In all of these cases more than 60% of students reported their use at least once a week or more. Low rates of use were reported especially with tablets and smartphones and to a lesser extent, Digital Video Recorders, Digital Cameras, Gaming consoles and Gaming handheld devices.

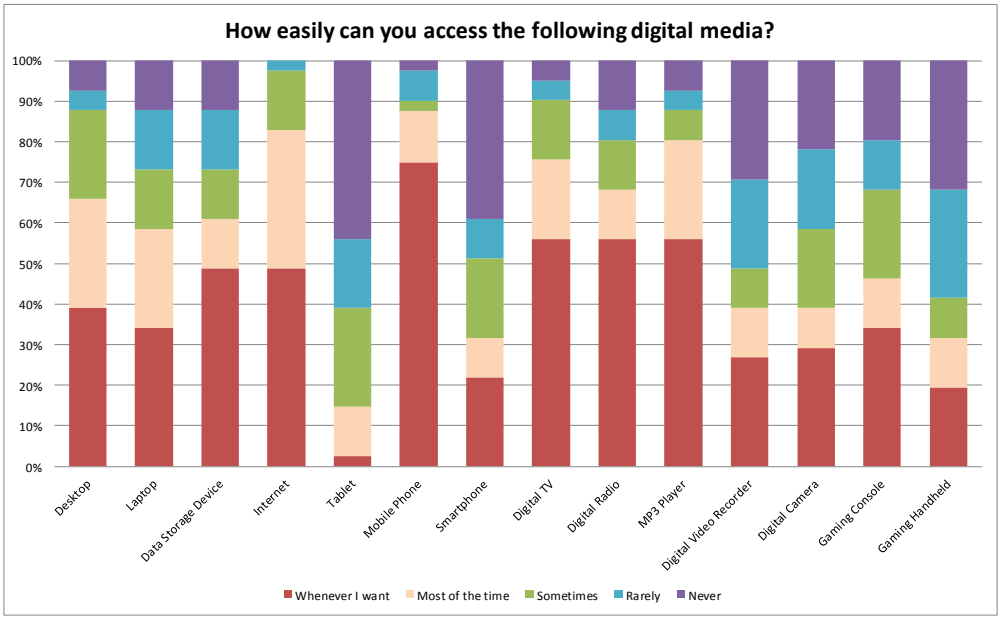



**Figure 4.2 Ease of access to digital media.**

**Question 2** (Figure 4.2) asked the question "How easily can you access the following digital media"? Utilising the standard range of 14 forms of digital media, the question again offered a 5-point response system. Answers include: Whenever I want, Most of the time, Sometimes, Rarely, Never.

40 students responded to the mobile phone variation of this question. Therefore there is 1 missing response for that variation. All other digital media variations were answered by all 41 students.

The highest level of access was attributed to the use of mobile phone, with 75% of students able to access it whenever they wanted. However the internet displayed the most widely accessible, as no students reported that they could never access the internet. Reasonably high levels of access were identified with Digital TV, Digital Radio, MP3 Player, Desktop, Laptop and Data Storage Devices. Moderate access was attributed to Digital Video Recorder, Digital Camera, Gaming Console and Gaming Handheld. The digital media reporting the lowest levels of access were Tablet, followed by Mobile Smartphone.

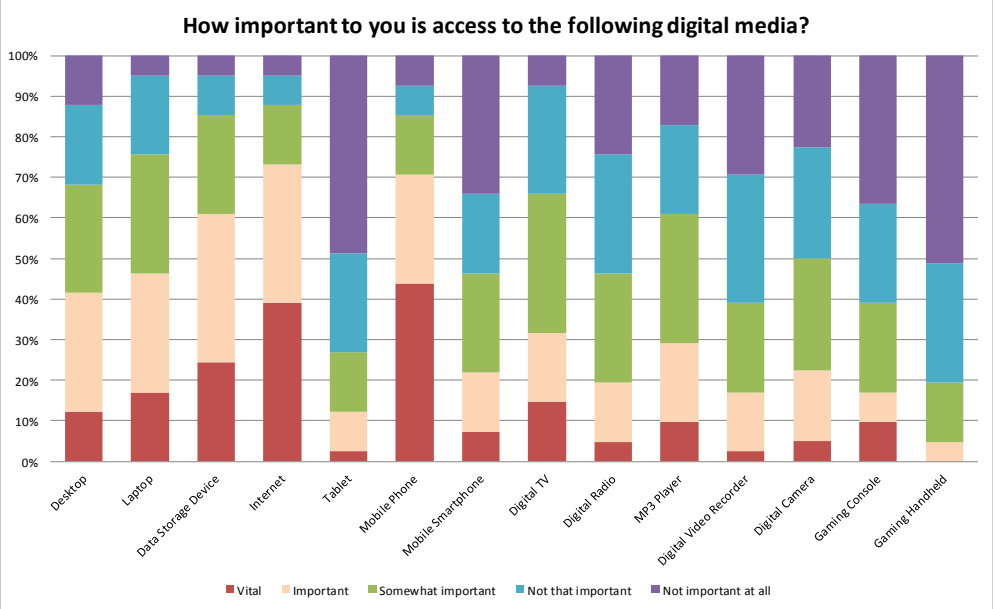



**Figure 4.3 Importance of access to digital media.**

**Question 3** (Figure 4.3) asked the question "How important to you is access to the following digital media"? Utilising the standard 14 forms of digital media, the question offered a 5-point response system. Answers include: Vital, Important, Somewhat important, Not that important, Not important at all.

40 out of 41 students responded to the digital camera variation of this question. Therefore there was 1 missing response for that variation. All other digital media variations were answered by all 41 students.

Highest 'vital' frequency registered for the mobile phone, with 18 students (44%). Internet was seen as the most important overall, as 36 students (86%) responded as it being at least 'somewhat important'. High rates of importance (at least 60% of students finding at least 'somewhat important') were reported by mobile phone, internet, data storage device, desktop, laptop and MP3 player. It is important to recognise that the 'vital' importance was noticeably low for all forms of digital media.

Lowest levels of importance were associated with Gaming handheld, tablet, Gaming console and digital video recorder. Moderate levels of importance were reported for digital camera, digital radio, digital TV and mobile smartphone.

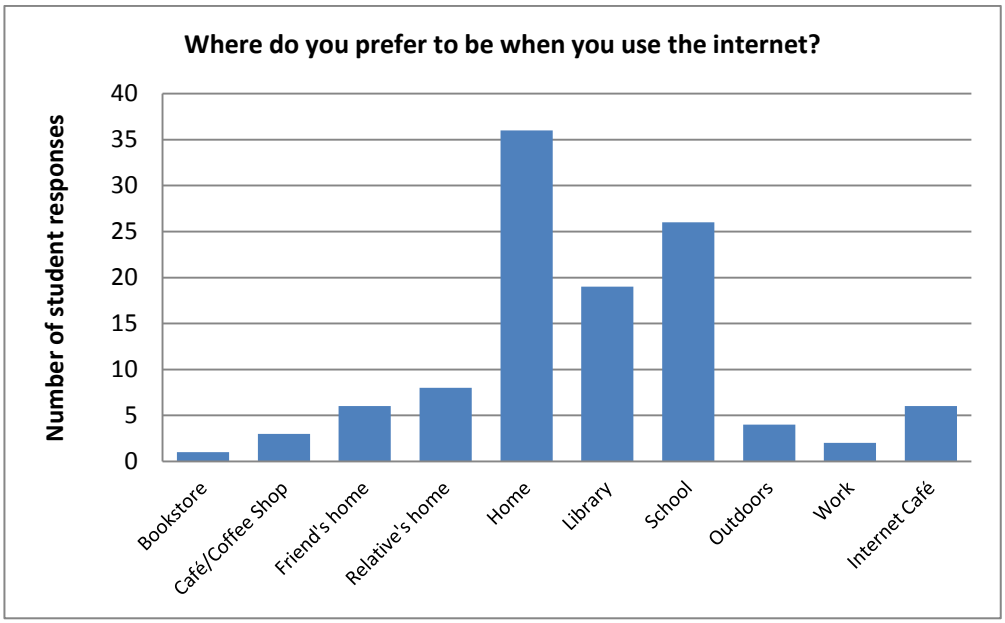



**Figure 4.4 Preferred place to be when accessing the internet.**

**Question 4** (Figure 4.4) asked the question "Where do you prefer to be when you use the internet"? Students were offered 10 fixed options and an option for an open-ended response to 'other'. Students were able to provide multiple responses to this question. No students provided a response to 'other'. Fixed option answers include: bookstore, café/coffee shop, friend's home, relative's home, home, library, school, outdoors, work, internet café.

All 41 students responded to this question.

Highest response was for 'home', with 36 responses, followed by school (26) and then library (19). All other options received no more than 8 responses.

## *CONFIDENCE AND COMPETENCY*

The second section of the survey dealt with the students' perceived competency and confidence in using the mentioned forms of digital media. This involved rating their personal skill levels with each form of digital media as well as ascertaining whether they would like to be more competent with each form of digital media. These questions were also focused on the students' skill level with the internet. In examining this, only digital media which provided a connection to the internet were used.

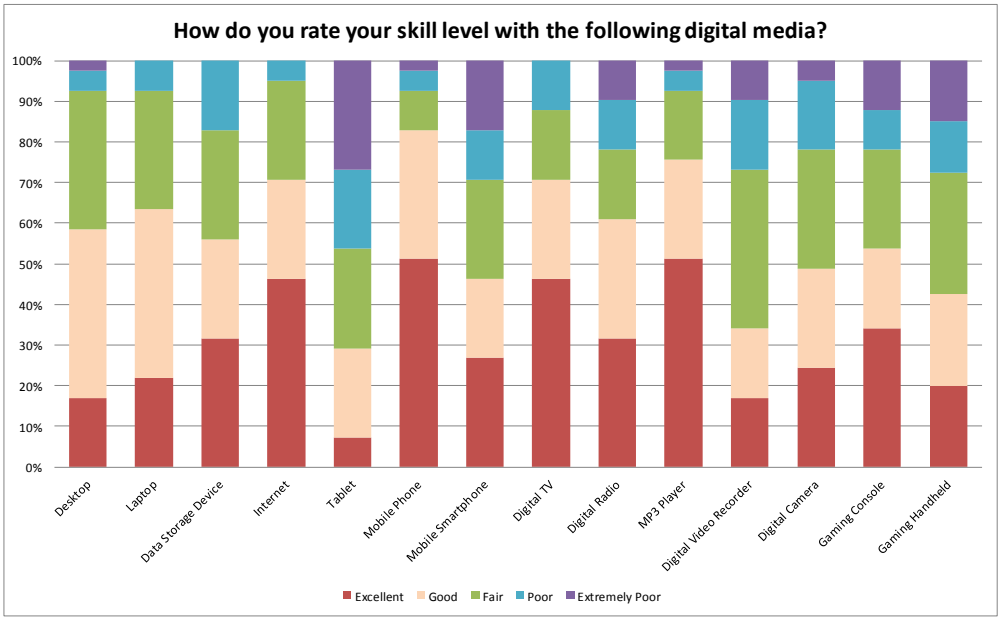



**Figure 4.5 Perceived skill level with digital media.**

**Question 5** (Figure 4.5) asked the question "How do you rate your skill level with the following digital media"? Utilising the standard 14 forms of digital media, the question offered a 5-point response system. Answers include: Excellent, Good, Fair, Poor, Extremely Poor.

40 out of 41 students responded to the 'gaming handheld' variation of this question. Therefore there was 1 missing response to this variation. All other digital media variations were answered by all 41 students.

Highest rates of 'excellent' responses were for mobile phone and MP3 player. Internet and digital TV reported a similar count of 'excellent' responses. Tablet was the form of digital media associated with a poor level of skill, followed by mobile smartphone.

All digital media reported at least 70% of respondents rating themselves as having at least a 'fair' skill level, except for 'tablet'. Desktop, laptop, internet and digital TV received no 'extremely poor' responses.

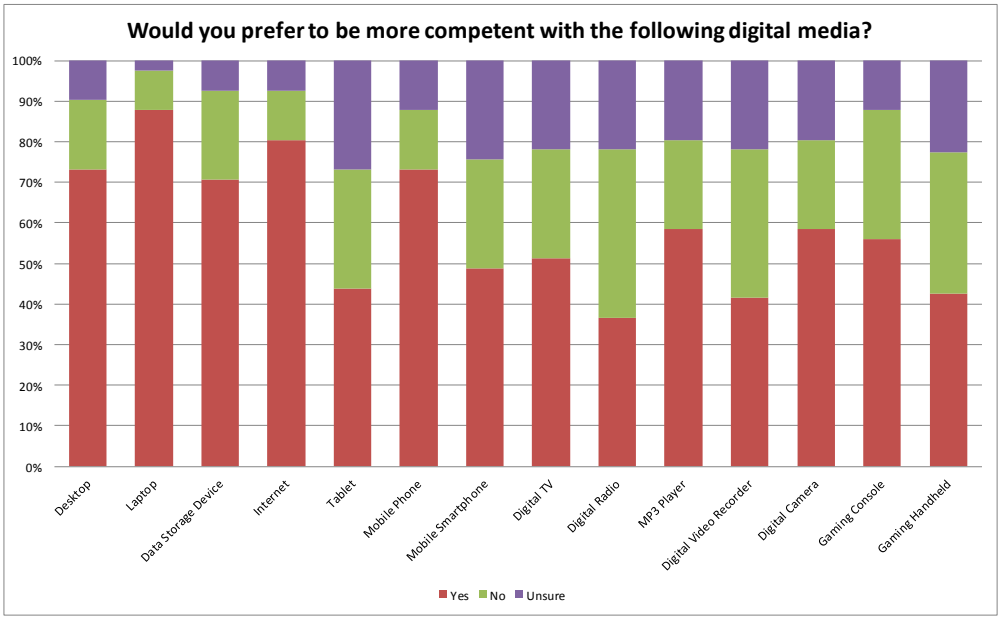



Figure 4.6 Preferral of higher competence with digital media.

**Question 6** (Figure 4.6) asked the question "Would you prefer to be more competent with the following digital media?" Utilising the standard 14 forms of digital media, the question offered a 3-point response system. Answers include: Yes, No, Unsure.

40 students responded to the 'gaming handheld' variation of this question. Therefore there was 1 missing response from one student for this variation. All other digital media variations were answered by all 41 students.

Laptop reported highest 'Yes' count. High 'Yes' counts (over 70%) were reported by desktop, laptop, data storage device, internet and mobile phone. Highest 'No' count reported by digital radio, which was the only form of digital media which reported a higher 'No' then 'Yes' count.

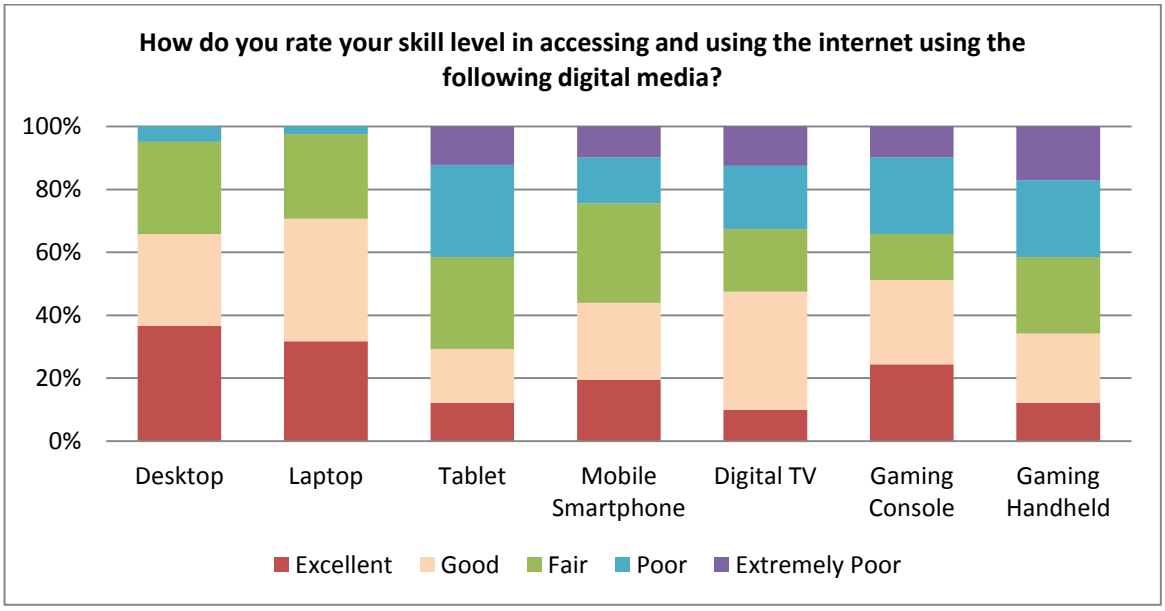



Figure 4.7 Perceived skill level in accessing internet with digital media.

**Question 7** (Figure 4.7) asked the question “How do you rate your skill level in accessing and using the internet using the following digital media”? Utilising only those forms of digital media that have the ability to connect the internet, the question offered a 5-point response system. Answers include: Excellent, Good, Fair, Poor, Extremely Poor.

40 students responded to the ‘digital TV’ variation of this question. Therefore there was 1 missing response to that variation. All other digital media variations were answered by all 41 students.

Desktop computer reported the highest ‘excellent’ count, although overall skill level was higher for laptop. Desktop and laptop both registered zero ‘extremely poor’ counts. All other forms of digital media showed at least 58% of respondents reporting at least a ‘Fair’ skill level.

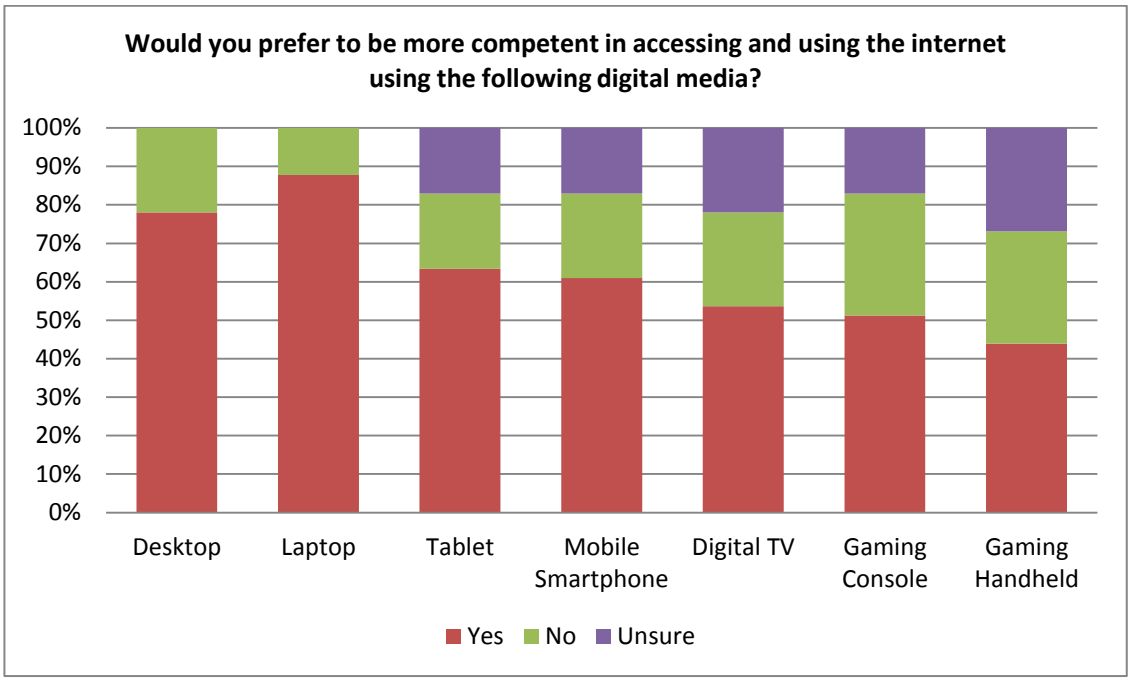



**Figure 4.8 Preferral of higher competence in the use of internet using digital media.**

**Question 8** (Figure 4.8) asked the question “Would you prefer to be more competent in accessing and using the internet using the following digital media?” Utilising only those forms of digital media that can connect to the internet, the question offered a 3-point response system. Answers include: Yes, No & Unsure.

All digital media variations of this question were answered by all 41 students. There were no missing responses.

88% of students reported ‘Yes’ for laptop and 78% for desktop. These two were the only digital media which reported zero ‘Unsure’ counts. Gaming handheld showed lowest ‘Yes’ count of 18 (44%). All other digital showed a ‘Yes’ count of higher than 50%.

## *AWARENESS AND PERCEPTIONS*

The third section of the survey dealt with the students' awareness of digital media available and promoted by the school in terms of their transition. The students were asked open-ended questions about relevant websites that they are aware of and have used in their transition out of secondary school. The students were also asked whether they would like more information about digital media which can help them and whether they felt the information they needed was easy to find

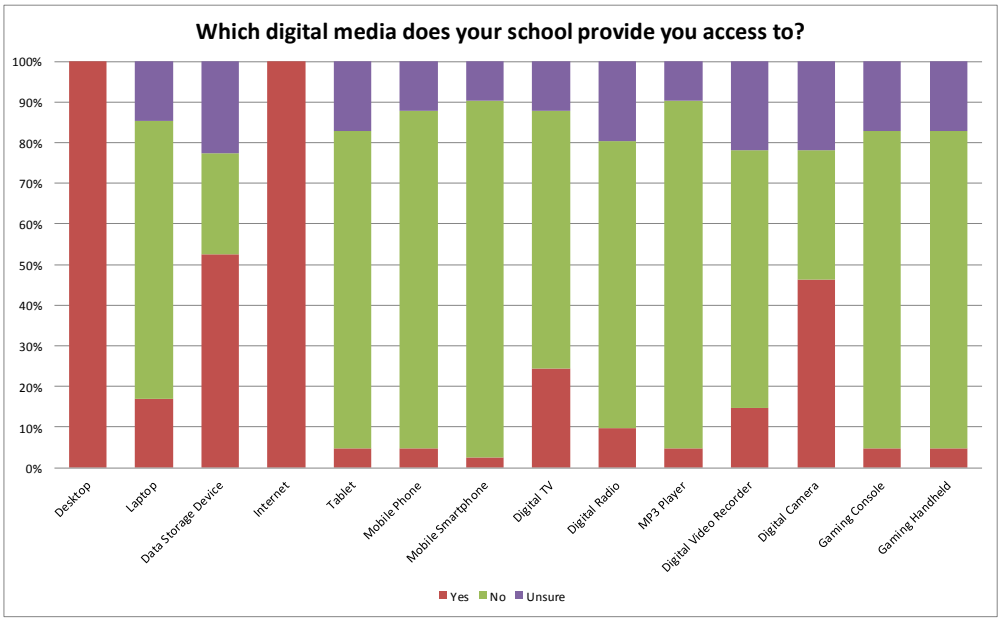



**Figure 4.9 Host School's provision of digital media.**

**Question 9** (Figure 4.9) asked the question "Which digital media does your school provide you access to"? Utilising the standard 14 forms of digital media, the question offered a 3-point response system. Answers include: Yes, No & Unsure.

40 students responded to the 'laptop' and 'data storage device' variations of this question. Therefore there was 1 missing response for these variations. All other digital media variations were answered by all 41 students.

All 41 students responded 'Yes' for desktop and internet. Data storage device and digital camera showed significant conflicts, with digital TV showing moderate conflict. All other digital media showed at least 60% of students agreeing with one of the three responses.

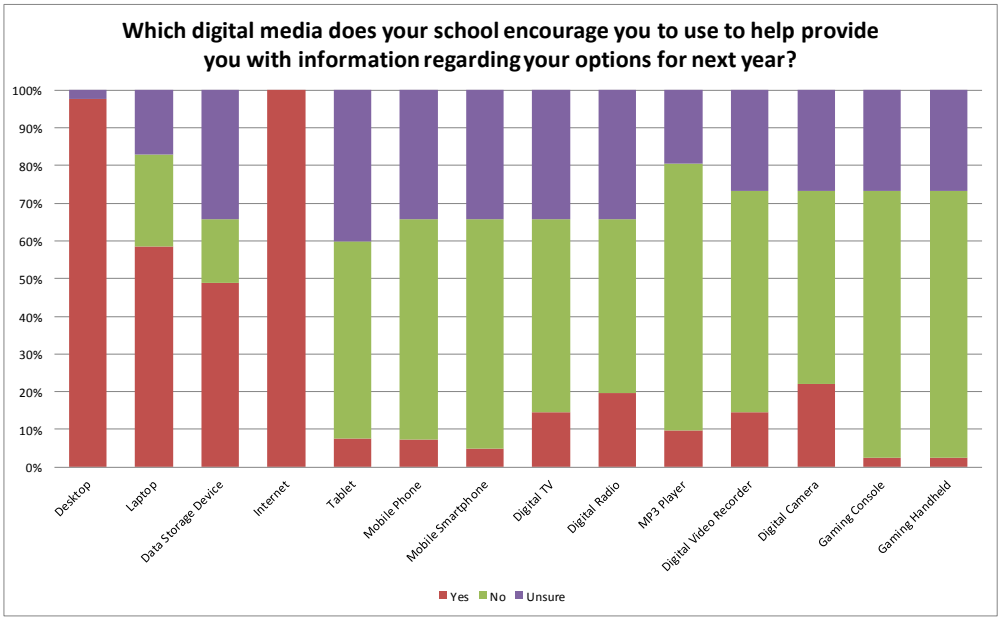



**Figure 4.10 School's encouragement of digital media use.**

**Question 10** (Figure 4.10) asked the question "Which digital media does your school encourage you to use to help provide you with information regarding your options for next year?" Utilising the standard 14 forms of digital media, the question offered a 3-point response system. Answers include: Yes, No and Unsure.

40 out of 41 students responded to the 'tablet' variation of this question. Therefore there was 1 missing response for this variation. All other digital media variations were answered by all 41 students.

All students responded 'Yes' for the internet and 98% responded 'Yes' for desktop. Laptop showed a 59% 'Yes count and data storage device showed a 49% 'Yes' count. No other digital media reported higher than a 22% 'Yes' count. All, but desktop and internet showed between 24% - 40% reporting 'Unsure'.

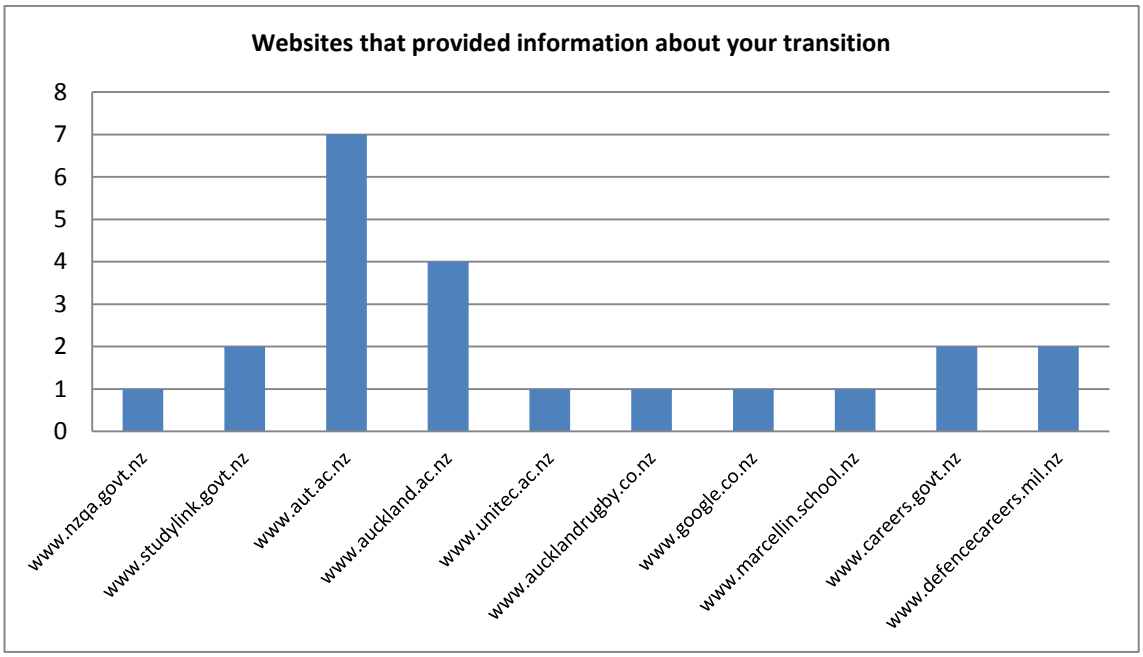



**Figure 4.11 Websites that provided information about your transition.**

**Question 11** (Figure 4.11) was an open-ended question, asking the students to "list any website that you are aware of that has provided you with information about your transition out of secondary school."

There were only 12 students that responded to this question, resulting in 29 students that did not answer this question. Students were able to name as many websites as they wanted. In total the 12 students listed a total of 21 responses. The Auckland University of Technology (AUT) website was most commonly named by a total of 7 students. The Auckland University website followed, being named 4 times.

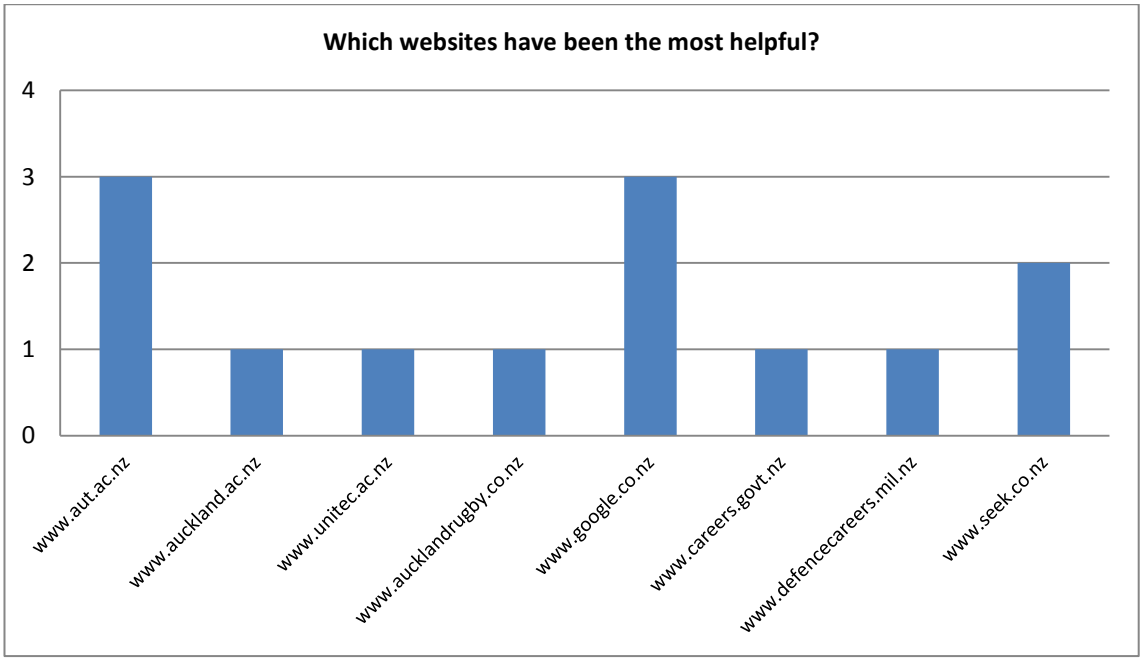



**Figure 4.12 Which websites have been the most helpful.**

**Question 12** (Figure 4.12) was an open ended question, asking the students, "Which websites have been the most helpful to you?

There were only 12 students that responded to this question, resulting in 29 students that did not answer this question. Students could answer with as many websites as they wanted. A total of 13 responses were recorded.

1 student that answered this question has been omitted from this graph, as they did not name a website. Their response was: *"All of them, if you know what you're looking for."*

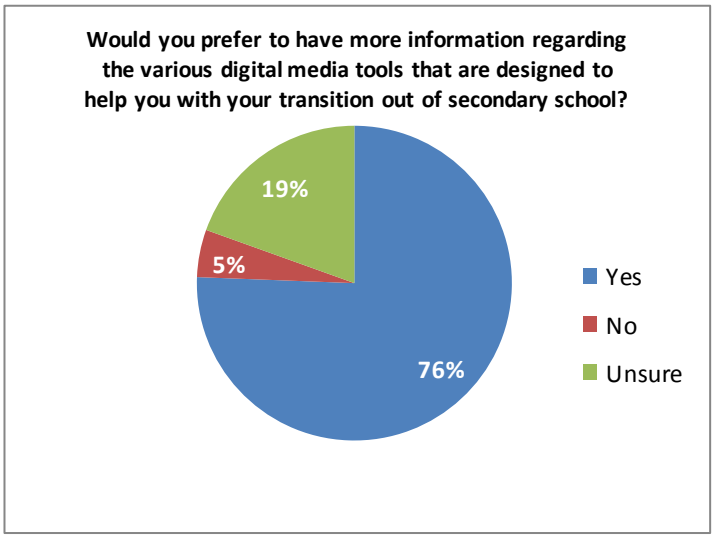



**Figure 4.13 Preferral of more knowledge about digital media based information on transition.**

**Question 13** (Figure 4.13) asked the question "Would you prefer to have more information regarding digital media tools that can help you with your transition out of secondary school?" The question offered a 3-point response system. Answers include: Yes, No and Unsure.

All 41 students responded to this question. There were no missing responses.

31 students (76%) responded 'Yes', with only 2 (5%) responding 'No'. 8 students (19%) responded 'Unsure'.

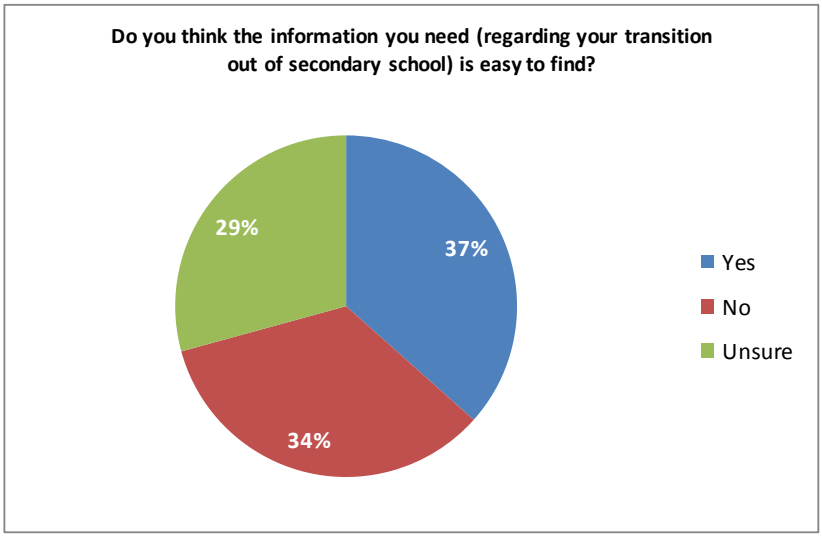



**Figure 4.14 Perceived ease of finding relevant information.**

**Question 14** (Figure 4.14) asked the question "Do you think the information you need is easy to find?" The question offered a 3-point response system. Answers include: Yes, No, Unsure.

All 41 students responded to this question. There were no missing responses.

15 students (36%) responded 'Yes'. 14 students (34%) responded 'No'. 12 students (29%) responded 'Unsure'.

## *EXPERIENCES OF TRANSITION SO FAR*

The final section of the survey deals with the students' personal views and experiences of their individual transitions up to this point. This section probes into the students' decisions about what they will do after secondary school and determine what they think are good ways to get the information they need. Students were asked if they had contact with their Careers Advisor, who is the school's main source of information for the students in terms of their transition. Identifying the sources of information and guidance was important to see the ways in which these students navigated their transition. It was also important to see what other resources they use to gather information.

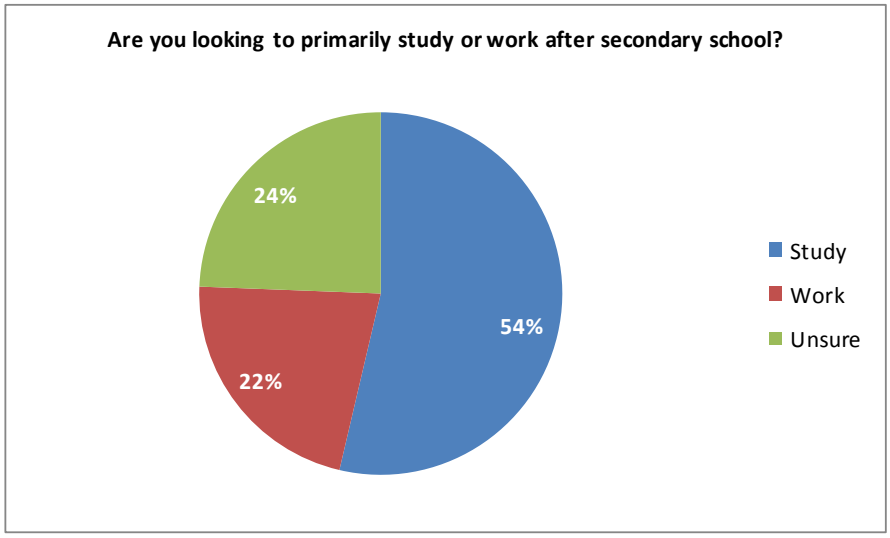



Figure 4.15 Students decision to primarily study or work.

**Question 15** (Figure 4.15) asked the question "Are you looking to study or work after secondary school?" The question offered a 3-point response system. Answers include: Work, Study, and Unsure.

All 41 students responded to this question. There were no missing responses.

22 students (54%) responded 'Study'. 9 students (22%) responded 'Work'. 10 students (24%) responded 'Unsure'.

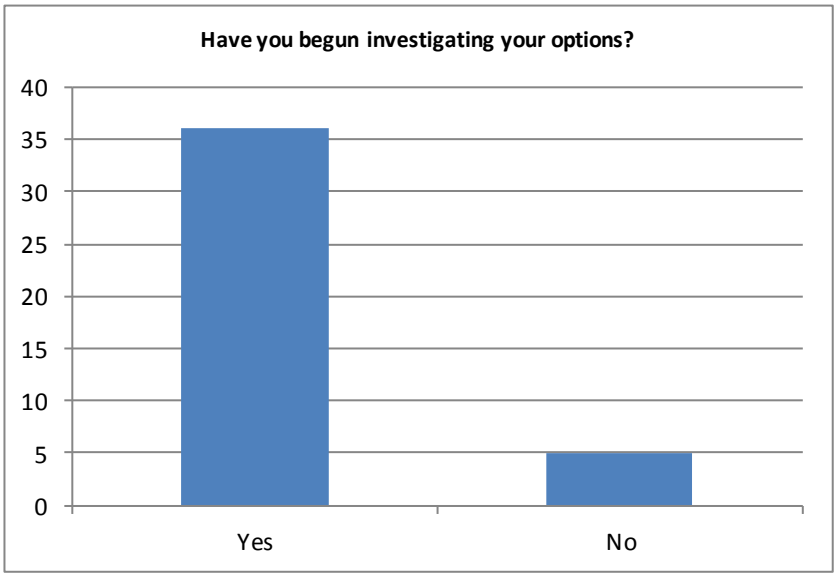



Figure 4.16 Have students begun investigating their options?

**Question 16** (Figure 4.16) asked "Have you begun investigating your options?" The question offered a binary response system. Answers include: Yes, No.

All 41 students responded to this question. There were no missing responses.36 students (88%) responded 'Yes', 5 students (12%) responded 'No'.

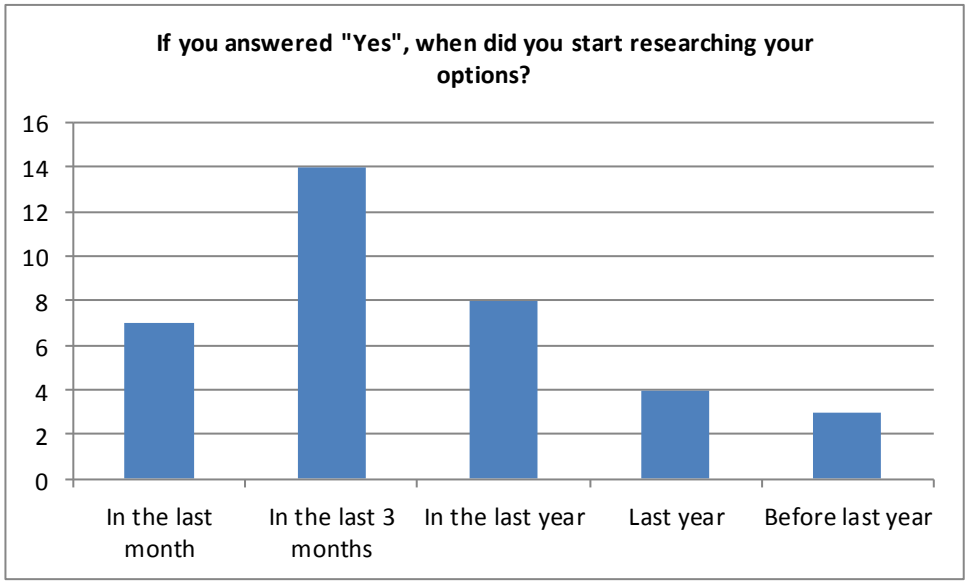



Figure 4.17 Starting point of researching options in transition process.

**Question 17** (Figure 4.17) expanded on question 16, asking "If you've begun researching your options, when did you start? The question offered a 5-point response system. Answers include: In the last month, the last 3 months, in the last year, last year, before last year.

36 out of 41 students responded to this question. Therefore there were 5 missing responses from this question.

Highest response was in the last 3 months, with 14 students (39%). 8 students (22%) responded 'in the last year', 7 students (19%) responded 'in the last month', 4 students (11%) responded 'last year' and 3 students (8%) responded 'before last year'.

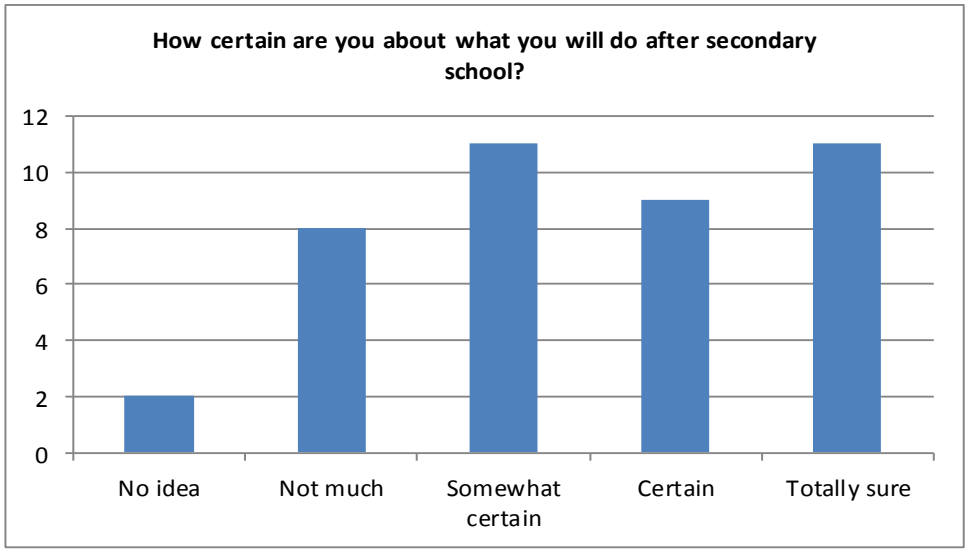



Figure 4.18 Certainty of what students will do following secondary school.

**Question 18** (Figure 4.18) asked the question “How certain are you about what you will do after secondary school?” The question offered a 5-point response system. Answers include: No idea, not much, somewhat certain, certain, totally sure.

All 41 students responded to this question. There were no missing responses to this question.

11 students (27%) responded ‘totally sure’, 9 students responded ‘certain’, 11 students (27%) responded ‘somewhat certain’, 8 students responded ‘not much’ and 2 students (5%) responded ‘no idea’.

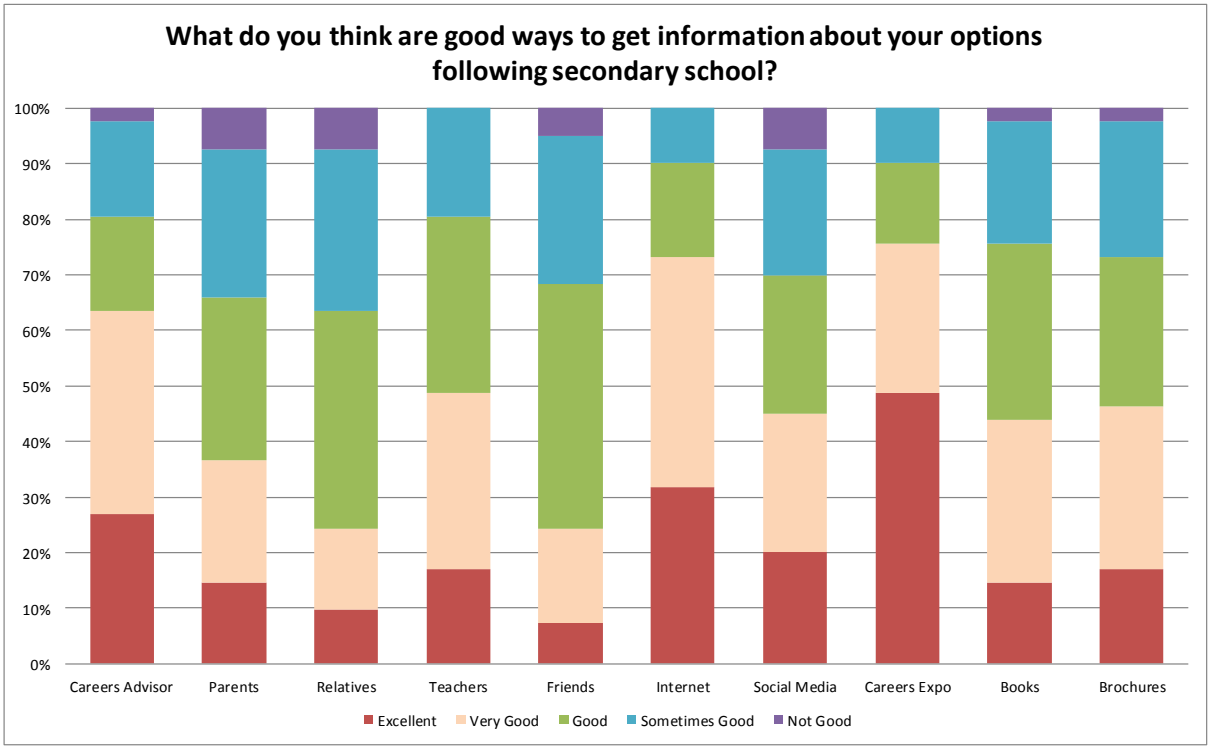



**Figure 4.19 Perceived value of relevant transition information sources.**

**Question 19** (Figure 4.19) asked the question “What do you think are good ways to get information about your options following secondary school?” A range of 10 information sources were referenced. The question offered a 5-point response system. Answers include: Excellent, very good, good, sometimes good, not good.

40 out of 41 students responded to the ‘social media’ variation of this question. Therefore there was 1 missing response for this variation. All other digital media variations were answered by all 41 students.

The information source which received the highest rating and overall rating was the ‘careers expo’. Teachers, careers expo and the internet all received zero ‘not good’ responses. All information sources received at least 60% of students giving at least a ‘good’ rating.

The most ‘not good’ responses (3 students-7%) were reported as parents, relatives and social media.

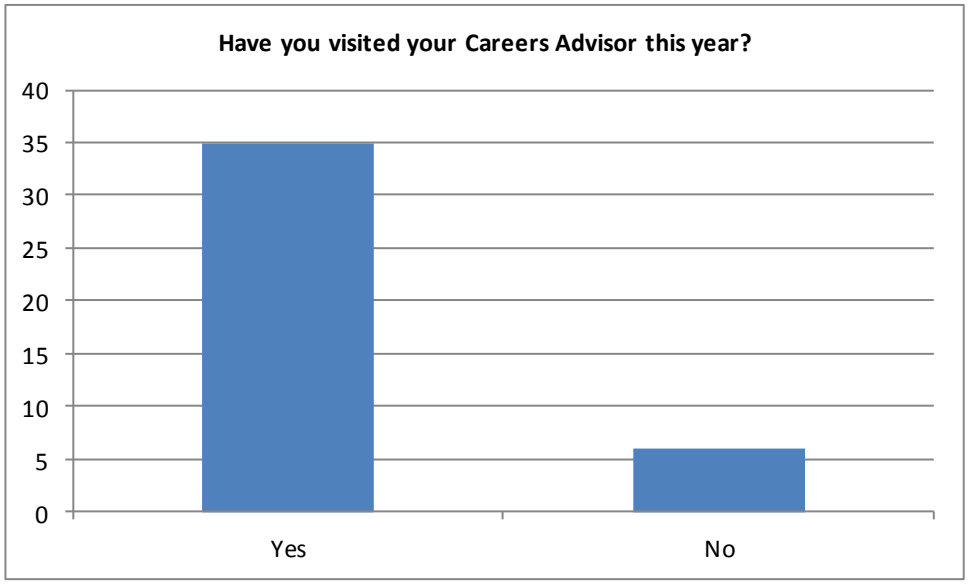



Figure 4.20 Have students visited their Careers Advisor?

**Question 20** (Figure 4.20) asked the question “Have you visited your Careers Advisor this year? “ The question offers a binary response system. Answers include: Yes, No.

All 41 students responded to this question. There were no missing responses.

35 students (85%) responded ‘Yes’. 6 students (15%) responded ‘No’.

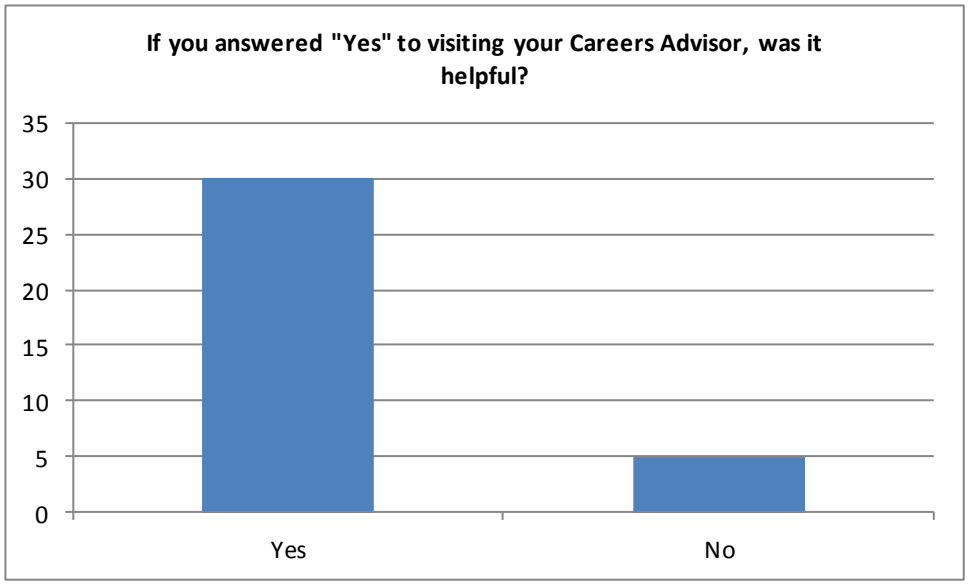



Figure 4.21 Did students find their Careers Advisor helpful?

**Question 21** (Figure 4.21) asks “If you answered ‘Yes’ to visiting your Careers Advisor, did you find it helpful?” This question offered a binary response system. Answers include: Yes, No.

35 out of 41 students responded to this question. Therefore there were 6 missing responses from this question.

30 students (86%) responded ‘Yes’. 5 students (14%) responded ‘No’.

**Question 22** was an open ended question, asking "If you answered 'No' to visiting your Careers Advisor, why wasn't it helpful?"

There were only 5 responses to this question. All 5 corresponded with the 5 that answered 'No' to the previous question. Thus, technically there were no missing responses for this question, aside from the 6 students that also skipped the previous question.

The five reasons given are listed below:

- *"At time, I was not completely sure where I wanted to study."*
- *"I don't know."*
- *"She didn't really know the answer."*
- *"Because now I'm doubtful about what I once wanted to do."*
- *"I went in for an interview, not for help. I knew what I was going to do and I know how to get there."*

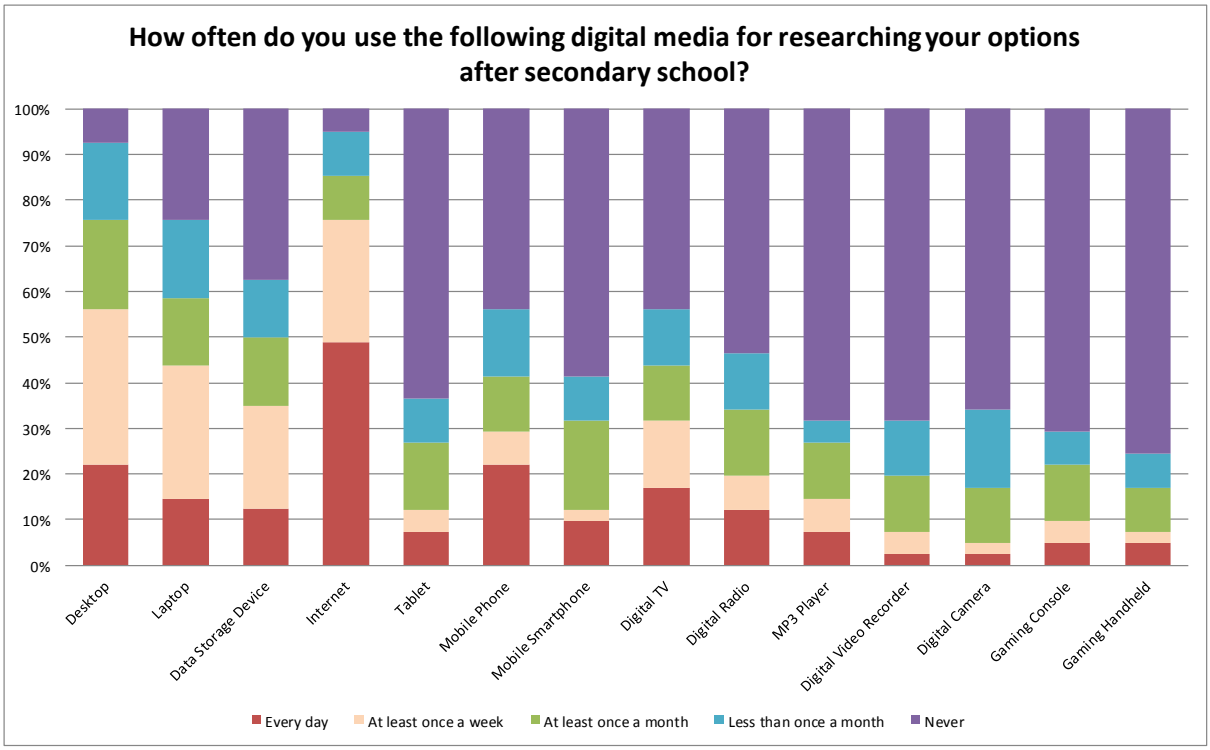



**Figure 4.22 Use of digital media to research options after secondary school.**

**Question 23** (Figure 4.22) asked the question "How often do you use the following digital media for researching your options after secondary school?" Utilising the standard 14 forms of digital media, the question offered a 5-point response system. Answers include: Every day, at least once a week, at least once a month, less than once a month, never.

All 41 students answered all 14 digital media variations to this question. There were no missing responses.

The highest everyday use and most commonly used digital media was the internet. The only forms of digital media which showed more than 50% of students used at least once a week were desktop and the internet. 50% of students responded ‘never’ to Gaming handheld, gaming console, digital camera, digital video recorder, MP3 player, digital radio, mobile smartphone, tablet.

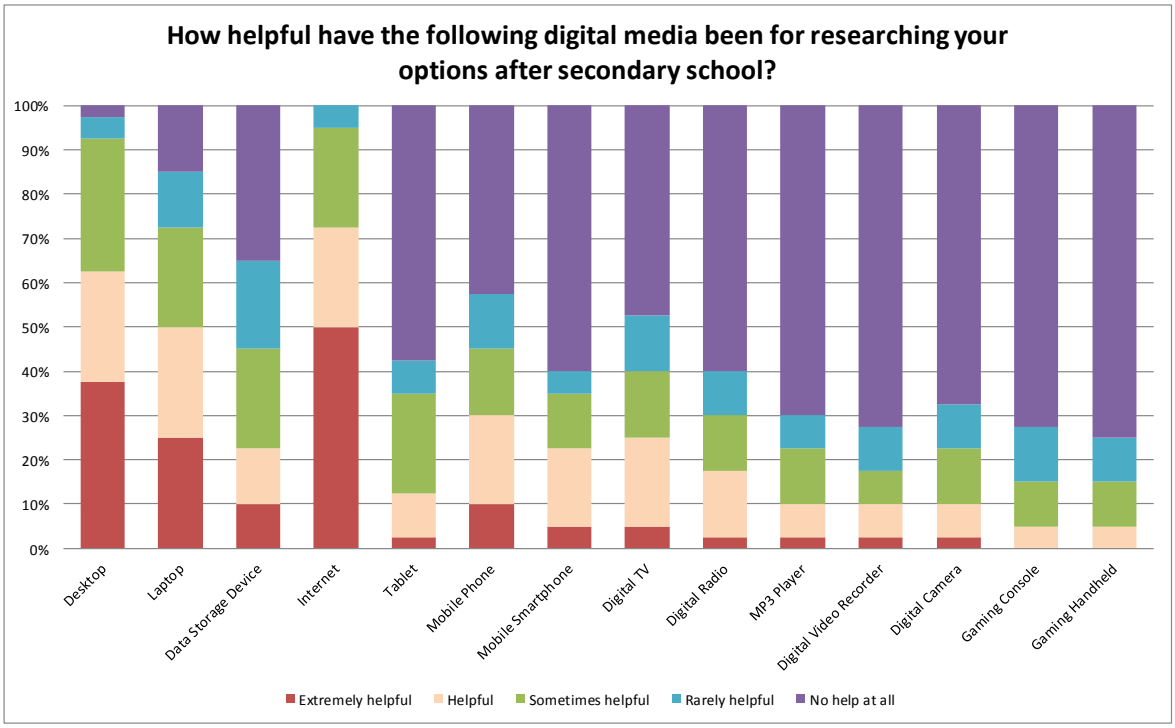



**Figure 4.23 Helpfulness of digital media in researching options within transition process.**

**Question 24** (Figure 4.23) asked the question “How helpful have the following digital media been for researching your options after secondary school?” Utilising the standard 14 forms of digital media, the question offered a 5-point response system. Answers include: Extremely helpful, helpful, sometimes helpful, rarely helpful, no help at all.

40 students responded to all 14 digital media variations of this question. Therefore, there was 1 missing response for each digital media variation.

The highest ‘extremely helpful’ count and the most helpful in general was the internet. The internet was also the only digital media to receive zero ‘no help at all’ responses. Desktop and laptop also displayed high levels of helpfulness. All other digital media showed less than 50% of students responding as ‘sometimes helpful’ or better.

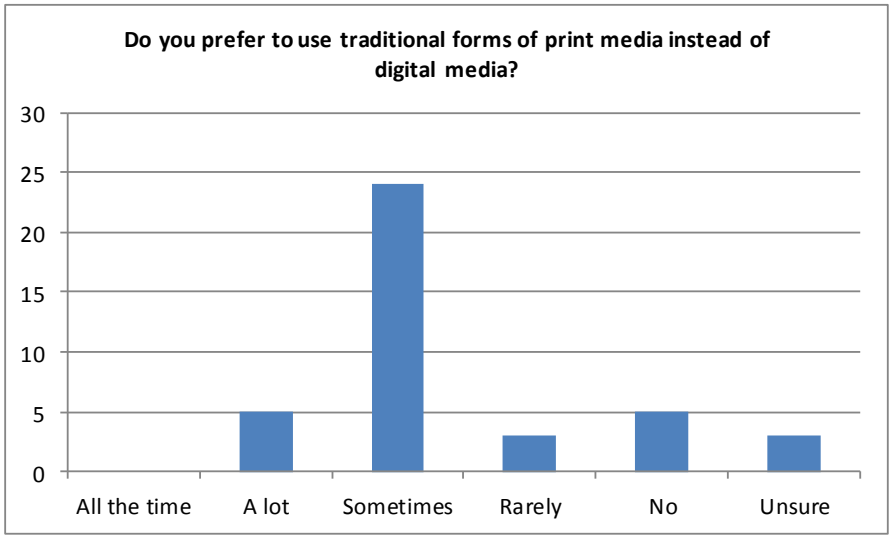



**Figure 4.24 Do you prefer traditional print media over digital media.**

**Question 25** (Figure 4.24) asked the question "Do you prefer traditional print media over digital media?" The question offered a 6-point response system. Answers include: All the time, a lot, sometimes, rarely, no, unsure.

40 out of 41 students answered this question. Therefore there was 1 missing response.

24 students (60%) responded 'sometimes', 5 students (12.5%) responded 'a lot', 5 students (12.5%) responded 'no', 3 students (7.5%) responded 'rarely'. No students replied 'all the time'.

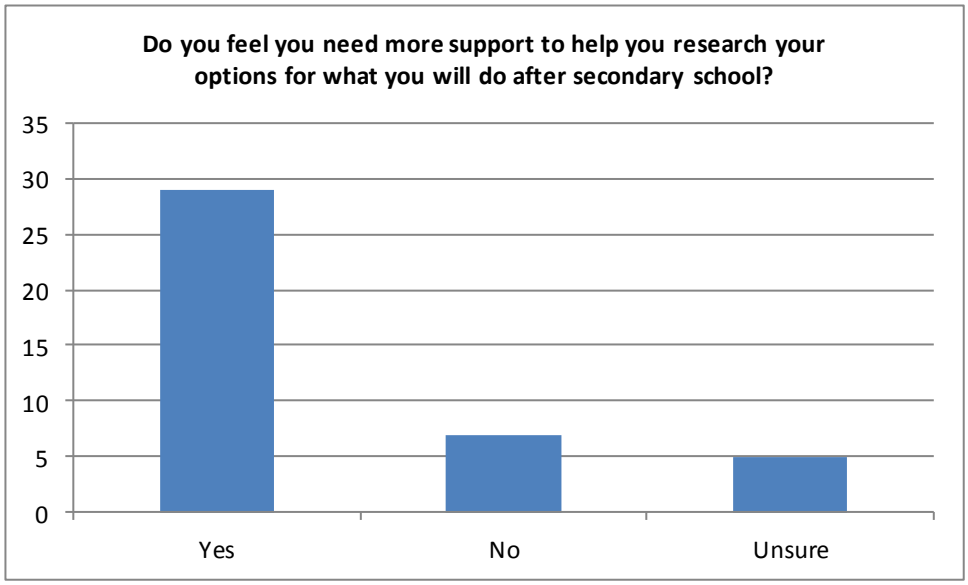



**Figure 4.25 Do students feel they need more support?**

**Question 26** (Figure 4.25) asked "Do you feel you need more support to help you research your options for what you will do after secondary school?" The question offered a 3-point response system. Answers include: Yes, No, Unsure.

All 41 students responded to this question. There were no missing responses.

29 students (71%) responded ‘Yes’, 7 students (17%) responded ‘No’, 5 students (12%) responded ‘Unsure’.

## CORRESPONDENCE ANALYSIS

This section outlines the second phase of quantitative analysis which utilises correspondence analysis. This involves graphing the ordinal data gathered in the survey onto 2-dimensional maps, which compare associations between variables. The survey, completed by 41 Year 13 Pasifika students examines students’ relationship with digital media and how this affects their transition from secondary school to further study or employment. The variables within analysis are drawn from the questions of the survey.

The use of correspondence analysis is guided by the third key research question of this study, which explores how the relationship Pasifika students have with digital media affects how they approach and perceive the transition process of leaving secondary school. Key results were identified from the survey results and used as variables in exploring this research question. The exploratory nature of correspondence analysis proved effective in providing a simple way to visually represent the data and compare the relationships between the key elements of the students’ relationship and their impact on the way they perceived and approached their transition out of secondary school.

Examination of a wide range of correspondence maps from the correspondence analysis of various elements of the survey, have been refined to key results which serve as themes for the reporting of findings. The results of the correspondence analysis in this study, is reflective of key elements identified by the researcher. Each key element is discussed in order to identify key patterns and associations found within the analysis. The key elements identified within the survey were

- digital media usage
- access to digital media
- importance of digital media
- skill level with digital media

These key elements showed different results with the various digital media examined in this study. In relation to the students’ transition, desktop computers, laptops and the internet were seen as the most commonly used and most likely for the students to use to gather information. The key relationships were identified for each and were then contrasted against certain key elements of the study relating to the transition process of these students. These ranged from:

- Certainty of what students will do after secondary school
- How easy students’ found it to find relevant information
- Perceived helpfulness of digital media during transition

The reporting of the correspondence analysis involves the displaying of correspondence graphs which compare two variables produced from the questionnaire. The associations between the categorical responses of each variable are measured by the proximity of the points that represent those categories. A close proximity between points indicates a strong association between those categories. Observed associations have been identified and encircled in red.

## *Digital media usage*

### *Digital media usage – Certainty of transition*

The following graphs display the relationships between the usage of digital media (desktop computers, laptops and the internet) with the level of certainty the students reported in regards to their transition out of secondary school.

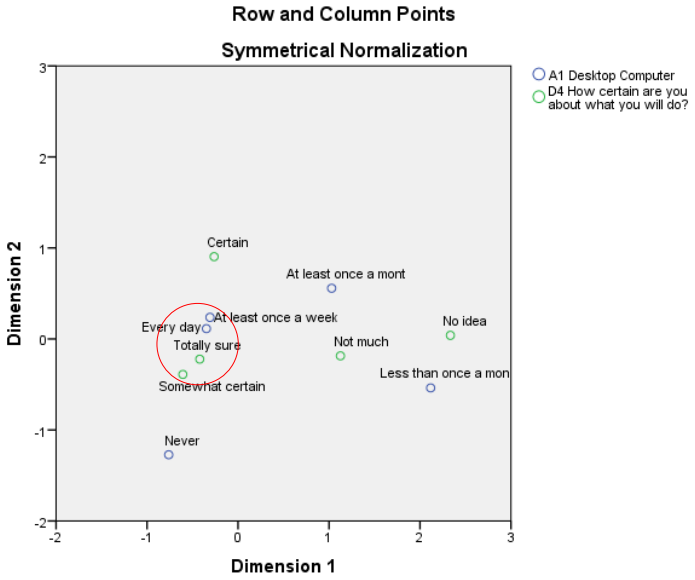



**Figure 4.26 Association between desktop computer usage and certainty of transition.**

Students that used a desktop computer ‘every day’ or ‘at least once a week’ were closely associated with those that were ‘totally sure’ or ‘somewhat certain’ about what they will do after secondary school.

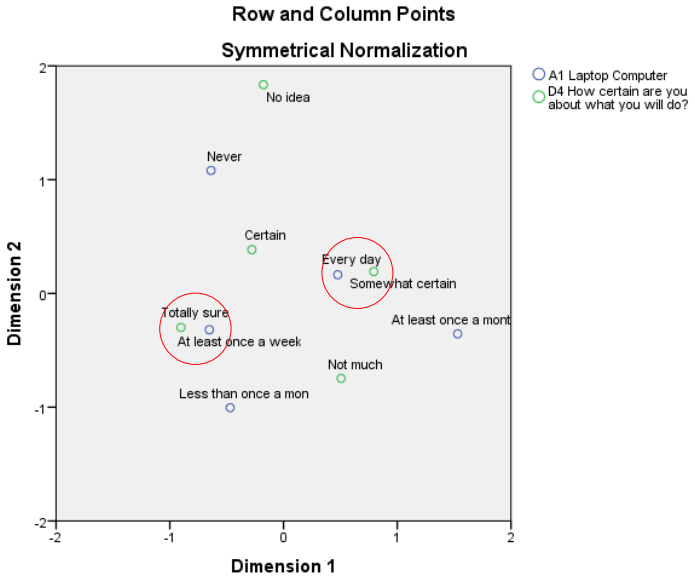



**Figure 4.27 Association between laptop computer usage and certainty of transition.**

Students that used a laptop ‘every day’ were closely associated with those that were ‘somewhat certain’ about their transition. Those that used a laptop ‘at least once a week’ were closely associated to those that were ‘totally sure’ about their transition.

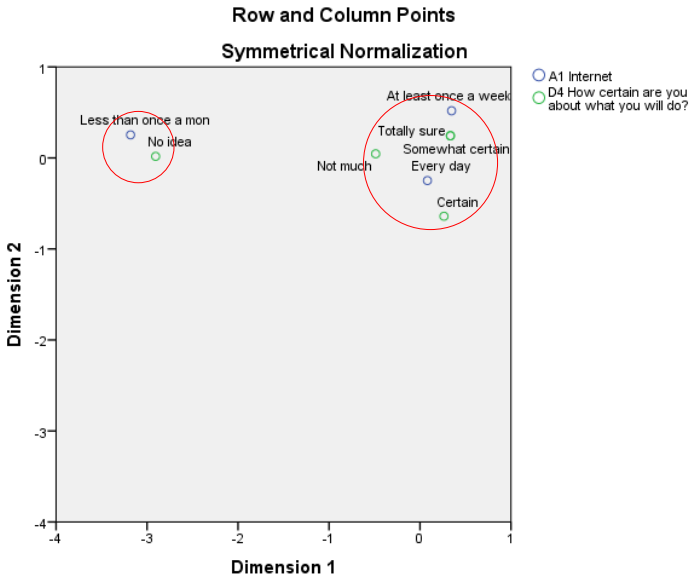



**Figure 4.28 Association between internet usage and certainty of transition.**

No students indicated that they ‘never’ use the internet. Students that used the internet ‘less than once a month’ were closely associated to those that had ‘no idea’ about what they will do after secondary school. Students that used the internet ‘at least once a week’ showed a close association with those that were ‘somewhat certain’ or ‘totally sure’ about their transition. Students that used the internet ‘everyday’ showed a close association with those that were ‘certain’ about their transition.

### *Digital media usage – Ease of finding information*

The following graphs display the relationships between the usage of digital media (desktop computers and the internet) with the level of difficulty students reported in finding information relevant to their transition out of secondary school.

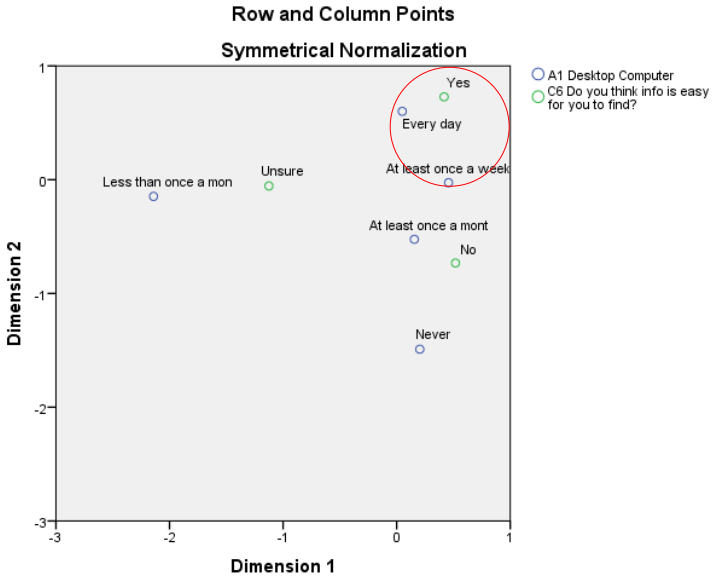



**Figure 4.29 Association between usage of desktop computers and ease of finding relevant information.**

This graph did not show any strong associations, but did indicate that students that indicated ‘yes’, that information was easy to find, were associated to students that used a desktop computer ‘every day’ and to a lesser extent, those that responded ‘at least once a week’.

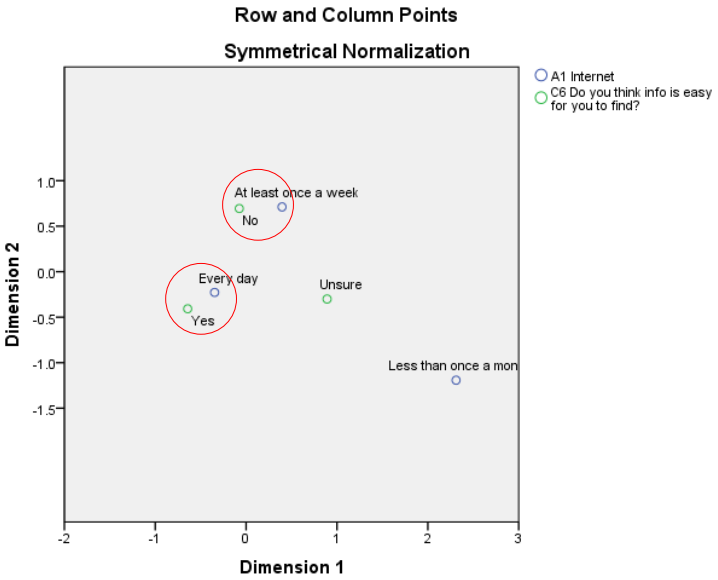



**Figure 4.30 Association between usage of internet and ease of finding relevant information.**

Students that used the internet ‘every day’ were closely associated to those that responded ‘yes’, indicating that information was easy to find. Students that used the internet ‘at least once a week’ were closely associated with those that responded ‘no’, that information was not easy to find.

### *Digital media usage – Helpfulness of digital media*

The following graphs display the relationships between the usage of digital media (desktop computers, laptops and the internet) with the level of certainty the students reported in regards to their transition out of secondary school.

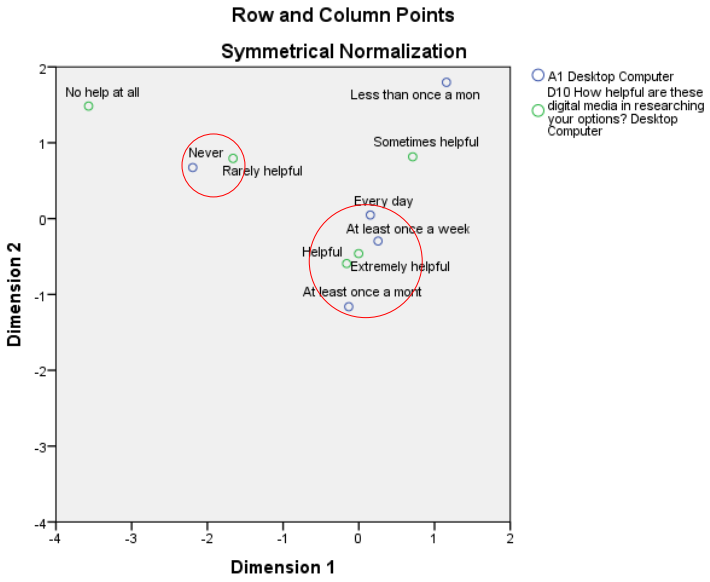



**Figure 4.31 Association between usage of desktop computers and their helpfulness during transition.**

Students that indicated that desktop computers were ‘extremely helpful’ or ‘helpful’ were closely associated with those that used desktop computers ‘at least once a week’, ‘every day’ and to a lesser extent, ‘at least once a month’. Students that indicated they ‘never’ use desktop computers were closely associated with finding them ‘rarely helpful’.

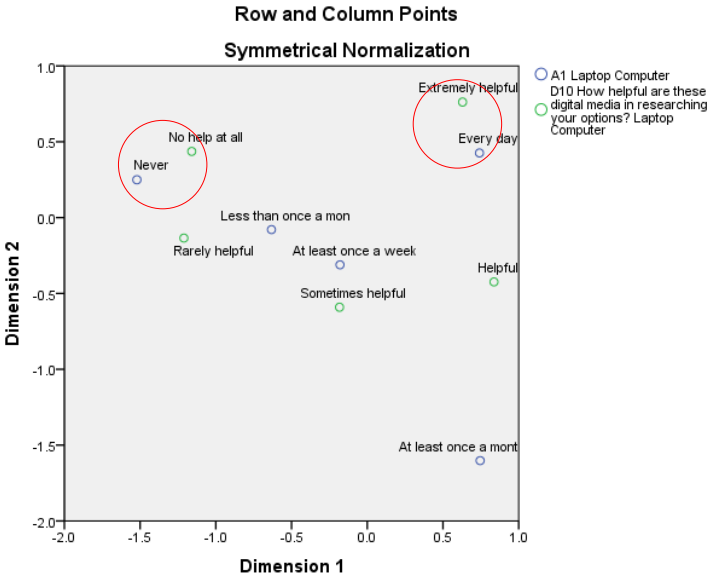



**Figure 4.32 Association between usage of laptops and their helpfulness during transition.**

An association was found between students that ‘never’ used laptop computers and those that found them ‘no help at all’ in researching their transition options. An association was also found between students that used a laptop ‘every day’ and those that found them ‘extremely helpful’ in their transition process.

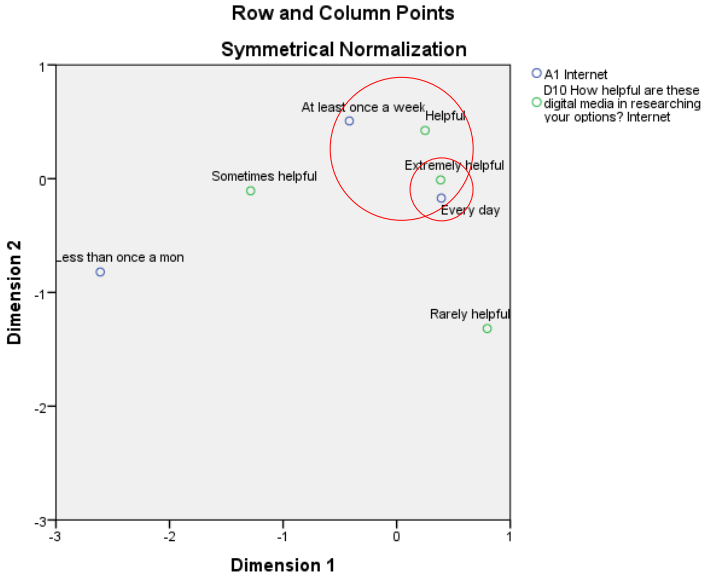



**Figure 4.33 Association between usage of laptops and their helpfulness during transition.**

Students that indicated they used the internet ‘every day’ were closely associated with those that found the internet ‘extremely helpful’. A broader generalisation is that students that used the internet ‘at least once a week’ showed an association with internet being considered ‘extremely helpful’ or ‘helpful’.

## *Access to digital media*

### *Digital media access – Certainty of transition*

The following graphs display the relationships between the levels of access the students have with digital media (desktop computers and the internet) and the level of certainty the students reported in regards to their transition out of secondary school.

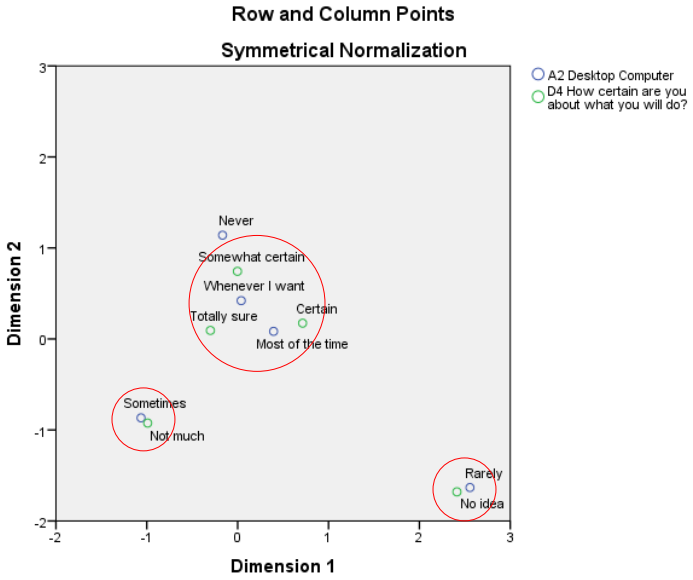



**Figure 4.34 Association between access to desktop computers and certainty of transition.**

A strong association was found between students that ‘rarely’ had access to desktop computers and those that had ‘no idea’ of what they will do after secondary school. A strong association was also shown between those that ‘sometimes’ had access to desktop computers and those that had ‘not much’ certainty about their transition. A broader cluster of points show a relationship between those that indicate high levels of access (‘whenever I want’ and ‘most of the time’) with students that indicated they were ‘somewhat certain’, ‘certain’ and ‘totally sure’ of what they will do after secondary school.

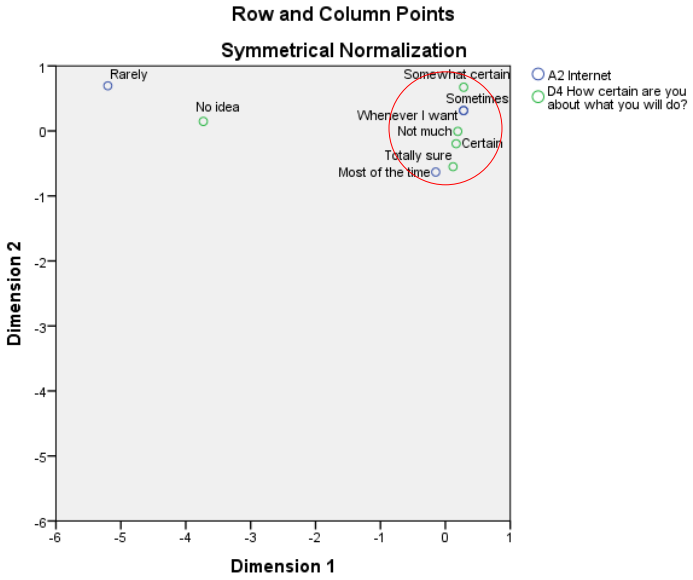



**Figure 4.35 Association between access to the internet and certainty of transition.**

A cluster of points indicate that an association exists between having high levels of access to the internet and the certainty of students about their transition. Students that had access to the internet 'most of the time' were most closely associated to those that indicated they were 'totally sure' or 'certain' about their transition. Those that could access the internet 'whenever I want' or 'sometimes' were most closely associated to the responses of 'not much' and 'somewhat certain' about their transition.

### *Digital media access – Ease of finding information*

The following graphs display the relationships between the levels of access to digital media (desktop computers and the internet) with the level of difficulty students reported in finding information relevant to their transition out of secondary school.

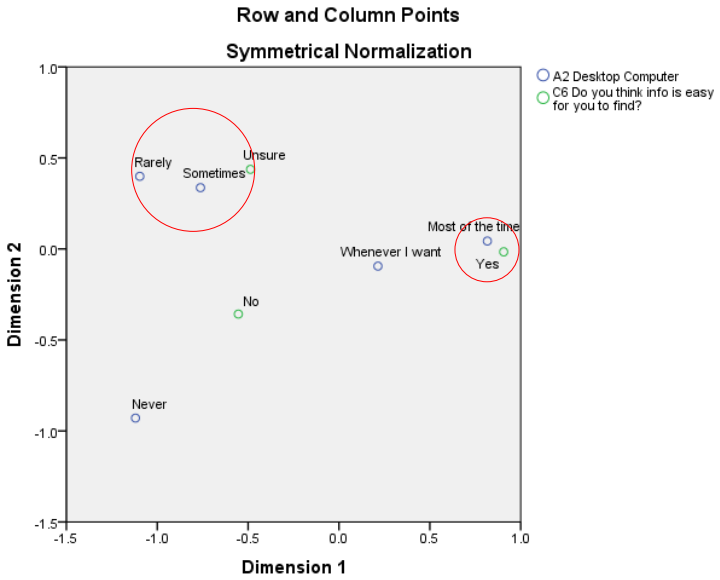



**Figure 4.36 Association between access to desktop computers and ease of finding relevant information.**

A strong association was found between students that could access desktop computers ‘most of the time’ and those that answered ‘yes’ to finding it easy to find relevant information. A broader association was recognised between those students that were ‘unsure’ about the difficulty of finding relevant information and those that could access desktop computers only ‘sometimes’ or ‘rarely’.

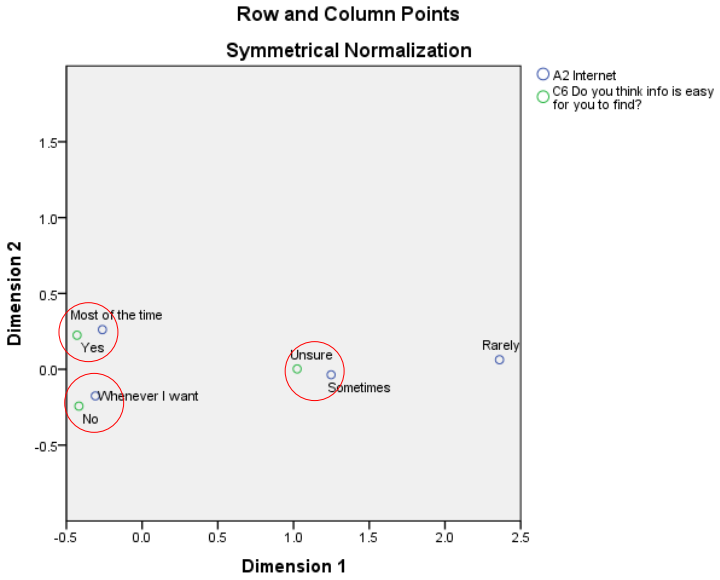



**Figure 4.37 Association between access to the internet and ease of finding relevant information.**

Strong associations were found between students that could access the internet ‘sometimes’ and those that were ‘unsure’ about the difficulty of finding relevant information. Those that could access the internet ‘most of the time’ were closely associated to those that indicated ‘yes’, relevant information was easy to find. However, a conflicting association was observed. Students that could access the internet the most (‘whenever I want’) were closely associated to those that answered ‘no’, that they did not find it easy to find information.

### *Digital media access – Helpfulness of digital media*

The following graphs display the relationships between the usage of digital media (desktop computers and the internet) with the level of helpfulness that the students found from these forms of digital media.

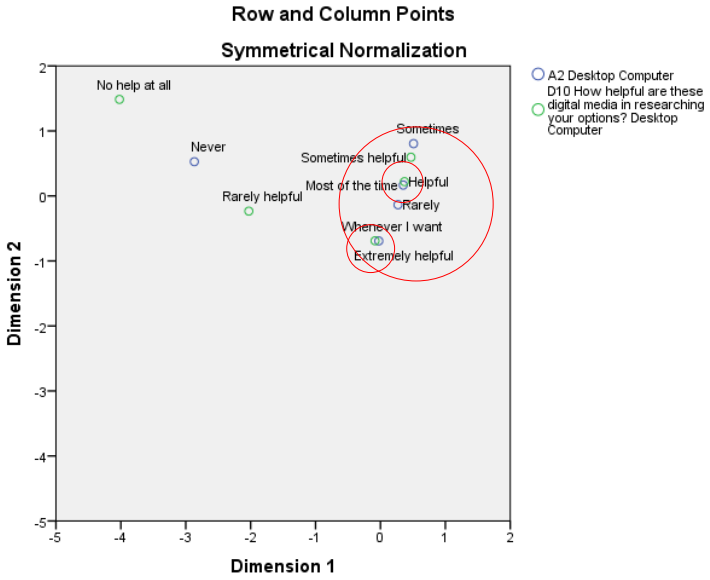



**Figure 4.38 Association between access to desktop computers and their helpfulness during transition.**

Students that could access desktop computers the most (whenever I want) were strongly associated with those that found them the most helpful (extremely helpful). A strong association was also found between those that could access desktop computers 'most of the time' and those that found them 'helpful'. A broader observation is that having access to desktop computers, even 'rarely' showed at least some helpfulness for the students.

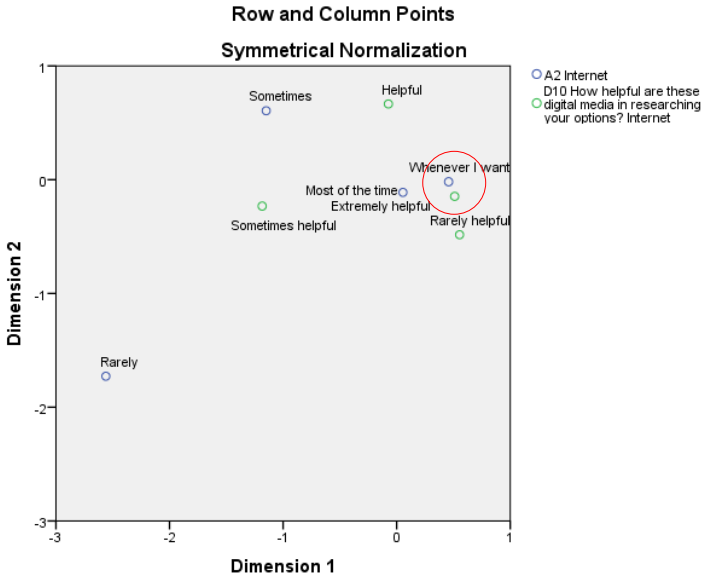



**Figure 4.39 Association between access to the internet and it's helpfulness during transition.**

A strong association was found between students that indicated the highest level of access (whenever I want) to the internet and those that found the internet the highest level of helpfulness (extremely helpful).

## *Importance of digital media*

### *Importance of digital media – Certainty of transition*

The following graphs display the relationships between the importance of digital media (desktop computers, laptops and the internet) with the level of certainty the students reported in regards to their transition out of secondary school.

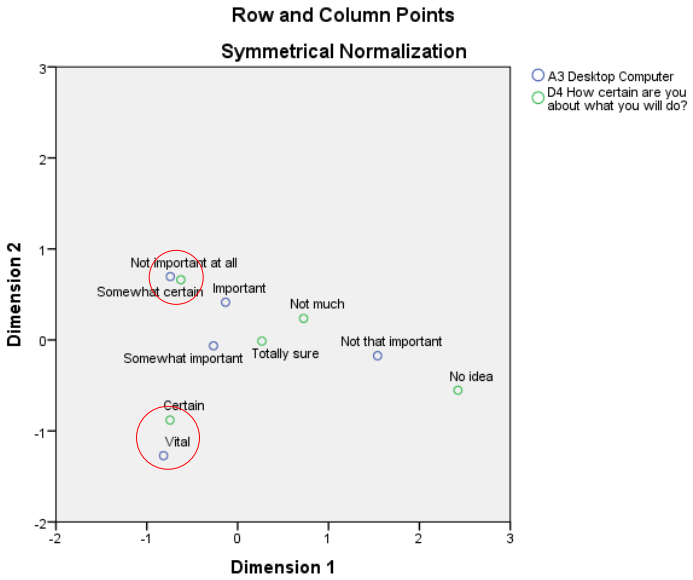



**Figure 4.40 Association between importance of desktop computers and certainty of transition.**

An association was found between students that considered desktop computers of 'vital' importance and those that were 'certain' about their transition. A close association was found between those students that considered desktop computers 'not important at all' and those that were 'somewhat certain' about their transition.

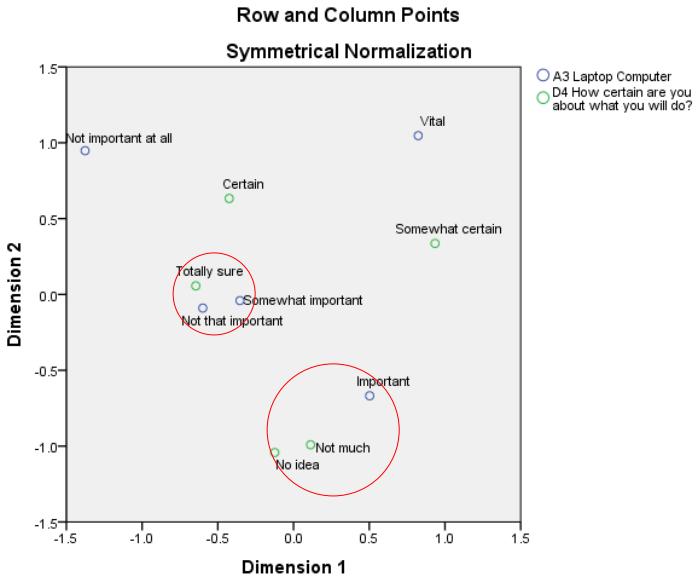



**Figure 4.41 Association between importance of laptops and certainty of transition.**

Students that were ‘totally sure’ about their transition displayed an association with those that considered laptops ‘somewhat important’ or ‘not that important’. Students that found laptops ‘important’ were relatively associated with students that showed the least amount of certainty (‘not much’ and ‘no idea’) about their transition.

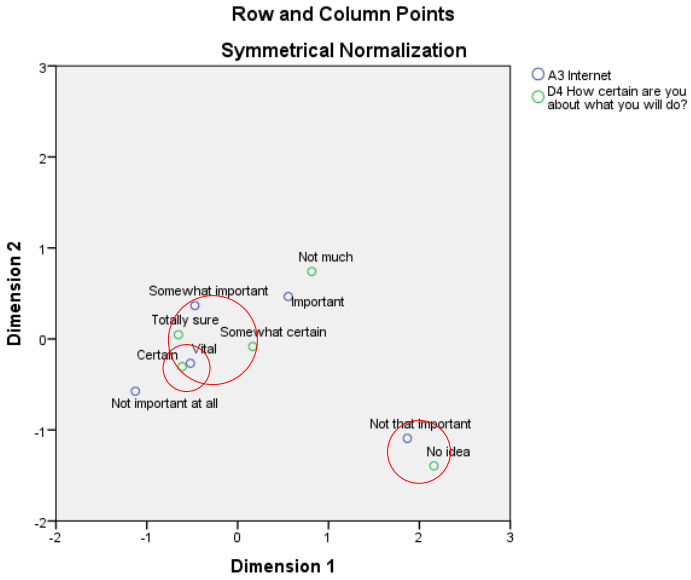



**Figure 4.42 Association between importance of the internet and certainty of transition.**

Students that considered the internet of ‘vital’ importance displayed a strong association with those that were ‘certain’ about their transition. An association is shown between students that found the internet ‘vital’ and ‘somewhat important’ and those that were at least ‘somewhat certain’ about what they will do after secondary school.

### *Importance of digital media – Ease of finding information*

The following graphs display the relationship between the importance of digital media (desktop computers and the internet) with the level of difficulty students reported in finding information relevant to their transition out of secondary school.

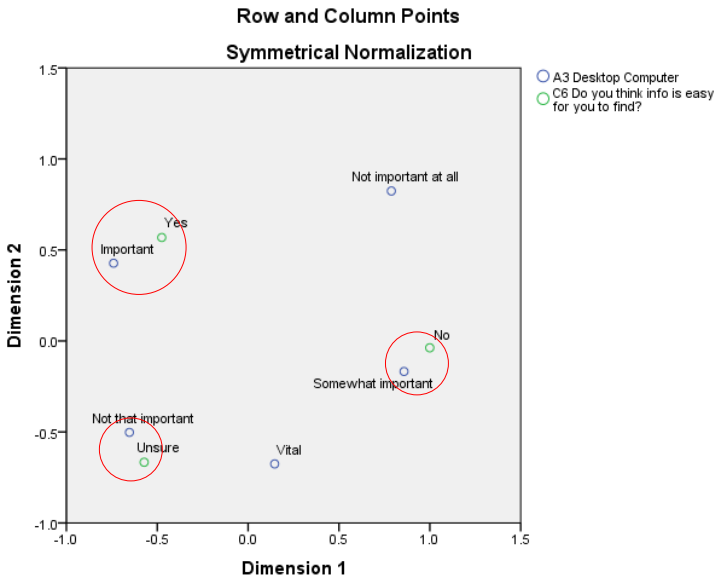



**Figure 4.43 Association between importance of desktop computers and ease of finding relevant information.**

Students that found desktop computers 'important' were associated with those that responded 'yes', in finding it easy to find relevant information. Students that considered desktop computers only 'somewhat important' were associated with students that responded 'no', indicating they found it difficult to find relevant information. Students that considered desktop computers 'not that important' were associated with those that were 'unsure' about the difficulty in finding relevant information for their transition.

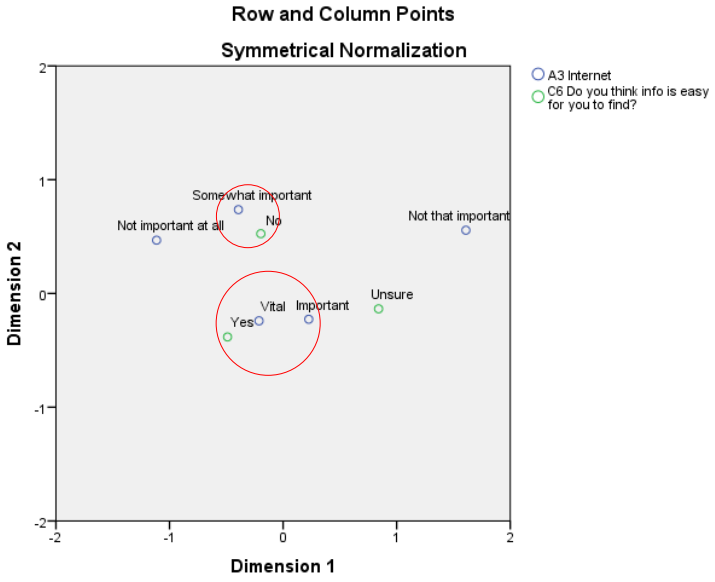



**Figure 4.44 Association between importance of the internet and ease of finding relevant information.**

Students that considered the internet 'vital' or 'important' showed an association with students that responded 'yes', that relevant information for their transition was easy to find. Students that considered the internet 'somewhat important' were associated with those that found finding relevant information difficult (students that answered 'no').

## *Skill level with digital media*

### *Skill level – Use of digital media for transition*

The following graphs display the relationship between the students' perceived skill level with digital media (laptops and the internet) with how often they used these digital media for researching their transition.

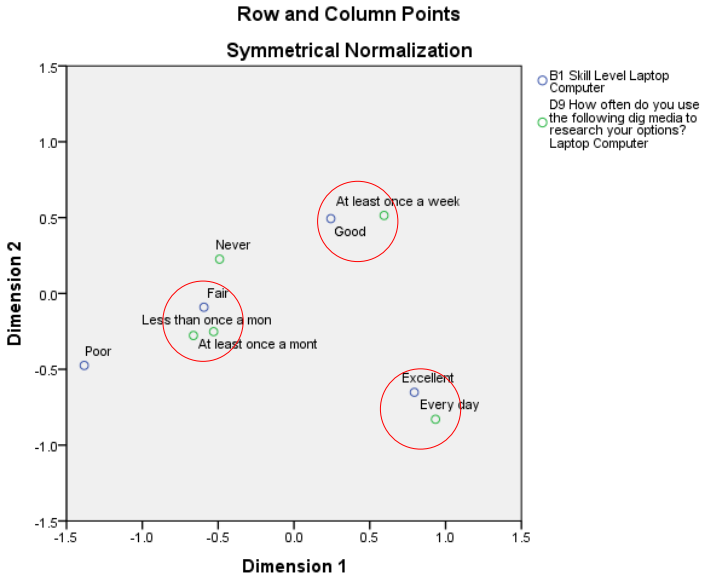



**Figure 4.45 Association between skill level with laptops and frequency of laptop use for transition research.**

Students that considered their skills as 'excellent' with laptops were closely associated to those that used laptops to research their transition 'every day'. Students that considered they had 'good' laptop skills used laptops for their transition 'at least once a week'. Those that believed they had 'fair' skills were associated with students that used laptops for transition research 'at least once or month' or 'less than once a month'.

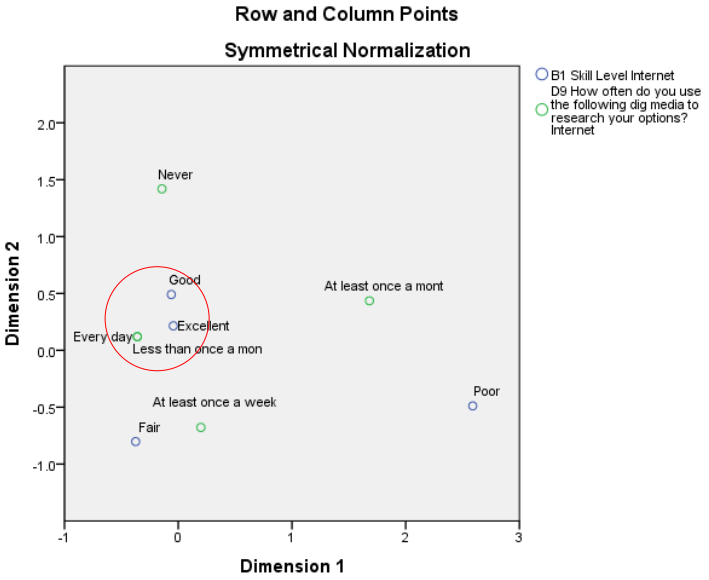



**Figure 4.46 Association between skill level with the internet and frequency of internet use for transition research.**

Students that had 'good' or 'excellent' internet skills were associated with using the internet for transition research 'every day'. An association was also found between those that had 'fair' internet skills and those that used the internet 'at least once a week' for transition research.

***Skill level with digital media – Ease of finding information***

The following graphs display the relationship between the students' perceived skill level with digital media (desktop computers, laptops and the internet) with the level of difficulty students reported in finding information relevant to their transition out of secondary school.

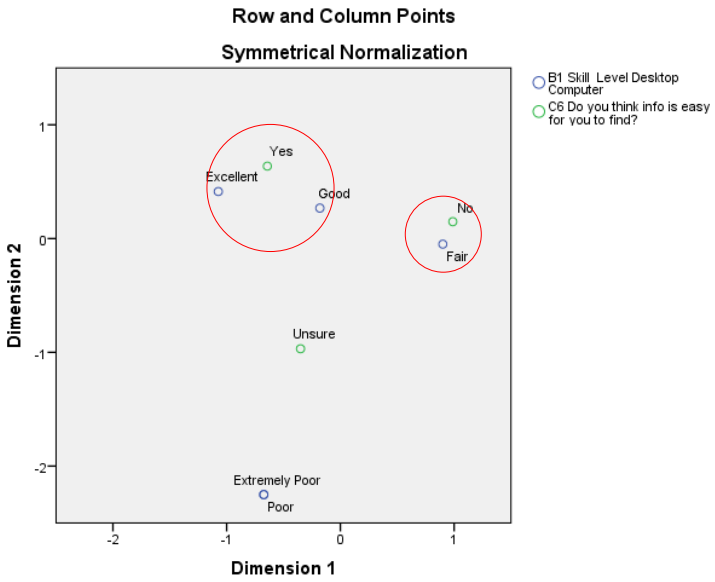



**Figure 4.47 Association between skill level with desktop computers and ease of finding relevant information.**

A close association was observed between students that had a 'fair' skill level with desktop computers and those that responded 'no', indicating that they felt relevant information was

difficult to find. A broader association shows that those students that responded ‘yes’, indicating they found it easy to find relevant information, had either an ‘excellent’ or ‘good’ level of skills with desktop computers.

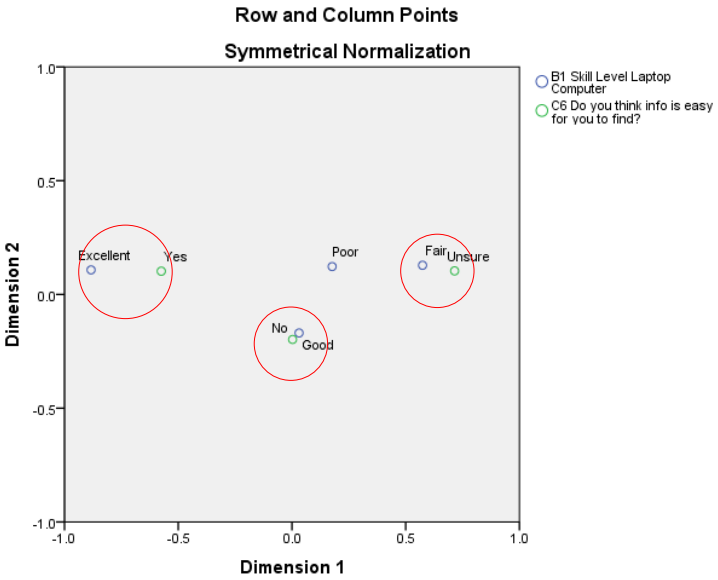



**Figure 4.48 Association between skill level with laptops and ease of finding relevant information.**

Students that responded ‘no’, indicating they found it difficult to find relevant information were closely associated with those that had ‘good’ skills in using a laptop. Those that found it easy to find information were associated with those that had ‘excellent’ laptop skills. Those that had ‘fair’ laptop skills were associated with being ‘unsure’ of the difficulty of finding their relevant information.

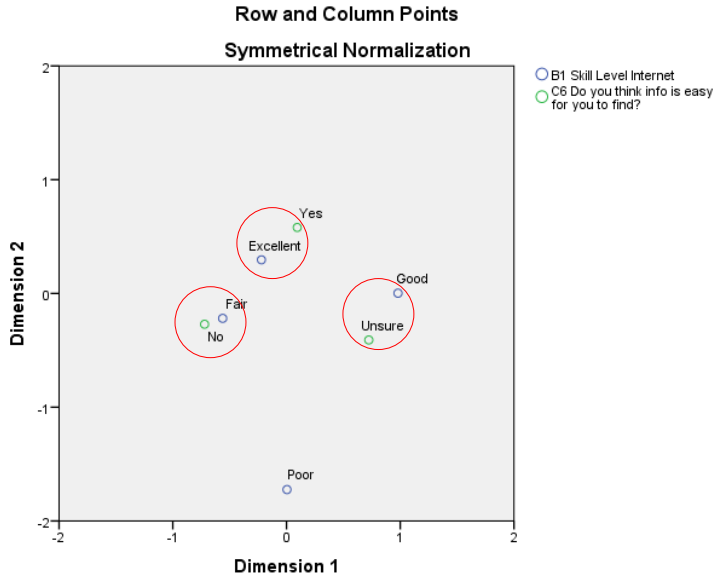



**Figure 4.49 Association between skill level with the internet and ease of finding relevant information.**

Students that had ‘excellent’ internet skills were closely associated with finding it easy to find relevant information (‘yes’). Those with ‘good’ skills were associated with students that were

'unsure' about the difficulty to find relevant information. Students with 'fair' internet skills found it difficult to find relevant information.

***Skill level with digital media – Helpfulness of digital media***

The following graphs display the relationship between the students' perceived skill level with digital media (desktop computers and the internet) and the level of helpfulness that the students found from these digital media.

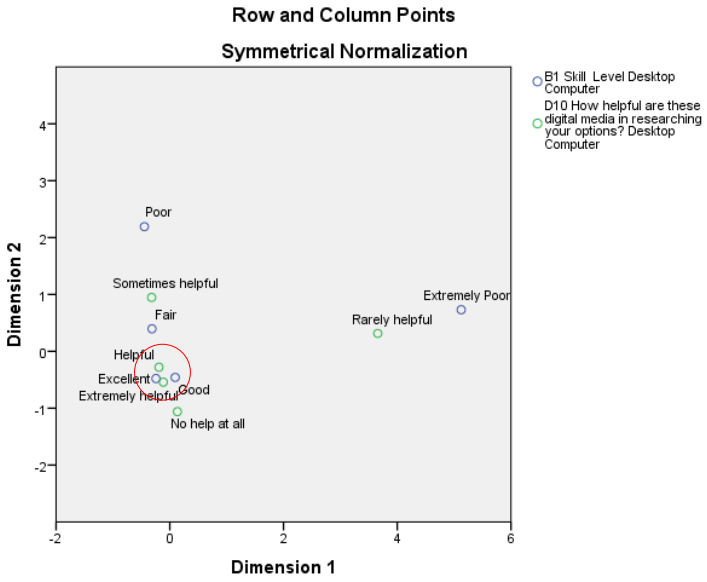



**Figure 4.50 Association between skill level with desktop computers and their helpfulness during transition.**

A tight cluster of points revealed a strong association between high skill level ('excellent' and 'good') and high levels of helpfulness ('extremely helpful' and 'helpful') of desktop computers in researching students' options for their transition.

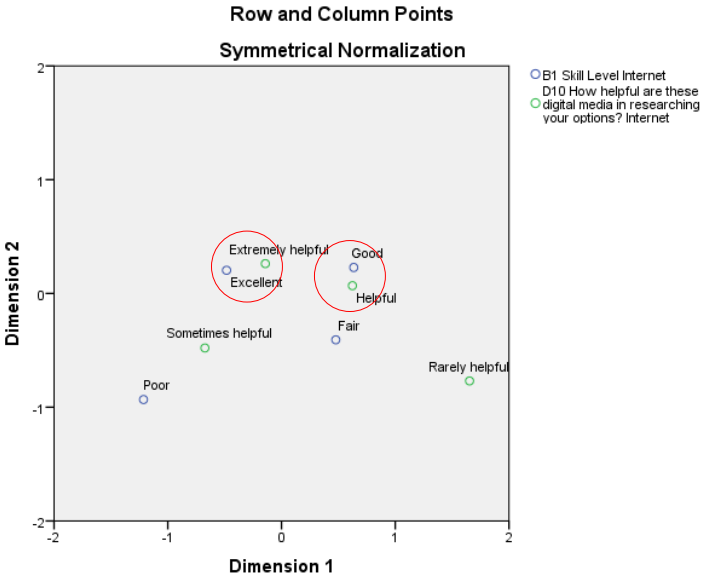



**Figure 4.51 Association between skill level with the internet and it's helpfulness during transition.**

A close association was found between students who reported having 'good' skills in using the internet and those that considered the internet to be 'helpful' in researching their transition options. A close association was also found between students that had 'excellent' internet skills and those that considered the internet to be 'extremely helpful' in researching their transition options.

## *Summary of Correspondence Analysis findings*

### *Digital media use*

The data suggests that the more often students use desktop computers, laptops and/or the internet, the more beneficial they find their use in their transition. Students that use these digital media at least once a week were generally more certain of what they will do after secondary school, find relevant information easily and find these digital media more helpful in their transition research. Results from the questionnaire indicated that Desktop computers and the internet were the most helpful forms of digital media, in terms of the students' transition. When used 'every day', these two digital media showed consistently strong associations with high certainty about transition and students finding it easy to find the information they need. The students that found the use of these digital media 'extremely helpful' used them 'every day'.

### *Access to digital media*

Students that displayed high levels of access to these digital media generally showed benefits in their transition processes. Clusters of points supported this association but made it difficult to identify strong associations between distinct variables. However, students that 'rarely' had access to desktop computers or the internet usually had 'no idea' when it came to what they will do after secondary school. Students that could access desktop computers and the internet 'most of the time' indicated that they found it easy to find relevant information. However, having the highest level of access to the internet ('whenever I want') was most closely associated with not finding it easy to find relative information and showed no strong association to high certainty

about transition. Students that found desktop computers and the internet ‘extremely helpful’ were strongly associated to the highest level of access (‘whenever I want’).

***Importance of digital media***

The perceived importance of desktop computers, laptops and the internet all indicated that students that found desktop computers and the internet as highly important were more certain of what they will do after secondary school. This was especially true for the internet. Students that indicated that the internet was ‘vital’ were strongly associated with being either ‘totally sure’ or ‘certain’ about their transition. For laptops however, students that were ‘totally sure’ about their transition were likely to find them only ‘somewhat important’ or ‘not that important’. The importance of the internet again showed a stronger association with students’ perceived difficulty in finding relevant information. Students that believed information was easy to find were likely to find the internet ‘important’ or ‘vital’.

***Skill level with digital media***

A high skill level with laptop computers and the internet were associated with more frequent use of those digital media in students’ transition research. Students that found it easy to find relevant information were consistently strongly associated with having an ‘excellent’ skill level with desktop computers, laptops and the internet. The data suggests a strong association between skill level and perceived helpfulness of desktop computers and the internet. This was especially evident for the internet. Students who found the internet ‘helpful’ were strongly likely to have ‘good’ internet skills and those that found the internet ‘extremely helpful’ often had ‘excellent’ internet skills.

## INDUCTIVE ANALYSIS

The reporting of the qualitative data involves the inductive analysis of the two focus group sessions with students and the semi-structured interview conducted with the host school’s Career Advisor. The use of qualitative data was important in gaining an accurate and contextual understanding of the participants’ views and experiences. The collation of qualitative data results identified key themes that emerged from the study. These themes have been outlined in this section with an explanation and discussion of each theme. Quotations from the transcripts are used to conceptualise and portray the feedback given from the participants.

The focus group consisted of eight students, although one student failed to return their consent form. This resulted in the exclusion of this student from the focus group reports. Therefore the results from the focus group consist of 7 students. The 7 students consisted of five males and two females. These identified as Samoan (3), Cook Islands Maori (2), Tongan (1) and Fijian (1). In the following reports, students have been given pseudonyms to preserve their identity. The seven students are referred to as ‘students A’ through to ‘student G’. The Careers Advisor is referred to as ‘the CA’.

Table 4.1 outlines the key themes identified within the qualitative analysis of this study, as well as the sub-themes found within each key theme.

| Key themes | Sub themes |
|---|---|
| Students' relationship with digital media | Use of digital media<br>Access to digital media<br>Importance of digital media<br>Digital media preferences |
| Students' issues with digital media | Confidence with digital media<br>Difficulties with digital media<br>Students' attitudes towards digital media<br>Use of transition-oriented digital media tools |
| Barriers during transition | Deciding what to do<br>Documentation<br>Students' self-perceived barriers<br>Information gathering |
| Support systems | Guidance and support<br>Influences<br>Host school initiatives |

**Table 5 Key themes identified in qualitative analysis.**

## *THEME 1: Students' relationship with digital media*

This theme discusses the practical relationship students have with digital media. Students discussed the dimensions of this relationship, in relation to their transition out of secondary school. This theme encompasses the students' uses, access and importance of digital media. This section also discusses the feedback given regarding the preferences these students have in regards to digital media.

### *Uses of digital media*

The uses of digital media by the students describe the ways in which the students interact with digital media. This study suggested students had a tentative relationship with most digital media that were discussed besides the most common forms of digital media. Although they regularly used computers (mostly laptops) and the internet, they did not display a strong relationship with a wider range of digital media. When asked what was the main reason for their use of digital media, students A,B,C and G all responded with "*entertainment*" and student C further explained this as *"probably just movies and game.".* This suggested that digital media is primarily seen as forms of entertainment and not as educational tools. Even students who agreed with the academic advantages of digital media conceded that *"just because you have more stuff though, it doesn't mean you're only going to use it for your school stuff"* (Student C).

***Access to digital media***

Access to digital media was a concern for these students. All students indicated home access to a computer and a mobile phone and only one student indicated that they only had access to a computer through school. Access to computers at school was sometimes an issue. Student A commented that *"I wish we had more access to computers sometimes."* This was supported by student A, who called for *"more computers because sometimes there isn't any free."*

Feedback from students also suggested that the mention of 'digital media' often meant expensive, 'out of reach' luxuries. When questioned about the importance of having a strong relationship with a wide range of digital media, Student A responded *"I don't have a lot of the flash stuff.".* The description of digital technology being seen as *"flash"* by the students was common throughout the focus group sessions and suggested that the students did not have high levels of access to more expensive forms of digital technology.

***Importance of digital media***

Students generally indicated that it is beneficial to be competent with computers, but feedback also suggested that strong digital literacy beyond computers was not seen as necessary. Students indicated that the importance of digital media often relied on whether they were necessary for their specific needs or requirements. For instance, student A commented, *"I think it's important, but only if you need to use it for what you're doing."* Student G admitted to being *"not good [with digital media], but I can do all my school stuff".* This suggests that students may often learn the skills that they need and little more. Students that felt they did not need certain digital media skills and did not see the merit in learning or improving these skills. Digital media need to be seen as effective tools for students in their academic lives, but especially in their transition out of secondary school. The CA stated that in terms of applying for tertiary study, "all the applications just about now are on the net." It is a growing reality that application for courses, scholarships and jobs are done predominantly online. This in turn requires the skills to navigate these processes online with whatever platform that students choose to access the internet.

***Digital media preferences***

Students indicated a preference for laptops over desktop computers. This is in line with current New Zealand trends (Stats NZ, 2013). This growing trend with mobile connections to the internet and an incorporation of digital connections in everyday life is achieved through an often diverse range of digital media. However, this is not always the case, as stated by some of these students. Student E contends that *"if it helps it's good, but I don't like using lots of different stuff. Like if I have a laptop I'm not gonna use the net on my phone or other stuff."* This suggests that these students do not necessarily incorporate mobile usage of the internet, and given their lack of access to such digital media as smartphones and tablets, may have little reason to prioritise such connections.

All students indicated that if they had the chance, the one piece of digital technology they would want would be a laptop which is *"flash"* (students B and C) or *"mean"* (student E). The colloquial

phrase “mean”, as used by these students, roughly translates to “awesome”. Student D, although the owner of a laptop, would prefer one which is *“better.”* Students indicated that despite using their new laptops for school or work, they would ultimately use them for entertainment purposes.

## *THEME 2: Students’ issues with digital media*

These students described issues in regards to digital media which hinder their ability to benefit from their use. These range from confidence with digital media, difficulties in using digital media, student attitudes towards digital media and the use of online transition-oriented tools.

### *Confidence with digital media*

Students often showed a lack of confidence in the use of digital technology as well as discussing their understanding of them. It is unclear how this affects the students’ digital literacy levels, but a lack of confidence could ultimately affect their ability to utilise digital media in an academic context. Despite these students’ lack of confidence with digital media, they showed a strong desire to remedy this and to become more proficient with digital technologies. Student C described his relationship with digital media as *“not good. I want to get better.”*

### *Difficulties with digital media*

Students reported having difficulty with using digital media and in understanding how to obtain information that they needed. Often utilising the internet, students often reported websites being confusing and thus being unable to acquire the information that they needed. Student A describes this by saying, *“I don’t always know what exactly I need and some websites are hard to understand…. Or what I’m looking for is hard to find.”* This is supported by student F who argued that *“I can find the right sites and stuff but some of the information can be confusing.”*

It is also important to remember that issues with digital technology can also be exacerbated by difficulties in understanding information and the processes within a student’s transition. Student G commented that *“sometimes you need help to understand stuff.”*

### *Students’ attitudes towards digital media*

As indicated earlier, these students indicated that digital media are primarily seen as entertainment tools, although they are recognised as helpful for their academic lives. They are also often seen as expensive luxury items which are often not within reach of students. Students shared a common opinion that you could not experience a strong relationship with a wide range of digital media *“unless you’re rich”* (student A). All students laughed and agreed with this sentiment.

### *Use of transition-oriented digital media tools*

Although there are online resources designed to help students during their transition, these students indicated a lack of use of these resources. Websites such as careers.govt.nz and studylink.co.nz had online tools to assist in various aspects of student transition and yet

students reported a lack of engagement with these resources. The majority of students either claimed not knowing about these resources or knowing but not using them. This is more than likely to disadvantage their transition process and may result in some students being unaware of relevant and beneficial information and assistance.

The CA notes that Studylink is a website regularly used at the host school and this is confirmed with all students confirming they were aware of Studylink's website. However, only student D had explored the student tools on the website, suggesting that perhaps students used it just for applications and did not take advantage of other resources. Only one student indicated an awareness of careers.govt.nz.

## *THEME 3: Barriers during transition*

It is important to identify barriers for Pasifika students in preparing for, and during their transition. This theme covers the participants' views and experiences of barriers and challenges during this transition. This section begins by discussing the decisions of students about what they will do after secondary school, followed by perceived barriers specific to Pasifika students. This is concluded with the participants' views on how information is gathered by the students.

### *Deciding what to do*

Four out of the seven focus group participants indicated they were planning to work full-time after secondary school. The predominant reason was *"to help out at home"* (student F). This spirit of 'giving back' to parents and looking after the family is common amongst students. Even students that indicated they were looking to study were doing so in order to help support families with getting *"a better job"* (student D). Students were open in acknowledging their families as important reasons in deciding what they will do.

### *Lack of documentation*

A common theme for the host school's Careers Advisor were the barriers that Pasifika students faced in preparation for their transition. These barriers varied and included practical issues such as documentation and also a lack of experienced guides and mentors. The CA outlined some of the barriers for Pasifika students during their transition.

*"…the need for documentation is a challenge, the need you know, to have an IRD number, to have a bank account in your own name, to have your birth certificate or your passport , a current passport, not an expired passport, that's quite a challenge for Pasifika students , particularly if say, you know, most of them have been, are born, in NZ, but getting birth certificates from some families is really quite difficult. So getting documentation together is often quite hard."*

The lack of documentation is not mentioned at all by the students, but can prove to be extremely detrimental to the students' progress during their transition. A significant number of

the students seem to be unaware of many of these practical necessities and the feedback from the Careers Advisor suggests they may find them to be greater obstacles than expected.

***Students' self-perceived barriers***

Students often considered their lack of effort or achievement as a barrier. For student E, it was *"sometimes our marks."* Students also agreed that they were guilty of *"being too laid back"* (student G). However the group seemed to agree with student A, in that *"islanders are always laid back."* Although it is not definitive how this "laid back" attitude affects their transition, the students seemed to commonly accept this attitude.

Students also discussed their perceptions of Pasifika students. When discussing initiatives that assist Pasifika students specifically, a common belief was that other students would see this as an unfair advantage for Pasifika students. Student A summed this up by saying, *"it's a good thing, but other people complain and make you feel like it's a bad thing…"*

***Information gathering***

Students reported often finding relevant online information difficult to find and understand. However students showed consistent confusion in understanding what information they should be looking for. For student A *"I don't always know what exactly I need and some websites are hard to understand…. or what I'm looking for is hard to find."*

For the host school, the Careers Advisor revealed that the vast majority of information given to Year 13 students is in traditional print media forms, predominantly brochures. The Careers Advisor saw this as advantageous for Pasifika students *"because they can take the brochure home and show the parents, you know, whereas getting them online to look at something, well, it just doesn't happen."*

The CA admitted that, as with all students, Pasifika students commonly experience a *"fear of the unknown"* during this transition. The CA believed that the issues for Pasifika students looking to further study are centred on a lack of understanding the entire academic process and a lack of knowledge about what to expect.

*"I think it's the actual process of going to university that they don't understand how to choose your papers, how to put your timetable together, what do you do next" (CA).*

Students recognised that they were aware of ways that Pasifika students were offered assistance such as *"programmes for islanders"* (student A) and *"scholarships"* (student D). One student held the misconception that *"some scores are brought down for islanders"* (student A). These perceptions discouraged them from actively investigating these options further. Students did not show much knowledge of scholarship application, but most felt that *"it's usually hard to find the information in the websites"* (student A).

## *THEME 4: Support systems*

The theme of 'support systems' discusses the sources of support, advice and guidance that these students draw upon as they begin their transition. Students discuss their influences during this transition and this section concludes with participants discussing the initiatives of the host school, relevant for Pasifika students during this transition.

### *Guidance and Influences*

Students discussed where they found guidance and support in their transition. All students cited a family member as the greatest influence and support for their decision-making processes regarding this transition. In fact, family was a consistent theme whenever questions of support and influences were raised. Students most commonly referred to their mother or older siblings as their main form of guidance and support.

The Careers Advisor also mentioned a potential difficulty for some Pasifika students when trying to obtain relevant academic guidance from their families. The CA stated this would happen when "parents don't have any experience of university or this is the first child going….. that proves to be a bit of a barrier because their parents often don't understand what university's all about." A lack of parental educational experience often meant that parents had limited the ability to effectively guide and assist in their child's transition.

Students commonly spoke of their school's initiatives to provide guidance and support. Students that were looking to study agreed that university student visits to the school were an effective initiative. This was considered even more effective if a past-pupil of the host school was involved. For student A, *"sometimes the Careers Advisor will tell us some stuff and sometimes some of the teachers tell us what they know or where they went."* Student B states that *"People you know that go to AUT will usually tell us that's good or Auckland or whatever."* These comments suggest that students appreciate guidance from those with relevant experience with tertiary study.

In terms of learning about helpful websites or information sources, students most commonly cited their friends as their main influence. However, the influence from friends was not always acknowledged as positive. *"At home sometimes I can't get help, but at school I sometimes just end up mucking around with friends."* For student B, this was an important factor. She stated that *"Sometimes your friends can influence your decisions…. They have a big influence. Like, if they don't acknowledge your success… you're sort of not keen to keep on with it."*

Mention was also made of the Careers Advisor and school teachers. However, students indicated that students usually *"have a good idea of where you want to go and then you just go to their website… like MIT or Auckland Uni"* (student F). This was supported by student D, who stated, *"I think you should already have a good idea and you go to sites of the places you think you want to go."* Those students that were looking to work agreed, stating that they would *"look for jobs online"* (student E).

***When asked for ideas which would help Pasifika students, two distinct ideas were reported. Firstly, "mentoring in the last few months of school" (student D). Secondly, "some teaching about websites" (student F) was suggested. Host school initiatives***

The CA outlined an evolving approach to assisting students, as they leave school. The use of Pasifika-specific parent evenings, transition tracking during and after Year 13, and mentoring all show the willingness of the school to reach out to their senior students. Both the CA and students mentioned the use of university representatives and past pupils in visiting the school to speak to senior students. For students this was a positive initiative. The CA admitted that despite material for students often being *"not digital"*, the tracking of students would be done digitally if the host school had the resources. The CA explained that, *"if we had more access to computers then I'd do more in that way…"*

## SUMMARY OF QUALITATIVE INDUCTIVE ANALYSIS

This section presents the results of inductive analysis of this study's qualitative data. Four themes and eleven sub-themes emerged from the transcripts from two focus group sessions with seven Year 13 Pasifika students and one semi-structured interview with the Careers Advisor from the host school. These themes reflect the perceptions, attitudes and experiences in relation to the transition of Year 13 Pasifika students from secondary school.

Qualitative data was analysed using inductive analysis. The use of this analysis was conducted using Creswell's (2002) model for inductive analysis. This involved the repeated examination of the qualitative data in order to observe a broad range of emerging themes. Continual refinement of these categories resulted in the identification of the four key themes and the fourteen sub-themes. These themes and sub-themes were then presented with descriptions and explanations of each theme and sub-theme.

The first theme dealt with the students' relationship with digital media. Students had access to computers (both desktop and laptops) and the internet at home and limited access at school. However, access to a wider range of digital media was limited. Laptops were strongly preferred over desktop computers. Students seemed to recognise the benefit of being competent with digital media, especially computers, but also commented that the importance of digital media relied on whether they needed to use it. Students also tended to view digital media primarily as platforms for entertainment.

The second theme discussed students' problematic issues with digital media. Students expressed issues relating to confidence and attitudes towards digital media. Although they conceded to having low levels of confidence with digital media, they were keen to improve their skills and confidence with a wider range of digital media. Newer digital media such as tablets and smartphones, were commonly seen as expensive luxuries which were often out of reach. They also discussed the use of transition-oriented digital media tools. It was common to have issues about understanding and navigating websites, although this seems to be commonly

compounded by being unsure of the information they needed. This resulted in students often under-utilising such websites as Studylink or CareersNZ.

The third theme discussed some of the barriers for these students during this transition phase. The desire to assist their families financially was a common reason for students to look towards employment, despite an acknowledgement of the benefit of further study. Concerns from the school Careers Advisor of practical requirements such as documentation, were commonly an issue for Pasifika students when preparing for life after secondary school. Some students felt that their own tendency to be 'laid back' about their transition preparation had a negative effect on their transition process. Students also expressed concerns that initiatives designed to assist Pasifika students were seen by some non-Pasifika students as unfair.

The fourth theme discussed the support systems which the students drew upon in relation to their transition. Students commonly spoke of family being their greatest influence and inspiration for what they would do after secondary school. Friends were also seen as a common form of support and assistance, although they were also a potential negative influence. School initiatives, such as tertiary student visits, were popular amongst Pasifika students especially if it was an ex-host school student. The school's initiatives of parent evenings, transition tracking and mentoring had a positive impact for students. Much of the information given to Pasifika students by the host school is in traditional print forms (brochures, flyers), although the majority of application processes are done online. This reflects the need to find an effective balance of digital and traditional resources for students.

# Chapter 5

# DISCUSSION

The aim of this study was to use a combination of quantitative and qualitative inquiry to explore the relationship Pasifika students have with digital media and how this relationship influences their secondary to post-secondary schooling transition.

The quantitative branch of this study firstly utilised a questionnaire. This questionnaire provided quantitative data exploring the students' uses and views of digital media. The survey results also served as the foundation for the correspondence analysis phase, which explored how the students' uses and views of digital media impacted on their approaches, perceptions and experiences of their transition. Correspondence analysis examined the use of, access to, importance of and perceived helpfulness of digital media. These were all contrasted with key elements of the transition process: certainty about transition, difficulty of finding relevant information and also the perceived helpfulness of digital media.

The qualitative branch of this study consisted of two student focus group sessions and an interview with the host school Careers Advisor. These interviews were analysed using inductive analysis in order to contextualise the results given by the study's quantitative data. Themes which arose from the inductive analysis were: students' relationship with digital media, students' problematic issues with digital media, barriers during transition, and support systems.

The findings of both quantitative and qualitative data are brought together to provide a fuller, more in-depth investigation and understanding of the research problem. The key research questions of this study are used as headings for corresponding discussion points:

1) How do Pasifika students use digital media?
2) How do Pasifika students perceive digital media?
3) How does the relationship Pasifika students have with digital media affect their transition?

## *How do Pasifika students use digital media?*

### *Entertainment*

The use of digital media by the Pasifika students in this study was varied. The most frequently used form of digital media was mobile phones, with high levels of use also shown by the internet, digital TV and mp3 players. This showed a trend of high usage of entertainment-oriented digital media. This was supported by findings from the qualitative inductive analysis, which reported that the students' primary use for digital media was entertainment. Focus group participants indicated they would primarily use digital media, especially computers and the internet, for games, movies and music. This is in line with local statistics (Stats NZ, 2013) which

show the 15 – 24 age category as being the most likely to use the internet for these activities. This same Statistics New Zealand report show that Pasifika peoples are also the most likely ethnicity to use the internet for downloading and listening to music.

For students, a trend to view and use digital media, primarily for entertainment and in their social lives, needs to be balanced with a view that digital media is also a valued and necessary resource in students' academic lives. This is especially true in relation to how students navigate their transition out of secondary school. Students in this study indicated that they did find value in digital media for their academic and transition preparation, but many did not express confidence in their competency with digital media. Experience and skills with computers and the internet are the bare minimum for students to be able to access the necessary information and resources that they need. This study also indicates that more frequent use of these technologies leads to Pasifika students being more confident and better prepared during their transition.

This study does not explore the entertainment uses for Pasifika students in detail, but further research into the digital entertainment practices of Pasifika students could help shed light into creative ways that digital media could be utilised which effectively engages and informs Pasifika students.

***Digital media preferences***

Students preferred to use laptops over desktop computers, which reinforced findings from the WIPNZ (2011) that laptop usage in New Zealand has sharply increased since 2009, while the use of desktop computers has sharply declined. When focus group participants were asked what form of digital media they would most want to have, all indicated that a laptop would be their first choice and mainly for entertainment reasons. This is despite the fact that the survey indicated that mobile phones were far more important to participants.

Students indicated little access to and use of tablets and smartphones. However, for those that use smartphones, the majority used them every day. The importance of phones is evident in this study, with mobile phones being the most important and commonly used digital media. This suggests that telecommunications may be an effective use of digital media that could benefit Pasifika students. An example of such an initiative can be found in the use of SMS text messaging to provide motivation and reminders (Goh et al, 2011). Although Goh et al. (2011) attempted this with students at the undergraduate level, I believe that a similar use of SMS messaging would be effective during Year 13, in regards to the transition out of secondary school. Reminders of important dates, contact details and opportunities for students could all be channelled through the students most frequently used and important piece of technology. Although I would not recommend it being the primary source of information, I believe it would serve as an effective support method for delivering information, as well as serving to encourage and motivate students.

Students showed a simple, practical view of using digital media and in particular, how they access the internet. Students indicated that they would not utilise multiple forms of digital media

to access the internet. They felt that if they had a laptop, they would not use their phones or other digital media to access the internet. It was also stated by students that the use of more forms of digital media did not mean they would use them for academic reasons and would most likely use them primarily for entertainment purposes. When asked where students preferred to be when accessing the internet, students most commonly reported their home, followed by school and a library. Students were generally not interested in other options, such as utilising mobile connections outdoors or those found at cafes or bookstores. However, it is important to note that the reasons for using the internet were not included in this aspect of the study.

Results from the survey carried out in this study showed that data storage devices were seen as highly important to Pasifika students. Sixty-one percent of students found data storage devices either 'important' or 'vital'. The only other digital media which scored higher in this regard were mobile phones and the internet. Feedback also showed that the students had relatively high levels of access, use and confidence with using data storage devices. A distinct advantage of digital media is the ability for easy storage, as well as easy access. Further research into the effective use of data storage would be beneficial to the transition process for students. This is especially important at a time that requires the students to be increasingly self-directed.

***Effects of the Access Divide***

Students showed that they could frequently access and use their most important forms of digital media, which were mobile phones and the internet. Most students could access either desktop or laptop computers most of the time. However students were less likely to have access to or use newer forms of digital media, such as tablets and smartphones. Data from the focus groups suggested that students often saw such digital media as expensive luxuries, which were often financially out of reach for them. Although recent studies (WIPNZ, 2011; Statistics NZ, 2013) show New Zealand growing in terms of internet usage and ICT literacy, this study reveals that this is often not the case for Pasifika students. It is believed that Pasifika are often found on the wrong side of the digital divide and that Pasifika are "largely excluded from the benefits of the digital revolution that the rest of the country is enjoying" (Cullen, 2002, p. 3).

The access divide for Pasifika students may limit their ability to engage with newer technologies, but Pasifika students show high levels of access, use and confidence with computers and the internet. The challenge is therefore to make sure that Pasifika students are able to effectively use these technologies during this transition phase.

Students displayed a clear understanding of what digital media were available at school, with the exception of digital cameras. Access to computers was recognised as an issue by the school Careers Advisor as well as by the students in this study. Students expressed a desire for more computers at school, explaining that not having a free computer was a barrier. The school Careers Advisor indicated that increased computer resources at the school would enable further digital tracking and assistance to students during their transition. The host school had a focus to further improve their technological infrastructure over the next few years. Technological resources may differ from school to school, but information about these resources must be

effectively delivered and explained so that students are fully aware of the technologies available to them. An effort must also be made to express the ways in which they can access and use these technologies outside of school grounds. Schools should also be able to provide students with information regarding public services which allow for access to relevant digital media.

## *How do Pasifika students perceive digital media?*

### *Tools for the rich*

Students generally had a positive view of digital media, although their lack of access to some forms of digital media encouraged an attitude that a digital media were often for those that could afford them. This was evident for digital media such as tablets and smartphones. Students indicated that certain forms of digital media were seen as “flash” and could only be acquired if students were “rich”. Socioeconomic status is often a determining factor for minority groups, such as Pasifika, that suffer because of the digital divide. For Pasifika students, expense can be a distinct barrier to effective learning that involves computers (Koloto et al., 2006; Clayton et al., 2004) and other forms of digital media. It is important to note however, that these newer technologies (tablets, smartphones) were often seen as unimportant and unnecessary by the students, both in their everyday lives and their transition preparation.

### *Importance of digital media*

Students usually considered themselves having reasonably sufficient skill levels with most digital media, although few considered themselves having an ‘excellent’ skill level. The highest levels of perceived competence were reported with mobile phones, mp3 players, digital TV and the internet. Of these four categories, no students considered themselves having an ‘extremely poor’ skill level. Despite the level of considered importance, usage, skill or access, students showed a universal desire to become more competent with all forms of digital media. This showed that Pasifika students were interested in being more digitally competent and saw potential benefits in having this competency. This supports the view of Farris-Berg (2005) that digital technology was important to students and that students believed that having high levels of access to computers and the internet provided clear advantages over having low access.

Although having a strong relationship with digital media is seen as beneficial (Farris-Berg, 2005), findings within this study also show a contrasting view. Although the benefits from high digital literacy were acknowledged by most participants, students generally reported most digital media as unimportant. Mobile phones and the internet were highly important, with computers (laptop and desktop) and data storage devices were seen as moderately important. However the levels of importance of all digital media seem to be significantly lower than the rates of usage and access of most of the digital media tracked in this study. This was especially true in the cases of digital television, digital radio, MP3 players, mobile phones and computers. I believe this suggests that a lot of time is spent with these digital media on leisure activities that are generally seen as unimportant. However, this seems to support feedback from these students who view digital media primarily as entertainment tools. If Pasifika students see digital media (or certain digital media) as enriching or adding value to their leisure time, then the

challenge is to determine how they can find them beneficial in their academic lives. Pasifika students must be able to realise that digital media make their lives better and/or easier, especially during pivotal life stages like the transition out of secondary school.

Students also implied that competence with computers and the internet were all that was necessary or important in terms of their academic lives. Students gained sufficient competence to complete school work, but seemed unable or unwilling to find further ways of utilising digital media in relation to their schoolwork. With limited access to a broader range of digital technology, students in this study seemed unaware of how certain digital media can be of practical benefit to them. This suggests that schools should be clearly teaching students effective ways to use and access, at the very least, computers and the internet in relation to the students' transition preparation.

## *How does the relationship that Pasifika students have with digital media affect their transition?*

### *The transition process*

The transition from secondary school to further study or employment can often be a challenging time. The Careers Advisor from the host school acknowledged the "fear of the unknown" that can often be problematic for Pasifika students. For those students looking to tertiary study, the CA believed that many often had difficulties in understanding the processes involved in applying and starting tertiary education. Many Pasifika students were in need of additional school and government initiatives which provided additional support and guidance during this transition period. The research by Madjar et al. (2010) observed that Pasifika students that viewed the transition to tertiary study as "a natural step in their life journey" (p. 31) often did not think of secondary schooling, subject choices or the accumulation of credits as ends in themselves. These students were able to successfully navigate their transition and generally succeed in what they were seeking to do. Other students in their study however found transition as a time of uncertainty and this often led to a weakening of focus and resolve.

The vast majority of students confirmed already investigating their transition options, but one out of ten students indicated that they had not begun. At the time of the study, it was late October of their Year13 year. Just over half of those that had begun exploring their options had done so in the last 3 months. This shows that a large proportion of students waited until the last stage of their secondary schooling to investigate their transition options. For those that were looking to transition to university, this could prove problematic. As Madjar et al. (2010) contends, early planning at secondary school, which included the careful selection of NCEA subjects, contributed significantly to students' readiness for transition to university.

When asked about the level of certainty that students had about their transition, responses were mixed. Half of the students showed a high level of certainty, but a quarter of the students indicated that they had little idea of what they were going to do. Students who frequently used computers and the internet were more likely to be more certain about what they would do after

secondary school. Students that were certain they would work were likely to be doing so to help out at home and assist their parents.

***Seeking information***

Students often reported difficulty in finding relevant information for their transition options when using digital media, though this was largely in reference to the use of the internet. Students that showed high levels of access, perceived importance and perceived skill were more likely to find it easier to find the information they need. The Careers Advisor indicated that the majority of relevant applications made to tertiary institutions and job searching is done online. Therefore the need to be digitally competent is not just an advantage, but becoming more and more necessary. Generally speaking, students did not find most digital media helpful in their transition. However, the internet was most often seen as extremely helpful, as well as desktop computers and laptops. Students that used these digital media every day were most likely to find them the most helpful.

For students, the gathering of information for their transition can result in the use of a wide variety of sources. Students indicated that the 'Careers Expo' was seen as the best information source for their transition, closely followed by the internet. The Careers Expo is a large-scale annual exhibition aimed at providing school leavers and youth with information regarding an extensive range of study, training and career opportunities. It also gives students a chance to engage with employers, industries, tertiary providers, training institutes and government departments to exhibit and directly engage with youth. Although students indicated that they were often influenced by their friends and motivated by their family, they did not consider friends, family and parents as good sources of information when it came to investigating their transition possibilities. The Careers Advisor is of the opinion that Pasifika students would more likely be the first in their family to attend university. This could be problematic for students that may not have family members with experience with tertiary study to assist them.

***Transition-oriented resources***

Students did not show a high level of confidence when discussing transition-oriented resources, in particular websites. Students often found these difficult to understand and information hard to find. Students recognised websites like that of Studylink, but very few had used the online tools that the website offers for students. Few students responded to being aware of or using tools found at other significant websites, such as careers.govt.nz either. It is unclear why these students had not accessed these tools or what difficulties they experienced in their use, but it is a reminder that these tools must be able to effectively deliver information for these students. Further research would be needed to specifically look at the issues surrounding these websites and tools to determine whether there are specific issues for Pasifika students when using them. These tools must also be fully understood and promoted by the schools themselves, so that they are fully able to assist students in their use. It is important that schools are clear with the tools which they utilise and that they recommend to students.

High levels of access, use and importance of computers and the internet were closely associated with high levels of perceived helpfulness. This means that the more that students use computers and the internet, the more helpful they were for the students. This is important as it suggests that students that use computers and the internet more frequently develop more ways of finding helpful and relevant information. This finding suggests that increased access and use to these technologies will lead to increased benefits for the students, when researching their options for life after secondary school.

### *Mentoring*

Students also suggested the use of mentoring, particularly in the last few months of school. There is a significant amount of research concerning youth mentoring in New Zealand (Farruggia, Bullen, Dunphy, Solomon & Collins, 2010; Noonan, Bullen & Farruggia, 2012), and mentoring concerning Pasifika students (Mara & Marsters, 2009), which may provide further insights. However, this is not a focus of this study. Further research into the implementation of effective mentoring, in relation to digital media usage, may prove useful and would be recommended for further research.

### *Digital vs Print Media*

Students did not show any distinct preference when it came to utilising traditional print media forms of information (brochures, magazines etc.) or digital media. The majority of students indicated that they 'sometimes' prefer traditional print forms of information. Feedback from the Careers Advisor indicated that Pasifika students often preferred brochures, as they could take them home and easily show them to parents or family, though this was not mentioned by the students in their feedback. Students did not seem to show a specific preference for how information is given to them, but students often displayed uncertainty about the information they thought they should have. This suggests that students need to have a clear understanding of what information they need before being concerned with how they get it. Two thirds of students indicated that they needed more support when researching their transition options. More than three quarters of the students indicated that they would like to know more about how digital media can help them in their transition. Students mentioned that they would like to be taught more about using websites. This was widely viewed as a helpful initiative during transition.

### *Summary*

In summary, this research study indicates that Pasifika students need and want more guidance and support during their transition from secondary school to post-secondary schooling and how different digital media could assist them in this transition. It is important to recognise that digital and educational issues should work in conjunction with each other to be of most benefit to Pasifika students. This requires us to determine what works for Pasifika students. At the very least, Pasifika students need to be taught and encouraged to become more competent with computers and the internet as these digital media serve as the bare minimum for students in the digital information age and the most significant digital media in their academic lives.

Schools need to be clear about how digital media are incorporated during this transition process. This requires the teaching of technical skills, as well as frequent opportunities to gain experience and confidence. In terms of internet usage, students commonly expressed difficulties with gaining the information they wanted from websites. This indicates that it would be beneficial for Pasifika students to receive instruction regarding the information they need and how to effectively engage with relevant websites. Websites such as Studylink and CareersNZ which provide extensive transition tools and information should be clearly explained to students so that they are able to utilise them effectively. It should not be taken for granted that all students have the same access, interest, confidence or competency with different digital technologies. Therefore students need a sound foundation for understanding what information they need and how to get it. This involves a greater understanding of what works with Pasifika students in terms of different digital media. The negative effects of a digital access divide can be minimised if students are aware of what technology is available at school, as well as those public services that can provide additional resources and support. Findings from this study show that students that utilise computers and the internet more often find information easier and are more certain about what they will do after secondary school. However, to be of most benefit, Pasifika students need to be able to see digital media as more than just entertainment tools and to utilise the necessary digital media they need more confidently and competently.

# Chapter 6

# CONCLUSION

This section provides a brief summary of the research and findings. This is followed by an explanation of this study's limitations, implications and recommendations from the research. This chapter ends with recommendations for further research.

## Summary of research

This research study attempted to address the following research questions:

1. How do Pasifika students utilise digital media in the transition process between secondary and post-secondary life?
2. How do Pasifika students perceive digital media in the transition process between secondary and post-secondary life?
3. How does the relationship that Pasifika students have with digital media affect their transition process?

The mixed methods approach of concurrent triangulation was used to provide a richer, fuller exploration of these questions. Quantitative inquiry used a survey design with a questionnaire as the data collection method that explored the uses and views of digital media by the Year13 Pasifika students of one Auckland secondary school. Quantitative data was also analysed using correspondence analysis, which explored how the students' relationship with the most common digital media impacted on their transition process. The use of focus groups and an interview with the school Careers Advisor provided context and a deeper understanding of the quantitative findings. The triangulation of quantitative and qualitative data allowed a flexible exploration of how digital media are used and perceived by students. This served as the foundation for discussion which looked at issues surrounding the students' use and perceptions of digital media, specifically in relation to their transition out of secondary school.

## Summary of Findings

Results from the survey explored the relationship students had with digital media. Students displayed a tendency to use digital media primarily for entertainment purposes. This resulted in high levels of access to and usage of mobile phones, mp3 players, computers (desktop and laptop) and the internet. Students generally indicated a 'fair' to 'good' skill level with most digital media, but expressed a common desire to be more competent with all forms of digital media. This was also evident in being able to utilise the internet with different digital media. Students showed a clear awareness of their school's provision of digital media, but felt that they would benefit from more computers being available at school. Students were often uncertain of their transition and found it difficult to find and decipher online information. Students did indicate that

they would prefer more support and assistance in using digital media to research their transition options.

Qualitative data consisted of transcripts of two student focus group sessions and one semi-structured interview with the host school's Career Advisor. Inductive analysis of the qualitative data produced four key themes: Students' relationship with digital media, students' issues with digital media, barriers during transition and support systems.

Correspondence analysis of ordinal data gained from the survey explored how key elements from the survey related to the students' transition from secondary school to post-secondary school options. Results showed that students who used computers and the internet more frequently or had a high level of skill with these media, were more likely to find it easy to find relevant information, be more certain of what they would do and find that digital media helpful.

Triangulation of data revealed that a strong relationship with computers and the internet would more likely result in students being better informed and more confident about their transition. High levels of use of mobile phones did not necessarily mean they accessed the internet in more mobile ways. In fact students were most commonly using the internet while at home or school. Students often saw digital technology as toys for the rich and newer technologies, such as tablets and smartphones, were largely out of reach for them financially.

Non-technological issues were often exacerbated by issues with digital media. A lack of understanding about their transition often meant students were uncertain about the information that they needed to find. There also seem to be a disconnect between Pasifika students and transition-oriented tools. Students were unaware of online tools that are designed to help them during their transition. Students also reported that they often found information hard to decipher on websites. It is concluded that Pasifika students need a clearer perception of their transition and the practical steps they need to take to make it more successful.

## Limitations

Although this study may help to fill a gap in the knowledge about the issues for Pasifika students in transition, the results from this study should be cautiously considered. The key limitations of this research study are explained in this section.

Firstly, the small sample size does not necessarily allow definitive conclusions to be drawn about all Pasifika students. While the sample size allowed for an appropriate and practical exploration of the relationship these students had with digital media and transition, the results are not necessarily indicative of all Pasifika students going through this transition.

Secondly, the use of a single Auckland secondary school also limits the ability to draw generalisations about the wider Pasifika student population. It must be acknowledged that other schools have different resources, approaches and initiatives which would affect the way these schools influence outcomes for Pasifika students.

Thirdly, the small sample size resulted in issues for correspondence analysis. Small frequency counts resulted in cross-tabs which could not be reliably tested for statistical significance. Although correspondence analysis is an exploratory visual technique, it is recognised that a larger sample size would have given a more reliable correspondence analysis.

## Implications and recommendations from the research

This research study provides further insights into the issues for Pasifika students in transition from secondary school. The insights gained from this study explore the uses and views that Pasifika students have with digital media during this transition. The focus of digital technology provides exploration into a dimension of student life which has received little attention in Pasifika educational literature. The rapid diffusion of internet access and rapidly emerging technologies constantly change how we incorporate technology in our lives. This study asserts the importance of digital media for Pasifika students and the potential for Pasifika students to benefit from their use. This study also provides a starting point for further exploration into the issues that Pasifika students have with utilising digital media.

### *Implications for students*

Successful transition requires students to be clear about their goals and to understand what they need to achieve them. In the transition process, students are required to research their options, access information, seek guidance and support, as well as correspond with employers and institutions. With the development of computer technologies and the internet, these requirements are increasingly done digitally. In some cases, these requirements can only be done through digital means. Students therefore need to be aware of how they should be utilising relevant digital media in order to provide the easiest and most reliable transition process as possible.

Students that are confident with and frequently use digital media, especially computers and the internet, indicate greater confidence during their transition, find information easier and find these digital media increasingly helpful. Pasifika students perceive high digital competency as beneficial, but they need higher levels of use and instruction to realise these benefits. Pasifika students indicated that they need additional support in terms of transition-oriented websites. The advantages of storing and delivering digital information offer various ways in which support can be offered to students. This should be fully explored so that students are clear about how they access and store the information that they require.

This study may prove beneficial to the host school in gaining insights into how their Pasifika students interact with digital media and possible avenues for the incorporation of digital media in providing better outcomes for these students. Educators and researchers may find this research helpful in exploring the use of digital technology by Pasifika students or even in recognising the potential of digital technology to assist Pasifika students.

### *Implications for schools*

Schools can better assist their students by providing clear support about student transition. This should involve guidance with the tools that they offer to students. As well as the technology the schools use, this also involves instruction of how students access the information they need. This study highlighted the need for guidance and support in terms of websites. Students commonly complained of finding information difficult to access and find. Therefore the initiatives by schools during this transition for Pasifika students should also include instruction and support in regards to transition-related websites.

### *Recommendations from the research*

This research utilised a broad scope to observe the relationship that Year 13 Pasifika students have with digital media and how this affects their transition out of secondary school. From this study, students displayed the highest levels of confidence, competence and access with computers and the internet. It is therefore important to build upon the relationship that Pasifika students have with these digital media. This is shown by a strong association between students that were highly confident and competent with computers and the internet and those that were highly confident of their transition. I suggest that these digital media are used as often as possible when students are given assistance and guidance in relation to their transition options.

Students in this study displayed a perception that digital media were primarily seen as entertainment tools. However students must be confident in their use for academic and career purposes, especially during this transition stage. From this study we gain a better understanding of some of the views that Pasifika students hold of digital media as well as some ways which different digital media are used by Pasifika students. The benefits gained from the use of digital media should not be taken for granted and this study gave an in-depth observation of one secondary school and some of its Pasifika students. The Careers Advisor noted that Pasifika students often had difficulties in preparing for post-secondary school life. This study helps to give insights into the attitudes of Pasifika students which may not be obvious or fully recognised by educators or academics. This is especially relevant as there is a paucity of transition-oriented research concerning Pasifika students and digital media.

Students in this study generally reported at least being fairly competent and confident in their digital media skills, however the majority of these students also wished to be more competent with digital media. It is important to gauge what skills are necessary with the most relevant and appropriate digital media for Pasifika students in relation to their transition journeys. Although further research is needed to ascertain the most effective ways to achieve this, it is important to explore the most effective ways that not only supply the necessary information for Pasifika students, but also encourage the use of these resources by Pasifika students.In preparation of this transition, students must have clear direction from their schools in the use of the available digital media at school and through public services. The use of a questionnaire, such as the one used in this study, can effectively give a broad overview of the digital access, preference, competence and experience students have and therefore provide a foundation for schools and teachers to develop strategies based on students' feedback. This also provides direct feedback

from students, giving a voice to possibly unforeseen issues and concerns about their ability to effectively engage in their transition process. In this study, students consistently complained of the difficulties of utilising transition-oriented websites and therefore this should be a clear focus for schools as they guide their Pasifika students through this transition stage. Students need to be able to know what information they need and be able to confidently obtain and use this information in preparation for their life after secondary school. I suggest that schools need to identify key websites, such as Studylink and CareersNZ and provide information on navigating through these sites as well as providing opportunities for students to gain guided experience with these websites. Increased confidence with these websites and with digital media is important as this transition is a time where students must increasingly learn to be self-directed in their decisions. How this information is made available to students should be done in multiple ways to accommodate the varying levels of digital media access as well as the preferences students may have with how they access information. Although this study does not necessarily confirm the most effective methods for Pasifika students, traditional print forms such as flyers and brochures could be accompanied by various digital forms. These may include initiatives such as online tutorials, information and website links made directly available on the school website, online blogs, websites or message boards which can offer students ways to discuss and ask questions about their transition issues.

Students often saw digital technology as expensive luxuries. This attitude needs to be considered when developing strategies that utilise digital media. Students must be given comprehensive knowledge in how to effectively utilise the digital technology at their disposal. This does not necessarily rely on a focus solely on new technologies, but should also include how more commonly used technologies can be effectively used. Examples, such as the use of sms text messaging by Goh et al. (2011), could include email newsletters, school YouTube channels or Facebook pages, relevant web links in easily accessible places such as the school website.

From this study we also gain further insight into the transition process for Pasifika secondary school leavers. This study shows some of the views and preferences that Pasifika students hold of information and guidance sources, as well as their views of their school's initiatives. This allows the host school to make educated choices about how they approach their Pasifika school leavers and offers the opportunity to build upon existing initiatives. It should also be remembered that schools need flexible and often overlapping responses as certain students, Pasifika or not, will have different preferences and abilities in accessing information and utilising different technologies. The utilisation of technologies however, is only effective if the relevant information is easily understood and relevant for all students. As this transition stage is often a time of uncertainty, efforts must be made to provide this information in simple and effective ways. For Pasifika students, teachers need to also utilise relevant culturally responsive instruction in the ways they deliver this information to Pasifika students.

## Recommendations for further research

A number of recommendations for further research have arisen from this study. This study has identified a gap in Pasifika educational literature, concerning Pasifika students' relationship with digital media and their secondary to post-secondary transition. This study suggests further exploration of the relationships that Pasifika students have with digital media. This study utilised a broad view of digital media, but investigation into the individual forms of digital media would provide a more in-depth description of the relationship between Pasifika students and individual digital media.

Conducting a similar study on a larger scale would offer a more accurate and in-depth picture of the research questions. It would also be interesting to investigate the initiatives used by different schools to assist and support Pasifika students during this transition.

This study also points to further research into innovative methods of incorporating digital media into the education of Pasifika students. The use of SMS texting, as suggested by Goh et al. (2011) is an example of how digital media can be used to support and motivate students. An ever-developing range of digital media should be explored in order to uncover creative methods of engaging and supporting students.

The ability to manipulate, deliver and store information digitally should be further explored. This study showed that data storage devices were important to students. The concept of data storage, although not discussed in this study in detail, should be explored. Free online data storage, using school computers, data storage devices and school websites could provide simple, cost-effective ways to have information stored digitally and accessible for students.

The mentoring of Pasifika students is a concept which was suggested by the students. This was not explored in this study, but mentoring has been an initiative that has shown to be successful in Pasifika educational literature (Mara and Marsters, 2009). How this is developed or implemented with regard to digital media and the transition process would require further research.

The findings and issues in this study suggest that many issues require preparation, guidance and information for students even earlier than the final year of secondary school study. Early achievement in NCEA is required to ultimately reach the requirements for most tertiary institutions. Further understanding of how the foundations of this transition can be laid effectively for Pasifika students throughout the secondary school education would greatly inform and assist in the positive outcomes for Pasifika students.

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# Appendices

## Appendix I: Student participation information sheet

# Student Participant Information Sheet

**Date Information Sheet Produced:**

24 Aug 2012

**Project Title**

Digital Stepping Stones – How do Pasifika Secondary Students use and view Digital Media in their transition to tertiary study or the different paths to employment?

**An Invitation**

Talofa lava!

My name is Hans Tommy, a Masters student from AUT School of Communications. I am looking to research how Pasifika students use and view digital media during the transition between secondary school and employment or further study. I am inviting you, as a Year13 Pasifika student to take part in a research study, which is in fulfilment of my Masters Thesis. As a Year13 Pasifika student, leaving secondary school and choosing your options next year is an important time in your life. I want to be able to help provide relevant information for students like yourself, who may need support and advice on where to gain the information that they need. I encourage you, as a Pasifika student, to think about being a part of this research and helping yourself, as well as other Pasifika students in making this transition easier. Participation is not compulsory and any lack of participation does not reflect negatively on any student. Any student who decides to participate can withdraw at any time.

Please take time to think about taking part in this research study. I look forward to the possibility of working with you and helping you as you think about your future after secondary school.

**What is the purpose of this research?**

As a part of my Masters Thesis, the purpose of this research is to gain a better understanding of how Pasifika students use and view digital media when thinking about their options after secondary school. I want to understand how digital media is being used by Pasifika students, as well as investigate how it can be of better to use to help Pasifika students.

**How was I identified and why am I being invited to participate in this research?**

All Year13 Pasifika students from your school will be offered the opportunity to take part in this research study. The study focuses on Year13 Pasifika students, as they make decisions on what they will do next year. Your school has been selected as it has high Pasifika attendance and the school has identified a commitment to seeing Pasifika students succeed and excel.

From the students that agree to participate, 8 will be randomly picked to attend two focus group sessions. Focus group members still need to make sure to complete and return/submit the questionnaire.

The Principal and Careers Advisor of your school will be asked to attend an interview. This will discuss how the school utilises digital media to help students transition out of secondary school, as well as some of the initiatives used by the school, relevant to Year13 students.

**What will happen in this research?**

This research study involves a questionnaire offered to all Year13 Pasifika students at your school. The questionnaire will ask questions regarding your access, awareness, perceptions and confidence with digital media. Every student who completes the questionnaire will go into a prize draw for $100 worth of Westfield vouchers.

From those Year13 Pasifika students that agree to participate in the research study, 8 students will be randomly selected to form a focus group. The focus group will attend two lunchtime sessions during week three of term four. These sessions will last 45 minutes and take place during the lunchtime interval during school hours. These focus group sessions will discuss issues surrounding the relationship the students have with digital media. Every focus group session will provide a meal for the participants. As the focus group sessions will be conducted during school hours, there should be no travel costs, although if any issue does occur, then any travel costs will be covered by the Primary Researcher. This will involve the cash payment for the relevant method of transport. Any individual agreement of providing transport costs will need to be approved by the school Principal.

The Principal and Careers Advisor will be asked to attend an interview to discuss the schools approach to this transition period and possible issues for Pasifika students. No students will be individually interviewed.

The data collected from the questionnaire, interviews and focus group sessions will be used to identify and investigate patterns and trends about Pasifika students and their relationship with digital media. This will be the basis of the discussion and exploration I conduct within my Masters Thesis.

**What are the discomforts and risks?**

There are minimal risks, however any participant who feels they are at risk in any form is encouraged to notify the researcher, research supervisor, school Principal and/or withdraw from the research study.

**How will these discomforts and risks be alleviated?**

If you agree to participate in the research study, the questionnaire will be available in print and digital form. This will be with a printed version, as well as the offer of completing it online. This means that it can be completed where the participant feels most comfortable (at school, at home, with friends, by yourself).

Focus group sessions will be conducted on school grounds to provide a familiar setting and for easy access for the students. Any focus group member can choose to answer/not answer any question at their own discretion.

Those participants that are interviewed are free to decline answering any questions and also complete withdrawal from the interview at their discretion.

Any participant of this research is free to withdraw from the study at any time. This will not reflect negatively on any participant.

**What are the benefits?**

The research will benefit the participating students as it raises awareness of how digital media can assist them as they prepare for their options after secondary school.

This research also looks to be of benefit to the wider Pasifika and school community as it will help to inform any Pasifika student to make relevant and effective decisions during this transition.

This research will be done in contribution to a Masters Thesis.

**How will my privacy be protected?**

All participants are protected with complete confidentiality. The school, staff and students will all be given pseudonyms and referred by titles eg. "School X", "Principal", "Student1" etc.

In no way will any details be given to any third party. The only people with access to data will be the researcher and research supervisors.

**What are the costs of participating in this research?**

The questionnaire will require approximately 30-45 minutes to complete. A written version will be given, otherwise there is the option to fill it out online at https://www.surveymonkey.com/s/digitalsteppingstones.

The 8 students that are chosen for the focus group will be asked to attend 2 focus group sessions. These will take place on school grounds during week three of term four. These sessions will last 45min each and take place during the lunchtime interval allocated by the school. The focus group sessions will provide a meal for the participants at both sessions. The use of school hours and the school location should mean no need for additional travel costs for any student, however if an issue occurs then a student will have transport costs provided by the Primary researcher. This will come in the form of cash for a taxi.

**What opportunity do I have to consider this invitation?**

You will be given 1 week to consider whether or not you will participate in the study. After that week I will collect all consent forms. However, it is important to recognise that you can withdraw from this study at any time. Please contact me to do so. This will not reflect negatively on any participant.

**How do I agree to participate in this research?**

To participate, you will need to fill out a consent form. Consent forms are provided with this invitation.

**Will I receive feedback on the results of this research?**

The consent forms will have a section at the end which will ask if you want a summary report of the findings. It will also ask you how you want it delivered to you (email, written). A summary report will also be made available to the school Principal and Careers Advisor as well.

**What do I do if I have concerns about this research?**

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, *Camille Nakhid, Camille.nakhid@aut.ac.nz, 921 9999 ext 8401.*

Concerns regarding the conduct of the research should be notified to the Executive Secretary, AUTEC, Dr Rosemary Godbold, *rosemary.godbold@aut.ac.nz* , 921 9999 ext 6902.

**Whom do I contact for further information about this research?**

*Researcher Contact Details:*

Hans Tommy, htommy83@gmail.com, 021 169 0552.

*Project Supervisor Contact Details:*

Camille Nakhid, Camille.nakhid@aut.ac.nz, 09 921 9999 ext 8401

**Approved by the Auckland University of Technology Ethics Committee on *October 4, 2012*, AUTEC Reference number *12/250*.**

## Appendix II: Letter to parents

To the Parents of the Year13 Pasifika students,

Malo Lava,

My name is Hans Tommy. I am a Masters of Communications student from Auckland University of Technology. I am writing to inform you that I am conducting a research project with Marcellin College, which looks at Year13 Pasifika students and how they use and view Digital Media. The research will focus on how this affects Pasifka students as they prepare for life after secondary school.

Your child has been offered the opportunity to take part in this research study, which will take place during the first few weeks of term four. This study is not compulsory and all potential participants have been told that they can refuse to participate or withdraw from the study at any time, no questions asked.

Students that do agree to participate will be asked to sign a consent form and fill out a questionnaire. 8 students from the Year13 pasifika population will also be randomly selected to take part in 2 focus group sessions to be held at school. A written copy of the questionnaire has been given to your child with the introduction of this study. An online copy of this questionnaire is also available at https://www.surveymonkey.com/s/digitalsteppingstones. Full details of the research study are provided to your children in the forms of a research brochure and a participant information sheet.

Parents are not required to participate in the research study, but I encourage you to have a look at the information pack given to your children. I also welcome any questions regarding the research study. For any queries, please contact myself or my research supervisor using the contact details below.

Thanks for taking the time to read this and I welcome any correspondence in regards to this project. I hope you have an awesome week.

Regards

Hans Tommy

Hans Tommy (Primary Researcher)
htommy83@gmail.com
0211690552

Camille Nakhid (Research Supervisor)
Camille.nakhid@aut.ac.nz
9999 ext8401

921

## Appendix III: Student Consent Form

# Student Participant Consent Form


*Project title:* *Digital Stepping Stones*
*Project Supervisor:* *Camille Nakhid*
*Researcher:* *Hans Tommy*

- O I have read and understood the information provided about this research project in the Information Sheet dated 24 08 2012.
- O I have had an opportunity to ask questions and to have them answered.
- O I understand that participation in this research study entails completion of the given questionnaire.
- O I understand that consent to participate in this research also allows for the possibility of being 1 of 12 randomly selected students for participation in the focus group.
- O I understand that I may withdraw myself or any information that I have provided for this project at any time prior to completion of data collection, without being disadvantaged in any way.
- O If I withdraw, I understand that the relevant information about myself including tapes and transcripts, or parts thereof, will not be used.
- O I agree to take part in this research.
- O I wish to receive a copy of the report from the research (please tick one): YesO NoO
- O How do you wish to receive this report? (please tick one): EmailO Written (mail)O

Participant's signature: .....

Participant's name: .....

Participant's Contact Details:

.....

.....

.....

.....

Date: .....

*Approved by the Auckland University of Technology Ethics Committee on October 4, 2012. AUTEC Reference number 12/250.*

*Note: The Participant should retain a copy of this form.*

# Appendix IV: Questionnaire

## Pasifika Students Digital Media Questionnaire<br>

### 1. Accessability

**1. How often do you use the following digital media?**

| | Never | Less than once a month | At least once a month | At least once a week | Every day |
|---|---|---|---|---|---|
| Desktop Computer | ○ | ○ | ○ | ○ | ○ |
| Laptop Computer | ○ | ○ | ○ | ○ | ○ |
| Data storage Device | ○ | ○ | ○ | ○ | ○ |
| Internet | ○ | ○ | ○ | ○ | ○ |
| Tablet | ○ | ○ | ○ | ○ | ○ |
| Mobile Phone | ○ | ○ | ○ | ○ | ○ |
| Mobile SmartPhone | ○ | ○ | ○ | ○ | ○ |
| Digital Television | ○ | ○ | ○ | ○ | ○ |
| Digital Radio | ○ | ○ | ○ | ○ | ○ |
| MP3 Player | ○ | ○ | ○ | ○ | ○ |
| Digital Video Recorder | ○ | ○ | ○ | ○ | ○ |
| Digital Camera | ○ | ○ | ○ | ○ | ○ |
| Gaming Console | ○ | ○ | ○ | ○ | ○ |
| Gaming Handheld | ○ | ○ | ○ | ○ | ○ |

**2. How easily can you access the following digital media?**

| | Never | Rarely | Sometimes | Most of the time | Whenever I want |
|---|---|---|---|---|---|
| Desktop Computer | ○ | ○ | ○ | ○ | ○ |
| Laptop Computer | ○ | ○ | ○ | ○ | ○ |
| Data storage Device | ○ | ○ | ○ | ○ | ○ |
| Internet | ○ | ○ | ○ | ○ | ○ |
| Tablet | ○ | ○ | ○ | ○ | ○ |
| Mobile Phone | ○ | ○ | ○ | ○ | ○ |
| Mobile SmartPhone | ○ | ○ | ○ | ○ | ○ |
| Digital Television | ○ | ○ | ○ | ○ | ○ |
| Digital Radio | ○ | ○ | ○ | ○ | ○ |
| MP3 Player | ○ | ○ | ○ | ○ | ○ |
| Digital Video Recorder | ○ | ○ | ○ | ○ | ○ |
| Digital Camera | ○ | ○ | ○ | ○ | ○ |
| Gaming Console | ○ | ○ | ○ | ○ | ○ |
| Gaming Handheld | ○ | ○ | ○ | ○ | ○ |

# Pasifika Students Digital Media Questionnaire<br>

## 3. How important to you is access to the following digital media?

| | No Important at all | Not that Important | Somewhat Important | Important | Vital |
|---|---|---|---|---|---|
| Desktop Computer | ○ | ○ | ○ | ○ | ○ |
| Laptop Computer | ○ | ○ | ○ | ○ | ○ |
| Data storage Device | ○ | ○ | ○ | ○ | ○ |
| Internet | ○ | ○ | ○ | ○ | ○ |
| Tablet | ○ | ○ | ○ | ○ | ○ |
| Mobile Phone | ○ | ○ | ○ | ○ | ○ |
| Mobile SmartPhone | ○ | ○ | ○ | ○ | ○ |
| Digital Television | ○ | ○ | ○ | ○ | ○ |
| Digital Radio | ○ | ○ | ○ | ○ | ○ |
| MP3 Player | ○ | ○ | ○ | ○ | ○ |
| Digital Video Recorder | ○ | ○ | ○ | ○ | ○ |
| Digital Camera | ○ | ○ | ○ | ○ | ○ |
| Gaming Console | ○ | ○ | ○ | ○ | ○ |
| Gaming Handheld | ○ | ○ | ○ | ○ | ○ |

## 4. Where do you prefer to be when you use the internet? (Check all that apply)

- ☐ Bookstore
- ☐ Cafe or coffee shop
- ☐ Friend's home
- ☐ Relative's home
- ☐ Home
- ☐ Library
- ☐ School
- ☐ Outside
- ☐ Work
- ☐ Internet Cafe

Other (please specify)

# Pasifika Students Digital Media Questionnaire<br>

## 2. Confidence and Competency

### 5. How do you rate your skill level with the following digital media?

| | Extremely poor | Poor | Fair | Good | Extremely good |
|---|---|---|---|---|---|
| Desktop Computer | ○ | ○ | ○ | ○ | ○ |
| Laptop Computer | ○ | ○ | ○ | ○ | ○ |
| Data storage Device | ○ | ○ | ○ | ○ | ○ |
| Internet | ○ | ○ | ○ | ○ | ○ |
| Tablet | ○ | ○ | ○ | ○ | ○ |
| Mobile Phone | ○ | ○ | ○ | ○ | ○ |
| Mobile SmartPhone | ○ | ○ | ○ | ○ | ○ |
| Digital Television | ○ | ○ | ○ | ○ | ○ |
| Digital Radio | ○ | ○ | ○ | ○ | ○ |
| MP3 Player | ○ | ○ | ○ | ○ | ○ |
| Digital Video Recorder | ○ | ○ | ○ | ○ | ○ |
| Digital Camera | ○ | ○ | ○ | ○ | ○ |
| Gaming Console | ○ | ○ | ○ | ○ | ○ |
| Gaming Handheld | ○ | ○ | ○ | ○ | ○ |

### 6. Would you prefer to be more competent with the following digital media?

| | Yes | No | Unsure |
|---|---|---|---|
| Desktop Computer | ○ | ○ | ○ |
| Laptop Computer | ○ | ○ | ○ |
| Data storage Device | ○ | ○ | ○ |
| Internet | ○ | ○ | ○ |
| Tablet | ○ | ○ | ○ |
| Mobile Phone | ○ | ○ | ○ |
| Mobile SmartPhone | ○ | ○ | ○ |
| Digital Television | ○ | ○ | ○ |
| Digital Radio | ○ | ○ | ○ |
| MP3 Player | ○ | ○ | ○ |
| Digital Video Recorder | ○ | ○ | ○ |
| Digital Camera | ○ | ○ | ○ |
| Gaming Console | ○ | ○ | ○ |
| Gaming Handheld | ○ | ○ | ○ |

## Pasifika Students Digital Media Questionnaire<br>

**7. How do you rate your skill level in accessing and using the internet using the following digital media?**

| | Extremely poor | Poor | Fair | Good | Excellent |
|---|---|---|---|---|---|
| Desktop Computer | ○ | ○ | ○ | ○ | ○ |
| Laptop Computer | ○ | ○ | ○ | ○ | ○ |
| Tablet | ○ | ○ | ○ | ○ | ○ |
| Mobile SmartPhone | ○ | ○ | ○ | ○ | ○ |
| Digital Television | ○ | ○ | ○ | ○ | ○ |
| Gaming Console | ○ | ○ | ○ | ○ | ○ |
| Gaming Handheld | ○ | ○ | ○ | ○ | ○ |

**8. Would you prefer to be more competent in accessing and using the internet using the following digital media?**

| | Yes | No | Unsure |
|---|---|---|---|
| Desktop Computer | ○ | ○ | ○ |
| Laptop Computer | ○ | ○ | ○ |
| Tablet | ○ | ○ | ○ |
| Mobile SmartPhone | ○ | ○ | ○ |
| Digital Television | ○ | ○ | ○ |
| Gaming Console | ○ | ○ | ○ |
| Gaming Handheld | ○ | ○ | ○ |

# Pasifika Students Digital Media Questionnaire<br>

## 3. Awareness and Perceptions

### 9. Which digital media does your school provide you access to?

| | Yes | No | Unsure |
|---|---|---|---|
| Desktop Computer | ○ | ○ | ○ |
| Laptop Computer | ○ | ○ | ○ |
| Data storage Device | ○ | ○ | ○ |
| Internet | ○ | ○ | ○ |
| Tablet | ○ | ○ | ○ |
| Mobile Phone | ○ | ○ | ○ |
| Mobile SmartPhone | ○ | ○ | ○ |
| Digital Television | ○ | ○ | ○ |
| Digital Radio | ○ | ○ | ○ |
| MP3 Player | ○ | ○ | ○ |
| Digital Video Recorder | ○ | ○ | ○ |
| Digital Camera | ○ | ○ | ○ |
| Gaming Console | ○ | ○ | ○ |
| Gaming Handheld | ○ | ○ | ○ |

Other (please specify)

### 10. Which digital media does your school encourage you to use to help provide you with information regarding your options for next year?

| | Yes | No | Unsure |
|---|---|---|---|
| Desktop Computer | ○ | ○ | ○ |
| Laptop Computer | ○ | ○ | ○ |
| Data storage Device | ○ | ○ | ○ |
| Internet | ○ | ○ | ○ |
| Tablet | ○ | ○ | ○ |
| Mobile Phone | ○ | ○ | ○ |
| Mobile SmartPhone | ○ | ○ | ○ |
| Digital Television | ○ | ○ | ○ |
| Digital Radio | ○ | ○ | ○ |
| MP3 Player | ○ | ○ | ○ |
| Digital Video Recorder | ○ | ○ | ○ |
| Digital Camera | ○ | ○ | ○ |
| Gaming Console | ○ | ○ | ○ |
| Gaming Handheld | ○ | ○ | ○ |

## Pasifika Students Digital Media Questionnaire<br>

**11. Please list any website that you are aware of that has provided you with information about your transition out of secondary school. Leave empty if you have not used any websites.**

**12. Which websites have been the most helpful to you? Please leave empty if you have not used any websites.**

**13. Would you prefer to have more information regarding the various digital media tools that are designed to help you with your transition out of secondary school?**

- Yes
- No
- Unsure

**14. Do you think the information you need (regarding your transition out of secondary school) is easy for you to find?**

- Yes
- No
- Unsure

# Pasifika Students Digital Media Questionnaire<br>

## 4. Experiences of your transition so far

**15. Are you looking to study or work after secondary school?**

- Study
- Work
- Unsure

**16. Have you begun investigating your options?**

- Yes
- No

**17. If you answered "Yes", when did you start researching your options?**

- In the last month
- In the last 3 months
- In the last year
- Last year
- Before last year

**18. How certain are you about what you will do after secondary school?**

- No idea
- Not much
- Some what certain
- Certain
- Totally sure

**19. What do you think are good ways to get information about your options following secondary school?**

| | not good | sometimes good | good | very good | excellent |
|---|---|---|---|---|---|
| Careers Advisor | | | | | |
| Parents | | | | | |
| Relatives | | | | | |
| Teachers | | | | | |
| Friends | | | | | |
| Internet | | | | | |
| Social Media | | | | | |
| Careers Expo | | | | | |
| Books | | | | | |
| Brochures | | | | | |

**20. Have you visited your Careers Advisor this year?**

- Yes
- No

## Pasifika Students Digital Media Questionnaire<br>

**21. If you answered "Yes" to visiting your Careers Advisor, did you find it helpful?**

- Yes
- No

**22. If you answered "No", why wasn't it helpful?**

**23. How often do you use the following digital media for researching your options after secondary school?**

| | never | less than once a month | at least once a month | at least once a week | every day |
|---|---|---|---|---|---|
| Desktop Computer | | | | | |
| Laptop Computer | | | | | |
| Data storage Device | | | | | |
| Internet | | | | | |
| Tablet | | | | | |
| Mobile Phone | | | | | |
| Mobile SmartPhone | | | | | |
| Digital Television | | | | | |
| Digital Radio | | | | | |
| MP3 Player | | | | | |
| Digital Video Recorder | | | | | |
| Digital Camera | | | | | |
| Gaming Console | | | | | |
| Gaming Handheld | | | | | |

## Pasifika Students Digital Media Questionnaire<br>

**24. How helpful have the following digital media been for researching your options after secondary school?**

| | no help at all | rarely helpful | sometimes helpful | helpful | extremely helpful |
|---|---|---|---|---|---|
| Desktop Computer | ○ | ○ | ○ | ○ | ○ |
| Laptop Computer | ○ | ○ | ○ | ○ | ○ |
| Data storage Device | ○ | ○ | ○ | ○ | ○ |
| Internet | ○ | ○ | ○ | ○ | ○ |
| Tablet | ○ | ○ | ○ | ○ | ○ |
| Mobile Phone | ○ | ○ | ○ | ○ | ○ |
| Mobile SmartPhone | ○ | ○ | ○ | ○ | ○ |
| Digital Television | ○ | ○ | ○ | ○ | ○ |
| Digital Radio | ○ | ○ | ○ | ○ | ○ |
| MP3 Player | ○ | ○ | ○ | ○ | ○ |
| Digital Video Recorder | ○ | ○ | ○ | ○ | ○ |
| Digital Camera | ○ | ○ | ○ | ○ | ○ |
| Gaming Console | ○ | ○ | ○ | ○ | ○ |
| Gaming Handheld | ○ | ○ | ○ | ○ | ○ |

**25. Do you prefer to use traditional forms of print media instead of digital media? eg. brochures, prospectus, flyers etc.**

- ○ No
- ○ Rarely
- ○ Sometimes
- ○ A lot
- ○ All the time
- ○ Unsure

**26. Do you feel you need more support to help you research your options for what you will do after secondary school?**

- ○ Yes
- ○ No
- ○ Unsure

## Appendix V: Student Research Brochure

# How will this research work?

## INTRODUCTION

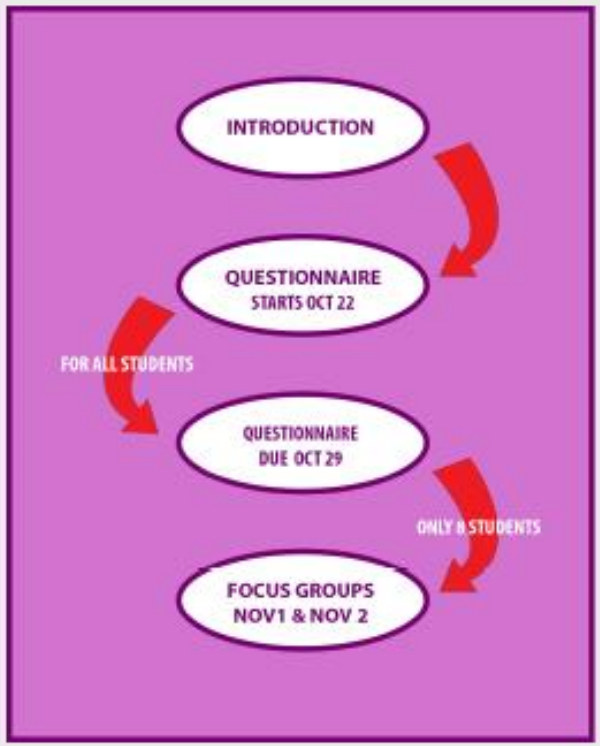
All Year13 Pasifika students from your school will be offered the opportunity to participate in this research. In the intro week, you will be given a research pack with everything you need. You will be given 1 week to decide if you want to participate or not. This research study is not compulsory, so there are no negative implications if you don't want to take part. Also any student that does agree can change their mind and withdraw at any time during the study.

If you do wish to participate, then all you will need to do is fill out a consent form, which will be inside your research pack. Bring this to school and give to Hans, the primary researcher.

## QUESTIONNAIRE

If you do agree to participate in this research study, then you will be asked to fill out a questionnaire. The questionnaire will concern your use and views of digital media and how this plays a role in your transition out of secondary school. The questionnaire will take roughly around 30-45 minutes to complete. You will be given a paper copy, or you can fill out the questionnaire online at https://www.surveymonkey.com/s/digitalsteppingstones. You will be given until Monday 29 October to complete and return/submit the questionnaire.

Participation in this study requires the completion and the return/submission of the questionnaire. Every student who fills out and returns/submits the questionnaire will go into a prize draw for $100 worth of Westfield Vouchers!




## FOCUS GROUP

**What is a focus group?**

A focus group is a selection of people used in a study to discuss issues related to the study. This is used to get the personal views and perspectives directly from the people in the research.
In this study, the research group will be used to discuss the issues concerning Pasifika students and how they use and view digital media as they prepare for further study or employment.

In this research study, 8 students will be randomly picked from the students that agree to participate. They will be picked using computer software and these 8 will form the focus group.

These 8 students will need to attend two focus group sessions. Each session will be held during lunchtime on school grounds and take about 45 minutes. Every participating student in the focus group will be provided with a meal at each focus group session. The two sessions will take place during week three of the fourth school term. The dates for the two sessions will be Tue Nov 1 and Wed Nov 2.

Participation in the focus group is not compulsory and you have the right to decline or withdraw from the focus group.
The 8 students chosen for the focus group are still asked to complete the questionnaire, but this means you're in the draw to win the $100 Westfield voucher!

**REMEMBER**
**Every completed questionnaire puts you in a prize draw to win $100 worth of Westfield vouchers!**

**REMEMBER**
**The focus group sessions will include a meal for every student!**

## Appendix VI: Focus Group Consent Form

# FOCUS GROUP
# Consent Form

AUT UNIVERSITY
TE WĀNANGA ARONUI O TAMAKI MAKAU RAU

*Project title:* *Digital Stepping Stones*
*Project Supervisor:* *Camille Nakhid*
*Researcher:* *Hans Tommy*

- O I have read and understood the information provided about this research project in the Information Sheet dated 01 10 2012.
- O I have had an opportunity to ask questions and to have them answered.
- O I understand that identity of my fellow participants and our discussions in the focus group is confidential to the group and I agree to keep this information confidential.
- O I understand that notes will be taken during the focus group and that it will also be video-recorded/audio-taped and transcribed.
- O I understand that I may withdraw myself or any information that I have provided for this project at any time prior to completion of data collection, without being disadvantaged in any way.
- O If I withdraw, I understand that while it may not be possible to destroy all records of the focus group discussion of which I was part, the relevant information about myself including tapes and transcripts, or parts thereof, will not be used.
- O I agree to take part in this research.
- O I wish to receive a copy of the report from the research (please tick one): YesO NoO

Participant's signature: .....

Participant's name: .....

Participant's Contact Details:

.....

.....

.....

.....

Date: .....

***Approved by the Auckland University of Technology Ethics Committee on October 4, 2012. AUTEC Reference number 12/250.***

*Note: The Participant should retain a copy of this form.*

## Appendix VII: Careers Advisor Information Sheet

# Careers Advisor Participant Information Sheet

**Date Information Sheet Produced:**

01 Oct 2012

**Project Title**

Digital Stepping Stones – How do Pasifika Secondary Students use and view Digital Media in their transition to tertiary study or the different paths to employment?

**An Invitation**

Talofa lava!

My name is Hans Tommy, a Masters student from AUT School of Communications. I am looking to research how Pasifika students use and view digital media during the transition between secondary school and employment or further study. I am inviting you, as the Careers Advisor of the participating school, to take part in a research study, which is in fulfilment of my Masters Thesis. I hope to gain a greater insight into how Pasifika students view and utilise digital media as they make their decisions about what they will do after Secondary School.

Participation is not compulsory and any lack of participation does not reflect negatively on any participant. Any participant who initially decides to take part in this research study can withdraw at any time.

Please take time to think about taking part in this research study. I look forward to the possibility of working with you and finding out more about what can be done to assist Pasifika students as they take their next step after Secondary School.

**What is the purpose of this research?**

The purpose of this research is to gain a better understanding of how Pasifika students use and view digital media when thinking about their options after secondary school. I want to understand how digital media is being used by Pasifika students, as well as investigate how it can be of better to use to help Pasifika students. To better understand this, it is also important to explore how pasifika students view digital media in general, as well as how they view their transition process.

**How was I identified and why am I being invited to participate in this research?**

The Principal and Careers Advisor of the participating school will be asked to attend an interview. This will discuss how the school utilises digital media to help students transition out of secondary school, as well as some of the initiatives used by the school.

The participating school has been selected as it has a high Pasifika population and the school has identified a commitment to seeing Pasifika students succeed and excel. As the Careers Advisor for the participating school, your insight into the issues surrounding students' options and your experience with students, both Pasifika and non-Pasifika, can provide valuable information in helping Pasifika students make informed, confident choices.

**What will happen in this research?**

The Principal and Careers Advisor will be asked to attend individual interviews to discuss the schools approach to this transition period and possible issues for Pasifika students. No students will be interviewed.

This research study involves a questionnaire offered to all Year13 Pasifika students at your school. The questionnaire will ask questions regarding your access, awareness, perceptions and competency with digital media.

From those Year13 Pasifika students that agree to participate in the research study, 8 students will be randomly selected to form a focus group. The focus group will attend two lunchtime sessions during week three of term four. These sessions will last 45 minutes and take place during the lunchtime interval during school hours. These focus group sessions will discuss issues surrounding the relationship the students have with digital media. Every focus group session will provide a meal for the participants. As the focus group sessions will be conducted during school hours, there should be no travel costs, although if any issue does occur, then any travel costs will be covered by the Primary Researcher. This will involve the cash payment for the relevant method of transport. Any individual agreement of providing transport costs will need to be approved by the school Principal.

The data collected from the questionnaire, interviews and focus group sessions will be used to identify and investigate patterns and trends about Pasifika students and their relationship with digital media. This will be the basis of the discussion and exploration I conduct within my Masters Thesis.

**What are the discomforts and risks?**

Interviews will be recorded using a dictaphone. This recording will then be transcribed and used for data analysis.

There are minimal risks, however any participant who feels they are at risk in any form is encouraged to notify the researcher, research supervisor, school Principal and/or withdraw from the research study.

**How will these discomforts and risks be alleviated?**

The recording will not be made available to anyone, besides the transcriber, researcher and research supervisors. Upon completion of transcription, the audio tape will be securely stored with the rest of the data material.

Those participants that are interviewed are free to decline answering any questions and also complete withdrawal from the interview at their discretion. A full transcript of the interview questions will be given to the interviewees at least 3 days before the interview. Any question can be removed at the interviewee's request.

Any participant of this research is free to withdraw from the study at any time, with no questions asked.

**What are the benefits?**

The research will benefit the participating students as it raises awareness of how digital media can assist them as they prepare for their options after secondary school.

This research also looks to be of benefit to the wider Pasifika and school community as it will help to inform any Pasifika student to make relevant and effective decisions during this transition.

This research will be done in contribution to a Masters Thesis.

**How will my privacy be protected?**

All participants are protected with complete confidentiality. The school, staff and students will all be given pseudonyms and referred by titles eg. "School X", "Principal", "Student1" etc.

In no way will any details be given to any third party. The only people with access to data will be the researcher and research supervisors.

**What are the costs of participating in this research?**

The interview will last between 25-30 minutes. It will be conducted at the Interviewee's convenience and on school grounds.

**What opportunity do I have to consider this invitation?**

You will be given 1 week to consider whether or not you will participate in the study. However, it is important to recognise that you can withdraw from this study at any time. Please contact me to do so. This will not reflect negatively on any participant.

**How do I agree to participate in this research?**

To participate, you will need to fill out a consent form. The consent form is provided with this invitation.

**Will I receive feedback on the results of this research?**

A summary report of the research findings will be given to the school Principal and Careers Advisor. This will be given on completion of the research study. A completed copy of the thesis will also be given to the school upon completion and submission in July, 2013.

**What do I do if I have concerns about this research?**

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, *Camille Nakhid, Camille.nakhid@aut.ac.nz, 921 9999 ext 8401.*

Concerns regarding the conduct of the research should be notified to the Executive Secretary, AUTEC, Dr Rosemary Godbold, *rosemary.godbold@aut.ac.nz* , 921 9999 ext 6902.

**Whom do I contact for further information about this research?**

*Researcher Contact Details:*

Hans Tommy, htommy83@gmail.com, 021 169 0552.

*Project Supervisor Contact Details:*

Camille Nakhid, Camille.nakhid@aut.ac.nz, 09 921 9999 ext 8401

**Approved by the Auckland University of Technology Ethics Committee on *October 4, 2012*. AUTEC Reference number *12/250*.**

## Appendix VIII: Careers Advisor Consent Form

# Interview
# Consent Form

*Project title:* ***Digital Stepping Stones***
*Project Supervisor:* ***Camille Nakhid***
*Researcher:* ***Hans Tommy***

- O I have read and understood the information provided about this research project in the Information Sheet dated 01 Oct 2012.
- O I have had an opportunity to ask questions and to have them answered.
- O I understand that notes will be taken during the interviews and that they will also be audio-taped and transcribed.
- O I understand that I may withdraw myself or any information that I have provided for this project at any time prior to completion of data collection, without being disadvantaged in any way.
- O If I withdraw, I understand that all relevant information including tapes and transcripts, or parts thereof, will be destroyed.
- O I agree to take part in this research.
- O I wish to receive a copy of the report from the research (please tick one): YesO NoO
- O How would you like to receive this report? (please tick one): EmailO Written (delivered to school)O

Participant's signature: .....

Participant's name: .....

Participant's Contact Details:

.....

.....

.....

Date: .....

***Approved by the Auckland University of Technology Ethics Committee on October 4, 2012. AUTEC Reference number 12/250.***