



## The FarNet Journey: Perceptions of Māori Students Engaged in Secondary Online Learning

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### Abstract

This case study investigated the perceptions of Māori students in the Virtual Learning Network of what constituted effective strategies for engaging them in online learning. In the FarNet cluster, about 63 students from the four secondary and five area schools access the VLN, and approximately 80 percent of those students are of Māori descent. Data collection included online surveys, semi-structured interviews, and observation of online classrooms. The data suggested there was a variety of delivery models experienced by students, most supported by the learning management system. Students identified a range of Web 2.0 strategies currently used by their e-teachers, and suggested that additional opportunities to collaborate and communicate would engage them further. Based on these findings, we recommend professional development for e-teachers based on learning to use these emerging tools, and better preparation of e-students for working in an online learning environment.

**Keywords:** Online learning; primary; secondary; Māori students; Virtual Learning Network

### Background

The Virtual Learning Network (VLN) can trace its start to a series of initiatives that were designed to provide greater curricular opportunities for students in rural jurisdictions (Wenmoth, 1996). One of the first of these initiatives was the FarNet e-learning cluster, a group of secondary and area schools in the Northland region of New Zealand. Like many e-learning clusters, the FarNet uses a cooperative model in which a school offers a teacher to teach a single distance education course, and this enables them to enrol students from their own school into distance education courses offered by teachers at other schools. Participating schools are required to purchase and maintain the necessary distance education equipment, and are also often asked to contribute to funding the leadership of the e-learning cluster (Barbour, 2011a).

The actual delivery model that is currently used by the e-learning clusters ranges from a more traditional classroom model where students have a 1-hour videoconferencing (VC) class with the support of hard-copy materials and resources provided by the e-teacher, through to a more interactive model of a 1-hour VC class supported by content and resources provided through a learning management system (LMS) (Roberts, 2009). The LMS provides a platform for a repository for resources that students can access at any time of the day from any internet-enabled computer. The model that is now starting to emerge is a hybrid that combines weekly VC classes and support from the LMS materials with a range of Web 2.0 tools (and even face-to-face meetings between student and teacher in some instances). Unfortunately, there has been little

research to investigate this innovative method of educational delivery with primary and secondary students (Barbour & Reeves, 2009; Cavanaugh, Barbour & Clark, 2009; Rice, 2006), and specifically in New Zealand (Barbour, 2009; 2011b).

Unlike many of the VLN e-learning clusters that exist within New Zealand, the FarNet cluster has a very high proportion of students of Māori descent. This reality provided additional challenges for the FarNet cluster, given the importance of relationships for effective teaching and learning with Māori students (Hawk, Cowley, Hill, & Sutherland, 2002). As such, the purpose of this study was to investigate the perceptions of Māori students in the VLN of what constituted effective strategies for engaging them in online learning. In this article we briefly outline what is known about the education of Māori students; in particular in relation to the nature of the distance learning environment. We describe the study that was undertaken, and the setting for that study (i.e., the FarNet e-learning cluster). Next we discuss the e-students' perceptions of their online learning experience, the tools they used, and the nature of communication and relationships in the online environment. Finally, we recommend two specific implications for e-teachers and e-principals involved in the distance education of Māori students, as well as avenues for future research.

## Literature review

It is widely acknowledged through the work of Waikato University's Te Kotahitanga research project that relationships play an important role in the engagement of students in general. This research identified that relationships are particularly important when working with Māori students. The practice of deficit theorising by teachers was also identified in this study as a major impediment to Māori students' educational achievement, as it results in teachers having low expectations of Māori students. This in turn creates a downward-spiralling, self-fulfilling prophecy of Māori student non-achievement and failure (Bishop, Berryman, Tiakiwai, & Richardson, 2003). Deficit theorising is best explained as being the practice of blaming the *problem* on the deficiencies of the *victim*, and it tends to be acultural in nature. So in the context of a study like the one described here, it is identifying how teachers blame the lack of achievement on the fact that the students are Māori, and therefore they have low expectations of those students.

In her review of the literature on a variety of e-learning environments, which included web-based and online learning, Wright (2010) reported that these environments had the potential to "make peer and collaborative learning opportunities easier . . . [and] appeared to suit many New Zealand students, especially Māori and Pasifika" (p. 19). Unfortunately, as Tiakiwai and Tiakiwai (2010) indicated, the amount of literature that specifically examines various forms of e-learning—including online distance education—and Māori students or Māori environments is scarce. One example that does exist is the Learning Activity Management System (LAMS) Bilingual Interface used by a group of *kura kaupapa* schools around the Whanganui area. This research found that the learning procedure can be *iwi* (tribal) specific and *kaupapa* (theme) specific, as well as grade-level and age specific; and that e-learning could offer the learners an opportunity to personalise and achieve self-growth. Ohia (2008) found that both student and teacher were able to structure the programme to suit individual learner needs and personalise individual ethnicity. Further, LAMS needed to be well resourced, and the *kaiako* (teacher) was required to have sufficient knowledge and skills to ensure the students received the greatest benefits from the programme. Essentially, the teacher must be able to use digital tools to interact with the students, in order to understand how they learn best in this distance environment.

The Le@rning Federation's (TLF) Indigenous Project Plan, which investigated the effects of using TLF's digital learning materials on indigenous students' motivation to learn and their engagement in learning, found that using TLF's learning objects helps these students to learn

(Wallace, 2008). Teachers reported that there was an increase in motivation to learn among indigenous students who were using TLF content, and improvements in indigenous students' engagement in their learning. The author also reported on the relationship between indigenous students' need for help with TLF content, their evident enjoyment in using TLF content to learn, their poor access to computers and the internet out of school, and their low information communications and technology and literacy proficiency, which presented a significant issue for the jurisdictions to manage.

It is not surprising to scholars of primary and secondary distance education and online learning that these digital tools can be used in effective ways to create meaningful relationships between teachers and their students. The online environment provides both teachers and students with the opportunity to learn in a community of learners where the learning experiences can be shared and any learner can become an expert within the group and share knowledge (Bereiter, 2002; Bereiter & Scardamalia, 1989, 1993; Scardamalia, 2002; Scardamalia, Bereiter, McLean, Swallow, & Woodruff, 1989). This enables both teacher and students, as learners together, to support each other and build those meaningful relationships (Walsh-Pasco, 2004). Teachers need support to promote improved learning experiences and develop relationships, and students need to feel comfortable in the online environment before relationships can be developed (Rodriguez, Ooms, & Montanez, 2008). In online learning, developing new communication strategies for online learners with an emphasis on the written word encourages a deeper level of thinking, particularly through the use of threaded discussions which, according to Jusri (2003), can provide more equality between the students and teacher in the online environment. The discussion forums and chat facilities provided in an LMS also provide an effective platform for relationships to develop. The role of the teacher as facilitator, to moderate but not necessarily participate in this online relationship, is critical to fostering a positive community environment (Elbaum, McIntyre, & Smith, 2002).

Headley (2005) supported the view that the key to successful teaching and learning was relationships. Headley further suggested that instructionally relevant contact with instructors and peers is not only desirable, but is probably necessary for creating learning environments that lead to desirable achievement gains and general satisfaction with distance education. Developing meaningful relationships therefore requires different strategies. It is crucial for online practitioners to recognise their unique position in enabling student learning in an online course through their facilitation—as opposed to direct instruction—within the online environment (Bernard et al., 2004).

Clearly, the online distance learning environment offers unique opportunities to provide a high level of interaction between teachers and their students, and also the ability to change the structure of the classroom to allow for teachers and their students to be co-learners within this environment. This high level of interaction, along with the ability to develop non-hierarchical interactions between teachers and their students in the online environment, is consistent with providing Māori students with the ability to develop the meaningful relationships so critical to their academic success. For these reasons, further examination of online learning strategies to effectively engage Māori students is needed.

## **Methodology**

The purpose of this study was to investigate the perceptions of Māori students in the VLN of what constituted effective strategies for engaging them in online learning. This general purpose led to two research questions:

1. How do Māori students experience online distance learning?
2. What tools or teaching strategies do Māori students report as being effective for them in the online distance learning environment?

The researchers decided a case study was an appropriate methodology to address these research questions (Stake, 1995). In this instance, we specifically used an embedded, single-case design where the VLN was the context, the FarNet e-learning cluster was the case, and each of the Māori student participants were the embedded units of analysis (Yin, 2003).

### **FarNet: The case**

At the time of this study, there were four secondary schools and five area schools in the FarNet e-learning cluster. These nine schools had 63 students who accessed one or more courses through the VLN. (Not all of these courses were offered by the FarNet cluster—in some instances students could enrol in courses offered by another cluster if FarNet did not offer that course.) Approximately 80 percent of e-students from the FarNet cluster were of Māori descent. These students were enrolled in 12 different programmes of learning, taught by 12 different e-teachers.

Twenty-three e-student participants who completed the survey attended eight of the nine schools (i.e., a participation rate of 36.5 percent), with the vast majority of those attending Northland College. The majority of participants were Year 13 students, of whom 47.8 percent indicated that they were of Māori descent. Further, 52.2 percent identified themselves as New Zealand European, 8.7 percent as Pasifika, 8.7 percent as Asian, and 4.3 percent selected Other (students were able to choose more than one ethnicity). The majority of students, 78.3 percent, were enrolled in only one online class. However, 17.4 percent had two online classes and one student had four. For 17.4 percent of the students, this was their second year as an e-student, while 8.7 percent were experiencing their third year as an e-student.

### **Data collection methods**

There were three methods of data collection: an online survey; a semi-structured interview conducted over the VC system (in person or using Skype); and observations of VC sessions involving the e-students who chose to participate in the study. Forty e-students were invited to participate in the study, 30 of whom returned their consent forms. Twenty-three of those e-students completed the online survey (see Appendix A). The online survey elicited e-students' views on and information about class size and its impact on their learning; the support they received from both their local schools and their e-teacher; the tools—including Web 2.0 tools—that their e-teacher used to communicate with them and as a part of their course (and how often that communication occurred); their opinions on the online environment; their work habits and success as online learners compared with traditional classroom learners; and suggestions on how to improve their online learning experience.

Of the 30 e-students who participated in the study, 10 identified themselves as Māori, and we selected those e-students to be interviewed. The purpose of running the semi-structured interviews was to gather more in-depth understanding of how the online classes were run and how Web 2.0 tools were used to engage students, especially those students who identified as being of Māori descent. Interviewing the e-students was important to check their understanding of the questions provided in the online survey and gather more information from their given answers provided in the online survey (Eder & Fingerson, 2001). During the interviews some of the findings from the online survey were presented and e-students were asked questions about those findings. The interviews also had a set of key questions that were followed in a more open-ended manner (see Appendix B for a copy of the protocol). Reflective questioning, which involved three levels of questioning, was used to promote collaborative dialogue with the e-teachers and the e-students (Barnett & Lee, 1994; Robertson, 1995; Winters, 1998). Based on

this model, the purpose of the first level of questioning was to clarify the details about their online experience. The second level of questioning was used to clarify the purposes or reasons and the intended consequences of a certain action that the interviewee had referred to. Finally, the third level of questioning was used by the interviewer to encourage the interviewee to reflect on the consequences of the action that they had taken in response to the second level of questioning.

## Results and discussion

There were four reasons for e-students learning through the VLN; however, the main reason was that the school did not offer a particular subject.

**Table 1** Reasons given for taking an online course

Reason	Percentage of student respondents
My school does not offer the subject	65.2
My school offers the subject, but I have a timetable clash	8.7
My school offers the subject, but I prefer to do it online	-
I transferred to the school during the year	-
The subject or programme of learning is offered only through a tertiary institution	98.7
Other	17.4

Although the vast majority of e-students were enrolled in their online course because they had no other choice if they wished to take that course, they identified a range of things they liked about learning online:

- “you get to work by yourself”
- “it is something different than being in a classroom”
- “you get to meet new people”
- “being able to do work at my own pace”
- “you are motivated to do it—you learn something different and use equipment that is making you achieve”
- “different way of learning and more focused”
- “it’s a different way of learning and you feel more involved”
- “the technology—learning when they can fit it in”
- “liked most things—got to meet new people and it is a new experience”.

Conversely, the e-students also identified a smaller number of challenges and things they did not like about learning in an online environment:

- “have to be motivated, as there is no teacher chasing you up like in a classroom”
- “other teachers at their schools telling them off for missing their class”
- “don’t get to be with the teacher one on one”
- “sometimes it can be boring”.

Interestingly, while e-students identified things they did not like about studying an online course, during the interviews they referred to these dislikes as being minor. They also acknowledged that learning online was a new system, and that many of their e-teachers had asked for feedback after

each term. Some e-students said they felt confident giving feedback to their e-teacher about how to improve the online course experience for the following year.

### Tools used in online learning

Most of the students responded that they experienced some form of LMS use, with 82.6 percent stating that their e-teachers used the LMS with them. The majority of e-students working with a LMS visited either once a day or five times a week. They indicated that the LMS had a range of Web 2.0 tools that they enjoyed using, and that helped them to feel engaged. Only one e-student acknowledged that they seldom visited the LMS. Hobgood (2003) found that online learners were often 'lost' at the beginning of the year, until they had got used to using the LMS. In this study one e-student noted that it wasn't until Term 2 that she was even aware that she could access additional resources from the LMS—which underscores the importance of proper preparation of primary and secondary online learners (Roblyer, 2005), and the importance of initial orientation to online learning for students (Roblyer, Davis, Mills, Marshall, & Pape, 2008).

Students identified a range of Web 2.0 tools that e-teachers used to assist them in their learning or they used themselves (see Table 2).

**Table 2** Web 2.0 tools the students reported using themselves, or that their teachers used

Web 2.0 tool	Percentage of student respondents
LMS	39.1
YouTube	34.8
Facebook	-
Wiki	21.7
Blog	4.3
Skype	21.7
Google documents	21.7
None of the above	13.0
Other	4.3

Many of the tools were new to e-students at the beginning of the year, and during the interviews they explained how their e-teachers had talked with them about new tools and slowly introduced those tools throughout the school year. A number of e-students were familiar with working in an online environment outside school time, although these e-students acknowledged that they had learnt to use these tools through experience rather than from advice. The e-students felt it was important for the e-teacher to support them in learning to use the new tools, and suggested that e-teachers should talk them through using the tools on a one-on-one basis. They seemed relaxed about this being a new experience for their e-teacher, and felt they were learning together with the tools.

According to Bolstad and Lin (2009) e-students are often not well supported by their schools regardless of the nature of the tools used (i.e., LMS or Web 2.0 tools). But training students to use the tools they need in order to learn in this environment cannot be the sole responsibility of the e-teacher. Personnel at the students' local schools must also include this kind of material in the initial orientation (Roblyer et al., 2005). It was positive to note that the data from this study demonstrated that the majority of e-students felt they were supported in their schools when they experienced problems with the technology.

## **Communication and relationships**

The e-students were not asked specifically about the importance of building relationships with their e-teacher in the online survey, but when asked how they communicated with their e-teacher and each other in the interviews, the data suggested that this communication also encompassed the relationship they had with their e-teacher. When asked whether they thought their e-teacher treated them differently because they were Māori, most e-students responded positively with a comment that implied they weren't aware that there were any differences in the way e-teachers interacted with them. They did acknowledge that many students in their normal classes were disruptive and therefore prevented them from learning, and they liked their online courses because there weren't as many classroom management issues. They received most of their work from their e-teacher by email, and this was the main channel of communication between them—they acknowledged that this was quite different from their normal classes. They also felt that they could email their e-teacher at any time if they had a concern. However, as noted by Rodriguez et al. (2008), the e-students also indicated that they needed to feel comfortable in the online environment before any of these relationships could be developed.

The e-students were clear that the type of relationships they felt they had with their e-teachers were quite different from the kinds of relationships they had developed with their face-to-face teachers. For example, the e-students reported that they felt their relationships with their e-teachers had a greater level of equality, as evidenced by the fact that many of them stated that they felt comfortable calling their e-teacher by their Christian name. Many of the e-students who were interviewed also felt that their e-teacher was far more positive with them, and put in additional effort on their behalf to ensure that they understood the material. The e-students also indicated they believed they had formed very good relationships with their e-teachers, which they considered to be important in terms of their engagement with their learning. These results support the findings of Bishop et al. (2003), who stressed the important role positive relationships played in the engagement of Māori students.

## **Conclusions and implications**

As this is a case study, we hesitate to generalise the findings beyond the FarNet e-learning clusters. We can report that FarNet e-students took courses through the VLN for a variety of reasons. However, the majority indicated that they took online courses because they were unable to take the course in their local school. The e-students reported that they enjoyed their online courses, and there were only a few things about their online courses that they did not like. It appears that the majority of e-students used the LMS extensively, but also used a number of Web 2.0 tools—either with their e-teacher or on their own as a part of their online learning. The e-students stated that a relationship with their e-teacher was important to their online learning success (something the research had indicated was of particular importance with Māori students), and the majority of students felt they had closer—yet different—relationships with their e-teacher than their face-to-face teacher.

Two main implications for practitioners were generated from this study—one each for e-teachers and e-principals. First, e-teachers of Māori students could benefit from being abreast with the research concerning engagement with Māori. The data clearly showed that assumptions should not be made about our current generation's knowledge and/or ability to be effective online learners. Further, e-teachers need help to develop these tools and skills. In many instances, the knowledge, skills, and aptitudes that Māori students need to be successful in this environment may be different than for other students, so keeping up to date with what is known about effective pedagogical strategies for Māori students will allow e-teachers to begin to consider how those best practices translate into the online learning environment.

Second, as the author/researcher was the e-principal of one of the VLN e-learning clusters, the many transcribed hours of e-student voices and the messages that were heard over the year became an exceptionally powerful tool. Much of what was learnt guided the way in which the cluster recommended schools prepare and support their e-students, as well as the activities of the cluster to orient their e-students to the online learning environment, and the professional development provided to its e-teachers. Therefore, we recommend that all e-principals, e-teachers, and schools participating in the VLN would benefit from the systematic collection of data—in particular e-student perceptions—to ensure that student needs are being fully met in this innovative new environment.

One of the limitations of this study was that the pool of e-students who participated was not as large as we had expected or hoped for. As such, we feel that this study could be replicated in other e-learning clusters, and in this same e-learning cluster, to determine whether our results are consistent with other populations of Māori online learners, and whether changes occur over time with Māori students in this particular cluster. Further, at the time of this study the FarNet e-learning cluster had a high proportion of Māori students as its online learners. A larger and more recent sample from the FarNet clusters—as well as samples from other clusters—would allow researchers to explore whether there are any significant differences between the perceptions and needs of Māori students and non-Māori students who are engaged in learning through the VLN.

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Carolyn Bennett is the ePrincipal of the FarNet and HarbourNet online communities which provide distance teaching and learning opportunities as part of the New Zealand Virtual Learning Network Community. She has been involved in traditional education for over 25 years as a teacher and deputy principal, and involved in distance learning for 7 years as a facilitator, online learner, researcher, e-teacher and now leader of these two communities.

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Michael Barbour is an Assistant Professor at Wayne State University, and has been involved with primary and secondary online learning in Canada, the United States and New Zealand for over a decade as a researcher, teacher, course designer and administrator. Michael's research focuses on the effective design, delivery and support of K-12 online learning, particularly for students located in rural jurisdictions.

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## Appendix A: Online survey (via SurveyMonkey)

*Thank you for your participation.*

Thank you for participating in this survey, which hopefully will help future students learning through distance learning and future teachers using e-learning to deliver programmes of learning.

Your identity will not be given out to anyone and the data will be used in a piece of research I am carrying out to look at effective strategies in engaging Māori students on the VLN.

If you are non-Māori, your comments and views will be very much appreciated to support future e-students and e-teachers also.

Regards,  
Carolyn Bennett  
ePrincipalFarNet

[Questions marked with \* were compulsory.]

**\*1. What school are you currently at?**

Te Hapua School	Taipa Area School
Kaitaia College	Bay of Islands College
Te Kura Taumata ō Panguru	Kaikohe Christian School
Te Kura ō Manganuiwae—Broadwood Area School	Northland College
Dargaville High School	Opononi Area School
Roxburgh Area School	Blue Mountain College
Tamatea High School	Waitara High School
East Otago High School	Other (please specify)

**\*2. What year are you in?**

Year 9	Year 10	Year 11
Year 12	Year 13	

**\*3. What nationality (ethnicity) are you? (You can choose more than one.) Please add your ethnicity if it is not listed.**

Māori	Pasifika (please state)	New Zealand European
Indian	Asian	Other (please specify)

**\*4. What is your gender?**

Male	Female
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**\*5. Which years have you learned in an online class? (Click all that apply.)**

This year (2009)	Last year (2008)
2 years ago (2007)	3 years ago or earlier (2006 and earlier)

**\*6. How many online classes are you taking this year through the VLN?**

1	2	3
4	more than 4	

**\*7. What subject or subjects are you taking through online learning THIS YEAR?**

Accounting	Agriculture	Biology	Chemistry
Economics	Equine	French	German
History	Mathematics	Media Studies	Psychology
Physical Education	Physics	Science	Statistics & Modelling
Te Reo Māori	Tourism	Young Enterprise	Other (please specify)

**\*8. Why are you learning this subject or programme of learning through online learning?**

My school does not offer the subject.

My school offers the subject, but I have a timetable clash.

My school offers the subject, but I prefer to do it through VC.

I transferred from another school during the year.

The subject or programme of learning is only offered through a tertiary institute (university, polytechnic).

Other (please specify).

**\*9. In your online class, how many students are there in total (including yourself)?**

1-2

3-4

5-6

7-8

9-10

11-12

12-13

Other (please state)

**\*10. (a) In relation to the above question about how many students are in your class, do you think this is a good number or not to have in an online classroom? Please provide a reason for your answer.**

Yes

No

(b) State why it is or why it is not.

**\*11. Do you have someone at your school who you can ask for support if you have any difficulty with the technology or difficulty with the subject? Is this person the same for both (the technology and the subject)?**

Yes, if I have difficulty with the technology.

No, if I have difficulty with the technology.

Yes, if I have difficulty with the subject.

No, if I have difficulty with the subject.

Yes, it is the same person.

No, it is a different person.

Comment if you wish to here:

**\*12. Do you use a learning management system (LMS) as part of your online learning? This is a place where your e-teacher will post work for you to access (e.g., Moodle, Myclasses, Blackboard, KnowledgeNet).**

Yes

No

Unsure

**\*13. If you do use a LMS to support your learning, how often would you visit this online classroom on average each week?**

Once a day

Once a week

Once a fortnight

Seldom

Never, because the teacher doesn't have a LMS

Never, because I have never used it

OR 3-5 times a week

OR 5-7 times a week

You can comment here:

**\*14. What methods has your teacher used to communicate with you during the year?**

Email	Forum Chats	Skype	Fax
Txt Message	Phone	Cell phone	Adobe Connect
Video conferencing (other than your regular VC class)		The teacher has visited me	
I have visited the teacher		I met the teacher at an e-day	

State any other ways:

**\*15. What ways have you communicated with any of your fellow e-students in your online class this year?**

Email	Forum Chats	Skype	Fax
Txt Message	Phone	Cell phone	Adobe Connect
Video conferencing (other than your regular VC class)		The teacher has visited me	
I have visited the teacher		I met the teacher at an e-day	

I haven't communicated with any of my fellow e-students

**\*16. In which of the ways listed above do you prefer the teacher to make contact with you (other than your regular VC class)?**

Email	Forum Chats	Skype	Fax
Txt Message	Phone	Cell phone	Adobe Connect
Video conferencing (other than your regular VC class)		Teacher Visit	Visit the teacher

Through an e-day

State any other ways:

**\*17. How does your teacher provide work for you to complete as part of your learning?**

Sends work via email	Sends work via fax
Posts work through the mail	Posts work in an online classroom
We have a textbook and workbook	Other (please state any other ways):

**\*18. (a) In which of the following mediums do you prefer to have your teacher provide you with work.**

	I prefer the most			I prefer the least
Send work via email	1	2	3	4
Send work via fax	1	2	3	4
Post work through the mail	1	2	3	4
Post work in an online classroom	1	2	3	4
Provide a textbook and workbook	1	2	3	4
Other	1	2	3	4

**(b) Please provide a reason for your answer:**

**\*19. Which of the following Web 2.0 tools have you used this year as part of your online class?**

Learning Management System	YouTube	FaceBook	Blog
Wiki	Google documents	Skype	None of the above

Other (please specify any other)

- \*20. (a) Do you feel you have been 'engaged' in learning this year in your online class?**  
Sometimes                                      Most of the times                                      None of the time  
**(b) You might like to add a comment:**
- \*21. (a) Do you feel you have achieved this year in your online class as well as you would have with a regular teacher?**  
Yes                                      No                                      Unsure  
**(b) You might like to add a comment:**
- \*22. How often has your teacher provided a report for your parents this year?**  
Term One                                      Term Two                                      Term Three                                      Not sure
- \*23. Have your parents spoken or met with your online teacher this year?**  
Yes in person                                      Yes via video conferencing                                      Yes via Skype  
Yes by cellphone                                      Yes through txt messaging                                      No  
Unsure
- \*24. What things do you enjoy and like about being in an online classroom?**
- 25. What things do you not enjoy and dislike about being in an online class?**
- \*26. How could an online environment be improved to increase your engagement and enjoyment of the online classroom?**
- \*27. What advice would you offer a future e-student considering taking an online class in the future to ensure they are successful in learning?**
- \*28. What advice would you offer a future e-teacher considering teaching an online class in the future to ensure they are successful in their teaching and ensure that they effectively engage their students?**
- \*29. (a) Would you choose to learn through VC again?**  
Yes                                      No                                      Maybe  
**(b) You might like to add a comment:**
- \*30. What further ways could your OWN SCHOOL support you during your online learning experience to ensure that you can receive the most out of your online class and perhaps make it more enjoyable and ensure you are more engaged?**
- \*31. What further ways could your E-TEACHER support you during your online learning experience to ensure that you can receive the most out of your online class and perhaps make it more enjoyable and ensure you are more engaged?**

*Thank you for your participation.*

Thank you very much for participating in this survey. Your comments will be kept confidential in terms of being able to identify who you are.

## Appendix B: Semi-structured interview protocol

*Establish the student's nationality, age, gender, school, course, level of study, whether they use an LMS.*

1. Tell me about your online class that you are studying using video conferencing.
2. Why are you taking the class via video conferencing instead of in a face-to-face class?
3. So what happens in a typical week for you around your online class?
4. How does an online class differ from a face-to-face class?
5. What type of Web 2.0 tools does your teacher use to support your learning? What sort of Web 2.0 tools do you use to support your learning?
6. As a Māori student do you feel these Web 2.0 tools help you become engaged in your online learning?
7. As a student do you feel these Web 2.0 tools help you become engaged in your online learning?
8. Do you feel your e-teacher has high expectations of you?
9. What do you like about being an e-student?
10. What do you dislike about being an e-student?
11. What advice do you have for a future e-student and future e-teacher?