

HAWAIIAN LANGUAGE IMMERSION

ADOPTION OF AN INNOVATION:

A CASE STUDY

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Ua ao Hawai'i mai ka pi'ina o ka lā ma Ha'eha'e, a i ka pu'u ma Ni'ihau a ma 'ō aku, ke ola nei ka 'ōlelo Hawai'i, i ka pilina a me ke kuleana o ku'u mau hoa makamaka o ka Papahana Kaiapuni. He wahi 'imi na'auao kēia me ke aloha palena 'ole no nā mea e pono ai o ia Papahana Kaiapuni. Wahi a Kamehameha, "E na'i wale nō 'oukou i ku'u pono 'a'ole pau".

Dawn has broken from the rising of the sun in Ha'eha'e, to the hills of Ni'ihau and beyond, the Hawaiian Language lives amongst us, due to the relationships and responsibility of my beloved friends (and I), for the Hawaiian Language Immersion Program. This is just my humble research with my undying love for the needs of the Hawaiian Language Immersion Program. Kamehameha stated, "Come all of you and stand together, my deeds are not yet complete. Let us persevere in our good deeds."

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ABSTRACT

This is a story about some Native Hawaiian people written by Native Hawaiian people of the Papahana Kaiapuni, or the Hawaiian Language Immersion Program (HLIP) of the Hawai‘i public schools. Together they “talk story” and become the voice for the HLIP by painting a picture of their past, present, and future experiences with technology. This study was undertaken to investigate the possibilities technology has opened in sustaining the HLIP and in transmitting the Hawaiian language and culture to a new generation of digital learners as seen through the stories of its teachers and past students.

The participants described the world through the lens of their language and culture. The purpose of this narrative inquiry case study is to investigate how teachers’ attitudes towards technology and prior experiences affected their use of technology in the classroom, any concerns the teachers have, and how to better support cultural change in the Hawaiian Language Immersion Program. The study investigates teachers’ experiences, similarities and differences, and suggestions for technology implementation to support 21 Century skills. The broad frameworks that underlie this study are change theory (Fullan, 2006; Hall, 2010; Dass 2001), culture-based education (Kana‘iaupuni & Kawai‘ae‘a, 2008); and technology use in language regeneration (Hartle-Schutte & Nae'ole-Wong, 2000, Warschauer & Donaghy, 1997).

“Ua ‘ākoakoa mākou no ka huliau ‘ana, we gathered together to recall the past” (Pūku‘i, n.d).

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CHAPTER 1. INTRODUCTION

*“I ka ‘ōlelo nō ke ola, I ka ‘ōlelo nō ka make –
In language there is life, in language there is death”*

Mary Kawena Pukui, 1983, #1191.

Long before the arrival of foreigners to Hawai’i, storytelling has been a tradition upon which the Native Hawaiians were enlightened (Beamer, 1984). Local narratives reflect a collaborative effort to sustain an indigenous language from the rising of the sun on the island of Hawai’i, to the setting of the sun on the island of Ni’ihau. The Hawaiian Language flourishes amongst a unique community of learners, divided by Nā Kai ‘Ewalu, the seas separating the eight major islands of Hawaii. It is from the passion to save the Hawaiian Language, that the Hawaiian Language Immersion Program (HLIP), or *Papahana Kaiapuni* was born. This is a story about some Native Hawaiian people written by Native Hawaiian people of the Papahana Kaiapuni. Together they shall “talk story” and become the voice for the HLIP by painting a picture of our past, present, and future experiences with technology. The author’s lifelong experience working in the Papahana Kaiapuni has influenced the decision to choose the Hawaiian Language Immersion Program as the setting to be studied.

Statement of the Problem

The Hawaiian Language Immersion Program, a program of the State of Hawaii Department of Education (HIDOE), was established in 1987 by a grassroots effort of

parents and Hawaiian Language advocates (Ahnee-Benham & Heck, 1998; Reyhner, 2003). The Papahana Kaiapuni began that year with two K-1 combination classes (Yamauchi et. al, 2008; Slaughter & Watson-Gegeo, 1988). Twenty-four years later, over 1,500 students and 85 teachers participate in 17 Hawaiian Language Immersion schools on 5 major Hawaiian Islands. Today, students in grades K-12 are taught the curriculum set by the the Hawaii Content & Performance Standards through the medium of the Hawaiian Language. Beginning in grade five they receive one hour of English instruction daily (Yamauchi et. al, 2008).

Throughout HLIP's history there have been many qualitative case studies that report the needs of this program (Slaughter, 1994, 1997a, 1997b; Slaughter & Lai, 1994; & Slaughter & Watson-Gegeo, 1988; Yamauchi, Ceppi & Lau-Smith, 1999). Many of the researchers of these studies were outsiders because they were not members (teachers, students, parents or administration) of this community of learners. These program evaluation studies reviewed the needs of the program through ethnographic observations, student tests and interviews. However, few studies have examined the role of technology in the context of instructional materials and practices.

Technology has played a major role in the production and preservation of the Hawaiian Language due to the limited printed materials in Hawaiian (Warschauer & Donaghy, 1997). As noted from early evaluation studies, "lack of instructional materials was a significant problem" (Slaughter & Watson-Gegeo, 1988, p. 1). There has been a recognized need for curriculum in Hawaiian when the evaluator-researchers described the need as a "dearth of instructional materials to use for teaching" (Slaughter & Watson-

Gegeo, 1988, p. 23). In the early years, teachers created their own instructional materials with a slow growth in available resources and a continual search for new ways to promote language learning while illustrating the Hawaiian cultural heritage.

As a result, the Hawaiian Language Immersion Program has always been in a change process with one emphasis being technology just to meet the needs in the classroom. Since its founding in 1987, the schools have actively embraced change through professional development which from the 1990s covered technology implementation. As early as 1992 technology was recognized by the Hawaiian Language Immersion Program as an important tool in education for the following reasons:

- (1) strong motivator for engaging children in the learning process in many content and skills areas;
- (2) preparing students for the 21st century;
- (3) multifunctional use of the language raises its status;
- (4) multimedia written and oral projects can be made;
- (5) technology helps to address the disparity of limited materials; and
- (6) technology provides a systematic record keeping and electronic archives of student portfolios (Hartle-Schutte & Nae'ole-Wong, 2000, p. 1).

The Hawaiian Language Immersion Program was one of the early adopters to the use of technology among Hawai'i public schools. For example, in 1992, Ke Kula Kaiapuni 'o Keaukaha, or Keaukaha Hawaiian Language Immersion School, was going online to follow the voyaging canoe, Hōkūle'a. Leokī, the "Powerful Voice", was the first Internet communication system in the world fully based on an indigenous language –

Hawaiian (Warschauer & Donaghy, 1997). Created in 1993 by Hale Kuamo'o at the University of Hawai'i Hilo, Leokī features private email, discussion groups, news, file transfer, chat rooms, curriculum and dictionary databases, and an online version of the Hawaiian language newspaper published by the Hale Kuamo'o.

In 1994, Hale Kuamo'o sponsored workshops for all Hawaiian Language teachers to learn the use of Leokī as well as a Hawaiian version of the software KidPix and Clarisworks. I participated in these Leo Ola workshops. According to Ka'awa and Hawkins as quoted by Solomon (2003), "authors cited difficulty in providing personal assistance to students and insufficient equipment and training as limitations" in the digital divide of Hawaii (p.33). So in the summers of 1996 and 1997, Ka'awa and Hawkins offered college courses to Hawaiian Language Immersion teachers to teach them how to create thematic multimedia curriculum units (Ka'awa & Hawkins, 1997). This was held at the University of Hawaii Manoa Campus for teachers from all of the Hawaiian Islands including Ni'ihau. I attended two summer courses along with the Hawaiian Language Immersion teachers from the school where I was employed.

The following year the college credit was offered on the island of Molokai with the purpose of teaching how to create iMovies. From these early efforts, there has been continuous professional development for educators of the Papahana Kaiapuni.

Now technology is playing a major role in the assessment of the Papahana Kaiapuni through online Hawaii State Assessment (HSA) testing. There have been Department of Education workshops to train the teachers about the Hawaiian Language Immersion version of the HSA. I, along with peer HLIP teachers, attended many of these

trainings. As recently as March 16, 2011, the editor of *Honolulu Civil Beat* reported that some Hawaiian Language Immersion Schools were considering boycotting the federally mandated (online) HSA because its Hawaiian translation was inaccurate and longer when translated from English (Poythress, 2011). According to the report, the translations for the Hawaiian Language Immersion online testing were not ready for them to test in the fall, therefore, the HLIP children were at a disadvantage. The Board of Education wanted the Department of Education to handle the situation or face possible severe state and federal interventions.

It has been stated that the Hawaiian Language Immersion teachers have been involved in professional development and the change process for over twenty years. Given that the Papahana Kaiapuni have received years of workshops and college courses for teachers, it was commonly accepted that the teachers had received adequate training to infuse technology in the classroom as daily routine (Ka'awa & Hawkins, 1997).

Little is known about the impact of the adoption of technology in primarily Native Hawaiian settings. It is not known if the teachers continue to implement technology during instruction. With all the demands put on the classroom teacher, it is important to understand the attitudes and concerns that teachers have as their daily responsibilities increase. At the same time, with the "top-down," standards-based reform imposed by the No Child Left Behind Act (Hawaii Department of Education, 2001), perhaps the current conditions imposed change on how the reading and math tests were implemented in the HLIP, with the computer use and 21st century innovations replacing the paper-based modules of the past. Maybe the teachers of the Hawaiian Language Immersion classroom

experienced the same obstacles of the past in regards to a renewed lack in instructional and testing materials.

Purpose

This study was undertaken to investigate the possibilities that technology has opened in sustaining the Hawaiian Language Immersion Program and in transmitting the Hawaiian language and culture to a new generation of digital learners as seen through the stories of its teachers and past students. The participants “described the world through the lens of their language and culture” (‘Aha Pūnana Leo, 2006).

The purpose of this narrative inquiry case study is to investigate how teachers’ attitudes towards technology and prior experiences affected their use of technology in the classroom, any concerns the teachers may have, and how to better support cultural change in the Hawaiian Language Immersion Program. The study investigates teachers’ experiences, similarities and differences, and suggestions for technology implementation to support 21st century skills. The teachers’ stories describe their individual experiences of the change process. These narratives are analyzed qualitatively to answer the research questions. After all, “you don’t have anything if you don’t have the stories” (Ahnee-Benham & Cooper, 2000, p. 4).

The broad framework that underlies this study is change theory (Fullan, 2006; Hall, 2010; Dass 2001) and culture-based theory (Kana ‘iaupuni & Kawai‘ae‘a, 2008); and technology use (Hartle-Schutte & Nae'ole-Wong, 2000; Warschauer, 2000). This attempt to seek a new understanding at infusing technology to support the linguistic and

cultural regeneration is dependent upon (1) suggestions generated from teachers based on experience, and (2) recommendations for change in a community of learners that complement existing culture-based education.

Research Questions

1. How do teachers in the Hawaiian Language Immersion Program perceive change related to technology?
2. Is there a difference in the way change is perceived by Papahana Kaiapuni teachers as compared to findings from previous research studies?

Methodological Framework: Narrative Case Study

Yin (1989) defines case study research method as an empirical inquiry that investigates a phenomenon within its real-life context. It is usually conducted when there is a small population being studied much like that of the Hawaiian Language Immersion Program. Questions are formed based on the problem of the phenomenon being studied.

In this case the Hawaiian Language Immersion Program has experienced problems due to the lack of translated materials for teachers (Slaughter & Watson-Gegeo, 1988). The study explores the possibilities for change through technology, and in this case, specifically at how technology has made an impact based on the needs of the HLIP.

Data was collected through narrative inquiry, or the telling of one's story based on real-life experience. Narrative inquiry allows the participants to "self-report" (Blank, 2002), "self-learn" and "self-criticize" based on their situation at that point in time (Denzin, 2008). The findings from this study are not intended to create change, but can be

used to inform the participants about the changes that have occurred over time and the possibilities for the future.

Conceptual Framework

The No Child Left Behind Act (2001) puts into law national reform to change the educational system by restructuring the schools across America. Current literature supports a positive attitude towards the use of technology in the classroom in meeting the NCLB goals for success of all students (Bonds-Raacke & Raacke, 2008; Palak & Walls, 2009; Martinez & Harper, 2008). Using Fullan's Change Theory (2006) as the conceptual framework, the purpose of this narrative inquiry case study was to investigate how teachers' attitudes towards technology and prior experiences affected their use of technology in the classroom, any concerns the teachers have, and how we can support cultural change in the Hawaiian Language Immersion Program.

Individual teacher concerns towards technology were not listed as a critical component of Fullan's Change Theory (2006), which focuses on school change in general and primarily from the context of school leadership; therefore, Hall (2010) and Dass (2001) Concerns-Based Adoption Model was used as a supplemental theoretical framework because it emphasizes the individuals involved in change. Hall (2010) proposed that there are basically four themes derived from stages of concern:

- (1) Impact on how the innovation affects student outcome,
- (2) Task or fitting in the time, logistics and schedules,
- (3) Self or personal feelings of uncertainty, and

(4) Unconcerned or other things are more important at this time.

In addition, several cultural frameworks have shaped this study, including the underlying theoretical Culture-Based Education (CBE) themes of Kana'iaupuni and Kawai'ae'a's (2008), Kana'iaupuni, Ledward & Jensen (2010); and theories derived from Hartle-Schutte and Nae'ole-Wong's Technology and the Revival of the Hawaiian Language (2000); and Warschauer's Technology and Indigenous Language Revitalized (1998). These will be explored further in the following chapter.

This study will show bottoms-up why exploring teacher attitudes and experiences can be an effective method for measuring the change process, beyond the top-down standards-based reform approach to change. The theme(s) that were derived from this narrative case study are basically a message that describes the teachers' attitudes and opinions about the use of technology in the Hawaiian Language Immersion Program of the past; and of today's society. Narrative allows the expression of these themes in the voice of teachers.

Narrative Methodology and Storytelling

Storytelling is a "way of knowing" based on experience; and it allows the "silenced voices" to be heard in narrative inquiry (Denzin et. al., 2006, p. 774). This qualitative case study involved the participants in "self-learning" and "self-criticism" opportunities (Denzin, 2008, p. 323) as they engaged in reflective responses about the change process, and the evolution of instructional materials with advanced digital technologies such as the use of computers. Their "insider view" was crucial as their lived

experience (Bulterman-Bos, 2008) included a need for instructional materials in Hawaiian (Slaughter & Watson-Gegeo, 1988). In addition to the latest trend that teachers become researchers in their own schools and classrooms (Cochran-Smith & Power, 2010); it is part of the Hawaiian culture to pass on knowledge through oral tradition. This is referred to among Hawaiians as “talk-story,” or the transmittal of culture through the spoken word (Beamer, 1984, p. 76).

The view of education by academic researchers is different from the way teachers view education. In some current research practices, it is assumed that “outsiders,” such as trained researchers, are better for educational research because of their expanded view from the lens of theory (Bulterman-Bos, 2008). However, according to Labaree, “teachers grant little authority to a researcher’s view of teaching and learning. Teachers only acknowledge the expertise of teachers” (quoted in Bulterman-Bos, 2008, p. 417). Polanyi suggested that engagement with the object of study is essential for any type of research (Bulterman-Bos, 2008). A clinical approach to educational research, like the one being suggested by the researcher, requires experience as a teacher of the field to be studied and to remain active as a teacher during research.

Researcher’s Perspective

As a researcher, I am also an active teacher, but not in the classrooms being studied for this report. As a fellow HLIP teacher, I am a member of the organization from another school or classroom from that of the teachers interviewed. Therefore, as a member of the organization, I functioned as a participant-observer during the research.

I was employed at the Pūnana Leo ‘o Honolulu in 1986; Waiāu HLIP in 1987 and from 1989-1995; Pū‘ōhala HLIP from 1995-2008; I am currently at Hau‘ula Hawaiian Language Immersion Program since 2008. The years of experience, combined with a lifestyle of living within a Hawaiian cultural framework, have opened my mind, heart and soul to my Hawaiian existence through the Hawaiian Language.

I am considered by definition of the Department of Hawaiian Homelands (DHHL) and the Office of Hawaiian Affairs (OHA) to be a Native Hawaiian due to her blood quantum of 50% Hawaiian traced by genealogy. Other terms of endearment include Kanaka Maoli, or “real people”, a term favored by some sovereignty groups; and Kanaka ‘Ōiwi, or people of the bone, often used in academic and religious context (Johnson, 2008). However, I use the term Native Hawaiian without the blood quantum definition of DHHL and OHA in this study.

Significance of the Study

Practitioner research and teacher research is a growing trend in our nation’s educational reform in which teachers improve their practice through reflection or self reporting of experiences (Cochran-Smith & Power, 2010). The American Journal of Education has stated a trend towards (self) reporting of lessons learned by participants whereby their experiences provide a deeper understanding that can be used to test theory (Patton, 2001). Studies support engaging teachers as learners referred to as “communities of learning” (Borko, 2004; Desimone, 2009, p. 185). By using teacher reflection and self reporting of how teaching strategies prove to be effective, we learn more about how and

why such discourse leads to productive teaching (Desimone, 2009). Much like that of Cohen et. al (2003), this research framework looks at the system of instruction and how resources were used in the Hawaiian Language Immersion Program of the past, changes affected by technology at present, and suggestions for the future.

The significance of this study is not only that it is a unique history of the Hawaiian Language Immersion Program, but also that it gives the teachers a voice in the implementation of change. Since it is the teachers who are responsible for change in the classroom, their concerns and suggestions for educational reform should be heard (Fullan, 2006). There needs to be change, support and coordination on all levels of the stakeholders starting from the bottom – the teachers. Each school’s principal can use this data for future planning of school-wide systems. The data can serve as baseline data and inquiry for self improvement of the individual teachers.

Further reasons to support this study are that technology is supported in national trends (U.S. Department of Education, 2010, p.1) and state plans (Hawaii Department of Education, 2001). Another reason to support this study is because the Hawaii State Assessment is administered online (Poythress, 2011) so it is necessary for educational technology advances in the classroom. Stevens (2011) quotes the NEA Today Executive Director John I. Wilson, “21st Century Skills are imperative in our classrooms in order to prepare our students for our globalized workforce” (p. 59).

Limitations

Limitations are factors beyond the researcher's control that may impact the results of the study or how they are interpreted. Limitations might not be obvious at the beginning of the study, but become apparent as the study progresses. All possible limitations are listed to eliminate any misinterpretations. Case studies may prove to have many limitations. "You cannot make causal conclusions from case studies" because the behavior of one person might not reflect that of its organization that it belongs to (Bell, 2006). The following is an extended list of the possible limitations to the study:

In participant-observation methodologies, there are four theoretical social roles for fieldwork (Hammersley & Atkinson, 1983). In the comparative involvement category there is the (1) complete participation, and the (2) participant as observer. In the comparative detachment category there is the (3) observer as participant, and the (4) complete observer. In the complete participant's role, total immersion in a native culture is the norm. The researcher may already be a member of the organization. This gives the researcher the ability to get inside knowledge from an insider's perspective, however, this strategy "will normally prove extremely limiting" (Hammersley & Atkinson, 1983, p. 94). The "insider" might have difficulty separating existing role expectations or pre-existing social relationships. On the other extreme, the complete observer has no contact with those being observed like looking through a one-way mirror. In both cases the researcher is not acting as an "outsider" or researcher, because the complete observer has no contact or interviews with participants; and the complete participant might fall into the norm of the existing position of practice instead of viewing it from the intellectual lens of

theory. Both the complete observer and complete participant may be limited as far as questioning. Most field researchers take on the role somewhere in between these two, as is the case in this study.

Bias

There can be bias in each of the roles an ethnographer plays from the external view of the observer to the internal view of the participant. Some potential biases related to the participant-observer role included (1) less ability to work strictly as an observer, (2) become a supporter of the organization being studied, and (3) lack of time to take notes and ask questions (Yin, 1989). The question of secrecy and deception comes into play when doing a study within the setting of one's own associated field of study (Hammersley & Atkinson, 1983).

The first bias that should be mentioned is that I am the principal investigator and am a former teacher of three different Hawaiian Language Immersion Schools, raising issues of objectivity. To prevent this from interfering with the investigation current classrooms in these schools were not visited. While I am lead investigator and a member of the organization, other teachers were interviewed to provide their perspectives. Supporting documents enriched the study and provided an additional non-subjective viewpoint. I was, however, the lead facilitator of the interview process which may have impacted the results.

The next bias deals with these other two investigators. While they are Native Hawaiian, speak Hawaiian, and are graduates of the Hawaiian Language Immersion Program, they are the daughters of the principal investigator. They volunteered because

they were interested in the study and available at no cost to the investigation. This provided some balance as I am lead investigator and a former HLIP parent and present teacher, and the other two were former students who attended different sites. As former students they have a student's perspective.

General Limitations

1. Due to the unique sample of teachers available for study at the HLIP, findings are not generalizable beyond the specific population from which the sample was drawn. However, such results can impact theory and frameworks.
2. Due to the possible failure of some respondents to answer with candor, the results might not reflect the opinions of all members of the HLIP. To help with this issue, each participant was independently interviewed in-depth without the influence of other members of the organization present. Their names have been changed to protect their anonymity.
3. Self-reported data may have reflected unique opinions specific to the participant. That is why a range of participants was purposefully selected for sampling.

Definitions

The following key terms are defined for the study.

Native Hawaiian. Native Hawaiian is a term given by the indigenous people of the state of Hawaii in reference to the descendants of the resident people before European contact in the 1800s (Captain Cook or other), regardless of Hawaiian blood quantum used in some official definitions. The State Office of Hawaiian Affairs and the State

Department of Hawaiian Homelands consider only those of 50% or more to be a Native Hawaiian.

Talk story. Talk story is a Hawaiian term used giving reference to knowledge shared through oral tradition (Beamer, 1984).

Educational Technology. For the purposes of this study educational technology and technology refer to the facets of informational technology utilized to deliver the curriculum (Provenzo, et. al., 2005).

Culture-Based Education (CBE). The basis of education is built on the experiences, values, and knowledge of the student, families, and community (Demmert & Towner, 2003, p. 9).

Summary

The use of technology and its associated tools play a major role in educational reform. This chapter introduced the problems that the Hawaiian Language Immersion Program faced in its beginning years. The history of the HLIP was explained to set the foundation for how educational reform occurred to revive the Hawaiian Language in its own homeland, and suggest the role technology played in that process.

In this chapter I also introduced the conceptual framework of Fullan's Change Theory (2006), and Hall (2010) and Dass' (2001) Concerns-Based Adoption Model. Using Fullan's (2006) Change Theory as the conceptual framework, the purpose of this narrative inquiry case study was to investigate how change, particularly as related to technology, was perceived by the Hawaiian Language Immersion Program teachers.

In the next chapter, I will explore background and related literature including the Hawaiian Renaissance; the founding of the Pūnana Leo and Papahana Kula Kaiapuni; and the philosophy of the program. Underlying theories include culture-based themes of Kana'iaupuni and Kawai'ae'a's (2008); and Kana'iaupuni, Ledward & Jensen (2010). Other theories are derived from Hartle-Schutte and Nae'ole-Wong's Technology and the Revival of the Hawaiian Language (2000); and Warschauer's Technology and Indigenous Language Revitalized (1998). These theories will be explored in the next chapter, along with literature on Hall (2010) and Dass' (2001) Concerns-Based Adoption Model.

CHAPTER 2. REVIEW OF LITERATURE

“Pūpūkahiki i holomua – Unite in order to progress”

Mary Kawena Pukui, 1983, #2758.

As described in Chapter One, the Hawaiian Language Immersion Program (HLIP) was started in 1987 by a grassroots group of educators and parents with the purpose of reviving the Hawaiian Language (Reyhner, 2003). A number of issues arose related to this goal including a severe shortage of curriculum translated in Hawaiian, and a lack of advanced planning (Slaughter & Lai, 1994). To understand the context for my study, the remainder of this chapter covers the background and creation of the HLIP, the first year evaluation, differing viewpoints of culturally relevant learning experiences, change theory, methodological framework, technology in the classroom and professional development.

Background on the Hawaiian Language Immersion Schools

Native Hawaiians highly valued skill-based, practical, and place-based education. It was recognized by Kamehameha III in 1840. Prior to the arrival of the missionaries in 1820, Hawaiians learned through oral tradition. However, the missionaries brought printed materials with them. It was their mission to educate the Hawaiians through reading, and literacy grew rapidly. “The population of Native adults assessed were proficient in their native language in 1850” (Slaughter & Lai, 1994, p. 3). Lind (1980)

reported that “from 1890 to 1910, estimated literacy rates for Native Hawaiians were between 79.8 and 98.6 percent” (Kana’iaupuni et. al, 2005, p. 27).

In 1893, Queen Lili’uokalani and the Hawaiian Nation were overthrown and many changes were made that negatively impacted the Native Hawaiian population. In 1896, English became the “medium of instruction” (Laws of the Republic of Hawai’i, 1896). For the following century, Hawaiian Language was repressed in its homeland (Warner, 1996). As the abolishment of the language was being enforced, *haumāna*, or *students* “were punished for speaking the language of their kupuna” (U.S. Congress, 1994, p.2). Children were colonized into believing that their own language and culture were secondary to that of the United States culture and the English language (Kana’iaupuni et. al, 2005). This had a negative impact on the self-identity of Native Hawaiian people.

Prior to changes in Hawai’i’s educational policies of 1986, Hawaiian could only be taught as a “foreign language” in the public schools. The Federal Office of Education reported in the Native Hawaiian Educational Assessment Project of 1983, that the policies banning the Hawaiian Language and Culture in the public schools had “failed to meet the needs of Native Hawaiian people” (U.S. Congress, 1994, p.2).

Nearly one century after the abolishment of the Hawaiian Language in the schools, the literacy rate by the end of the 20th century showed the reading scores of Native Hawaiians were consistently 30 percentiles below the highest scoring ethnic group - the Japanese. Achievement scores remain the lowest of all major ethnic groups throughout elementary and secondary levels (Kana’iaupuni et. al, 2005), showing a

marked decline from estimates a century earlier. This lack of educational attainment is continued in post-secondary education with Native Hawaiians and Pacific Islanders trailing behind the other ethnic groups as noted by the National Center for Education Statistics documenting this disparity in enrollments (Menchaca & Hoffman, 2008). According to the U.S. Census of 2000, Native Hawaiians lead other ethnic groups in unemployment, low-paying occupations, and the highest rates of incarceration and arrests (Kana'iaupuni et. al, 2005).

Many of the native people do not know how to speak their native tongue. With limited native speakers left in the 1980s, estimated as “fewer than 30 under the age of 18” (Yamauchi, 2008, p.41; ‘Aha Pūnana Leo [APL], p. 1), it was up to the Hawaiian community to perpetuate the language. When the ban restricting it as an instructional language was lifted, it opened the doors for the mother tongue to be taught in the public schools. However, initially the language was only taught at the secondary level (Ka‘awa & Hawkins, 1997).

Hawaiian Renaissance and the Creation of Pūnana Leo Preschools

In the 1970s, the Hawaiian renaissance began along with other national and international movements worldwide to support the rights of oppressed indigenous peoples (Warschauer & Donaghy, 1997). In 1978 during the Hawaii Constitutional Convention, the ban on Hawaiian Language was lifted. Hawaiian and English were declared as the two official languages of the State of Hawaii, the only state in the U.S. with more than one official language. The Native Hawaiian Education Act of 1994 describes the support of the 103rd Congress in providing supplemental educational programs to assist Native

Hawaiians to reach the National Education Goals (U.S. Congress, 1994). It was within this context of the Hawaiian Renaissance that the idea of lobbying for the Hawaiian Language and Culture was born.

In 1984, the *‘Aha Pūnana Leo* (‘APL), or “Nest of Voices,” got its license to open preschools to perpetuate the Hawaiian Language (APL, 2006, p.1). Born from the fear and realization that there were less than 50 native speakers under the age of 18 (Yamauchi, 2008), and the numbers of kūpuna, or elderly generation of native speakers was dwindling, the first preschool was opened at Kekaha, Kaua’i in August of 1984 (U.S. Congress, 1994). At that time the island of Ni‘ihau with some pure Hawaiian occupants was the only place in the world where the native tongue was the first language. The *‘Aha Pūnana Leo* focused their efforts so that a new generation would be able to “describe their world through the lens of their language and culture” (APL, 2006,p. 1).

Hawaiian Language high school and college instructors reached a consensus that the ‘APL was an effective approach to creating a generation of fluent speakers (Ka’awa & Hawkins, 1997). The following year, in 1985, additional preschools were opened in Hilo, Island of Hawaii, and Honolulu, Oahu. The three teachers at the Pūnana Leo ‘o Honolulu were native speakers from the island of Ni‘ihau who were living on the island of O‘ahu. These schools educated three and four year olds who were taught their language and culture solely in the Hawaiian Language.

Creation of HODOE Hawaiian Language Immersion Schools

When these four year olds reached kindergarten age they remained at the ‘APL until the Board of Education approved the Hawaiian Language Immersion Program

(HLIP), or Papahana Kaiapuni (PK) at Keaukaha Elementary School in Hilo, Island of Hawai‘i, and Waiau Elementary School in Pearl City, Oahu, in August of 1986. Both schools were a “school within a school,” in which only a portion of the school was dedicated to Hawaiian Language Immersion. The original children who started at the ‘APL were now in kindergarten - first grade combination classes. However, this original group of children was joined with non-Hawaiian speaking children, resulting in half kindergarten, and half first grade, and half Hawaiian speakers, and half non-Hawaiian speakers (Watson-Gegeo, 1989).

The teachers opened those classrooms with little if any written material in the medium of the Hawaiian Language (Slaughter & Watson-Gegeo, 1988). The lack of materials in Hawaiian was an obstacle, therefore, recommendations for adequate curriculum material continued into the sixth year of the evaluation study (Slaughter & Lai, 1994). The teachers in these first elementary classrooms were raised with English as their first language and Hawaiian as their second; one had an elementary teaching certificate, and the other had a secondary teaching certificate (Watson-Gegeo, 1989). There was an ongoing debate as to whether or not to require certified teachers who could speak Hawaiian fluently, or whether to use fluent native speakers with limited training in instructional strategies.

These pilot schools served as the pioneers for the other schools to be opened years later with the support of a growing Hawaiian community.

First Year Evaluation

The Board of Education employed researchers to observe, collect data and compile information about the Papahana Kaiapuni so that they could make informed decisions about the future of the schools (Slaughter & Watson-Gegeo, 1988). A qualitative evaluation using ethnographic methods of non-participant observations and interviews was applied during the evaluation's first year. Ethnographic research is the systematic study of behavior and interaction in a naturally occurring, on-going setting. Twenty-two recommendations were given in the first year. Among them, the following are particularly relevant to this study:

- (1) A Whole Language approach should be considered for curriculum support,
- (2) A full range of text-book, trade book and other curriculum translated into Hawaiian,
- (3) In-service training for teachers and staff.
- (4) The Hawaiian Language Immersion Program should extend from kindergarten to grade six;
- (5) There is a need for adequate budgeting and provision of a coordinator;
- (6) There is a need for recognition that the Hawaiian early immersion program is a bilingual program; and
- (7) Long range planning is needed for the program.

These recommendations were offered with the goals that (1) the students progress in Hawaiian and English languages; (2) students receive instruction in the full range of the elementary curriculum; and (3) that adequate resources such as curriculum materials

(in Hawaiian) and teaching staff (proficient in Hawaiian) are provided (Slaughter & Watson-Gegeo, 1988). According to the evaluators, “assistance was needed for locating and translating materials due to the “dearth of instructional materials” available (p. 23).

Philosophy of the Papahana Kaiapuni

The ‘Aha Pūnana Leo preschool movement was based on the founding of the *Kōhanga Reo* (Language Nest) of New Zealand. The Maori people led a movement to educate their young from preschool to college in their native tongue. The ‘Aha Pūnana Leo preschools, the Papahana Kaiapuni (HLIP), and the post-secondary Ka Haka ‘Ula O Ke’elikōlani College of Language at the University of Hawai’i Hilo Campus, and Kawaihuelani Ho‘okulāiwi Hawaiian Language Immersion Teacher Training Program at the University of Hawai’i Mānoa Campus have followed the Maori implementation models of education from preschool to college.

From 1984 to 1997, mission statements, guidelines, purposes and objectives were composed, compiled and written for the ‘Aha Pūnana Leo and finalized by March 1996 (Kimura, 2007). However, guidelines based on Hawaiian perspective and principles of being, knowledge and conduct were not yet written for the program. The Hawaiian philosophy of education which was written later was called Ke Kumu Maui Ola.

The development of the Hawaiian philosophy of education followed a visit to HLIP in November 1995, by a Māori native named Tuki Nepe from Aotearoa or New Zealand. It was then that she introduced *Te Aho Matua*, a Māori education philosophy. Keiki Kawai’ae’a, Director of Hale Kuamo’o, was intrigued and wanted to compose a Hawaiian philosophy of education (Author unknown, 2002). Ke Kumu Maui Ola was

composed sharing similar concerns of the Māori childrens' self-identity through the language. It is an indigenous approach to the language for academic and cultural well being of the children. *Kumu* refers to the teacher or source of knowledge. *Mauli* refers to the essence of being alive through Hawaiian identity. Maui is also relative to the place and circumstances of one's being. There are four critical items identified as attributes to Ke Kumu Maui Honua: (1) *'Uhane* is one's spiritual being, (2) *Lawena* or behavior refers to one's body language, (3) *'Ike Ku'una* is one's tradition-based knowledge, and (4) *'Ōlelo* refers to the intonation and contextual reference in language.

Culture-Based Education

While the concept of culture-based education (CBE) is not unique to Hawaiian education (Demmert & Towner, 2003), over time a uniquely Hawaiian version has emerged (Kana'iaupuni, Ledward, and Jensen, 2010). Culture-Based Education is the term used to represent the culturally relevant educational approaches grounded in cultural worldview (Demmert & Towner, 2003). These approaches are relevant to the Hawaiian Language Immersion Program as it has a strong premise beneficial to Native Hawaiians. Based on research on Native Hawaiians, American Indians, and Alaska Natives, they defined general characteristics as components of Culture-Based Education (Demmert & Towner, 2003, p. 9):

- use of native language,
- adult-child interactions practiced in the community,

- curriculum is based on traditional culture and native spirituality (visual arts, legends, oral histories, and beliefs of the community),
- community participation in the education process,
- knowledge and use of the social and political moves of the community, and
- teaching strategies are congruent with the traditional culture.

This was further developed by Klump and McNeir (2005) who defined the following characteristics as components of Culture-Based Education (p. 8):

- a climate of care, respect, and value for the student's culture,
- bridging academic learning and student's prior knowledge, language, culture
- teacher as facilitator making instruction meaningful and relevant,
- local knowledge, language, and culture integrated into curriculum,
- communicate high standards and high expectations,
- multimodal styles of learning,
- and parents, families, and communities involved in education process.

CBE serves as one of the theoretical frameworks used in this study.

The Kamehameha Early Education Program managed to establish culturally relevant learning experiences for Native Hawaiian children through research, program design, teacher training and implementation (Committee on Indian Affairs, 1988).

Founded in 1887 by a Native Hawaiian, Princess Bernice Pauahi Bishop, the Kamehameha Schools provide positive images of Hawaiians by reinforcing cultural and

ethnic identity. Findings from research studies conducted by the Kamehameha School suggest the benefit of providing Native Hawaiian learning spaces free from negative stereotypes and discrimination (Kana'iaupuni et. al, 2005). A number of research studies and evaluations provide evidence for the success of culture-based education as implemented in the HLIP (Kana'iaupuni, Malone, & Kawai'ae'a, 2008; Kana'iaupuni, Ledward, & Jensen, 2010).

Through research at the Kamehameha Early Education Project, Kawakami and Aton's 2001 publication (cited in Kana'iaupuni and Kawai'ae'a, 2008) defined the following characteristics as components of Culture-Based Education:

- cultural protocol in school,
- cultural values,
- cultural knowledge and traditions in community events,
- participation of kūpuna, or elders,
- Hawaiian Language Immersion Program,
- Hawaiian Language books and resources,
- Hawaiian language, history and culture classes,
- traditional knowledge with modern disciplines,
- culturally based materials,
- traditional stewardship,
- project-based learning, small group work, student portfolios and *hō'ike* or demonstration, and
- incorporate indigenous talk story.

In the past decade, a major research project on culture-based education in the Hawaiian schools has emerged. The Hawaiian Cultural Influences in Education (HCIE) study is a collaborative effort of the Kamehameha Schools, Hawai'i Department of Education (including the HLIP), and Nā Lei Na'auao Charter Schools (also including HLIP). The HCIE “examines relationships among culture-based educational strategies and socio-emotional development and educational outcomes of students” (<http://www.ksbe.edu/SPI/cbe.php>). For the project, CBE is defined as “the grounding of instruction and student learning in the values, norms, knowledge, beliefs, practices, and language that are the foundation of (an indigenous) culture.”

Overall, the findings from the studies support CBE as a positive influence on Hawaii's students. Culture-Based Education “more effectively engages children and their families in lifelong learning and leadership” (Kana'iaupuni, Malone, & Kawai'ae'a, 2008, p. 67). It “positively impacts student socio-emotional well-being,” which “in turn, positively affects math and reading test scores” (Kana'iaupuni, Ledward, & Jensen, 2010, p. 1). An empirical study amongst high school students was conducted at 62 participating schools in Hawaii involving 2,969 students, 2,264 parents, and 600 teachers. “The findings are consistent with prior qualitative studies, indicating that culture-based educational strategies positively impact student outcomes, particularly Native Hawaiian student outcomes” (Kana'iaupuni, Ledward, & Jensen, 2010, p. 2).

Through the HCIE research of Kana'iaupuni (2005, Kana'iaupuni, Ledward, & Jensen, 2010) as part of HCIE, a rubric was developed that encapsulates the primary

concepts of Hawaiian culture-based education. There are five sub-themes in the Hawaiian Indigenous Education rubric (Kana'iaupuni, Ledward, & Jensen, 2010, p. 21).

1. Language: Use of heritage language in teaching,
2. 'Ohana and community involvement,
3. Content: Culture and place-based,
4. Context, and
5. Data accountability

These studies also suggest a common theme in the use of language, family and community commitment, culturally grounded content and assessment, culturally appropriate learning interaction, and gathering to maintain data in culturally appropriate ways. This is consistent with cultural philosophy in which family is very important to the Hawaiian people. *'Ohana*, or family extends to a community of learners. Some of the cultural values that guide Hawaiian philosophy are: (1) *mālama* (take care of people, places and things), (2) *aloha* (to have respect), (3) *lokomaika'i* (generosity), (4) *kuleana* (privilege of responsibility), (5) *'imi na'auao* (seek wisdom), (6) *'imi pono* (seek righteousness), (7) *ho'omau* (persevere and perpetuate), (8) *lōkahi* (unity) and (9) *ha'aha'a* (modesty) (Kamehameha Schools, 2011).

The Pūnana Leo and Hawaiian Language Immersion Program (HLIP) provide the setting for the Hawaiian language and culture to thrive within the Hawai'i public schools. Parent involvement is a critical element for success in the program. In a study from 1999, thirty-five families representing two from each of the 17 HLIP schools in existence in 1999 found family involvement to have the following positive impact: (1) the devel-

opment of children's values, (2) family and community bonding, (3) children's English language learning, and (4) family members' learning about Hawaiian language and culture (Yamauchi, 2008). The involvement of the family and community was founded in the model school system of the Maori people. It is as relevant today as it was in the past.

Technology in the Classroom

Educational research in traditional classrooms has shown that technology can have a positive impact on student achievement if the following factors are in place: (1) the use of computers combined with traditional instruction can increase student learning, (2) the use of computers combined with traditional instruction can produce higher academic achievement than traditional instruction alone, (3) students learn quickly and with greater retention, (4) students like learning with computers and their attitudes are positively affected by computer use, and (5) effective and adequate teacher training is an integral element of successful learning based on or assisted by technology (Fouts, 2000, p. 28). Technology use has proven to have a positive impact on student achievement. It can have a positive impact on language revitalization in the HLIP setting as well (Warschauer, 2000; Hartle-Schutte & Nae'ole-Wong, 2000; Waschauer & Donnagy, 1997).

Technology and Language Revitalization

Language revitalization have been enhanced through the uses of new technologies for the purpose of increasing its uses or users of minority languages. Languages abandoned by their biological speakers have been recognized as an irreplaceable loss for

human knowledge. Studies of language loss stress the important role that mass media, in particular, “television and radio” broadcasts, can play for the maintenance and renewal of lesser-used languages, (Eisenlohr, 2004, p. 23). Its reproduction is valued as “crucial to obtaining the status of a language” (Eisenlohr, 2004, p. 24). Computer technology can be helpful in creating and disseminating teaching materials, such as digital materials combining text, sound, and graphics, sound recording, and books. This includes CD-ROMS, interactive Web sites, and social networks. Most of the literature supports the use of digital technologies to document and disseminate the minority language. To further understand the impact that new technologies have on endangered languages, one must analyze both the sociocultural theories as well as the instrumental-technical possibilities.

An ambitious effort towards language revitalization for the Hawaiian Language led to the creation of Leokī, or “powerful voice” in 1995. Conceived and planned by Kawai‘ae‘a, Leokī was believed to be the first bulletin board system in the world to operate in an indigenous language. This attempt at language revitalization not only brought it back, but it brought it forward with technology use. This represents the beginning of the use of the Internet to preserve and strengthen the Hawaiian Language (Warschauer, 2000).

Warschauer (2000) theorizes that “there are three main positions on the cultural aspects of technology” (p. 146): substantive, instrumental, and critical. The first position argues that technology restructures the entire social world and may have a negative impact by “destroying” diverse cultures and languages (p. 147). While it is useful for the dissemination of information, the Internet continues to operate predominantly in an

English environment. However, if more Hawaiian classes post information on the Web, then others can get the information in Hawaiian. This is referred to as the substantive view.

The instrumental view supports the theory that technology is “devoid” of content or values; and it is “not technology per se which creates problems or solutions, but rather they way it is used” (p. 147). According to Sing, “Hawaiians will work on a task with more vigor and longer if the task involves social interaction” (Warschauer, 2000, p. 151); therefore, Hawaiian educators build on collaborative efforts such as long-distance projects between the islands.

Critical theory suggests that technology is “neither deterministic, nor neutral” (p. 147), yet at the same time, it also implies “struggles for power and position” (p. 155). In a traditional Hawaiian setting, or in the HLIP, there is a built in social structure in which the *kūpuna*, or elders, communicated to learners in a tradition known as “talk story.” There was no struggle for power as critical theory suggests. All of the Hawaiian perspective ties into the identity of the Hawaiian. Warschauer (2000) suggests that Hawaiians invest in their cultural identity in on-line environments by discussing issues of Hawaiian culture, because “a number of students who went through this process came out with a stronger sense of being Hawaiian” (p. 154).

As early as 1992, technology was recognized by the Hawaiian Language Immersion Program as an important tool in education for its instrumental-technical possibilities. The elementary and secondary levels of the HLIP “rely heavily on modern technology to enhance the students’ language development” as described in Hartle-

Schutte and Nae'ole-Wong's Technology and the revival of the Hawaiian Language (2000, p. 1). The following contribute to this theory of technology use:

- (1) strong motivator for engaging children in the learning process in many content and skills areas,
- (2) preparing students for the 21st century,
- (3) multifunctional use of the language raises its status,
- (4) multimedia written and oral projects can be made,
- (5) technology helps to address the disparity of limited materials, and
- (6) technology provides a systematic record keeping and electronic archives of student portfolios.

Twenty years later, the revitalization of the Hawaiian Language is still being implemented within the Hawai'i public schools, but now under the strict federal guidelines of the No Child Left Behind (NCLB) Act (Public Law 107-110). We have presented culturally relevant learning theories; however, President Bush's No Child Left Behind Law has forced change at the schools in America (Bush, 2001). So it is relevant to study the possibilities of change.

Change Theory and Research on Public Schools

Change theory can be a powerful conceptual framework for educational reform. Hawaii, like other schools impacted by the federal "No Child Left Behind" legislation, is currently undergoing educational reform through enforced Standards-Based district-wide reform initiatives. However, as Fullan (2006) notes in his classic work on change in

schools, standards-based reform by itself does not address changing the culture of the district, school or classroom which are critical to sustained change efforts. Yet many schools across America are exposed to system-wide change without accompanying culture changes as shown in a case study of millions of external funds for the Cross City Campaign for Urban School Reform of 2005. This study found, despite the infusion of funds, that the districts were unable to change and improve practice on a large scale (Fullan, 2006).

The district-wide reform changes in this case study include critical components similar to Hawaii such as (1) standards-based instruction and instructional frameworks, (2) assessment and accountability systems with site-based management; and (3) professional development. However, while culture change and bottoms-up support are included in Fullan's change theory, the individual teachers that experience change were not listed as a critical component nor fully explored as a variable. That is where Concerns Based Adoption Model (CBAM) comes in because of its focus on the perceptions and experiences of the individuals.

Concerns-Based Adoption Model

The Concerns-Based Adoption Model (CBAM) was initially developed by Fuller in 1969 and adapted by Hall and Loucks in 1978 to measure, describe, and explain the process of change experienced by professionals implementing an innovation (Anderson, 1997). Models based on CBAM are gaining interest around the world (Newhouse, 2001). Many current research models that study computers in classrooms are adapted from the

CBAM Project from the Southwest Educational Development Laboratory at the University of Texas (Newhouse, 2001).

While technology experts have an easier time to adapt to an innovation, for the typical teacher in the classroom implementing a new way might be a challenging task (Hall, 2010). Many change theories measure change at the large-system level, but Hall (1975) argued that the focus should be on the adaptations that individuals must make to fully understand the change process.

In CBAM-based implementations, professionals are given the opportunity to express their concerns, feelings, thought, preoccupations, and considerations given to an innovation. As a result of the teacher based focus, CBAM includes tools used to measure attitudes about change and a framework showing differing levels of adoption and anxiety among teachers involved in technological innovation. These are further elaborated below.

The CBAM includes three key tools used to collect relevant data: Stages of Concerns (SoC), Levels of Use (LoU), and Innovation Configurations (IC). Hall (2010) describes the change process using the metaphor of an “Implementation Bridge” that links the measures of the LoU from nonuse to a higher level. In theory, those that move across the move across the bridge from least to most use have greater outcomes (Hall, 2010).

Stages of Concern (SoC)

The SoC questionnaire provides the means for assessing the following seven stages of concern: Awareness, Informational, Personal, Management, Consequences, Collaboration, and Refocusing” (Christou et. al, 2004). Usually the Stages of Concern

questionnaire describe how teachers perceive an innovation and their feelings about it (Newhouse, 2001).

Level of Use (LoU)

The Level of Use dimension describes what a teacher is doing or not doing with the innovation usually involving a structured interview and observation to analyze and place the participants at their level of use from non-use, orientation, preparation, mechanical, routine, refinement, integration, and renewal. (Newhouse, 2001).

Pros and Cons of CBAM

For over 30 years, some components of the CBAM model have been the focus of research and evaluation in school-based implementation projects (Roach, et al, 2009). Many studies claim CBAM to be an effective tool in measuring the teacher's perspectives in the change process (Beauchat et. al., 2009; Christou et. al., 2004; Dass, 2001; Hargreaves et. al., 2003; Newhouse, 2001; O'Meara, 2005).

CBAM was developed to study individual teacher responses to an external proposed change in curriculum and instruction, however, in principle CBAM is just as effective in measuring internally proposed changes of the teacher's own choosing as it is to study internally imposed changes (Anderson, 1997) like the NCLB standards-based reform. While CBAM has been used to investigate top-down reform, further studies need to be conducted in regards to the outcome of bottoms-up change process. Dass (2001) uses the Iowa Chautauqua Programme (ICP) which was proclaimed through the National Diffusion Network of the Department of Education as an exemplary model of change.

This effective model studied 32 schools servicing 28,500 students. Data consisted of interviews, workshops, and classroom observations that were analyzed using the Stages of Concern with CBAM as its theoretical framework. Validity was examined by cross-checking data from different sources. Reliability was conducted by cross-checking different forms of data (the interview and observations) from the same source. The results of the SoC expressed common concerns such as (1) time management, (2) behavioral management of students, (3) unstructured environment, (4) priorities towards standards-based reform, (5) assessment for the innovation, (6) proper training, (7) ease of using textbook, (8) traditional views of education and (9) unavailability of innovative materials and resources. These can serve as possible themes when dealing with concerns.

Most CBAM studies are quantitative studies that involve participants numbering in the hundreds. In quantitative studies a factor analysis is conducted to validate the loadings of the items on each factor and the variance explained by each of the factors of the SoCQ. After employing factor analysis, you may hypothesize that there are two major factors that underlie implementation of technology through the SoCQ. One assumed factor could be years of teaching experience (internal versus external) and another factor could be years of experience with educational technology. Factor analysis is particularly helpful in developing and testing theories. This instrument has proven to have both reliability and validity (Hall, 1975). Due to the limited number of participants available in this unique setting, factor analysis will not be used.

Summary

This chapter looked at Fullan's Change Theory (2006) as the conceptual framework upon which the research problems were explored. This was founded on the theoretical framework of Culture-Based Education themes of Kana'iaupuni and Kawai'ae'a (2008); and Kana'iaupuni, Ledward & Jensen (2010). The broader terms of Culture-Based Education will be compared to the phenomenon discussed in the case studies. The researcher will look for relationships between the described phenomenon and the themes discussed in the literature. Other themes include Hartle-Schutte & Nae'ole-Wong's Technology and the Revival of the Hawaiian Language (2000); and Warschauer's Technology and Indigenous Language Revitalized (1998). These theories all support the use of technology in the classroom, including a positive impact on learning in studies conducted in Hawai'i. In the next chapter, we will look at variables more specifically related to the research design and methodology for this study including the following: (1) research design, (2) methodology, (3) participants, (4) instrumentations, (5) data collection, and (6) validity.

CHAPTER 3. METHODOLOGY

“E kūlia i ka nu ‘u – Strive to reach the summit”

Mary Kawena Pukui, 1983, #1913.

This chapter describes the methodology for this study including the following: (1) research design, (2) methodology, (3) participants, (4) instrumentations, (5) data collection, and (6) validity.

Research Design

Narrative inquiry – especially stories as told by the Native themselves – offered a way for teachers to “self-report” (Blank, 2002), “self-learn” and “self-criticize” (Denzin, 2008, p. 323) to critique their practices through the lens of experiential stories (Rogers, 2010). Storytelling linked Native peoples to place, experience, culture and education (Rogers, 2010). Narrative inquiry is of cultural significance because it focused on stories of place (Clandinin & Connelly, 2000). This is consistent with Hawaiian education because it is Place-Based (Kana’iaupuni et. al, 2008). These components were central to this study.

The Qualitative Paradigm

Denzin (2008) recommended the use of qualitative inquiry over scientific based research (SBR) to better understand phenomenon for social justice purposes because qualitative methodology operates from a “different worldview than the more traditional

researchers embraced” (p. 317); it functions differently from the “narrow view held by SBR authors” (p. 319).

This research is a qualitative case study with an ethnographic pattern-matching approach to linking ideas to pre-existing theoretical propositions. In case studies the explanation of the data must match theoretically to significant propositions much like the themes of change (Fullan, 2006), culture-based education (Kana‘iaupuni and Kawai‘ae‘a, 2008; Kana‘iaupuni, Ledward & Jensen (2010); and technology use and language revitalization (Hartle-Schutte and Nae'ole-Wong, 2000; and Warschauer, 2000).

Case study is an appropriate approach because it asks “how” and “why” forms of research questions (Yin, 1989, p. 17): (a) How do you feel about technology and what concerns do you have? Why? Case studies have a legitimate reason for not having any propositions (Yin, 1989). There is no precise way of setting the criteria for interpreting findings except for pattern-matching, or matching data to propositions or themes. Conceptual use of these findings provided knowledge of best practices of the past; however, with conceptual use of results no decision or action is proposed addressing needs and technological changes (Patton, 2001). A greater understanding or knowledge was gained to enhance communication, and share perceptions of participants as a study focus. According to Shadish (quoted in Patton, 2001) these understandings of the participants’ knowledge “contribute to macro theories about how to produce important social change” (p. 333). Such an approach can help to answer one of the interview questions of this study that encompasses change - How do you see the Hawaiian

Language Immersion Program changing given the digital technologies that we have today?

Narrative Inquiry

Michael Connelly and Jean Clandinin were credited with initially using the term narrative inquiry in educational research to describe a lived experience and how they were lived. In narrative inquiry the researcher needs to study all three common places: (1) Temporality, (2) Sociality; and (3) Place (Clandinin et. al., 2007). Temporality implies that people and events should be studied as a process because they have a past, present, and a future. Sociality refers to the existing conditions of people, environment and factors that affect the experience. Place refers to the specific topological and physical boundaries where the experiences were lived. In this study, participants discussed their common times and places.

Narrative inquiry also needs to address three types of social justifications: (1) personal, (2) social; and (3) practical (Clandinin et. al., 2007). Personal justification describes the lived experience from your point of view, for example, as an educator, administrator, student, or parent. Social justification describes the purpose for telling these stories of lived experiences, for example, stories told by parents reveals the need to give parents a voice in decision making. Likewise, stories told by educators give them a voice in their assessment of educational reform. Practical justification gives them the data upon which changes can be made in their teaching practices. Narrative inquiry supports this case study because the data collected were from the perspective of some of the participants who reflected on their own teaching practices as educators, and in some

cases, former students, and former parents of the program. All participants described their (1) personal, (2) social; and (3) practical justification in the documentation in Hawaiian. This was transcribed into both Hawaiian and English. Participants were given a copy of their dialogue in relation to these themes of place and role prior to its final print to validate that there were no misconceptions or misinterpretations.

Participants and Context

Participants

The unit of analysis in this narrative case study was the individual within organizational change of the Hawaiian Language Immersion Program with the purpose of describing eight teacher experiences with the implementation of technology in the classroom. Half of the teachers were former students and the other half were pioneer teachers. Open-ended questions focused on the “how” and “why” of the innovation to be studied, in this case – technology use.

1. Participants were Native Hawaiian teachers. The target population was the Hawaiian Language Immersion Program. Although the Papahana Kaiapuni has established schools on five major islands, only teachers from three of the five were interviewed due to geographic limitations on the part of the researchers (lack of funding to fly to all of the islands).
2. Although there are a total of 85 teachers in the Papahana Kaiapuni, only 8 teachers were interviewed in this case study.

The purposeful sampling consisted of eight Native Hawaiian teachers with an equal distribution of individuals based on teaching experience. The criteria for selecting the purposeful sample were two from each category:

(1A) Teachers from the first five years of the program with five or more years of educational technology;

(1B) Teachers from the first five years of the program with five or less years of educational technology;

(2A) Teachers who are former students with five or more years of educational technology; and

(2B) Teachers who are former students with five or less years of educational technology.

Department of Education and IRB permission and consent were secured before data collection began. Consent forms were signed with no monetary exchange for services rendered. Benefits to the DOE are deeper understanding of change. All research data was stored in confidence and destroyed upon completion of the project, unless provisions were given in the IRB permitting the participants to willingly identify themselves, because this oral history is important. Otherwise, volunteers remained anonymous to the extent allowable by law are not identified by name in the study.

Study Setting and Context

Interviews were conducted in the school setting when possible. In the past, some of the outer islands and some Hawaiian Language Immersion schools were visited for pleasure; however, this will be the first time visiting the schools for research purposes.

We admit that our role as “insiders” may have brought about question of any bias to this study. This was addressed by describing the purpose of the study and strategies to alleviate any short comings. The principal investigator has been a Hawaiian Language Immersion classroom teacher at three different schools for a total of over twenty years. The other two researchers who assisted in translation and data analysis are former Hawaiian Language Immersion students from two different schools of the same island. All three researchers are from the community that is the focus of this study. They are Native Hawaiian, they speak the Hawaiian Language, and they are products of the Hawaiian Language Immersion Program.

All participating teachers were shown the questions in advance giving them time to reflect. As community members of the same organization, they were trusting of us and very open during the interview. We acknowledge any skepticism they may have experienced due to the many evaluation studies about the Papahana Kaiapuni from “outsiders.” We assured them that we were there to represent their points of views and be a voice for them.

Instrumentation

The study consisted of a short introductory discussion using the CBAM framework, positionality, social justification and a set of a set of interview questions asked of each participant individually.

The Stages of Concern (SoC) is a 35 item questionnaire which is usually used as a survey instrument. While surveys serve as a practical research tool that is consistent, it

lacks effective, reliable methods for collecting data that measures the quality of instruction in the classroom (Blank, 2002). In this case the SoC was used before the open-ended question process as a prompt for teachers to reflect on their stages of concern. Each participant selected one criterion that best described their stage of concern. The SoC (refer to Table 1), provided background information about the participant(s).

Table 1. Stages of Concern

Stages	Select one stage level that best describes your comfort level with the innovation.
Stage 0 = none Awareness	I have little knowledge of the innovation and have no interest in taking any action.
Stage 1 = none Informational	I have concerns regarding the nature of the innovation and the requirements for its implementation. I am willing to learn more about the specific innovation or reform.
Stage 2 = none Personal	I am interested in how the innovation will affect me. I am concerned in my required change in role and tasks necessary to perform the innovation.
Stage 3 = (1) one Management	I am concerned about time management, organization and prioritizing responsibilities to perform the innovation.
Stage 4 = (1) one Impact	My concerns focus on the effect of the innovation on children and families, and how this information can be used to change or improve this innovation.
Stage 5 = (4) four Collaboration	My concerns focus on working with others to implement as well as sharing information about the innovation with others.
Stage 6 = (2) two Refocusing	My concern is focused on evaluating the innovation and making suggestions for improvement. I would consider alternates that would be better.

The same process was applied with the LoU instrument (refer to Table 2), which was used as a supporting document prior to the interview. Instead of finding the mean of each question for each subscale as is typical when analyzing the SoC (Christou, 2004), each participant selected one criteria which best described their stage of concern. This gave the teacher the opportunity to critique and “self report” (Blank, 2002) their abilities with computer usage or efficacy starting with a common terminology.

Table 2. Levels of Use

Level	Description
Level 0 = none Non-use	I have little or no knowledge, no involvement, and I am doing nothing toward becoming involved.
Level 1 = none Orientation	I am seeking or acquiring information about information technology in education.
Level 2 = none Preparation	I am preparing for the first use of information technology in education.
Level 3 = none Mechanical	I focus most effort on the short-term, day-to-day use of information technology with little time for reflection. My effort is towards mastering tasks.
Level 4a = none Routine	I feel comfortable using information technology in education. However, I am putting forth little effort and thought to improve information technology use.
Level 4b = (1) one Refinement	I use it to increase the benefits within the classroom. I am working on maximizing students’ effects.
Level 5 = (5) five Integration	I am combining my own efforts with other teachers and colleagues to achieve impact in the classroom.
Level 6 = (2) two Renewal	I reevaluate the quality of use, seek major modifications, or alternatives, present innovation to achieve increased impact, and explore new goals for myself and my school or district.

The data indicated that prior to the interview that most participants were in the Collaboration Stage consistent with sharing information with colleagues, followed by the Refocusing Stage making suggestions for improvement. This was on the advanced side of the SoC spectrum.

The Level of Use data indicated that prior to the interview most participants were in the Integration Level consistent with the use of activities to achieve impact in the classroom followed by the Renewal Level seeking modifications. The data indicated the participants to be on the advanced user level of educational technology.

In addition, a researcher designed set of questions was developed tied to the two primary research questions. These narrative descriptions were used to develop answers to the larger research questions: (1) How do teachers in the Hawaiian Language Immersion Program perceive change related to technology? And (2) Is there a difference in the way change is perceived? How is what you find alike or different? To further develop and test the questions, a pilot interview was conducted to practice the skills of questioning and listening. It was timed to get a good estimate of the length in time that an interview lasted. I was questioned by the other two investigators for practice.

Data Collection

Case studies rely on a variety of techniques for data collection. Of the varieties listed by (Rossman and Rallis, 2003), the research utilized (1) documents, and (2) interviewing. The data collection period began in the fall of 2011 and ended before spring

of 2012. The main researcher conducted semi-structured interviews after school hours in a face - to - face manner.

The CBAM instruments (SoC and LoU) were used as supporting documents. Instead of answering all 35 item questions, the participant selected their stage of concern, and level of use. In addition to these documents, all participants were given questions to address their positionality (Rogers, 2010) and justification (Clandinin et. al., 2007). This was conducted prior to the interview session. Observations were not needed as some of the pioneer teachers are now employed outside of the HLIP. Historical documents were used as supporting documents.

The interview was conducted in Hawaiian, and transcribed in both Hawaiian and English. A copy was sent to each participant for clarification and member checking. The interview was semi-structured, but the researcher had no control on the amount of descriptive detail by the interviewee (Lawrence, 2006). Observations were not used as some of the pioneer teachers are now employed outside of the HLIP. Historical documents were used as supporting documents.

Research Questions

The interviews were designed to answer these two major research questions:

1. How do teachers in the Hawaiian Language Immersion Program perceive change related to technology?
2. Is there a difference in the way change is perceived by Papahana Kaiapuni teachers as compared to findings from previous research studies?

Data Analysis

The transcribed interviews (Refer to Table 3 for interview questions), were analyzed by all three researchers to thoroughly review the audit trail (Creswell & Miller, 2000).

Table 3. Research - Interview Question Matrix

Research Questions	Interview Questions
How do teachers in the Hawaiian Language Immersion Program perceive change related to technology?	3. What, if any were obstacles in the past? What were the tools and teaching strategies of the past, and what present tools do you wish you had available to you back then?
How do teachers in the Hawaiian Language Immersion Program perceive change related to technology?	4. How do you feel technology impacts education and what concerns do you have?
How do teachers in the Hawaiian Language Immersion Program perceive change related to technology?	5. How do you see the Hawaiian Language Immersion Program changing given the digital technologies that we have today?
Is there a difference in the way change is perceived? How is what you find alike or different?	6. What are the similarities and differences between technology uses in the past and present? Is this change good or bad, and why?
Is there a difference in the way change is perceived? How is what you find alike or different?	7. Is what happens (technological change) in the Hawaiian Language Immersion Program similar to other cultures? Is this change good or bad, and why?

The data was separated as each individual told their own story individually. The data were compared to pre-existing themes as described in the literature review.

“Analytical generalization” was the process for analyzing data. This should not be

confused with “statistical generalization” because the researcher didn’t use numbers and formulas to determine the generalization.

Since no two cases were identical, a set of circumstances of similarities and differences occurring in more than one school was analyzed through reasoning by analogy (Rossman and Rallis, 2003). “If two or more cases support the theory, replication may be claimed” (Yin, 1989, p. 38).

Thematic Coding

Following narrative analysis, the stories were analyzed in terms of major thematic elements. The case studies data were compared to previously developed theories derived from the themes suggested by Fullan (2006), Kana’iaupuni and Kawai’ae’a, (2008), Warschauer (2000), and Hartle-Schutte and Nae'ole-Wong (2000).

When cross-referencing Hartle-Schutte and Nae'ole-Wong (2000) with Culture-Based Education (Kana’iaupuni and Kawai’ae’a, 2008), the following are possible themes:

- (1) Does not promote traditional cultural stewardship and protocol in practice,
- (2) lack or support of Hawaiian Language, culture, history, values, spirituality,
- (3) lack or support of Hawaiian Language printed materials,
- (4) multimodal styles of learning,
- (5) digital divide of some Natives,
- (6) group-centered learning (family, community, elders, organizations),
- (7) communication, and
- (8) traditional versus contemporary modes of learning.

Each story was told separately, then later reviewed and cross-referenced for themes expressed. Each participant was given the opportunity to review the themes to validate their concerns about implementation of technology in the classroom.

Coding was done manually on hard copies of English transcriptions by identifying each instance through color highlighting. All themes were reviewed more than once to ensure no examples were missed. The results were compared among the narratives, and examples are given for each of the major themes in the study in Chapter 5.

Verification

In qualitative case studies there are no tests to establish credibility. A variety of approaches were used to increase validity. Three types of triangulation contribute to verification and validation of qualitative analysis: inclusion of multiple data sources (case study), use of multiple investigators, and applications of multiple data collection methods. Data were compared to different sources and perspectives of Hawaiian Language Immersion members.

The lens of the researcher was used to establish credibility through the data gathering and analysis stages. In part, the narratives are trustworthy because the interviews were audio-taped, transcribed, and coded through inter-rater reliability. The researcher determined how the data establishes themes; and how this evolved into a narrative.

A second lens is that of the participants. The qualitative paradigm assumes that reality is what the participants perceive it to be (Creswell & Miller, 2000). The researcher

employed this second lens by actively involving the participants to validate or discredit the interpretation and theme that was analyzed by the investigators.

A third lens is that of reviewers not involved in the study. This is employed through peer debriefing. Table 4 illustrates how this was applied in conducting this study.

Table 4. Validity Procedures: Qualitative Lens and Method

Lens	Systematic Paradigm
Lens 1: Researcher	Triangulation
Lens 2: Participant	Member Checking
Lens 3: External	Audit Trail

(Creswell & Miller, 2000)

Triangulation is a validity procedure in which researchers search for multiple sources of information, theories, methods or different investigators. In this study there were multiple sources (participants from different sites); different theories such as Fullan (2006), Dass (2001), and Hall (2010), Kana'iaupuni & Kawai'ae'a (2008), Kana'iaupuni, Ledward and Jensen (2010), Hartle-Schutte and Nae'ole-Wong (2000), Warschauer (2001); various methods (interviews and documents), and multiple investigators.

According to Lincoln & Guba as quoted by Creswell & Miller (2000), "member checks are the most crucial technique for establishing credibility" (p. 127). This is done when the participants are offered the opportunity to validate the themes suggested by the researcher. All participants were given the opportunity to validate or dispute the interpretation of their theme based upon their interview.

People that were external to the study also read to give this data a peer review. Disconfirming evidence is the process by which the researcher(s) establish preliminary themes, and then search for evidence to either support or disconfirm the theme (Creswell

& Miller, 2000). Multiple researchers were used during this phase of the study. Researchers self-disclosed their assumptions, beliefs, and biases that may shape their inquiry. This allowed the readers to understand their position as the researcher reflects on social, cultural and historical forces that shape their interpretation in the portion entitled Role of the Researcher (Creswell & Miller, 2000, p. 127).

Product

The final product of this consists of stories or narratives as told by each teacher showing each case study separately which are reported in Chapter 4. Collectively these case studies end with themes (see Chapter 5) selected by three investigators through triangulation; and agreed upon by the participants. If there were consistency in themes, then the data were analyzed to theorize how the story replicates that theme. In this project, unstructured interviewing and collaborative interpretation allowed the participants to tell their story from an “insiders” point of view.

We looked back at Fullan’s Change Theory to see if this qualifications theory was supported in our stories because historical documents state that many teachers were Hawaiian Language proficient but not certificated educators (Slaughter & Lai, 1994). We looked at Culture-Based Education (Kana’iaupuni & Kawai’ae’a, 2008) for the following possible themes: (1) lack or support of Hawaiian Language printed materials, (2) multimodal styles of learning, (3) digital divide of some Natives, because historical documents support the fact that there has been a lack of printed materials in Hawaiian (Slaughter & Watson-Gegeo, 1988). We looked at Dass (2001) and Hall (2010) Stages of

Concern to see if (1) time management, (2) proper training, (3) ease of using textbook, (4) traditional views of education and (5) unavailability of innovative materials and resources were factors.

Summary

This narrative case study investigated teacher concerns about technology, significant differences, and suggestions for change. Generalizations were made based on Culture-Based Education themes of Kana'iaupuni and Kawai'ae'a's (2008), Kana'iaupuni, Ledward & Jensen (2010); and theories derived from Hartle-Schutte and Nae'ole-Wong's Technology and the Revival of the Hawaiian Language (2000); and Warschauer's Technology and Indigenous Language Revitalized (1998).

The previous literature informed my data analysis, but as a researcher, I was open to themes that have not been previously described in the literature.

CHAPTER 4. NARRATIVE DATA

“Ka waihona o ka na‘auao – The repository of learning:

Said in admiration of a learned person”

Mary Kawena Pukui, 1983, #1650.

This is the story of eight people, four were teachers in the beginning of the program, and four were former students of the HLIP who are currently teaching. The experiences as told by the participants reflect some of the real life experiences belonging to many native people of the Hawaiian Language Immersion Program, or the *Papahana Kaiapuni*.

Through storytelling the experiences will unfold a twenty year history of some of the challenges, some of the changes, and the success of the Kula Kaiapuni as told by Native Hawaiians in their mother tongue. Each story teller shares their own perspective which corresponds with a theme that is appropriate for him or her. The more one reflects through conversation, the more one realizes the significance of change on culture and place within the community. This is one story of the Papahana Kula Kaiapuni as told by Native Hawaiians.

Each storyteller began with a description of why she considers herself to be a Native Hawaiian, or her positionality; and her purpose for telling her story, referred to as social justice (Clandinin et. al., 2007). It is not just by blood that one is considered to be a Hawaiian. It comes from your place of being. This information was recorded in Hawaiian and transcribed to English to serve as as background documentation only. It is for this

reason that only the responses to the research questions, which are the focus of the study, are written in Hawaiian and English.

The Youth of the Hawaiian Language Immersion Schools: Narratives

Former Student #1:

Positionality. I am Hawaiian because my grandparents on my mother's side are Hawaiian and my family speaks Hawaiian. I've been in it [Papahana Kaiapuni] since I was a student so I can connect with other students. I live a Hawaiian lifestyle because my parents teach Hawaiian [father teaches college level and mother is a Hawaiian Language Immersion teacher of over twenty years], my brothers and sisters speak Hawaiian, and my son speaks Hawaiian.

Social Justification. My role in the program is that of a former-student presently teaching. My purpose for telling the story is for educational reform. I will use the data to better inform my practice.

Challenges. “A‘ole maopopo inā ‘o kēia kekahi ālaina, akā ua ma mao (ke kula) mai ka wahi a mākou i noho ai, no laila ma mao ke kalaiwa ‘ana. I ka wā i a‘o ai ma ka ‘ōlelo Haole, ua ‘ano pa‘akikī ia‘u no ka mea ‘a‘ole mākou i ‘ōlelo. Komo ma ka hale ma ka ‘ōlelo Hawai‘i wale nō. Na‘u... ‘ano pa‘akikī no ka ho‘omaka ‘ana ma ka papa ‘elima. No laila, ua a ‘o i ka ‘ōlelo Haole ma ka papa wale nō, kekahi ma ka hale pule, akā li‘ili‘i wale nō. I kēlā manawa ‘a ‘ole i loa‘a nā puke he nui. Ua pono nā mākou e ‘oki a tuko i nā puke like ‘ole. Ua kāko‘o nui nā mākou.”

Translation. “I don’t know if this is an obstacle, but the (school) was far from the place where we lived, therefore, the drive was distant. At the time that we began learning English, it was kind of hard for me because we didn’t speak that language. As soon as we entered our home we only spoke Hawaiian. For me, it was kind of hard when we started in fifth grade. As I said, I only learned English at school, sometimes at church, but just a little. At that time we didn’t have lots of books. The parents had to cut and paste various books. The parents supported a lot.”

Technologies. “Ua hana mākou me ka mīkini ho‘opa‘a leo i ho‘olohe i nā mo‘olelo, a me nā kūpuna i ko‘u mana‘o, he mau mana‘o ko lākou. A ho‘olohe i nā mele kekahi. ‘A‘ole nui nā lolo uila, akā ua loa‘a iā mākou, ho‘omaopopo au ua loa‘a. Aia au ma ka papa ‘elima paha.”

Translation. “We used cassette tape recorders to listen to the stories. And the kupuna in my opinion (were a teaching strategy) because they knew so much. We also listened to songs. We did not have many computers, but we had them, I remember we had them. I was in the fifth grade (when we got them).”

Changes. “Ko‘iko‘i ia no ka mea i kēia mau lā loa‘a (i) nā kānaka a pau nā leka uila, kamepiula, kelepona pa ‘a lima a pēlā aku, no laila ke ulu kēlā mau mea pono, e ulu me ka ‘ōlelo Hawai‘i. E like me ka Mac(intosh) i kēia mau lā, loa‘a nā ‘okina a me nā kahakō, no laila, ma‘alahi e kikokiko a pa‘i – ‘a‘ole pono e kākau. Ua pa‘i ki‘i a hana nā keiki papa ‘elima i ka iMovie. Hana lākou no lākou iho. Hoihoi kēlā no lākou. Hiki ke hō‘ike i ka makua. He mea e mālama ai.”

Translation. “It (technology) is important because everyone has it these days. Everyone has email, computer, cell phone and such; therefore, as those needs grow, (they) grow with the Hawaiian language. Like the Mac(intosh) these days, they have glottal stop and the macron, therefore, it is easy to type and print – we don’t need to write. The fifth graders took pictures and made iMovie. They made them themselves. This is interesting for them. They can show it to their parents. It is a keepsake.”

Changes. “O ho‘okahi mea ka ma mao. Aia he mau Kula Kaiapuni i kēia mau lā. ‘A‘ole pono e kalaiwa i nā wahi like ‘ole, akā pili (kēia) i kēlā ‘ano manawa. Ma muli o nā kamepiula a me nā mea hou i kēia mau lā, hiki ke mālama i nā mea a nā keiki i hana ai, a e hō ‘ike i nā keiki ma hope o lākou (e like me kāna wikiō o ka hīmeni ‘ana). ‘A‘ole maopopo inā hana lākou, akā hiki ke ho‘ohana i nā kamepiula e Skype i nā papa like ‘ole ma nā wahi like ‘ole. I ko‘u hele ‘ana i ke kula (kaiapuni) ‘a‘ole au i ho‘ohana i ka leka uila ‘o Leokī. ‘A‘ole lawa nā lolo uila. ‘A‘ole au i ho‘omaka a i ko‘u hele ‘ana i Kamehameha. Ua ho‘ohana ‘ia ka mīkini ho‘opa‘i wikiō i ko‘u hele ‘ana i ke kula kaiapuni me nā mea i loa‘a ia‘u. Ua ‘ike wau i mau ki‘i, wikiō, lipine o ko mākou hīmeni ‘ana, hana keaka ‘ana, a me ka ‘ōlelo ‘ana. I ko‘u mana‘o ua loa‘a i nā kumu a pau kekahi mea, akā ‘a ‘ole maopopo loa. I kēia mau lā hiki ke mālama ma kekahi pā sede.”

Translation. “One obstacle is that it was distant. Today there are many Hawaiian Language Immersion Schools. One doesn’t need to drive through numerous towns to get to school, but this is in reference to the past. With the computer and new technologies of today, (we) can save things that the children made to show to the kids after them (like videos of singing). I don’t know if they currently do this, but (they) can use the computer

to Skype other classes at other places. When I went to Hawaiian Language Immersion I didn't use the Leokī email. There were not enough computers. I didn't start (to email) until I went to Kamehameha. Video recording machines were used by me when I went to Hawaiian Language Immersion Schools, using the tools that we had at that time. I saw pictures, video, cassette tapes of us singing, roleplaying, and speaking. In my opinion all of the teachers had something, but I am not sure what tools each teacher had. These days (it) can be saved on a CD.”

Former Student #2:

Positionality. I am Hawaiian because of the way I was raised, the food that I was raised on, and the schooling that I received. I am Hawaiian by blood with other ethnic backgrounds but I am not familiar with the other cultures. I speak Hawaiian at home and school. Hawaiian is my first language since I was a baby. I also raise my children in the Hawaiian Language – only the Hawaiian Language. I surf, paddle canoe for three years and I dance hula for at least three years. My father taught me how to play ukulele. I also chant, sing and pray in Hawaiian. We have a taro patch at my house that my husband cares for. He is part-Hawaiian and he learned to speak Hawaiian when our daughter was born. Since I was raised in Hawaiian, I experience the world through the Hawaiian Language by teaching my students and raising my children in the language. There is a responsibility placed upon me being raised in Hawaiian and all my choices are made based on this kuleana, or responsibility. I teach Hawaiian and I go to school so that I can help the Hawaiian Program. My *lawena*, or behavior is very Hawaiian. My mother's grandparents and my father's dad spoke Hawaiian and I grew up conversing with them.

Social Justification. My role in the program is that of a former-student presently teaching. I started at four years old in the Pūnana Leo Preschool, I graduated from Nahīokalaniōpu‘u in 1999, I went to U.H. Hilo Kahaka‘ula for my bachelors and U.H. Hilo Kahuawaiola for my masters. I am a student at U.H. Hilo Kahaka‘ula for another masters and currently teach at a Hawaiian Language Immersion Program. My purpose for telling the story is to look at the past and see the things that allowed us to move forward, and the things that made us strong; to see the value of this program, and the things that we need. I will use the data to move forward.

Challenges. “Ma ka wā i hala ‘o ka nele ‘o ke kāko‘o o ke aupuni kekahi ālaina. ‘O ia kekahi mea, ‘o ka nele o ke kālā, ka hale kula a me nā puke. ‘O ia ka mea nui – nā pono. Ho‘omaka au me ka lolo uila ma ka papa ‘ehā, akā ‘a‘ole nui nā polokalamu Hawai‘i ma ia wā. Ma kēlā wā, aia au ma kekahi mokupuni ē a‘e a ‘a‘ole loa‘a ke kula kaiapuni no ka mea ‘elua o‘u makahiki ma o aku, no laila, ho‘omaopopo wau no ko ko‘u māmā lumi papa, ke ‘ano o kāna mau hana ma laila. No ka papa ‘ekolu, ‘ehā ‘elima hele au i ke kula Haole a ‘a‘ole au ‘ōlelo Haole me ka maika‘i. ‘A‘ole au heluhelu iki i ka haole. Ua kama‘aina wale nō i ka hua ‘ōlelo ‘o red. R-E-D, red. Ma ka lā mua o ke kula, ha‘i ke kumu ia‘u e kū a heluhelu. A ua ha‘i ko‘u māmā iā ia (a me a ‘u) ‘a‘ole au heluhelu i ka Pelekānia – ua hele au i ke kula ‘ōlelo Hawai‘i. ‘Ōlelo ‘o ia hiki nō. Ha‘alele ko‘u māmā a ha‘i e kū a e heluhelu i mua o ka papa. Ha‘i ‘o ia ia‘u heluhelu nā keiki a pau ma ka papa ‘ekolu. Ha‘i au iā ia e hiki ma ka Hawai‘i. A ha‘i ‘o ia ia‘u ‘a‘ole ia he kula ‘ōlelo Hawai‘i he kula ‘ōlelo Haole ia. Ua nui nā mea i a‘o mai iā ia...ke hele a ‘a‘aka i ka‘u mau haumāna ho‘omaopopo wau, a laila e no‘ono‘o ‘a‘ole hiki ke hana me

kēlā i ka‘u mau haumāna. ‘O ia ka lā mua o ke kula. A laila ma ka papa ‘elima ua makemake au e hō‘ike i kēlā kumu. Akamai nā keiki o ke kaiapuni kekahi. No laila ua hana nui au. Ua komo ma ka papa A.G.T., a lilo i ke ka‘i o ke kime pō pa‘ipa‘i, student of the year, ua hana nui wau i ‘ole ‘o ia mana‘o me kēlā nā keiki kula kaiapuni a pau. ‘A‘ole au ‘ōlelo i kona inoa.”

Translation. “In the past the needs were the support of the government – that’s the obstacle of the past. That’s one thing, the need for money, the school and the books. That’s an important thing – the tools. I started with the computer in the fourth grade, but there weren’t many Hawaiian programs at that time. At that time I was on a different island and I was not in the Hawaiian Language Immersion Program because I was two years older than the class, therefore, I reflect on my mom’s (Hawaiian Language Immersion) class, and the things that she did there. For grades three, four, and five. I went to a Foreign (English) school and I didn’t speak English very well. I didn’t even read English. I only knew the word red. R-E-D-red. On the first day of school the teacher told me to stand up and read. My mother told her (and me too) that I didn’t read English – I went to Hawaiian Language school. She told all the students in third grade can read English. I learned a lot from her – when I get grouchy at my students I reflect and think to myself that I can’t act like that to my students. She said okay and then when my mom left she told me to stand and read. She said that all third graders can read. I told her that I could in Hawaiian and she told me this was not a Hawaiian school – this is English school. So in the fifth grade I wanted to show that teacher. Hawaiian Language Immersion children are smart too. So I worked hard. I entered the A.G.T. (Academically

Gifted and Talented) class. I became the leader of the volleyball team. I worked hard so she wouldn't think like that about all Hawaiian Language Immersion kids. I won't mention her name."

Technologies. Loa‘a ka papa akamai ma ko‘u lumi. He mea ‘enehana kēlā. ‘A‘ole pono ka Elmo. I kēia papa akamai hō‘ike i ka wikiō, hiki ke ho‘okani i nā mea, ‘ano like me ka i-Pod Touch hiki i nā keiki ke koho, kaha ki‘i a e ho‘onui me ka manamanalima, e ho‘one‘e a pēlā aku. He kūka‘i pa‘a (interactive) ke ‘ano, no laila, ‘ike wau ua ho‘opai loa kēlā papa akamai i ko‘u papa. Ma mua no ka papa ‘elua, hiki iā lākou ke noho he ‘umikūmālīma paha minuke ma ka moena, a me kēia ‘oiāi hana pū lākou ma ka papa akamai he kanaono minuke. Hiki iā mākou ke hana lō‘ihi ma kēlā papa akamai no ka mea ‘a‘ole na ke kumu wale nō ka mea e (hana). Hana pū nā keiki e hō‘ike i ko lākou ‘ike. Ma mua, mālie loa ka‘u mau ‘ōpa‘a. Ma ke kau mua laki inā e kō i ‘elua ‘ōpa‘a, akā i kēia manawa ma muli o ka papa akamai ‘ike lākou i nā ki‘i a ‘oi aku ka ‘a‘apo a ‘oi aku ka holo wikiwiki o nā ‘ōpa‘a. Aia mākou ma ka ‘ōpa‘a ‘ehā. Pā lua ka wikiwiki. Penei no nā papa a pau. ‘O ka hua ‘ōlelo hou, ua ho‘oikaika nui ‘ia ke a‘o ‘ana o ka hua ‘ōlelo hou me nā ki‘i like ‘ole ma ka pūnaewele. Hiki ke hō‘ike i nā ‘a‘ano, nā kikino, nā hamani, hehele me ka nānā ‘ana. Maika‘i loa ka papa akamai. Ua loli ko‘u a‘o ‘ana. ‘O ka pilikia wale nō, ke holo ‘ole ka uila, no ka mea nui ka ua ma Hilo. A laila pilikia, pono e ho‘i i ka pepa a me ke kākau ‘ana."

Translation. "My class has a Smartboard. That's technology. The Elmo is not needed. This Smartboard shows videos, it can make sounds, and it's like the i-Pod Touch because the children make choices, draw and enlarge it with their fingers, and move

things like that. The interest in technology is growing, but there are not enough tools in Hawaiian. It is interactive, therefore, I can see the Smartboard has encouraged my class. Before in second grade they could sit for perhaps twenty-five minutes on the carpet, and with this while they work on the Smartboard (they can sit for) sixty minutes. We can work for a long time on the Smartboard because it is not just up to the teacher to do the work. The children work together to show their knowledge. Beforehand, my units progressed slowly. In the first quarter we were lucky to get through two units, but now due to the Smartboard they see the pictures and they comprehend quickly resulting in faster progression through the units. We are on the fourth unit. Their speed has doubled. The same goes for the other classes. As for vocabulary, learning the new words has been strengthened with the various pictures on the World Wide Web. One can show the adjectives, objects, and verbs by looking at it. The Smartboard is great. My teaching has changed. The only concern is when the electricity doesn't work due to the rain in Hilo. Then we have problems so we have to return to paper and pencil for writing.”

Concerns. ““Ano like ko‘u hopohopo me nā po‘e ma waho o ka lumi papa kekahi ‘o ka ‘ike ole ‘ana o kekahi mau kupuna (he hopohopo), no laila, pono nā kupuna e maka‘ala i kēlā. Ma kēia kula ‘o‘ole‘a loa inā hō‘ike ‘ia ka Pelekānia. Pono e hana ma kekahi ‘ano a loa‘a ke kūikawā no ka mea ‘a‘ole i loa‘a ka hua ‘ōlelo Hawai‘i me kēia, no laila, pono e maka‘ala. Hopohopo pū wau inā nui ka puni o kākou a pau i ka ‘enehana akā ‘a‘ole wau i ‘ike inā lawa nā mea Hawai‘i ma kēia polokalamu kekahi. No laila ‘o ia kekahi hopohopo. Hoihoi nā po‘e i ka ‘enehana, akā inā ‘a‘ole loa‘a ka polokalamu Hawai‘i e like me nā mea pā‘ani. Mahalo wau iā ‘Ōiwi TV, Ulukau. org, Wehewehe.org.,

akā ‘a‘ole nui loa, ‘a ‘ole piha ko‘u mau manamanalima. ‘O ‘Āina ‘Ōiwi he kōkua kēlā. No laila ‘o ia kekahi mau hopohopo. Ma muli o ka hoihoi o nā keiki i ka ‘enehana, inā ‘a ‘ole lawa ka Hawai‘i e hana ana lākou i ka mea e loa‘a”

Translation. “I share my concern with many people outside of the classroom which is the lack of (technology) knowledge of some grandparents, therefore, the elderly need to be cautious with it. At this school they are really strict about English being shown (to the students). Sometimes you have to work on an exceptional project because it doesn’t exist in Hawaiian; therefore, people have to be aware. I am also concerned if we are all surrounded by technology, but I think there aren’t enough programs in Hawaiian. So that is a concern. People are interested in technology, but there are no Hawaiian programs like games. I am thankful to ‘Ōiwi TV, Ulukau.org, and Wehewehe.org, but that is not enough, not even enough to count on my fingers. ‘Āina ‘Ōiwi is a help. So these are my concerns. Amidst the interest of the children in technology, if there is not enough Hawaiian to use they will use what’s there.”

Changes. “E like me nā mea i helu mua ‘ia e like me ke kahua pa‘a, polokalamu kīwī – ‘Ōiwi TV, ‘o kēia mau mea a pau, ua ho‘oikaika ia. ‘O ka loa‘a o nā kumu waiwai ma ka ‘ōlelo Hawai‘i ma muli o kēia ‘ano ‘enehana. ‘O ka Wehewehe.org ho‘ohana wau me ia kēlā me kēia lā. ‘O ka Ulukau – kēlā me kēia pule. ‘O ka ‘Ōiwi TV - ‘o ia ka polokalamu kīwī mua i hiki ia ‘u ke ho‘ohana ma loko o ka lumi me nā keiki ‘ōlelo Hawai‘i, no laila, mana‘o wau he ho‘oikaika ia.”

Translation. “All the programs I have listed earlier, like television programs such as ‘Ōiwi TV, they all have strengthened. We have Hawaiian Language resources

available because of technology. I use Wehewehe.org daily. I use Ulukau.org weekly. ‘Ōiwi TV was the first television program that I could use in the classroom with the Hawaiian speaking kids, therefore, I think we’ve come a long way.”

Changes. “Ma mua ‘a‘ole nui ka ‘enehana. Nui nā kuleana i mālama ‘ia he Lā ‘Ohana no ka ‘oki a kāpili. ‘O nā mea no kēia manawa, pa‘i ‘ia nā puke ma ka ‘ōlelo Hawai ‘i, akā ma mua pono e hui i kēlā me kēia Po‘aono. Mālama nā mākuā me nā kumu i nā keiki ‘oiāi hana i ke kuleana a hānai i nā po ‘e (‘oki a kāpili puke). He papahana nui kēlā no ka loa‘a ‘ana i nā puke ma ka lumi papa, akā i kēia manawa pa‘i ‘ia nā puke. ‘A‘ole ho‘olilo nui ‘ia ka manawa ma ke ‘ano he kumu ma nā hana ā ko‘u māmā i hana ai. ‘O nā mea i pono ai ka papa, ua hana nā mākuā a me nā kumu. Hana a i ka hola aumoe i kēlā me kēia hopena pule i lako ka papa. I kēia manawa ua lako a laila hiki ke a‘o wale. Mana‘o wau ua ho‘oikaika mai ka wā ma mua. I kēia manawa loa‘a nā pono i hiki i ke kumu ke haku. I kēia manawa hiki ke kū‘ai ‘ia. Ma mua ma ka wā o Māmā, ‘a‘ole hiki ke kū ‘ai ‘ia. Pono e hana i nā mea a pau. I kēlā manawa pono e wili i ka mīkini hana kope a i kēia manawa hiki ke hana kope ma ka waiho‘olu‘u. Mahalo wau i ka ‘enehana no ka mea hiki ke ‘oi aku ka hakuhiā no nā kumu. ‘O ke kahuapa‘a ‘o Moena‘ehā.org, hiki ke kā‘ana like i nā ha‘awina kekahi i kekahi. ‘A‘ole pono ke kumu ho‘okahi e haku i nā ha‘awina a pau. Hiki ke kōkuā kekahi i kekahi.”

Translation. “In the past there was not much technology. There was so much responsibility placed on Family Day to cut and adhere (the Hawaiian Language translation over the English text). Today these items are printed in Hawaiian, but before you had to gather every Saturday. The parents and the teacher watched the children while

taking care of the responsibility (of cutting and pasting books) and fed the people too. That was big project to have books in the classroom, but today the books are printed. Less time is spent as a teacher doing the kind of work that my mom used to do. Everything the class needed was made by the parents and the teachers. They worked until night fall every week until the class was supplied. Now the class is supplied and you can just teach. I think we've progressed since the beginning. Now we have the tools to create. Now it can be purchased. Before during my mother's day it couldn't be purchased. You had to make everything. Back then my mother had to crank the Xerox machine and today you can Xerox in color. So I am thankful for technology because more (tools) are invented for teachers. On the platform Moena'ehā.org, teachers can share their lessons with one another. One teacher alone does not have to create all the lessons. There is collaboration."

Changes. "Ae, he maika'i ka 'enehana no ka mea pono nā kumu no ka haku ha'awina, nā kumu 'Ōlelo Hawai'i, no ka mea 'a 'ole lawa ka manawa i ka Hale Kuamo'o wale nō e haku i ka ha'awina no kākou a pau. Pono nā hāme'a e ho'ohana ai kākou no ka haku 'ana. 'Ano 'ē ia 'u no ka PukeAlo – Facebook. Aia ka hoaloha o ka po'e ma PukeAlo, akā 'a'ole hiki ke 'ike he alo a he alo, 'a'ole wala 'au kekahi i kekahi. A pēlā pū ka leka uila no ka mea hele a pa'ahana a no'ono 'o e kauka'i mau ma ka leka uila. Akā no ka nui o ka manawa, mana'o wau he kōkua 'o ia."

Translation. "Technology is good because teachers need it to create lessons, the Hawaiian Language teachers, because there is not enough time for only the Hale Kuamo'o to create the lessons for all of us. We need the tools so that we can create.

Facebook is kind of strange to me. There is the friend of a person on Facebook, but they are not face to face, they are not conversing to each other (synchronously). And email too because one gets busy, and think about it, we are dependent on email (asynchronous). For the majority of the time I think that technology helps us.”

Other Indigenous Languages. “Ua noho au ma ‘Aotearoa no ho‘okahi kau – ‘eono mahina. Ua hele au i Waikato no ke kula, ma Hamilton, Aotearoa. ‘Oi aku ka nui o ko lākou ‘āina. Nui nā kanela lekiō ‘ōlelo Maori a me ke kīwī kekahi. Loa‘a ka nūhou ma ka ‘ōlelo Maori a me ka polokalamu nūhou Maori piha. ‘A‘ole ha‘i ‘ōlelo ola pōkole – ‘elima, ‘elua minuke. Piha ia ‘o ka mea holo‘oko‘a ma ka Maori. A loa‘a kekahi polokalamu kākuni (cartoon) ma kēlā me kēia kakahiaka. Loa‘a kekahi treaty iā lākou. Ma ko‘u ho‘omaopopo ‘ana ma ke kānāwai ua loa‘a ma kēlā treaty i kekahi mau mea a ‘oi aku ko lākou holo mua ma nā ‘ano he nui ma mua o Hawai‘i nei. ‘Ano ‘oko‘a ma laila loa‘a kekahi aupuni no Maori Affairs e like me OHA (Office of Hawaiian Affairs), akā ‘oi aku ko lākou mana. Loa‘a nā mele pū. Hiki ke lohe ‘ia ke mele Maori ma ‘ō a ma‘ane‘i. ‘Oi aku ka nui o nā po‘e e ‘ōlelo Maori. Hiki ke hele i ka hale kū‘ai a lohe ‘ia ka ‘ōlelo Maori ma ‘ō a ma‘ane‘i. Ua noho pū mākou me kekahi ‘ohana Maori. ‘A‘apo wikiwiki ka ‘ōlelo Maori no ka mea nui nā po‘e e ‘ōlelo Maori. Ua noho mākou me Foturoa Kerr a kāne wahine no Hawai‘i mai, no laila ‘o nā keiki ma ka hale hele lākou i ke Kura Kaupapa. ‘Ōpio lākou no laila ua nānā lākou i ke kākuni, a ‘ōlelo Maori ma ka hale - ‘o ia ko lākou ‘ōlelo. Mana‘o wau ‘o ka ho‘oholomua o ka ‘enehana i ka Papahana ‘Ōlelo Hawai‘i i holo mua mākou ma muli o ka ‘enehana.”

Translation. “I lived in New Zealand for one semester – six months. I went to Waipata for school, in Hamilton, Mike Island. Their land is much larger. There are many radio stations that speak Maori and their television stations too. They have news in Maori and the program is conducted entirely in Maori. They don’t just tell a short five or two minute segment. It is completely and entirely in Maori. There is a cartoon program every morning (in Maori). They have a treaty. It is my understanding in their law there is a treaty that has progressed them in numerous ways beyond that of Hawai‘i. It is different there. They have a government for Maori Affairs like the Office of Hawaiian Affairs, but they have greater power. They have music too. Maori music can be heard here and there. We lived together with a Maori family. We lived with Futuroa Kerr and his wife was from Hawai‘i, therefore, the children in the house went to the Maori Language Immersion School. They were young so they watched cartoons and spoke Maori at home – that’s their first language. I think the advancement of technology in the Hawaiian Language Immersion Program has led to our progress.”

Former Student #3:

Positionality. I am Hawaiian not only by percentage but Hawaiian is all that I know. My parents could speak a little Hawaiian. I am lucky because all my great-grandparents on my mother’s side could speak Hawaiian. I was the only child at home until I was nine years old. They all spoke Hawaiian to me. I didn’t go to Pūnana Leo, but when I visited my family at Keaukaha they spoke Hawaiian to me. In second grade my father asked me if I was interested in going to Waiiau and I entered so that I could speak with my grandparents. My father worked for Office of Hawaiian Affairs and he was

interested but he didn't force me. I am Hawaiian because as I was raised I thought that I had a responsibility to preserve the land, and the language. I was raised in Pu'uloa and I have seen the changes in the past ten years. Before there were no houses at Kapolei and now it is a city. I was raised in 'Ewa Beach and we live close to the beach so I was raised surfing.

Social Justification. My role in the program is that of a former-student presently teaching. In my first year I taught second grade at Waiau and this was interesting to me because that was the year I entered the program. I came full circle. I am interested in the changes in the program because we can move forward. I can improve on my teaching practices as well as reflect on how I will raise my children.

Obstacles. "I ka wā i hala, ia'ū he haumana, 'a'ohē ālaina na'ū no ka mea ua nui ke kākō'o. Kākō'o nui ko'ū 'ohana ia'ū i nā wahi like 'ole – ma ka hale, ma ke kula, a ma waho o ke kula. Mali'a paha ka no'ono'o 'ana o nā kānaka 'ē a'e paha. Pehea 'oe e ho'ohana ai i ka 'Ōlelo Hawai'i? He aha kāu hana? Hoihoi kēia kekahi no ka mea aia au ma ke kula nui haole a 'a'ole kama'aina lākou. Ma kahi o he kanakolu makahiki aku nei i ho'okumu 'ia kēia 'ano a 'a'ole kama'aina lākou. Nīnau lākou ia'ū pehea nā keiki e ho'ohana ai i ka 'Ōlelo Hawai'i. Ua no'ono'o no ka 'Ōlelo Hawai'i ke kula. No'ono'o wau iā 'oukou ka'ū mau kumu. Ua 'o'ole'a 'oukou. Ua 'eleu 'oukou. He mea nui ke Kula 'Ōlelo Hawai'i. Aia ka ālaina ma waho o ko kākou papahana no ka mea maopopo ka pahuhopu iā kākou."

Translation. "In the past while I was a student, I had no obstacles because I had a lot of help. My family helped me everywhere – at home, at school, and outside of the

school. Perhaps (obstacles) is the perception of outsiders. How do you teach Hawaiian? What do you do? This is interesting to me because I am in college (in English) and they are not familiar (with our program). It's been about twenty-five years since we have been established and they are unfamiliar (with our program). They question how the children utilize the Hawaiian Language. They think this way because it is a Hawaiian Language school. I think about all my former teachers. You all were strict. You all were lively (up to the times). The Hawaiian Language Schools are important. The obstacles were outside of our program because we knew what our goals were."

Technologies. "Ho'omana'o wau i ka ho'ohana 'ana i nā lolo uila no ka heluhelu 'ana a me ke kikokiko 'ana ia. Aia au ma ka papa 'ehā me 'elima no ka mea ua ho'omaka e heluhelu i nā mo'olelo Hawai'i a aia ia ma ke kamepiula. 'A'ole no ke kikokiko 'ana wale nō ka lolo uila. I kēia mau lā ho'ohana 'ia ka mea ho'olele ki'i, pahu pa'i ki'i kikoho'e, a pahu pa'i wikiō kikoho'e. 'O ka mea nui ua hana keaka nui. Hiki ke 'ike i ke ko'iko'i a me ka 'i'ini no ka mea mau nō ka hana keaka 'ana ma ke Kula Kaiapuni. A no'ono'o wau i kēia mau kumu i kēia lā, ua a'o lākou ma lalo o 'oukou ma ka wā ma mua. Hana keaka, pa'i wikiō a hiki ke nānā hou. 'O ia ka ma'alaha e mālama ia. Haku i nā puke a hoihoi ia no ka mea ke ho'ohana hou me nā puke. Ho'ouna 'o Kumu A. (Hale Kuamo'o) i nā puke. Hoihoi wau i kēlā 'ano kamepiula lawelima. Hiki ke hana i ka mea ho'olele ki'i no ka mea hoihoi wau e ho'ohana i kēlā 'ano Powerpoint. He mea nui ka mo'okū'auhau i hiki ia'u ke ho'olaha ai iā lākou 'o wai lā wau. Hiki ke hō'ike i nā keiki a ho'olauna. A laila hana lākou."

Translation. “As I reflect on our use of computers it was for reading and typing (writing). I was in the fourth and fifth grade because we started reading Hawaiian stories and it was on the computer. The computer was not just for typing (writing). These days we use projectors, digital cameras, and digital video recorders. One of the big events is we produced a lot of plays. One can see the importance and the desire because we continue producing plays in Hawaiian Language Immersion. As I reflect upon the teachers of today; they learned under you teachers of the past. We produce plays, video record and watch them again. That makes it easier to save. We write books and this is interesting because we use the books again. Former Teacher A sent us books from Hale Kuamo‘o. I am interested in laptops. I can use the projector because I am interested in showing Powerpoint presentations. Genealogy is important to me as I can announce to them at Open House who I am. I can show (this presentation) to the children and get to know them. Then they create a genealogy presentation.”

Technologies. “No‘ono‘o wau i ko kākou ola ma waho o ke kula. Ho‘ohana kākou a pau i nā ‘enehana. ‘Ike au i ko kākou ‘ano kelepona pa‘a lima ‘o Android. Loa‘a (kēia) i nā haumāna papa māla a‘o papa ‘ekahi. Hiki iā lākou ke ho‘ohana. Maopopo ia‘u inā ‘a‘ole nā kumu e ho‘ohana...manakā loa ma ka papa no ka mea ‘a‘ole pili i ko lākou *ola ma waho o ke kula*. No‘ono‘o ana lākou *kahiko loa nā mea i loko o ka papa*. No‘ono‘o wau hiki ke ho‘ohana i ka lolo uila e heluhelu i kēia mau lā. Maopopo ia‘u pono mākou nā kumu e a‘o pehea e ho‘ohana ai i ka ‘enehana, no laila, hiki iā kākou ke pili i nā keiki. Inā ‘a‘ole, ‘a‘ohe hoihoi o nā keiki e a‘o. Komo nā haumāna ma KidPix ma‘alahi e haku i mo‘olelo no ka mea hiki iā lākou ke kahaki‘i, ho‘opa‘a leo i ka

mo'okū'auhau. Haku lākou i ki'iaka mo'okū'auhau a mo'olelo 'ohana. A laila, e ho'opa'a ma ke sede. Lilo kēia i ana a'o no ka 'Ōlelo Hawai'i, ke kākau 'ana, a me ka'enehana. Hiki ke ho'ohana 'ia ka 'enehana no nā mea like 'ole. Li'ili'i paha ko'u hopohopo. Ma ke Kula Kaiapuni, pono e ho'omana'o i nā mea Hawai'i 'a 'ole ka 'enehana wale nō. Pono e noi i nā kupuna me nā kānaka Hawai'i e komo i ka papa a ha'i mo'olelo i nā keiki. I kēia mau lā, 'a'ole nui nā kūpuna, no laila, pono e kono i ke kanaka kaiaulu e komo i ka papa. Hiki ke ho'ohana i ka pahu pa'i wikiō, e pa'i ki'i a ho'opa'a leo iā lākou."

Translation. "I think about our lives outside of the school. We all use technology. I know that we all have cellular phones, i.e. Android. The students in kindergarten and first grade have these phones. They know how to use it. I know that if teachers don't use (technology) then the class will be boring because it doesn't relate to their lives outside of school. They think the tools in the classroom are outdated. I think we can use the computer to read these days. I believe that we the teachers need to infuse technology, therefore, we can relate to these children. If not, the children will lose interest in learning. The children engage in Kidpix because they can draw pictures and record (their story) about their genealogy. They create a slideshow about their genealogy and their family history. Then they burn it on CD. This becomes an assessment for oral communication in Hawaiian, writing, and technology skills. Technology can be used for various purposes. I have but one small concern. In the Hawaiian Language Immersion Schools you have to reflect on the *Hawaiian ways, Hawaiian ways*, not just technology. One must invite the elders and Hawaiian people to come to the classroom and talk story

with the children. Today, there are not many elders; therefore, we need to invite community members to come to the classroom. One can video record, photograph, and record their message.”

Changes. “No‘ono‘o wau i ka self-sustainability. Malia paha inā ho‘omau ke Kula Kaiapuni e ho‘ohana me ka ‘enehana, i kekahi lā he kōkua kēlā no ka lāhui Hawai‘i. Hiki ke holo mua ma kēlā ‘ao‘ao pehea e mālama ai i ko kākou ‘āina e like me ka wā ma mua, no ka mea no ko kākou kūpuna pēlā nō ko lākou nohona. Hoihoi kēlā ‘ano no‘ono‘o ‘ana ma waho o ke kula. Inā ho‘omau kākou me ka ‘enehana, a laila e loa‘a ana kekahi pahuhopu e mālama i ko kākou ‘āina. Maopopo ia‘u aia ana kekahi haumana Kula Kaiapuni e holo mua ana ma kēlā ‘ao ‘ao. Hiki ke mālama i ka ‘āina a me ka mo‘omeheu Hawai‘i. Hiki ke ho‘opa‘a wikiō a mālama. Pono e mālama i ka mea i loa‘a. A hiki ke hō‘ike (i ka wikiō) i nā haumāna i kēia mau lā. Ma ke kula hiki ia ‘u ke ‘ike i nā wikiō me nā mo‘olelo kupuna a mau nō ko kākou ho‘ohana ‘ana. Ho‘olohe i ka leo a ‘ike pehea ka ‘oko‘a. Inā hala kekahi kupuna, a laila hiki iā lākou ke ho‘olohe. ‘O ka mea nui pono e pili i nā mea ‘elua (‘ike ku‘una me ka ‘enehana) a i‘ole nalowale paha. Inā ‘a‘ohe kupuna e komo i ka papa - ‘o ka ‘enehana he mīkini wale. Aia ke aloha mai nā kūpuna mai. Ua hala ‘o Kupuna K. Pono e ‘imi i kupuna e ‘ōlelo Hawai‘i, no laila, ‘a‘ohe kupuna ma ke kula. Ua lilo ko‘u ‘anakē i ke kupuna ma ‘ō. Ma mua hana ‘o ia no ka hōkele no kekahi mau makahiki. He mānaleo ‘o ia, no laila, ua hana ‘o ia no ke Kula Kaiapuni. Mahalo wau i nā haumāna no ka mea ua ho‘i ka ‘i‘ini (e ‘ōlelo Hawai‘i) iā ia. He ‘ano pō‘aiapili ia he mānaleo ‘o ia a e a‘o ‘o ia i nā māna leo, akā ua hala ‘o ia ma ka makahiki 2007.

‘O ia ko‘u hopohopo ‘a ‘ole hiki ke hō‘ike i ke kuleana a me ke aloha mai ka ‘enehana mai. Hiki iā kākou ke a‘o ‘ia mai nā kānaka.”

Translation. “I think about self-sustainability. Perhaps if the Hawaiian Language Immersion Schools continue to use technology, someday it will help the Hawaiians. We can progress on caring for our land like the past, because that was how our elders lived (caring for the land). I am interested in that type of thinking outside of school as well. If we continue with technology, then we will have goals to preserve our land. I know that we will have a Hawaiian Language Immersion student who will advance in that area. We can preserve the land and the culture. We can video record and save. We have to preserve what we have. We can show the video to the students these days. At school I can see the videos and the elders’ stories and we still use them. They listen to the voice (of the elder) and they know the difference. If an elder passes on, then they can listen. The important thing is to relate to both (traditions and technology) or it will be forgotten. If there are no elders that come to the class – technology is just a machine. Love comes from the elders. Our elder Kupuna K. passed on. We had to find an elder who spoke Hawaiian, therefore, there was no elder at the school. My aunty became the elder there. Previously she worked in the hotels for a couple of years. She was a native speaker; therefore, she worked for the Hawaiian Language Immersion School (that I worked at). I am thankful to the students because her desire to speak Hawaiian returned. She has come full circle because she is a native speaker and she is teaching native speakers, but she died in 2007. That’s my concern; you can’t show responsibility and love from technology. That can be learned from humans.”

“Ho‘omaka me ka mīkini ‘oki leo no ka mea ua hana nui ‘ia ma ka wā i hala no ka mea ma‘alahi e hana me ia a kama‘aina nā kumu a pau pehea e ho‘ohana ai me ia.No kēia wā, ua hui nā kumu a no‘ono‘o i ka pono o ka Smartboard no ka mea hoihoi nā kumu.”

Translation. “(Let’s) start with the tape recorder because it was used a lot in the past due to its ease in use, and all the teachers were accustomed to it, and knew how to use it. For these days, the teachers (at my school) got together and decided the Smartboard is best because of its high interest to teachers.”

Former Student #4:

Positionality. I am Hawaiian because both of my parents are Hawaiian. My grandfather on my mother’s side was pure Hawaiian. On my father’s side both parents were half-Hawaiian. I am more than 50% Hawaiian. My parents gave me the pride to be Hawaiian. There were six children in my family and five out of six are Hawaiian Language Immersion students. By the time my parents had the fifth child they were tired of the work involved. I convinced them to send the youngest to Hawaiian Language Immersion because I could see the difference. I was the first grandchild to attend Pūnana Leo and Hawaiian Language Immersion. My grandparents encouraged my cousins to go to Hawaiian Language Immersion too. One went to Waiu and the other three went to Pū‘ōhala. We graduated in the twelfth grade from a Kula Kaiapuni, or Hawaiian Language Immersion School. My cousins now work for either a Pūnana Leo or a Kula Kaiapuni. My grandmother cared for Huilua Fishpond. She taught us how to build the fishpond wall there. When the waves come it destroys it, so she taught us how to restore it. We also

have a taro patch in Kahana, therefore, my extended family is involved Hawaiian Language education.

Social Justification. My role in the program is that of a former-student presently teaching. My purpose for telling the story is to reflect on experiences. I am also enrolled in an Educational Technology program. I used to wonder if I was the only person that communicates through technology. I will use the data to better inform my own teaching practices while our school is in educational reform.

Obstacles. “‘A‘ohe kurikiulama ma ka wā ma mua, no laila, ua pono nā kumu e haku ha‘awina a ‘oki a tuko i nā puke. ‘O kekahi mea, ua ma mao ke kula, no laila ua pono e ‘e‘e i ke ka‘a ‘ōhua. Uku ko‘u mau mākou he \$140 kālā no ka pila ka‘a ‘ōhua. ‘Ehā mākou keiki o ka ‘ohana i ‘e‘e i ke ka‘a ‘ōhua, a \$40 kālā ka uku no ke keiki ho‘okahi o ka mahina. ‘O kekahi, ‘a‘ole i lohe ‘ia ka leo Hawai‘i ma waho o ke kula a me ka hale. ‘O ia kekahi o nā ālaina.”

Translation. “There was no curriculum before, therefore, the teachers had to create lessons, and cut and paste books. Another thing, the school was far, so we had to board the bus (to get to school). My parents paid \$140 dollars for the bus bill. Four children from my family rode the bus, at \$40 per child per month. Another thing, you didn’t hear the Hawaiian Language outside of school and the home. These were some of the obstacles.”

Technologies. “‘O kekahi o nā hame‘a ma ko‘u wā haumana ka lolo uila Macintosh ma ka Papa ‘Elima. Ua ho‘ohana mākou i ka Leokī, KidPix, a me ke kikokiko ‘ana. Ua noi‘i ha‘awina mākou a pa‘i ki‘i i nā mea e pono ai. Ua ha‘i mo‘olelo mākou ma

ka Closed Circuit o ke kīwī ma ke kula. Inā ua hiki ke loa‘a, makemake au i ka Smartboard.”

Translation. “Some of the tools utilized as a student was the Macintosh computer in the fifth grade. We used Leokī, KidPix, and we typed on the Word document. We researched and took pictures of the what was needed. We reported current events via Closed Circuit TV at school. If I could, I would like a Smartboard back then.”

Changes. “Ho‘oholomua ka ‘enehana i kēia papahana, no ka mea pēlā nō e ho‘olaha ai i ka ‘ōlelo, a pēlā no e a‘o ai i nā keiki. Ho‘omaka e ‘ōlelo me ka ‘enehana kekahi. Hiki ke ho‘ohana ‘ia ka ‘enehana i kēia lā e ho‘omaika‘i i ke a‘o ‘ana ma ka papa. Loa‘a ka Elmo maika‘i i hiki ke a‘o ai i ka ha‘awina makemakika a me ka heluhelu ‘ana. Kūikawā ka ‘enehana i ke kākō‘o ‘ana i nā keiki nāwaliwali ai‘ole pa‘akikī ka ‘a‘apo ‘ana, no ka mea hiki ke hō‘ike iā lākou ma o ka Elmo. Ho‘ohana wau me ka lolo uila, ka pūnaeweale, ka mīkini ho‘opa‘i wikiō, ka mīkini pa‘i ki‘i, ka mīkini ho‘olelo ki‘iaka, ka Flashmasters, ka iMovie, Powerpoint, IXL Math, Ulukau.org, ‘Ōiwi TV, Wehewehe.org, Moenahā a me Photoshop. Makemake au i ka Smartboard.”

Translation. “Technology has helped this program to progress, because that is how we make the Hawaiian Language known to others, and that is how we teach our kids. We have started to communicate with technology. We can use technology today to improve our teaching skills. I have an Elmo. It is good to teach mathematics and reading. Technology is special because it can assist the children who are challenged or have a difficult time with comprehending. I use the computer, Internet, video recorder, camera,

projector, Flashmasters, iMovie, Powerpoint, IXL Math, Ulukau.org, ‘Ōiwi TV, Wehewehe.org, Moenahā a me Photoshop. I want a Smartboard.”

Changes. “‘Oī aku ke ko‘iko‘i o ka ‘enehana i kēia mau lā. He mea le‘ale‘a no nā keiki, akā pono nā keiki e ‘ike pehea e hana ai. Ho‘ā‘o wau e a‘o i ka‘u kāne pehea e hana ai i ka ‘enehana a wahi āna na‘u ka lolo uila, akā he Android kāna a maopopo iā ia. Ke ulu nei ka ho‘ohana ‘ia o ka ‘enehana, no laila, inā ‘a‘ole maopopo ke kumu pehea e hana ai i kēlā me kēia, pono e a‘o mai i hiki ke hana.”

Translation. “Technology plays more of an important role today than in the past. It is entertaining for the kids, but the kids need to learn the proper way to use it. I try to teach my husband how to use technology and he tells me that he bought the computer for me, but now he has an Android so he knows how. The use of technology is growing, therefore, if teachers don’t know how to use it these days, they better learn.”

Changes. “Nui ka mahalo. Ua holo mua mākou, akā ‘ano like ia me ka wā i hala. ‘A‘ole lawa ke kumu, ke kālā, nā puke, a me nā haumana. Ua holo mua i ka ‘enehana, akā ‘a‘ole i pae i ka pahuhopu. ‘O mākou ke kula li‘ili‘i i loko o kēia kula. ‘A‘ole hiki ke hele i ka hale kū‘ai e ho‘oka‘a ‘ike a lohe ‘ia ka ‘ōlelo makuahine ma waho o ka papa. Pa‘akikī ‘a‘ole nui loa kēia papahana. ‘A‘ole nui ke kāko‘o ‘ana o ke aupuni. In pēlā aia ke Kula Kaiapuni ma nā kula a pau. Mau nō nā hihia – ha‘alulu a huikau nā mākuā. Hopohopo lākou i ka Pelekānia a pili kēia hopohopo i ke aupuni. Mau nō ke ka‘awale. ‘A‘ole paipai (ke aupuni) i ka ‘ōlelo me ka mo‘omeheu. Pehea ‘oe e ‘ōlelo ai he Hawai‘i ‘oe me ka pa‘a ‘ole o ka ‘ōlelo? Ke ‘ike ‘ole i ka pilina o ka ‘ōlelo makuahine? ‘O ia ka like.”

Translation. “I have lots to be thankful for. We have progressed, but it is still like the past. There are not enough teachers, money, books, and students. We moved forward due to technology, but we haven’t reached our goal. We are a small school within a school. We can’t go to the store and communicate and hear our mother tongue outside of the classroom. It is so difficult that our program is so small. There is not enough support from the government. If there were we would have Hawaiian Language Immersion Program offered at all the schools. The struggle continues. Parents are confused. They are worried about English and this is directly related to the government. We continue to be separated. Legislation does not support the language and the culture. How does one say that he or she is Hawaiian if the language is not known? Does one not see the relationship of our mother tongue and being Hawaiian? That is how it is the same.”

Individual Teacher Narratives

Former Teacher #1:

Position. I am Hawaiian because my grandfather was 100% Hawaiian and he was a native speaker. I am German and Hawaiian. I was born in New Jersey. When I was young my father encouraged me to learn Hawaiian. He took me to classes. My uncle prepared lū‘au and kalua pig, we made parties and we made leis. My father was a farmer so it was important to cultivate by the phases of the moon. We grew food; and flowers to make leis. I’m Hawaiian.

Social Justification. (This teacher was the first Hawaiian Language Immersion teacher at one of the Hawaiian Language Immersion Schools). My role in the program is

that of a teacher and a professor at Ka Haka ‘Ula o Ke‘elikōlani, as well as the director of Hale Kuamo‘o.

Obstacles. “Ua ho‘omaka ma luna o ka mana‘o o ka ‘ōlelo – e mālama a *ho‘ōla i ka ‘ōlelo*. Akā, ua ‘ike koke ‘a‘ole lawa kēlā. He mea nui e kōkua kekahi i kekahi. Pono e a‘o piha i nā ‘ao‘ao a pau. ‘O ia ho‘i, loa‘a ka ‘ao‘ao lawena, ho‘okipa malihini, kōkua aku kōkua mai, ka waiho ‘ana i nā kāma‘a i waho o ka lumi papa...he mau lawena kēlā. A laila ke ‘ike ku‘una kekahi. He mea nui ke kālai ‘ike. Ma ka ‘ao‘ao Hawai‘i pono e a‘o i nā ha‘awina mai nā kupuna mai i loko o ka lumi papa. ‘O ka ‘ōlelo Hawai‘i kekahi mea nui. A laila ka mea hope, ‘o ia no ka ‘ao‘ao ‘uhane i loko o ka hana. I nā manawa a pau ke wehe i kekahi hālāwai, kekahi hō‘ike ‘ike mālama ‘ia ka pule, ka hīmeni, kēlā hō‘ihi i nā kūpuna...ka mahalo ‘ana i ke Akua, nā kūpuna, nā hoa, nā kumu. He ‘ao‘ao kēlā no ke a‘o ‘ana i loko o ka lumi papa kekahi a pono e mālama i ke ku‘una ‘ike.”

Translation. “It started with the idea of the language – to preserve and *revive the language*. But, it was quickly known that it wasn’t enough. It was important to help one another. You have to learn all of the sides. That is to say, the behavior, hosting visitor, helping one another, leaving the shoes outside of the classroom...that some behaviors. Then there’s traditional knowledge. Academics are important. On the Hawaiian side you have to learn the lessons from the elders inside of the classroom. The Hawaiian Language is important. Then at the end, there’s the spiritual side in your work. Every time there’s a meeting, a presentation there is a blessing, singing; that respects our elders, gives thanks to God, our elders, our friends, our teachers. That is the part to teach inside of the classroom too and we have to maintain our traditional knowledge.

Obstacles. “Ma ko‘u wā keiki ua a‘o wau i nā hua ‘ōlelo. He mana leo ko‘u tūtūkāne. He Hawai‘i piha ‘o ia akā na‘e, ua hala ‘o ia ma ko‘u wā keiki no laila, ‘a‘ole nui loa ko‘u launa pū ‘ana me ia. Akā ua paepae mau ko‘u pāpā ia‘u i nā mea i hiki, e ho‘ohana i nā hua ‘ōlelo i hiki. A ma o ke a‘o ‘ana i nā mele pēlā wau i a‘o ai i kekahi mau ‘ōlelo. Ma muli o kēlā ‘i‘ini ma ko‘u hele ‘ana i ke kula nui ua ‘ano lu‘u wau i nā ha‘awina Hawai‘i a launa me ka‘u kāne mua...ikaika loa ‘o ia ma kēlā ‘ao‘ao. ‘O ia ka‘u kumu ‘ōlelo Hawai‘i mua no laila, mai ka launa mua ‘ōlelo Hawai‘i, ho‘ohiki māua e ‘ōlelo Hawai‘i wale nō kekahi i kekahi i nā keiki. No laila mālama ‘ia ka ‘ohana i loko o ka ‘ōlelo Hawai‘i ma ka hale. ‘O ka ‘ōlelo Hawai‘i ka ‘ōlelo mua ma ka hale. ‘Ōlelo Hawai‘i ka‘u mau keiki ma mua o ke komo ‘ana i ka Pūnana Leo. Nui ko‘u mahalo i ka ‘Aha Pūnana Leo i ka ho‘okumu ‘ana i ka papahana i hiki iā lāua ke ho‘omau i ka ‘ōlelo Hawai‘i no nā po‘e a pili ‘ē a‘e ‘a‘ole ma ka home wale nō.”

Translations. “In my childhood I learned the vocabulary. My grandfather was a native speaker. He was full Hawaiian, but he died when I was a child, so I didn’t get to know him very well. But my father encouraged me to do the things that I could, to use the vocabulary that I could. From learning songs, this is how I learned some language. Because of this desire when I went to college I immersed in Hawaiian lessons and got to know my first husband...he was very strong on that (Hawaiian) ways. He was my first Hawaiian instructor therefore, from our lounging in the Hawaiian Language, we promised each other to only speak Hawaiian to each other and our children. Therefore, the family was nurtured in the Hawaiian Language at home. The Hawaiian Language is the first language at home. My children spoke Hawaiian before they went to Pūnana Leo.

I have much gratitude for the ‘Aha Pūnana Leo for establishing the program so they can continue the Hawaiian Language and bond with the other people, not just at home. ”

Obstacles. “‘O ko‘u kūlana kua helu he polopeka o ke kula nui ma lalo o Ka Haka ‘Ula o Ke’elikōlani. A‘o wau i nā papa ho‘omākaukau kumu. ‘O kekahi o ko‘u kuleana ‘o ia ka ho‘okele ‘ana ma lalo o ka Hale Kuamo‘o. ‘O kā mākou hana ma‘ane‘i ‘o ia nō ka ho‘omākaukau ‘ana i nā puke, nā ha‘awina no ke kāko‘o ‘ana i nā Kula Kaiapuni. A mālama mākou i nā papahana ho‘onui ‘ike kumu kekahi no nā kumu. Mau nō ka‘u hana ma laila. Ia‘u ma ka lumi papa ua ‘ike wau i ka nele mua ma ka ha‘awina i kēlā me kēia lā, no laila ua makemake au e kōkua ma kēia ‘ao‘ao ka ho‘olako ‘ana i nā ha‘awina a me nā puke.”

Translations. “My foremost position is a professor at the college in Ka Haka ‘Ula o Ke’elikōlani. I teach the class to prepare teachers. Another of my responsibilities is director of Hale Kuamo‘o. Our job here is to prepare the books and lessons to support the Hawaiian Language Immersion Schools. We maintain the enrichment curriculum program for the teachers. I continue to work there. When I was in the classroom I realized the need for lessons on a daily basis, therefore I wanted to help with this side of supplying the lessons and books.”

Obstacles. “Ike kākou ma mua o ka ho‘omaka ‘ana o ke Kula Kaiapuni ‘ane‘ane make ka ‘Ōlelo Hawai‘i. No laila, he reform nui ka ho‘okumu ‘ana i ke Kula Kaiapuni. Ua holo ma mua o ka ‘iwakāluakūmālima makahiki. Ua holo nui kākou akā ‘a‘ole i pae ‘ia i ka makemake o kākou. Mau nō ka hana. ‘O ka educational reform ka mālama ‘ana, ka ho‘ōla ‘ana i ka ‘Ōlelo Hawai‘i. ‘O ka mana‘o ke wala‘au nui ‘ia ma Hilo, ‘o ia ka

ho‘okumu ‘ana i ke kula nui mālama ‘ia ma ka ‘Ōlelo Hawai‘i – mālama ‘ia nā papa a pau ma ka ‘Ōlelo Hawai‘i. E like me nā lāhui ma waho o kākou. Pēlā kākou e ‘ike ai i ke ola. Ma ka ‘ao‘ao loiloi, i loko o kēia makahiki i hala, ‘ike kākou he mea nui ka No child Left Behind. ‘O ia kekahi kumu o ke kālā ma lalo o ka Hale Kuamo ‘o. Pili ka loiloi ‘ana i ka mākaukau ‘ana o nā keki i kā lākou ‘ōlelo. Ua hana kekahi mau keiki me ke kanaka loiloi, he ‘elua haneli kanalima haumāna ka huinanui, ua loiloi ‘ia ka ‘ōlelo i hiki ke ‘ike i ka holo mua o ka ‘Ōlelo Hawai‘i. Pono e ‘oki leo, palapala leo a kālailai. Ua kūkulu ‘ia ka maka‘aha loiloi a kā‘ana like ma ke kula i hiki ke ho‘oikaika hou a‘e. Ho‘ohana ‘ia ka ‘ike pili no ka ho‘oikaika ‘ana. Ke ‘ike mākou i kekahi hemahema ua haku ‘ia kekahi mau ha‘awina a haku ‘ia kekahi mau puke a‘o analula ma kēlā ‘ao‘ao nāwaliwali, a pa‘i a ho‘okālele i nā kumu. I mea kēia i hiki i nā kumu ke maka‘ala a ho‘oikaika kekahi.”

Translations. “We all know that at the start of the Hawaiian Language Immersion Schools the Hawaiian Language was *nearly dead*, therefore, the founding of the Hawaiian Language Immersion Schools was a great reform. We have progressed in twenty-five years. We have progressed a great deal; however, we have not reached the level of development that we want. Educational reform involves the preservation and revival of the Hawaiian Language. The idea that is greatly discussed in Hilo is the founding of a college in which all courses are conducted in the Hawaiian Language similar to the other nations (The Maori people for example). That is how we see life. On the evaluation side, in the years that have passed we see the importance of No Child Left Behind. That is one of the purposes for the money under Hale Kuamo‘o. Evaluation is based on the preparedness of the children’s language abilities. Some children worked

with the evaluator, a total of two hundred fifty children were evaluated to understand the progress of the Hawaiian Language. It was necessary to record voices, document voices and analyze them. An analytical spreadsheet was created and shared with the school to strengthen them. This data was used to strengthen the program. When we noticed inexpert (language abilities) we created lessons, we created books for teaching grammatical patterns (in language) in the weak areas, printed and distributed to the teachers. This is so that the teachers could be aware and strengthen it.”

Obstacles. “‘Ike kākou i kekahi o nā ālaina o ka lawa ‘ole o ke kālā, ka lawa ‘ole o nā kumu waiwai, ‘o ka lawa ‘ole o nā kino mākaukau. ‘O ke po ‘okumu kekahi, inā kāko‘o ke po‘okumu me ka holo mua o nā kumu a me nā keiki. Akā inā ‘a‘ole pūlama ke po‘okumu i ka papahana, he pilikia kēlā – hiki ke ‘ike ‘ia ka ho‘onāwaliwali ‘ana o ka papahana.”

Translations. “Another obstacle of the past is that we had a shortage of money, resources, and able bodies. As for the principal, if the principal supported then teachers and the students progressed. But if the principal did not cherish the program, that was a problem. The weakening of the program could be seen.”

Technologies. “Ua mālama ‘ia nā kauno‘o me nā lola. A kēia mau lā mālama ‘ia ma ka sede. Ua haku ka ‘Aha Pūnana Leo i kekahi mau sede rom. Ua ho‘ohana ‘ia ka mīkini kikokiko ma mua ma o ka lolo uila he Dot Matrix kēlā ‘ano a ‘a‘ole moākaka ‘ia. Ua pono e ‘oki a tuko me ka tuko maoli a i kēia Manawa loa‘a ka tuko Avery. Ua holo mua nui me ka hana pa‘i puke ‘ana. Hiki ke ‘ike ma‘ane‘i loa‘a kekahi la‘ana o ka puke ‘oki a kāpili a me ka puke ‘ele‘ele ke‘oke‘o i hana kope ‘ia a ‘a‘ole waiho‘olu‘u ‘ia

kekahi. A i kēia manawa pa‘i ‘ia nā puke me ka waiho‘olu‘u. He holo mua kēlā ma ka ‘enehana kekahi, akā pono ke *kālā*. Ma kēia lumi papa aia he pākū nui no ka ho‘olele ‘ana i nā papa. Mālama ‘ia nā papa ‘o Kahuawaiola ma‘ane‘i. Ho‘olele lākou i nā ha‘awina. Wae ‘ia nā haumāna muli puka a noho kekahi ma Maui, Moloka‘i, O‘ahu, Kaua‘i a me kēia mokupuni no laila ‘a‘ole pono lākou e ha‘alele i ko lākou papa. Hiki ke ho‘omau i ke a‘o ma ke kula akā komo i ka papa i ho‘okahi manawa o ka pule he ‘ekolu hola ka lō‘ihi ma o ka papa Hits a i‘ole ma o ka papa Polycom. ‘O kekahi papa Polycom mālama ‘ia me kekahi lāhui ‘ōiwi ‘ē a ‘e. No laila na ka papa ho‘okahi pāku‘i ‘ia no nā haumāna maoli na ka pae muli puka (masters) nā haumāna na Alaka, Wakinekona, Alekona, ka papa ‘Ilikini, ka papa Eskimo, a me ka papa Maori, komo lākou a pau a hiki ke hapahā ‘ia kēia pākū i hiki ke ‘ike, wala‘au, hō‘ike a mālama ‘ia ka papa i ‘ō a i ane‘i o ka honua i ka wā ho‘okahi. Hiki ke pāku‘i i ke kamepiula, ka wikiō, ka devede, ‘o nā mea like ‘ole hiki ke ho‘olele a ‘ike ‘ia ka po‘e ai‘ole hiki ke hō‘ike i nā haumāna o ka lumi papa.”

Translations. “We used to service the listening center with tape cassettes. These days it is stored on CD. The ‘Aha Pūnana Leo created some CD-roms. We used to use typewriters before the use of the computer, and it was Dot Matrix which was not very clear (like a typewriter ribbon which is unlike a laser printer or inkjet printer). We had to cut and paste (Hawaiian translations onto English text of books) with real glue. These days they use Avery label paper. We have come a long way with book production. Here we have an example of the book that was cut and pasted, and the black and white book that was Xeroxed with no color. Now books are printed in color. This is progress but it

takes money. In this room there is a large screen to project to the classes. The Kahuawaiola classes are serviced here. They transmit the lessons here. The masters program students are separated – some live on Maui, Kaua‘i, O‘ahu and this island (Hawai‘i) so they don’t have to leave their class. They can continue to learn at school but they have to enter class once a week for three hours a day in the HITS class or the Polycom class. One of the Polycom classes services other ethnic groups. One class is split so that the indigenous students of the masters program, the students of Alaska, Washington, Oregon, Indian classes, Eskimo classes, Maori classes all enter on one-fourth of the screen so we can see, converse and share; and this class is conducted all over the World at the same time. We can display the computer, the video, the DVD, various things can be seen by the people or we can show the students of the class.”

Changes. “‘O kekahi mea maika‘i loa o kēia wā ‘o ia ‘o Ulukau.org no ka ‘imi ‘ana i nā hua ‘ōlelo hiki ke ‘imi koke ‘ia, a ‘a‘ole i ‘ike nā haumāna o kēia wā i ka huli ‘ana i nā hua ‘ōlelo ma ka puke. Ma‘a wale nō i ka ‘enehana he holo mua no kēia lā. ‘O kekahi mea o kēia lā ‘o ia ka Smartboard. ‘Ike wau ‘o ia kekahi pae hou i hiki ke holo mua. He ho‘oikaika ia i kēia manawa. ‘O ia kekahi mea ke no‘ono‘o nei, ke kū‘ai ‘ana i nā Smartboards. He ho‘owikiwiki ka ho‘omākaukau ‘ana no nā kumu. ‘O ka‘u kaikamahine, aia ‘o ia ma ka papa ‘umikūmālua a akamai loa ‘o ia. Haku mau ‘o ia i nā hō‘ike‘ike, a wikiwiki loa ‘o ia. Ua hai mua ‘ia kekahi o nā haumāna (Kula Kaiapuni) ma‘ane‘i (Hale Kuamo ‘o) ma ka ‘ao‘ao ‘enehana no ko lākou ‘ike a kōkua no ka ho‘omohala ‘ana i nā ha‘awina.”

Translations. “One tool that is really good these days is Ulukau.org. When searching for words, you can find it quickly, and the students of today don’t search for words in the book. They are accustomed to technology which is a progression for today. One tool today is the Smartboard. I know that it is a new level that can move forward. It is a tool that can strengthen (our programs) today. That is one thing that is thought about – the purchasing of the Smartboards. It speeds up the preparation for the teachers. My daughter is in the twelfth grade and she is very smart. She always creates presentations, and she is really quick. We hired some Hawaiian Language Immersion students here (at Hale Kuamo‘o) on the technology side to help with the lessons.”

Technologies. “Ma ka wehe ‘ana o kēia ‘īpuka o ka ‘enehana, he ho‘ākea (extension of text in word processing) ia. ‘Ike wau ‘oi aku ka holo mua ‘ana o ka‘u kaikamahine ma ka papa ‘umikūmālua i kēia manawa me ka noi‘i ma ke kamepiula, ka ‘imi ‘ana, ho‘ohana ‘o ia a hiki i ka muli o kona ‘ike ‘enehana. Hele ka‘u kaikamahine i ka pa‘i ki‘i ‘ana, ka ho‘opa ‘a wikiō ‘ana no ka documentation, ‘o kēlā ‘ano he kōkua. Mana‘o wau pono kēia ‘ano mākau ke pi‘i i ke kula nui, a laila ke pi‘i i kekahi kūlana hana. Loa‘a nā mākau i hiki ke ho‘ohana ai i ka ho‘okō ‘ana i ka hana. He kōkua nui ia. Akā, ‘a‘ole hiki ke pōina i ke ku‘una, ka ‘ike ku‘una Hawai‘i. ‘O kēia mau mea ‘enehana he hāme‘a huakomo (input device) wale nō. Pono e mālama i kēlā kūmole ke ‘ike ku‘una Hawai‘i a hiki ke ho‘omohala aku i kēlā ku‘una ‘ike Hawai‘i i loko o kēia mau mea. He hō‘ike‘ike wale nō kēia akā pono e ho‘omohala i ka maoli i loko o ke keiki.”

Translations. “In the beginning of technology, it was just an extension of text in word documents. I see the progress in my daughter in twelfth grade now with

investigations on the computer, searching and utilizing it until the post product of her technology skills. My daughter photographs and video records events for documentation and those tools helpful. I think these skills are needed when they enter college, and also when they acquire a job. If you have the skills you can fulfill the requirements of the job. It is a great help. But, you can't forget the traditions - the Hawaiian traditions. These technology tools are just input devices. We need to preserve the sources of Hawaiian tradition until the Hawaiian tradition can unfolded with these tools. These tools are just for presentations, but we need to foster the native in the child.”

Other Indigenous Languages. “Ho‘ouna mau ‘ia i kēia mau ho‘olaha ma o ka leka uila ma lalo o ke kōmike, ka holomua o kēlā me kēia lāhui, ‘o ka Cherokee, ‘akahi nō loa‘a kekahi mea ma ka New York Times no kekahi ‘Ōlelo ‘Ilikini ‘ē a‘e ka holo mua ma ka ‘ao‘ao ‘enehana. ‘O ka i-pad, nā kamepiula, nā kelepona kūkulu ‘ia nā ‘ōlelo ‘ōiwi ma kēia mau mea. No laila, he holo mua ia no nā lāhui ‘ōiwi, ‘a ‘ole kākou wale no. Ua lawe ‘ia kekahi ho‘okipa malihini, a mālama hou ‘ia ana kekahi mea i ka lā ‘apōpō no ka po‘e ‘Ilikini e kipa mai ana ‘ehiku (po‘e) mai ka National Indian Education Association. E kipa mai ana a e wehewehe i kā mākou hana o ke kula kaiapuni, ‘enehana, ho‘omākaukau kumu, nā mea a pau i hiki iā lākou ke ho‘i a ho‘okumu a ho‘omohala lākou. He mea nui - e kēlā kōkua aku a kōkua mai. A hiki ke hana ma muli o ka ‘enehana, ka leka uila, ho‘ouna i nā mana‘o kākō‘o, nā kamepiula, nā poke wikiō, nā mea like ‘ole he kōkua.”

Translations. “Announcements are always being sent by means of email under the committee about the progress of various ethnic groups, the Cherokee, just received

information in the New York Times in another Indian Language about the progress of technology use. The i-pad, the computer, the telephone, native languages are built with these tools. Therefore, it is a progression for indigenous ethnic groups, not just for us. We conducted a visitor protocol ceremony, and another will be conducted for three Indian visitors tomorrow from the National Indian Education Association. They will visit and explain their work in the immersion schools, technology use, teacher preparation, everything, and so that they can return, set the foundation and disseminate. It is important to help each other. And we can do this because of technology, by email, sending supportive ideas, the computers, video clips, all of these tools are helpful.”

Former Teacher #2

Position. I am Hawaiian. My father was 100% Hawaiian and my mother was three-fourths Hawaiian so I’m Hawaiian. We are Hawaiian, not just by blood, but by the way you were raised. It helps that I think Hawaiian about the work in the Hawaiian Language Immersion Program because that is the goal of the Papahana Kaiapuni – the language and the culture; therefore it helps to know the traditional knowledge in the Hawaiian Language project. I was born in 1951 and lived in Kalihi at a time that there were many Hawaiians living there. I was also raised in Kalama‘ula, Moloka‘i on Hawaiian Homelands of my grandparents, with my aunties and uncles. My second family lived on Moloka‘i that time – they were my grandparents, therefore I was close to these people that their lifestyle was Hawaiian – full Hawaiian.

Social Justification. My role in the program is that of a former teacher and an administrator. I am telling my story as you requested, to tell you my opinion and answer

these questions to help strengthen the Hawaiian speaking schools and to *revive the language* and the culture in Hawaii. Since 1983, when I entered the ‘Aha Pūnana Leo, my job was to establish the Hawaiian Language Bill.

Technologies. “‘Ae, nā mīkini ‘oki leo, ma nā makahiki kanahiku loa‘a kēia ‘ano ‘oki leo, a laila i kēia manawa loa‘a nā mīkini lola. ‘Elua lola nui no ka wā o ka leo Hawai‘i ‘oki leo ‘ia. (‘O) nā puke, he ‘enehana ke kākau ‘ana i ka pa‘a o ka puke. ‘O ia nā mea nui i loa‘a i kēlā manawa, ma ke ‘ano he ho‘opa‘a ‘ōlelo. No laila, (‘o) ka ho‘ohana ‘ana i nā puke ma ka ‘ao‘ao kākau, a me nā mīkini ‘oki leo i kēlā manawa. A laila ma hope o kēlā, haku ‘ia nā kamepiula Apple. Ma nā kanawalu, ua loa‘a ka Apple, nā kamepiula mua. Ua ho‘oholo i kēlā manawa i ke komo i loko o ka Apple, ‘a ‘ole ka PC a IBM i kēlā manawa, ma muli o ke ‘ano o ka polokalamu - ‘oi aku ka launa o ka haku ha‘awina ‘ana, ka ho‘opuka a hana ‘ana i nā puke. ‘O i aku ka maika‘i o ka Mac a hiki i kēia lā.”

Translation. “Yes, the tape recorders, in the 70s there were these tape recorders, and now (we) have cassette recorder. Two big reels for the time the Hawaiian voices were recorded. Of the books, we used technology to write and print the books. Those were the important things of that time for recording the language. So, (it was) the making of books through writing, and the recording machines of that time. Then after that, Apple computers were made. In the 80s, (we) had Apple, the first computers. (We) decided at that time to choose the Apple, not the PC and IBM at that time due to the kind of program – it was better to create lessons and produce books. Macs are better until this day.”

Obstacles. “O kekahi (ālaina) *nā māna leo e hala ana*, pono e ‘oki leo me ka wikiwiki, no laila, he mea nui ka loa‘a o kēia mau kupuna. ‘O nā kūpuna ‘ōlelo Hawai‘i, ‘a‘ole hemahema ke ‘ano o ka ‘ōlelo Hawai‘i – nā po‘e hope loa. No laila, he waiwai nō nā mīkini lola i kēlā manawa no ka ‘oki koke ‘ana iā lākou. Maika‘i loa. A laila ma hope o kēlā ka loa‘a nā kamepiula ‘oko‘a ka waiwai o kēlā. ‘A‘ole maopopo inā ua loa‘a (ke kelepona pa‘a lima) i kēlā manawa. Pono i hiki i nā māna leo ke ho‘ohana i kēia mau mea. Ua hana lākou ma ke ‘ano me ka ‘oia‘i‘o ua ‘ōlelo lākou, *ua pilikino* no ka mea no ka Hawai‘i (*‘o ka mea nui, ‘o ia ka pilikino* ‘ano ka launa kino ‘ana. A laila, ho‘ohana ‘ia ka ‘enehana ma ke ‘ano he kōkua. No laila, (*‘o kekahi ālaina mai ka wā ma mua a hiki i kēia manawa ‘o ia ke a‘o ‘ana, pehea e ho‘ohana ai i ka ‘enehana. Mau ana nō i kēlā ālaina no ka mea haku hou ‘ia, haku hou ‘ia ka ‘enehana ‘a‘ole pau ‘ia.*”

Translations. “One of the obstacles of the past is the *native speakers were dying*. (We) had to quickly record them, therefore, it was important to acquire (the recordings) of these elders. Of the elders who spoke Hawaiian, they were not awkward in their Hawaiian speaking – (they were) the last people. So the cassette machines were valuable at that time for the immediate recording of them. (It) was very good. Then after (we) had computers its value was different. I do not know (if it was important) that we had the cell phone at that time. The native speakers would have to know how to use them.” They worked in the style with authenticity and truthfulness. They spoke, they were *relating personally*, because for the Hawaiians it was important to be *personable, relating face to face*. Then technology was used as an assist, therefore, some of the obstacles of the past

until this day is instruction – how to infuse technology in teaching. That obstacle will continue because of the endless creation of new technologies.”

Changes. “He kāko‘o maika‘i ia. Kāko‘o ‘ia nā kumu no ka pono o ka hana e hana ‘ia ana. Aia ka waiwai i ka ho‘onui ‘ana o ka hana. ‘A‘ole hiki i ke kumu ke ‘ike i ka waiwai a i hiki i nā kumu ke ho‘ohana me kēlā ‘enehana. No laila, hiki ke lilo ka ‘enehana ke lilo he kōkua. Hiki ke maika‘i ka ‘enehana a hiki ke maika‘i ‘ole ka ‘enehana. No laila, (he la‘ana) a‘o ma ka Powerpoint, no ka mea makemake e haku i kekahi mea ki‘iaka li‘ili‘i, nui nā ‘ao‘ao o ka Powerpoint i hiki ke ho‘ohana ‘ia, nā ki‘i, ka loli ‘ana i ke ki‘i a i ka pakuhi, ka wikiō, ka leo, pehea e ho‘ololi ai. No laila, nui loa nā koho. ‘O ka maika‘i pehea e ho‘olauna ai i ka ‘enehana. Maika‘i ka ‘enehana inā a‘o ‘ia.”

Translations. “Technology is a great support. Teachers are supported for the needs of the job that will be created. There is value in the multitudes of work that can be accomplished. A teacher can’t see its value until the teacher uses that technology. Technology has the potential to become a help. Technology can be good, and technology can be bad, therefore, here is an example, i.e. you learn Powerpoint because you want to create a small slideshow, but there is so much that can be done with the Powerpoint, e.g. the pictures, changing the pictures to charts, the video, the voice, and how to change it. There are so many choices. It is best to get acquainted with technology. Technology is at its best when you have learned its functions.”

Technologies. “Aia ia i nā kumu pehea lākou e ho‘ohana ai i ka ‘enehana. Loa‘a nā Smartboard, Elmo, LCD projector, i-pod casting, mīkini CD, iMovie, ‘o nā mea a pau

o ka Mac. ‘O ia kekahi ‘ao‘ao o ke a‘o ‘ana ma muli o ka nui loa i kekahi manawa, hele a laulā. No laila pono e ho‘okele maika‘i nā kumu i nā haumāna i hiki ke ho‘okō i ka pahuhopu.’

Translations. “It is up to the individual teachers how they use of technology. We have Smartboard, Elmo, LCD projector, i-pod casting, CD players, iMovie, and all the tools of the Mac computer. One aspect of teaching is due to the numerous choices one can get side tracked, therefore, it is important for the teacher to navigate the students to reach the goals.”

Changes. “‘Oī aku ka *nohi* i kēia manawa o ka ‘enehana, ke kamepiula, a me ke kelepona. Ma muli o kēlā ua ‘oi aku ka mana o ka ‘enehana ke akamai mākaukau ke kanaka i ka ho‘ohana i ia mau ‘ao‘ao o ka ‘enehana no ka pono o kāna wā hana. Loa‘a i kēia kula nā pahu pa‘i ki‘i kikoho‘e, nā pahu pa‘i wikiō kikoho‘e, a me nā kamepiula lawelima i ho‘ohana ‘ia. Akā, pono nā ‘ao‘ao ‘elua, inā he pili wale i ka mīkini ‘a‘ole ‘o kēlā wale ka ‘ike no nā keiki. ‘A‘ole nui loa ka po‘e malihini loa i nā mīkini i kēia mau lā. ‘O ka Leokī ka leka uila mua loa o ka ‘Ōlelo Hawai‘i ma nā ‘ano he nui. ‘O ia ka maika‘i loa, ua ho‘olōkahi i nā po‘e a pau, ma waena o nā moku-puni, ‘oiai ‘o Hawai‘i nei he mau moku-puni ka‘awale, he kōkua ka loa‘a o kēlā ‘ano Leokī. I kēia manawa ‘o ka Ulukau.org a me ka Wehewehe.org. ma ke ‘ano he kōkua i ka po‘e a pau i ka ‘Ōlelo Hawai‘i. Na ka Hale Kuamo‘o ka noi‘i ‘ana i kēlā.”

Translations. “Today technology, computers, and cell phones are *more complex*. Due to its complexities, technology has more potential to make a person smarter and prepared to use these technologies in the job force. This school has digital cameras,

digital video recorders, and laptop computers that are being used; however, you need both sides for if we only cling to the computer that is not the only way of learning for the children. There are not that many people that are real experts with machines these days. Leokī was the first Hawaiian Language email with so many possibilities. It was great to unite all the people across the islands, while Hawai‘i is a combination of many island separated, it was helpful to have Leokī (synchronous and a-synchronous discussion). These days we have Ulukau.org (a free online resource in Hawaiian and English) and Wehewehe.org (a free online dictionary in Hawaiian and English) as it is helpful to all the people in the Hawaiian Language. It was Hale Kuamo‘o who researched that.”

Other Indigenous Languages. “Ma Aotearoa aia ke Kohanga Reo ‘o ia ka pae kula kamali‘i e like me ka Pūnana Leo ma Hawai‘i, a aia ke Kula Kaupapa e like me ke Kula Kaiapuni. Aia ke kula nui ‘ōlelo Maori. Loa‘a ka ‘enhana iā lākou, akā ‘a‘ole kama‘aina loa. ‘O lākou ka mua i pa‘i puke ma ka ‘ōlelo me ke kāko‘o ‘ana o ke aupuni iā lākou. Kāko‘o lākou i ka ‘ōlelo, no laila, ‘oko‘a lākou. Nui lākou e ‘ōlelo Maori, akā ma ka ‘ao‘ao ‘enehana, mana‘o wau ua pae like kākou ma o ka ‘enehana. He kōkua maika‘i kēlā. ‘O ka ‘ao‘ao maika‘i ‘ole ‘o ia ka lālau inā he Pelekānia. Ua hele māua ‘o Mea (Larry Kimura) i Wakinekona D.C. e kūkākūkā e ho‘ololi i ke kāmāwai Hawai‘i. ‘A‘ole hiki ke wehe i nā kula inā ‘a‘ole i loli ‘ia nā kāmāwai. Hō‘ole ‘ia ka ho‘ohana ‘ana i ka ‘Ōlelo Hawai‘i ma nā kula ma hope o ka ho‘okahuli ‘aupuni, no laila, pono e ho‘ololi i kēlā mau kāmāwai ma‘ane‘i. No ka po‘e kula kamali‘i ua pono e ho‘ololi i kekahi kāmāwai hō‘ole mai lākou i ka hai ‘ana i nā kūpuna ‘a‘ohe laikini a ‘a‘ole hele i ke kula nui. I kēia manawa ‘o Hawai‘i wale nō ka moku‘āina me ‘elua ‘ōlelo, he Hawai‘i a me ka

Pelekānia. No Hawai‘i nei, nui loa ka hana i koe a pono e ho‘omau nā keiki ma hope, no laila, ‘o ka ‘enehana he kōkua iā kākou.”

Translations. “In New Zealand there is the Kohanga Reo (Voice Nest) for the preschool stage like the Pūnana Leo (Voice Nest) in Hawai‘i; and the Kula Kaupapa like the Kula Kaiapuni (Hawaiian Language Immersion). There is a Maori speaking college there. They all have technologies, but I am not familiar with which ones. They were the first to print books in their native tongue with the support of the government. They (their government) supported the language so they are different – many of them speak Maori. As for the technology side, I believe we have reached the same level. It (technology) is a great help. The only negative side is if (they) reach out to English. My associate (Larry Kimura) and I went to Washington, D.C. to negotiate the changing of the Hawai‘i laws. We couldn’t open the schools unless the laws were changed. The Hawaiian Language was banished from the public schools after the overthrow (of Queen Lili‘uokalani and the Hawaiian Kingdom). So we needed to change the law here. For the preschools we had to change the law that denied the grandparents to be hired without a teaching license and without college training. Now Hawai‘i is the only state with two official languages – Hawaiian and English. For Hawai‘i, much more work remains to be addressed so it is important for the children to continue, therefore, technology is important.”

Former Teacher #3

Position. I am Hawaiian by blood. I am Hawaiian because Hawaiian was the custom of my home. We hosted visitors in the traditional Hawaiian way. The rules of our home were Hawaiian. I started hula at home with my mother. I also danced hula for

Maiki Aiu. I also danced for Darrel Lupenui and Lydia Kauakahi (Moon Kauakahi's wife). For a brief time I danced hula for Keli'i Reichel while on Maui. And last of all, I dance for Kalena Silva while I am at the University of Hawai'i, Hilo Campus. There are many teachers of knowledge here and there. As for art, I sew (Hawaiian) quilts, weave lauhala, make feather leis, I am interested in those arts. However, there is not enough time these years for me to do only that. We speak Hawaiian at home. My children (and grandchildren) are raised in Hawaiian. I was really lucky because I was born at a time that we had native (Hawaiian) speakers in the family. My grandparents were both native speakers. The families of that time, the generation of grandparents were all native speakers. But as for their children, for example my father, he was raised hearing the language, but the mother tongue was not his first language. He spoke English. I don't know if my blood is the reason for my behavior and attitudes, my culture is definitely Hawaiian. My culture guides my traditional knowledge, pleasant behaviors and Hawaiian way of thinking.

My mother was Okinawa raised on Maui but she was raised in the traditional Hawaiian ways. My grandparents spoke Hawaiian. It wasn't until I entered college that my parents saw my desire to learn Hawaiian. They spoke Hawaiian between themselves, on the phone, and at family gatherings. Then when I went to college my grandparents began to speak Hawaiian to me. I knew when I was thirteen years old that I wanted to teach my children Hawaiian. Then when my first daughter was born there were no Pūnana Leo Preschools. I decided to speak Hawaiian at that time. I was lucky that my neighbor was Tuti Kanahale – a native speaker. So my home had bonds with Ni'ihau.

Before Pūnana Leo was opened Aunty Lolena Nicolas was the babysitter for both first born daughter and son. When Pūnana Leo opened she went to Pūnana Leo and my kids followed her. At that time there were only five or six families that spoke Hawaiian at home like Kauanoē and Alohalani. There were few of us and we were separated. It (Hawaiian Language) was important to me because of the closeness with my grandparents, and my family, because in the program many of my cousins were teachers of the Hawaiian Language Immersion Program. My family sent their children to the Hawaiian Language schools – and it was my family desire (to learn). There is justification that upon being raised with the language at the home, the importance of the language, that would grow (the desire) amongst the family. Since I was the oldest grandchild, I got to live with my grandparents and wait upon their needs. I became accustomed. With this responsibility grew my desire to speak.

Social Justification. My role in the program is that of a teacher and administrator. But when I first started I was a parent with the responsibility to create lessons for Pūnana Leo. Then at that time I was a Hawaiian Language teacher for Kamehameha Elementary School. So all of my career positions embraced the Hawaiian Language. Then in 1989 I moved to Maui to open the (Hawaiian Language Immersion) in Pā‘ia. I was there for three years. Then I moved to the University of Hawai‘i Hilo Campus to strengthen my work within the Hawaiian Language Immersion Program. While in Maui I could only help that classroom, but while at the university I could help the entire state. So I was at the Hale Kuamo‘o as the Director of that program until 2008 when I gave the position to Alohalani to lead. There was so much work at Hale Kuamo‘o,

Kahuawaiola (Teacher Training Program – initial teacher certificate), and Kahuawaiola (Masters Program for Indigenous Languages).

My purpose for telling this story is to revive the language. It is a reason to compare to a model school. This is different from American models. (Ours) is culture-based education. This has grown in one generation. But this is not the style of teaching in the regular teaching practices of America. In my opinion, our goals are different. For one, America prepares the kids with the content knowledge so that when the kids are ready they can choose what they want to be. But there is no built in support. We are broadening and strengthening our kids' learning to prepare our kids with all they need when they grow up, but not only for that time. We are preparing them for adulthood and parenthood as well. And the support is Hawaiian. In Hawai'i there are many Hawaiians and non-Hawaiians that are interested in Hawaiian. There is not just one way of teaching. There are diverse needs of the kids while the goals of the families are different. Our children don't live in America alone – they also live in Hawai'i. They need an education to prepare and raise the kids to learn about this place – Hawai'i. It is not work – it is a lifestyle. That's the difference with American schools. They can separate what they learn when they reach home. In Hawaiian it is not separate; it is a part of your community and family.

Obstacles. “A‘ole lawa nā mea a pau mai kīnohi mai. ‘O ka ha‘awina, ka po‘e, ke kālā, ka wahi, ka mākaukau, nā po‘o kumu, nā kānāwai, ‘o nā mea a pau. Ho‘omaka me ko mākou lima a no‘ono‘o, a mana‘olana no kēlā mau mea a pau. Pono e ‘imi a kūkulu. ‘O ia ka hana. Kūkulu, ho‘ākea, kālailai ‘o ia ke ‘ano o ka hana. ‘O ia ka ‘oko‘a

me kēia au. Ma ka wā i hala, loa‘a nā ‘ao‘ao ‘elua. Loa‘a nā mea kōkua helu e like me nā pea (a ho‘ohana wau) akā, no ka nui o ka wā ‘imi wau i nā mea mai ka ‘āina mai no ko‘u makemake e ‘ike nā keiki, he pili ko ka ‘āina i ka makemakika a me ka ‘epekema i ko lākou ola. Inā ho‘ohana mau i ka mea haole, ‘a‘ole lākou e ‘ike aia ka makemakika a me ka ‘epekema a puni iā lākou. Ma ko‘u wā, ua ho‘omaka ia wā ma ka ho‘opa‘a ‘ana i nā leo no nā puke. ‘A‘ole nui nā puke. ‘O ka nui o nā lola i loa‘a mai ka Hale Kuamo‘o, ‘o ia kekahi mea nui a‘u i makemake ai i lohe nā keiki i nā leo ‘oko‘a – ka leo Hawai‘i he kōkua. A haku wau i kekahi mau puke. Haku puke a haku mele. Haku no ka loa‘a ‘ole. I kekahi mau manawa ‘o ka ālaina he kōkua. I kekahi mau manawa no‘ono‘o ka po‘e he maika‘i ‘ole ka ālaina. Akā ‘o ka ‘oiai‘o he kōkua ka ālaina no ka mea pahu ka ālaina i ke kanaka e no‘ono‘o hou a ‘imi i mea hou i loko nō o ka ‘ole. Inā ua loa‘a ka Papa Akamai i kēlā wā, he ‘ano lolo uila ia, ua ‘emi nui nā hola ho‘omākaukau ha‘awina.”

Translations. “There was not enough of everything from the beginning. The lessons, the people, the funds, the place, the training, the principals, the laws – everything (was needed). We started with our hands and imagination and wished for all of those needs. We had to search and build. That is what we did. Build, extend and analyze, that was the kind of work it entailed. That is the difference with these days. In the past there were two sides of education. We had counters (for Math) like teddy bears and I used those but for the majority of the time I looked for things from the land. It was my desire for the children to understand that there is a relationship between the land, math and science in their lives. If I only used the English manipulatives they would not know that there is mathematics and science all around them. In my day they had just begun

recording the voices for the books (at the listening center). There were not many books at that time. The majority of the cassettes from Hale Kuamo‘o were the ones that I wanted for the children to listen to hear the different Hawaiian voices, it helps. I wrote some books and songs because we didn’t have (many) things. Sometimes obstacles are a positive thing. Sometimes people think that obstacles are a negative thing, but the truth of the matter is that obstacles can help the people to imagine and search for something to replace what you don’t have. If I could have had a Smartboard at that time, it is a kind of computer; it would have reduced the hours I spent to prepare lesson plans.”

Technologies. “Ma ka ho‘omaka ‘ana o ka papahana, ‘a‘ole nō i kauka‘i nui kākou i ka ‘enehana. Aia nō loa‘a mai ke kamepiula a laila, kālele nui kākou ma luna o ka mākau ‘enehana – pehea e ho‘ohana ai kēlā polokalamu. He mau mea hou kēlā. ‘Ano ‘oko‘a kēlā wā. I kēia wā he wā e no‘ono‘o ai i ka ho‘ohana ‘ia ma nā ‘ano mea like ‘ole. ‘A‘ole no ke a‘o ‘ana – no ka ho‘ohana ‘ana i ka ‘enehana. Ua pa‘a kekahi pae mākau. Hiki ia‘u ke ‘ike no ka mea ma ka ho‘omaka ‘ana o ka ‘enehana ma ka papahana, na māua ‘o Keola i ho‘omaka ka unuhi ‘ana i nā polokalamu i ‘ike nā keiki hiki ke ho‘ohana ‘ia ka ‘enehana ma o ka ‘ōlelo Hawai‘i. A laila, ma ka ho‘olako ‘ia o nā lako kamepiula – ‘o ka papa pihi ‘oe, kēlā mau mea e pi‘i ai i ke kūlana o ka ‘enehana i loko o ka papahana ‘a‘ole kākou i hope. Aia kākou me ke po‘e ‘ē a‘e akā, ma ka ‘ōlelo Hawai‘i. No laila, he wā ‘imi i ka loa‘a o kēlā, ka i‘o, nā mākau i loko o ka papahana. ‘Oko‘a ka pakeneka, ‘oko‘a ka mākaukau akā, ‘a‘ohe po‘e nele. A laila, hiki ke no‘ono‘o i kēia manawa pehea ka ‘enehana e kōkua mai ana i ka‘u hana. ‘a‘ole pehea au e ho‘ohana ai. ‘O ko‘u hopohopo...ke kaupaona ‘ia...‘O ka ‘enehana no Kahuawaiola. No kekahi mau makahiki

‘a‘ole nō i hō‘ea i kēlā pae mākaukau, ‘a‘ole i komo nā haumana ma ka pae mākaukau. He pae ha‘aha‘a o ka ‘enehana a (ua) pono e a‘o. I loko o ka holo o nā makahiki, hiki ke ‘ike ke loli nei kēlā. Loa‘a kekahi ‘ike o ka ‘enehana. No laila, ke loli nei ke ‘ano o kā mākou ho‘omākaukau ‘ana. Ma mua, pono e a‘o i ka MicrosoftWord, i ka Leokī. I kēia wā hiki ke ho‘ohana maoli i loko o ka papa makemakika, i loko o ka papa ‘epekema. No laila, lilo ka ‘enehana he hāme‘a.”

Translations. “In the beginning of the program we didn’t depend on technology. When we got computers, then we began to place much emphasis on developing technology skill-how to make use of that software. It was all brand new. Those days were different. These days we just think about how to make use of the technology in various ways. Not for just teaching—for utilizing technology. It isn’t just learning how to use it; it is how to apply technology. We reached a certain level of efficacy. I can tell (the difference) because in the beginning of technology use in our program Keola and I started by merely translating software so the children would know that technology could be used through Hawaiian Language. Then once we became more equipped with the computer components, the keyboard and all the things needed to increase the status of technology use in the program, we were not behind. We were right up there with the other people, but in the Hawaiian Language; therefore, that was the time to search and secure the needs, the substance, and the skills needed within the program. The percentage of readiness was different, but no one was without. Now I can think about how technology will help me at work, not how I will use it. It was all new. Those times were different. My concern...if I had to weight things out...(like) the technology use for Kahuawaiola.

For a number of years we didn't reach the level of readiness. Students didn't enter ready for technology. They were at a beginner level and we had to teach them. As time past one could see the change. They came with some prior knowledge of technology. Therefore, we are making changes in the way we prepare (them). Before, we needed to teach MicrosoftWord, Leokī. Now, we can fully utilize technology in the math class, in technology class. Therefore, technology has become more of a tool.

Technologies. “ ‘Ano like me ka mīkini ‘oki leo, ‘o ia kekahi o nā ‘enehana ma ko kupuna wā. I kēia manawa hiki ke ‘oki leo me ka mīkini kikoho‘e. ‘O ka‘u mau hālāwai ua hana ma ke kikoho‘e. He mīkini li‘ili‘i a kaomi wale ka pihi e like me kēia. ‘O ka uea he ola kona. ‘O ke kikoho‘e he waihona a ma‘alahi ka mālama ‘ana, no laila, i ko‘u mana‘o ‘oi aku ka lō‘ihi o ke ola a hiki ke mālama ma ka waihona. I ko‘u mana‘o e loli ana ka papahana ma ka loa‘a ‘ana o kēlā me kēia loli o ka ‘enehana, no ka mea pono e loli ka lawena no ka hana ‘ana i ka ‘enehana. Eia nō na‘e, ma ka lawena e ho‘ohana ai i ia ‘enehana e like me kēia mīkini, he lipine ‘a‘ole he kikoho‘e, he ‘oko‘a ka ‘enehana. Pono e ‘oko‘a ka mākaukau no ka mea ‘oko‘a ke kaila. Ma ka ho‘ohana ‘ana i kēia mea ma ka ‘oki leo ‘ana e mālama i ka Hawai‘i o ka hana. ‘O ka lawena, hiki ke maka‘ala ‘ia kēlā ma loko o ko kākou no‘ono‘o. Pono kākou e maka‘ala i ka lawena. ‘A‘ole na ka ‘enehana e ho‘opilikia iā kākou. Ho‘opilikia kākou iā kākou iho. Skype wau i ka‘u mau keiki e like me ke kama‘ilio ‘ana ma o ke kelepona maoli ā nā kupuna i ho‘ohana ai. He hāme‘a ‘oko‘a wale nō kai loa‘a. He ‘oko‘a ka ‘enehana akā, like ka hopena. ‘O ka ‘oia‘i‘o ‘a‘ole wau i ‘ike i ka pilikia me ka ‘enehana. ‘O ka pilikia ka lawena o ke kanaka. Pono e no‘ono‘o he aha ka pono o kēlā iā kākou.”

Translations. “One of the technologies during the grandparents’ time was the cassette tape recorder. Now we can record voices with a digital recorder. In my meetings, I utilized digital recordings. It’s a small machine and you just press the button like this. Wires have extended life. Digital recorders have electronic files making it easy to save (your work), therefore, I think it (digital technologies) have a longer utilization life since you can save files. In my opinion the program will change as technologies change because behaviors need to change around the use of technology. However, in the way you use technology, like this machine, it’s a tape not digital, the technology is different. Your skill needs to be different because the technology is different. In using this tool to record voice, (you can) still maintain the Hawaiianess of what you do. As for one’s behavior, one can be vigilant in the (Hawaiian) way we think about it. We have to be mindful of our (Hawaiian) behavior. Technology does not harm us. We (have the potential to) harm ourselves. I Skype my children just like conversing on the telephone like grandparents did. We just have different tools. The technologies are different, but the results are the same. The truth of the matter is I don’t see any harm in technology. The problem lies within the behavior of the person. One needs to think, what is the proper usage of the technology for us.”

Other Indigenous Languages. “O nā Maori, nui ke kālā i loa‘a iā lākou. Ho‘ohana nui lākou i ka ‘enehana, ‘o ke kamepiula ‘oe, ‘o nā hōkeo ‘ikepili ‘oe, ‘o ke kīwī ‘oe. Ma ka pāpaho (media), me ko lākou mau ‘enehana a pau, ‘oi aku ka nui o kā lākou ma ka ‘ōlelo Maori. ‘Oī aku ke kālā i loa‘a iā lākou no ka ho‘ākea ‘ana, ka ho‘ōla (revive) ‘ana i ka ‘ōlelo Maori. Loa‘a ka soap opera iā lākou ma ka ‘ōlelo Maori. ‘A‘ole

loa‘a kēlā ‘ano kālā iā kākou. A ‘oko‘a kēlā me kēia ‘Ilikini. I ko‘u mana‘o ‘o ka ‘oko‘a loa, ‘o ia ka mea e ‘oko‘a ai ‘o ia ho‘i, ka loa‘a a loa‘a ‘ole o ka ‘enehana ma ke ‘ano he kumu waiwai iā lākou. No laila, inā he Nāki ‘Ilikini he ‘ano tribal Indian group, i loa‘a ‘ole ai kēlā kumuwaiwai iā lākou, ‘a‘ole nō nui ka ‘ike o ka po‘e. ‘O kekahi, nui loa ke kālā i loa‘a mai ka pili waiwai (gambling), no laila, hiki iā lākou ke ‘imi a e ho‘ohana.”

Translations. “The Maori had a lot of money. They make use of technology, e.g., the computer, the database, and the television. In media use, and all of their technologies they have produced more in the Maori Language. They have more money to broaden (the work) in the revival of the Maori language. They have soap operas in the Maori Language. We don’t have that kind of money. As for Indians, each tribe is different. In my opinion our big differences is what makes us different. That is to say some have and others do not have access to technology as a resource, therefore, if your Indian Tribe does not have these resources, they will not have access to that knowledge. For some, they have lots of money from gambling so they can seek out and make use of (technology).

Former Teacher #4

Position. I am a Native Hawaiian by definition of the Office of Hawaiian Affairs and the Department of Hawaiian Homelands. I have at least 50% Hawaiian blood quantum. I identify with the Hawaiian cultural heritage. I was born in Hawai‘i . Both of my parents are Hawaiian. My father was in the military so I spent first grade in Hawai‘i, and second through third grade in Okinawa. In Okinawa I danced hula for our Hula Hālau. My family made friends with the other Hawaiian families overseas. We all looked alike because we had Hawaiian features. I was the only Hawaiian in my class. I recall in

third grade a student pointed out to me that my color was different and asked me where I was from. My mother taught me to tell everyone that I was Hawaiian. I came home in the fourth grade and quickly adapted to my Hawaiian culture. At the Kamehameha Schools I learned the Hawaiian Language, hula, paddling canoe, surfing and various arts. Hawaiian identity was modeled by other Hawaiian students at Kamehameha. It was also modeled by my family members. My family played music while the girls danced hula. We made fish, Kalua pig and laulau (food) for our lū'aus (parties). My grandmother and aunty were kahuna, or religious practitioners. They could heal wounds and broken bones with traditional herbs and methods. On Saturday and Sunday people would go to them seeking prayers. I thought that everyone's grandmother knew traditional prayers until I was told not to mention that she was a kahuna because traditional methods were discouraged by other churches. I married a part-Hawaiian man, also a military dependent who was raised in Hawai'i. He spent summers with his Hawaiian uncles who taught him the traditional hunting, fishing and diving techniques. My two daughters were raised speaking Hawaiian, dancing hula and chanting through their experiences with the Hawaiian Language Immersion Program. They also surfed and paddled canoe. I have been a teacher and/or parent with the Hawaiian Language Immersion Program since 1986. Hawai'i is a place where I live, eat, and breathe through the Hawaiian Language. These are some reasons why I call myself Hawaiian.

Social Justification. My role in the program is that of a teacher. I was intrigued with the Hawaiian Language since my earlier years as a student at the Kamehameha Schools. I took Hawaiian Language classes at both Kamehameha and the University of

Hawai‘i Manoa Campus. I first worked with Alohalani K. K. Housman at the Kupuna Program and it was at that time that I learned about Pūnana Leo o Honolulu. I was enrolled in the college of education at the time. I always knew that I wanted to become a teacher, but it wasn’t until then that the concept of teaching through the medium of the Hawaiian Language became a reality. I started working at Pūnana Leo o Honolulu and it was back then that I met Keiki Kawai‘ae‘a and other Hawaiian Language families. My purpose for telling this story is to reflect upon the past and look to the future as part of educational reform. This is not just my dissertation because it will better inform my practice. I hope to apply all that I learn from this study into the classroom.

Obstacles. “I ko‘u ho‘omaka ‘ana ‘a‘ohe ho‘okahi puke o ka papa. Ua ‘olu‘olu nā kumu ‘ē a‘e i ka hā‘awi ‘ana i nā puke i ko‘u papa, akā ua ‘oi aku ke kūlana papa o ka‘u papa ma mua o nā papa ‘ē a‘e. Aia au ma ka papa ‘ekolu me ka papa ‘ehā a ‘ano ha‘aha‘a nā mo‘olelo no nā keiki papa ‘ehā. Ua ho‘omaka au e unuhi i kekahi mau puke. Mālama ‘ia ka ‘oki a tuko ‘ana o nā mo‘olelo, akā nui lākou unuhi no nā puke ha‘aha‘a. ‘A‘ole nui ka unuhi no nā puke mokuna, akā na‘e ua hā ‘awi ‘ia ka unuhi no ka puke mokuna e pili ana i nā Hawai‘i Kahiko e Puakea Nogelmeier. Kōkua ‘o Kalani Akana e unuhi i ka ha‘awina makemakika a hiki i ka hō‘ea ‘ana o kekahi mau mokuna o ka Puke Makemakika Addison Wesley ma ka mahina ‘o Malaki. ‘O ia wale kai loa‘a, no laila, haku mo‘olelo nā haumāna e pili ana i kā mākou kipa ‘ana i ke kapikala e ha‘i ‘ōlelo e pili ana i ka waiwai o ka ‘Ōlelo Hawai‘i ma ka Hale Kenekoa, a me ka huaka‘i i ka Hale Ali‘i ‘o I‘olani. Ua pa‘i ‘ia kēia mo‘olelo e ka Hale Kuamo‘o. Mai kēlā mua aku, haku mo‘olelo mākou. I kēlā me kēia makahiki, ua hana keaka nā haumāna ma ke Kula ‘o

Kamehameha, Kula Nui ma Mānoa, Kula Kaiaulu ‘o Honolulu, a me ke Kula Kaiaulu ‘o Ke Ko‘olau a ho‘opa‘i wikiō wau iā lākou. Mālama ‘ia kēia mau wikiō a me nā mo‘olelo. Mau nō ka haku puke ‘ana a me ka hana keaka ‘ana, akā na‘e, mālama ‘ia ma o ka cede. I kope no ka ‘ohana, ho‘ouna ‘ia i ka hale me ka pepa loiloi. ‘O ke kope cede maoli, mālama ‘ia ma ka puke ana a‘o haumana I hō‘ailona o ka holo mua ‘ana. He ālaina ka loa‘a ‘ole o nā puke, a mau nō ka nele. Mahalo wau i ke kāko‘o ‘ana me ka lōkahi.

Translations. “When I started teaching I didn’t have a single book in my class. The other teachers were so kind to give me some books for my class, but my class was older than their classes. I taught third and fourth grade. The books were below their reading level. I started to translate some books. We conducted cut and paste sessions for the parents to help cut the translations into the books, but the translations were mostly for lower grades. There were not many chapter books, however, translations for the Hawaiians of Old were given to me by Puakea Nogelmeier. Kalani Akana helped me to translate some Hawaiian math lessons until the arrival of a few chapters of Addison Wesley Math in the month of March. That was all that I had in the first year so we started to write our own stories. (As I recall back then we had numerous Leo Ola teacher training to build relationships, share ideas, and to teach the teachers how to foster book authoring with the students). The students wrote books about their visitation to the State Capitol where they gave testimony in the Senate House about the importance of the Hawaiian Language. They wrote a book about their fieldtrip to I‘olani Palace. These stories (with student illustrations) were published by the Hale Kuamo‘o. From that point on, book authoring was an important part of curriculum due to the lack of books. Throughout the

years, my students have acted out Hawaiian legends at the Kamehameha Schools, the University of Hawai‘i Mānoa Campus, Honolulu Community College, and Windward Community College. These videos and stories have been saved. We continue to write stories and produce plays, however, now they are saved digitally. Copies of the CDs were sent home to each respective family along with the report card. The original copy was stored in the Student Portfolio as evidence of an assessment. The lack of books (in Hawaiian) was and remains an obstacle. I am thankful to all of those who have united to help with such harmony.”

Technologies. “Mana‘olana wau he Smartboard, lolo uila, a he mīkini ho‘olele ki‘iaka i kēlā manawa. Ua hiki ke hō‘emi ‘ia i nā hola o ka ho‘omākaukau ‘ana o ka ha‘awina. Ho‘omaopopo ua kikokiko ‘ia ka ha‘awina ma o ka mīkini kikokiko hua i ‘ole kākau ‘ia me ka peni. Inā he Papa Akamai me ka lolo uila i hui pū ‘ia, hiki ke ‘imi a loa‘a i nā mea e pono ai, unuhi i ia mau mea, a laila e hō‘ike ia ma o ka mīkini ho‘olele ki‘iaka. Hiki ke ‘ike i nā waiho‘olu‘u o ke ānuenuē, akā ‘oiai ua hana kope ‘ia nā puke, he ‘ele‘ele me ke‘oke‘o wale kai loa‘a.”

Translations. “I wish I had a Smartboard, computer, and projector back then. It would’ve saved me lots of time. I remember creating lessons on the typewriter so they wouldn’t be handwritten. If I had the Smartboard and computer I would be able to search for my needs, translate it, and project it onto the screen for my students. Then we could see the colors of the rainbow, but when we Xeroxed the books, we had black and white copies.”

Changes. “Ia ‘u ho‘omana‘o i ka wā i hala, ua ‘oki a tuko mākou i nā puke. I kēia au pa‘i ‘ia nā puke no ka papa. Ua hiki ke ‘oi loa ka palena me ka ‘enehana; akā na‘e, like ka puke makemakika papa ‘ehā unuhi ‘ia ma ka ‘Ōlelo Hawai‘i me ka puke mua a‘u i ho‘ohana ai ma ka makahiki ‘umikūmāiwa kanawalukūmāiwa. Koe aku ‘ia ka unuhi no nā puke makemakika hou. No laila, ‘oiai he palena kelakela kā kākou me ka ‘enehana, he ala lō‘ihi kā mākou.”

Translations. “In the past we had to cut and paste our books. Today the books are printed for the classrooms. This is the potential with the use of technology; however, in the fourth grade the only math textbook translated in Hawaiian is the same Addison Wesley book from when I first started my teaching career in the 1980s. New translations remain to be seen. So while we have this potential with technology, we have a long way to go.”

Changes. “Mau nō ka ho‘ohana ‘ana o nā mīkini ‘oki leo, ka pahu pa‘i ki‘i, a me ka pahu pa‘i wikiō, akā ‘o ka ‘oko‘a he kikoho‘e nā mea o kēia au. He lola ko ka mīkini ‘oki leo i kēlā wā i hala. I kēia manawa ‘a‘ohe ona lola. He mau sede kā mākou no nā mele, no laila, ‘a‘ole pono ka lola. Ma mua, ke pa‘i ki‘i ‘ia ke ki‘i, pono e hō ‘ili ia ma Longs Drugs. I kēia manawa hiki ke hō‘ili i ke ki‘i no‘u iho. Ma ka wā ma mua, ua ‘ōlelo nā keiki i nā keiki ma ka mokupuni ‘ē a‘e ma ka lumaphone. He ‘ano kelepona ia i hiki ke ho‘ouna i ke ki‘i ma loko o 3-5 kekona; a hiki ke ho‘opili ‘ia i ka mīkini pa‘i a me ke kīwī no ka hālāwai ‘ana. I kēia manawa he mau kelepona pa‘a lima, Skype, Twitter, a me Puke Alo. ‘O ia ka ‘oko‘a. ‘A‘ole kūkākūkā ma ke ‘ano he alo ā he alo. ‘O ka like, mau nō ka nele o nā puke, nā ha‘awina ma ka ‘Ōlelo Hawai‘i. He mea maika‘i ka ‘enehana.”

Translations. “We continue to use the tape recorder, the camera, and the video recorder, but the difference is that it is digital these days. The tape recorder of yesteryear had a cassette. Today the recorder does not need a tape. Before, when you took a picture you had to develop it at Longs Drugs. Today I can develop it for myself. In prior days kids spoke with other kids from the outer islands on the lumaphone. It is a kind of phone that could transmit a photo in 3-5 seconds; and could be hooked up to a printer or a TV for conference meetings. Now we have a cell phone, Skype, Twitter, and Face Book. Other changes are the shortage of Hawaiian speaking kupuna in the classrooms as a component of the program. That’s the difference. There is no face to face discussion. The similarity is that we continue to need books and lessons in the Hawaiian Language. Technology is good.”

Other Indigenous Languages. “Wahi a ku‘u lohe, like ka nele o nā lāhui Maori akā, ‘oi aku ke kālā a me ke kāko‘o ma mua o nā Hawai‘i. Ua alaka‘i maika‘i nā Maori i nā Hawai‘i. Ho‘omana‘o wau ua launa pū nā kumu Hawai‘i me nā kumu no Aotearoa. Ua ha‘i lākou iā mākou e pili ana i ko lākou kuleana e mālama i nā mea Maori. He mau kula kamaiki, kula ha‘aha‘a a he mau kula nui ‘ōlelo Maori ko lākou. Ua ho‘opaipai nui lākou iā mākou i ka holo mua ‘ana. Eia mākou, ka Papahana Kaiapuni ke ola nei i ka ‘Ōlelo Hawai‘i.”

Translations. “I have heard that the Maori have the same needs as us, but they have more money and support than Hawai‘i. The Maori lead the Hawaiians (to save our identity by saving our language and culture). They told us about their responsibility to save all things Maori. They had preschools, grade schools, high schools, and colleges

(that educate) in their native tongue. They encouraged us to move forward. Here we are, the Hawaiian Language Immersion Program, existing due to the Hawaiian Language, with a little help from technology.”

CHAPTER 5. DATA ANALYSIS

*“Ike aku, ‘ike mai, kōkua aku, kōkua mai, pēlā iho la ka nohona ‘ohana –
Recognize and be recognized, help and be helped, such is family life”*

Mary Kawena Pukui, 1983, #1200.

This collective story of change reflects on a new generation of indigenous language speakers, from the days when the mother tongue was at risk of dying out (Kawai‘ae‘a, Alencastre, & Housman, 2007) to this era of recognition. Let it be recognized that the Hawaiian Language thrives in the *Papahana Kaiapuni*, better known as the Hawaiian Language Immersion Program. It was through determination and collaboration amongst the islands that these families of native speakers live to tell their story.

This thematic analysis is based on the conceptual framework of change (Fullan, 2006), along with the theories of Culture-Based Education (Kana‘iaupuni, Ledward, and Jensen, 2010), and concepts for technology use for language revitalization (Warschauer, 2000). In the following, these broad themes are derived from the narrative research.

Theme 1: Technology

The use of technology was embraced by all participants of this study. All participants agreed that it contributed to the progress of the HLIP to some extent, but there were differences between the younger-generation teachers and the experienced group. Six sub-themes emerged as a result of the coding. The sub-themes are:

1. Dependence, and daily use outside of schools,
2. Interactive capabilities as student motivator,
3. Balancing tradition and technology,
4. Technology use with language and cultural preservation,
5. Promoting 21st century skills, and
6. Progress of *Papahana Kaiapuni*, HLIP.

Each of these is described in the section below.

Technology in Daily Life

All four of the younger-generation participants emphasized the dependence upon technology use in our daily lives. Participants voiced their opinion about the importance of utilizing technological tools in the classroom to reach out to the students. Former Student #1 simply stated, “[technology] is important because everyone has it these days, i.e. email, computers, cell phones and such; therefore, as those needs grow, they grow with the Hawaiian Language.”

Former Student #3 stated:

“We all use technology. I know that we all have cellular phones, i.e. Android. The students in the kindergarten class have these phones. They know how to use it. I know that if teachers don’t use [technology] then the class will be boring because it doesn’t relate to their lives outside of school. They think that the tools in the classroom are outdated.”

For these younger-generation students, bringing technology into the classroom seems like a natural extension of what students already do outside of the classroom. As noted by Former Student #3, not using technology will make the classroom dated.

Interactive Capabilities as Student Motivator

Three out of four younger-generation teachers emphasized the impact technology makes because it is a motivator for students due in part to its interactive capability. This follows the previous comment in which Former Student #3 indicated students might be bored if technology weren't used (i.e. Kidpix, iMovie, Powerpoint, and Internet searches).

Former Student #2 stated, "It is interactive, therefore, I can see how the Smartboard has encouraged my class." She explain how it improves the students' behavior, "before, in second grade, they could sit on the carpet for twenty-five minutes. When they work on the Smartboard they can sit for sixty minutes." She continues her story to describe how the teacher becomes the facilitator, and the students become the educator, "we can work on the Smartboard for a long time because it is not just up to the teacher (to teach). The children work together to show their knowledge."

Former Student #4 emphasized that, "the use of technology is growing; therefore, if teachers don't know how to use it these days they better learn" (i.e. Smartboard, Elmo, the computer, and the projector).

All four of the youth teacher participants expressed their view that society is dependent upon technology. That was a similarity between these four who might be seen as digital natives given their age. The one difference is that one of the four felt that it was

important to balance traditional ways of acquiring knowledge. This opinion is more consistent with the pioneer teachers as shown in the next section.

Balancing Tradition

By contrast, one of the four participants from the youth group was not as solidly behind the prevalent use of technology in the classroom and supported the need to keep a balance between technology and tradition, although she had noted the link between daily use and concerns about classrooms becoming dated.

Former Student #3 stated: “I have but one small concern. You have to reflect on the Hawaiian ways, not just technology.” She emphasized the need to include the elders as an example of following our traditions, “one must invite the elders to come into the classroom and talk story with the children.” She elaborates a bit more by stating, “you can’t teach responsibility and love from technology. That can be learned from humans.” She summarizes her thoughts in her statement, “the important thing is to relate to both traditions and technology, or it will be forgotten.”

All four pioneer teachers suggested we need to preserve our traditions to some extent. Three teachers did not emphasize this issue of bringing student daily life into the classroom nor focus on technology as a motivator. Technology was seen as a tool that could enhance the language in the program but must be used carefully and thoughtfully to maintain a balance to respect the culture and traditions.

Pioneer Teacher #1 stated:

“Everytime there is a meeting or presentation there is a blessing, and singing that respects our elders, gives thanks to God, our friends and teachers. That

is the part to teach in the classroom too. We need to maintain our traditional knowledge.”

Researchers Note: This is a Hawaiian Language Immersion Program tradition. An opening blessing or chant has been a part of the protocol since the beginning. It has been the researcher’s experience that when meetings were held separately with HLIP teachers, this protocol was conducted prior to and in closing of the meeting. When meetings were held with the entire school staff, minutes were reviewed in place of Hawaiian protocol. Pioneer Teacher #1 reflected on the need to maintain tradition through Hawaiian protocol. On the other hand, Pioneer Teacher #3 supported maintaining tradition by one’s *lawena*, or behavior. She stated:

“In using this tool to record voice, (you can) still maintain the Hawaiianness of what you do. As for one’s behavior, one can be vigilant in the (Hawaiian) way we think about it. We have to be mindful of our (Hawaiian) behavior. Technology does not harm us. We (have the potential) to harm ourselves. I Skype my children and grandchildren just like conversing on the telephone like grandparents do. We just have different tools. The technologies are different, but the results are the same. The truth of the matter is, I don’t see any harm in technology. The problem lies within the behavior of the person. One needs to think about what is the proper usage of the technology for us all.”

Technology Use for Language and Cultural Preservation

All four of the participants valued technology based on its usefulness in preserving the language and culture. Pioneer Teacher #2 explains the importance of using technology to capture the language through oral tradition.

Pioneer Teacher #2 states:

“One of the obstacles of the past is the native speakers were dying. We had to quickly record them, therefore, it was important to acquire (the recordings) of these elders. Of the elders who spoke Hawaiian, they were not awkward in their language abilities - they were the last people. So the cassette machines were valuable at that time for the immediate recording of them.”

This was echoed by Pioneer Teacher #4, who saw technology's value in creating curriculum material more easily for each teacher. She states:

“When I started teaching I didn't have a single book in my class. The other teachers were so kind to give me some books for my class, but my class was older than their classes. I taught third and fourth grade. The books were below their reading level. I started to translate some books. We conducted cut and paste sessions for the parents to help cut the translations into the books, but the translations were mostly for lower grades. There were not many chapter books; however, translations for the Hawaiians of Old were given to me by Puakea Nogelmeier. Kalani Akana helped me to translate

some Hawaiian math lessons until the arrival of a few chapters of Addison Wesley Math in the month of March.”

One can understand how powerful the use of technology was to the pioneer teachers based on these documented needs of the past. Technology is valued in the design and use of its technical systems for practical purposes and needs. Technology continues to be an innovative tool in the workplace as it is used to support teaching activities.

Promoting 21st Century Skills

Three out of four of the experienced teachers mentioned how technology prepares the students for 21st Century skills necessary for college and the work force. Pioneer Teacher #3 encountered a few teachers that were not prepared with 21st century skills in the teacher training program.

Pioneer Teacher #3 stated:

“For a number of years we didn’t reach the level of readiness. Students didn’t enter ready for technology. They were at a beginner level and we had to teach them. As time passed, we could see the change.”

Pioneer Teacher #1 stated: “I think these skills are needed when they enter college, and also when they acquire a job. If you have these skills you can fulfill the requirement of the job.” Prior to addressing the need for this skill she mentioned how graduates from the HLIP were hired to work at Hale Kuamo‘o, at the University of Hawai‘i Hilo campus. She further noted, “We hired some students here to help with lessons on the technology side.”

Pioneer Teacher #2 stated:

“Today technology, computers, and cell phones are more complex. Due to its complexities, technology has more potential to make a person smarter and prepared to use these technologies in the job force.”

Progress and HLIP

All teachers have credited the progress of the Hawaiian Language Immersion Program to the use of technology to some extent.

Former Student #2 stated:

“We have (some) Hawaiian Language resources available because of technology. I use Wehewehe.org daily. I use Ulukau.org weekly. ‘Ōiwi TV was the first program that I could use in the classroom with Hawaiian speaking kids. I think our advancement of technology in the Hawaiian Language Immersion Program has led to our progress.”

Former Student #4 stated:

“Technology has helped this program to progress, because that is how we make the Hawaiian Language known to others, and that is how we teach our kids. I have lots to be thankful for. We have progressed, but it is still like the past. There are not enough teachers, money, books, and students. We moved forward due to technology, but we haven’t reached our goal. We can’t go to the store and communicate and hear our mother tongue spoken outside of the classroom.”

Pioneer Teacher #4 stated:

“In the past we had to cut and paste our books. Today the books are printed for the classrooms. This is the potential with the use of technology; however, in my fourth grade class the only math textbook translated in Hawaiian is similar to the Addison Wesley book from when I first started my teaching career in the 1980s. New translations remain to be seen (for other Math programs). So while we have this potential with technology, we have a long way to go.”

This is a worldview of the progress of the HLIP with technology use. There is still a shortage of both online and print reading materials for the students as noted by these teachers. However, the production of such materials can be addressed with technology use and thus HLIP is able to progress and accomplish more.

Theme 2: Hawaiian Culture-Based Education (CBE)

While not primarily the focus of this study, all teachers consistently expressed the importance and centrality of Hawaiian culture and language as a basis for their teaching. Understanding this worldview is a key to relating the teacher’s expressions of the role of technology in the history and practices of the Hawaiian Language Immersion Program. The themes used in coding the responses arose from the Hawaiian Indigenous Education Rubric (Kana’iaupuni, Ledward, and Jensen, 2010). These culture-based education themes were echoed in the subtle description of the participants’ perspectives. All participants emphasized the need to perpetuate the Hawaiian language and culture. There

are five sub-themes that follow the Hawaiian Indigenous Education Rubric category. The sub-themes are:

1. Language: Use of Heritage Language in Teaching,
2. ‘Ohana and Community Involvement,
3. Content: Culture and Place-Based,
4. Context,
5. Data and Accountability.

Language

First is the historical need for the Use of Heritage Language in teaching sub-theme. In the past, different groups of parents were raising their children in their native tongue for the purpose of preserving the language. Pūnana Leo and the Papahana Kaiapuni (Hawaiian Language Immersion Program) were established so that these children could be educated in the medium of the Hawaiian Language. These rights were not just given to them but required continued advocacy to support language regeneration.

Pioneer Teacher #2 stated:

“My associate Larry Kimura and I went to Washington, D.C. to negotiate the changing of the Hawai‘i laws. We couldn’t open the schools unless the laws were changed. The Hawaiian Language was banished from the public schools after the overthrow (of Queen Lili‘uokalani and the Hawaiian Kingdom). So we needed to change the law here. For the preschools we had to change the law that denied the grandparents to be hired without a teaching license and without college training. Now Hawai‘i is the only state with two

official languages – Hawaiian and English. For Hawai‘i, much more work remains to be addressed so it is important for the children to continue, therefore, technology is important.”

Once the laws were in place and the doors of the Hawaiian Language Immersion Program were opened, the language flourished. All participants are grounded in the belief that students should be proficient in their native tongue, amidst the shortage of books. The use of the heritage language was the prominent language in the past and it continues to be the language of choice in the HLIP at present.

Former Student #2 stated:

“At this school they are really strict about English being shown (to the students). Sometimes you have to work on an exceptional project because it doesn’t exist in Hawaiian.”

Former Student #3:

“I think about all my former teachers. You were all strict (about speaking Hawaiian only).”

The use of the heritage language as the prominent language continued into the family home, community, and church as well.

Former Student #1 stated:

“I’ve been in it (Papahana Kaiapuni) since I was a student so I can connect with my students. My parents teach Hawaiian (father teaches college level Hawaiian Language and mother is a Hawaiian Language Immersion teacher of over twenty years), my brothers and sisters speak Hawaiian, and my son

speaks Hawaiian. At the time we started learning English it was kind of hard for me because we didn't speak that language. (We spoke Hawaiian at school) and as soon as we got home we only spoke Hawaiian.”

‘Ohana and Community Involvement

‘*Ohana*, or family, has always been a critical component to the success of the program. From the grass roots efforts of it's founding, to the cut and paste sessions in the classroom, the family has always been a major support to the HLIP. So for the Open House presentation one former student introduces herself to the parents through genealogy, and in exchange she gets to know the students' primary and extended family by integrating the ‘*ohana* into the student's assignment.

Former Student #3 stated:

“The children engage in Kidpix because they can draw pictures and record (their story) about their genealogy. They create a slideshow about their genealogy and their family history. Then they burn it on CD. This becomes an assessment for oral communication in Hawaiian, writing, and technology skills. Technology can be used for various purposes. I have but one small concern. In the Hawaiian Language Immersion Schools you have to reflect on the *Hawaiian ways, Hawaiian ways*, not just technology. One must invite the elders and Hawaiian people to come to the classroom and talk story with the children.”

Content: Culture and Place-Based

Place-Based education is embedded into learning. Knowledge is acquired not only from their family members; it is also acquired in their own backyard. Such is the case described by one teacher where students at one of the schools make frequent visits to their local *loko i'a*, or fishpond; and the *lo'i kalo*, or taro patch just as her grandmother had taught her. It is from the culture-based teachings of her grandmother that education place-based education continues. Education is transformed from a regular classroom setting to their local community from mountain to the sea.

Former Student #4 stated:

“My grandparents encouraged my cousins to go to Hawaiian Language Immersion too. One went to Waiu and the other three went to Pū'ōhala. We graduated in the twelfth grade from a Kula Kaiapuni (Hawaiian Language Immersion School). My cousins now work for a Pūnana Leo or a Kula Kaiapuni. My grandmother cared for Huilua Fishpond. She taught us how to build the fishpond wall there. When the waves come it destroys it, so she taught us how to restore it. We also have a taro patch in Kahana, therefore, my extended family is involved in Hawaiian Language education.”

Context

In context, the Hawaiian Language Immersion classroom fosters a learning environment whose fundamental teaching strategies embrace Hawaiian spirituality. There is a *pono*, or correct way for a teacher to behave, often referred to as *lawena*, or behavior, in the HLIP. This is taught to teachers through the Kumu Maui Ola philosophy.

Pioneer Teacher #3 stated:

“My purpose for telling this story is to revive the language. It is a reason to compare to a model school. This is different from American models. (Ours) is culture-based education. This has grown in one generation. But this is not the style of teaching in the regular teaching practices of America. Our children don't live in America alone – they also live in Hawai'i. They need an education to prepare and raise the kids to learn about this place – Hawai'i. It is not work – it is a lifestyle. That's the difference with American schools. They can separate what they learn when they reach home. In Hawaiian it is not separate; it is a part of your community and family.”

In addition to Hawaiian spirituality, the context of the Hawaiian Language Immersion setting also supports cultural identity. When temporarily removed from a HLIP classroom, this can be detrimental to the well-being of the native speaker if the new teacher does not value cultural identity.

Former Student #2 stated:

“For grades three, four, and five, I went to a Foreign (English) school and I didn't speak English very well. I didn't even read English. I only knew the word red. R-E-D-red. On the first day of school the teacher told me to stand up and read. My mother told her (and me too) that I didn't read English – I went to Hawaiian Language school. She said, “okay,” and when my mom left she told me to stand and read. She said that all third graders can read. I told her that I could in Hawaiian and she told me this was not a Hawaiian

school – this is English school. So in the fifth grade I wanted to show that teacher. Hawaiian Language Immersion children are smart too. So I worked hard. I entered the A.G.T. (Academically Gifted and Talented) class. I became the leader of the volleyball team. I worked hard so she wouldn't think like that about all Hawaiian Language Immersion kids. I learned a lot from her – when I get grouchy with my students I reflect and think to myself that I can't act like that to my students.”

Data and Accountability

Data and accountability can be measured in different ways. The Hawaiian Language Immersion Program has always had to be creative. One such way was to assess student progress based on performances and projects.

Pioneer Teacher #4 stated:

“The students wrote books about their visitation to the State Capitol where they gave testimony in the Senate House about the importance of the Hawaiian Language. They wrote a book about their fieldtrip to I‘olani Palace. These stories (with student illustrations) were published by the Hale Kuamo‘o. From that point on, book authoring was an important part of curriculum due to the lack of books. Throughout the years, my students have acted out Hawaiian legends at the Kamehameha Schools, the University of Hawai‘i Mānoa Campus, Honolulu Community College, and Leeward Community College. These videos and stories have been saved. We continue to produce plays about legends of the past. We continue to write stories and

produce plays, however, now they are saved digitally. Copies of the CDs were sent home to each respective family along with the report card. The original copy was stored in the Student Portfolio as evidence of an assessment.”

Technology can also be an effective tool for evaluation purpose too. Here is an example of how the Hawaiian Language is evaluated using recording tools and spreadsheets. This assessment is an individual oral assessment conducted in conversation much like the “talk story” style of narrative inquiry.

Pioneer Teacher #1 stated:

“Evaluation is based on the preparedness of the children’s language abilities. Some children worked with the evaluator, a total of two hundred fifty children were evaluated to understand the progress of the Hawaiian Language. It was necessary to record voices, document voices and analyze them. An analytical spreadsheet was created and shared with the school to strengthen their language abilities. This data was used to strengthen the program. When we noticed inexpert (language abilities) we created lessons, we created books for teaching grammatical patterns (in language) for the weak areas, and we printed and distributed the materials to the teachers. This is so that the teachers could be aware (of the weaknesses) and strengthen their (students’ language abilities).”

Summary of CBE Themes in Narrative

Learning can take place at home with your family and community through interactions outside of school as indicated by the ‘Ohana and Community Involvement sub-theme. Knowledge can be embedded in the Hawaiian culture community as suggested in Culture-Based and Place-Based sub-themes. The Context sub-theme emphasizes the importance of Hawaiian spirituality and cultural identity which is different from traditional American schooling. The Data and Accountability sub-theme allows for more creativity by engaging the learner in performance-based and production-based assessment (i.e. research, production, presentation, and dissemination of projects using the Internet, the computer, Web authoring software, and digital cameras and videos).

While all themes included in the rubric were present and regularly repeated by each respondent in the story told, what is most crucial to the Hawaiian Language Immersion Program is the Use of Heritage Language in the sub-themes of each narrative. All participants would like to encourage others to join the revival of the Hawaiian Language. Former Student #4 stated, “How does one say that he or she is Hawaiian if the language is not known? Does one not see the relationship of our mother tongue and being Hawaiian?”

This narrative case study revealed some of the ways technology was used in the past and at present. While discussing technology use in the past, tape recorders were used to capture the conversations of kupuna, or elders. They were also recorded reading picture books for the listening center. The typewriter was used to create lessons until the

arrival of the Mac computer. Leokī was the bulletin board system of that era. Other technologies used in the first five years were the camera and video recorder. These technologies are still used; however, they are now in the digital format.

Today, flashdrives replaced the floppy disk of former years. Some hardware mentioned in this study includes cell phones, Smartboard, LCD projector, i-pod casting, CD players, and computers. Some software included iMovie, Powerpoint, Mathblaster, Word, Excel (spreadsheets), and Kidpix. In addition to the email of the past (and present), we have Skype, Twitter, smartphones, texting, and *Puke Alo*, or Facebook. Online programs mentioned include Achieve3000, IXL Math, Ulukau.org, Wehewehe.org, Moenahā.org, and ‘Ōiwi.TV.

While these tools are credited for its educational or Hawaiian language use, the majority of existing information literacy and entertainment resources are created in English. The lack of Hawaiian language-based online resources continue to be problematic when the HLIP student can only access games and other materials created in English.

CHAPTER 6. CONCLUSION

*“Ua lehulehu a manomano ka ‘ikena a ka Hawai‘i –
Great and numerous is the knowledge of the Hawaiians”*

Mary Kawena Pukui, 1983, #2814.

Technology increases work productivity, it is expected by digital natives in the classrooms, and it has the potential to capture the Hawaiian Language and Culture while preserving it for future generations. The problem examined in this study was how the teachers’ experiences with technology impacted their use of technology in the classroom, any concerns they may have had, and how to support cultural change in the Hawaiian Language Immersion Program. It was important to know how the teachers’ perceived change related to technology use in the program. It was equally important to know if there was a difference in the way change was perceived. Using a qualitative research framework, a narrative inquiry design was implemented to try to understand the viewpoints of various Hawaiian Language Immersion teachers of the past and present as the participants of the study.

This chapter discusses the implications of findings in relation to each of the research questions. Implications are related to the purpose, significance, and existing literature review. Themes emerging from the narratives are related to existing themes in the literature review. Recommendations reflect the practical experiences of the participants. Concluding remarks then summarize the main ideas of this study.

Implications

The collective research findings are framed in relation to Fullan's Qualifications Theory of Change (2006), Kana'iaupuni and Kawai'ae'a's Culture-Based Education (2008), Hartle-Schutte and Nae'ole-Wong's Technology and the Revival of the Hawaiian Language (2000), and Hall (2010) and Dass' (2001) Concerns-Based Adoption Model to address the two research questions.

Research question (1): How do teachers in the Hawaiian Language Immersion Program perceive change related to technology? The role of teachers in the Hawaiian Language Immersion Program has changed over time due in part to the infusion of technology in the workplace. One of the problems addressed in this study was a lack of instructional materials so severe it was quoted as a, "dearth of instructional materials to use for teaching" (Slaughter & Watson-Gegeo, 1988, p. 23). The implications of this study support previous documentation that technology has the potential to improve work productivity.

This study supported previous research relating to change through the increased use of technology to access and share knowledge. In this case the purpose was to preserve and revive the Hawaiian Language by making it accessible across the Hawaiian Islands. Now it is accessible around the world due to the World Wide Web. The following themes reflect technology's importance in that (1) technology helps to address the disparity of limited materials (Hartle-Schutte & Nae'ole-Wong, 2000); and the growth in (2) Hawaiian Language books and resources and (3) culturally relevant materials (Kana'iaupuni & Kawai'ae'a, 2008). The concern for continued increase in both print and

online Hawaiian resources was shared by all of the participants. Although the program has come a long way it continues to need both print and online resources.

Along with the concept of using technology to preserve and revive the Hawaiian Language it was a necessity to record the elders who were the last native speakers in the 1980s. This discussion by the teachers is explored in the theme that Culture-Based Education requires (4) the participation of kūpuna, or elders; (5) use of native language; and (6) community participation in the education process (Kana‘iaupuni & Kawai‘ae’a, 2008; Demmert & Towner, 2003). The concern for the kūpuna and community involvement was shared by all of the participants. Early in the program’s history, Kauanoē Kamanā and Larry Kimura went to Washington, D. C. to get approval to use the elders in the educational process because they were native speakers. With the use of technology their voices were recorded and preserved.

Research question (2): Is there a difference in the way change is perceived?

This study supported previous research relating to increased use of technology by teachers and students as both consumers and producers of information. While there is much support by all teachers for the use of technology in the classroom, there is some concern from pioneer teachers about the balance of ‘enehana, or technology and ‘ike ku‘una, or traditional Hawaiian knowledge. Much of the discussion supported the following themes: (7) traditional knowledge with modern disciplines; and (8) multimodal styles of learning (Kana‘iaupuni & Kawai‘ae’a, 2008). On the other hand, there was some concern that the change in using technology to access information opens the door to tools created in English. This conflicts with the need for (9) cultural-based materials; and

the need for (10) student's language, knowledge, culture and values implemented in the curriculum (Kana'iaupuni & Kawai'ae'a, 2008). It also raises concerns regarding (11) materials that were created outside of the context of the families and communities involved in the education process (Klump & McNeir, 2005).

The narratives also explore the theme that (12) multifunctional use of the language raises its status (Hartle-Schutte & Nae'ole-Wong, 2000). Former students agree that technology tools and online resources can serve as a (13) strong motivator for engaging children in the learning process in many content and skills areas (Hartle-Schutte & Nae'ole-Wong, 2000); it is relevant to the daily lives of their students, and it can (14) impact how the innovation affects student outcome (Hall, 2010). There was a collective interest amongst the teachers to utilize teaching tools such as the Smartboard, Elmo, Apple computer for iMovies, and the PC for Powerpoint presentations. All teachers agreed that tools can enhance the performance in the classroom. While students have access to online resources at home in English or Hawaiian, teachers can guide the students to resources to consume and produce in Hawaiian.

There was a collective interest amongst the teachers to utilize teaching tools such as Smartboard, Elmo, Mac and PC computers for presentations. All teachers agreed that technology use can enhance the performance in the classroom. All teachers expressed the need to bridge academic learning in Hawaiian. There was some discussion to support the need for face-to-face conversation versus the possibility of maintaining Hawaiian lawena, or behavior while interacting on Skype, Twitter, or Facebook (15) to incorporate indigenous talk story (Kana'iaupuni & Kawai'ae'a, 2008).

Other collective comments in the narrative include (16) multimedia written and oral projects can be made; (17) technology provides a systematic record keeping and electronic archives of student portfolios; and it is (18) preparing students for the 21st century (Hartle-Schutte & Nae'ole-Wong, 2000). To accomplish this, (19) professional development is needed (Fullan, 2006).

As we look back at Fullan's Change Theory to see if this qualifications theory is supported in our stories, many of the teachers are now certified unlike the historical documents that state many teachers were Hawaiian Language proficient but not certified educators (Slaughter & Lai, 1994). Change is supported by attracting and retaining highly qualified educators.

From Dass (2001) and Hall (2010) Stages of Concern, we find that (1) time management was not a concern; (2) proper training was a concern for some, i.e. Smartboard; (3) ease of using textbook was not a preference; (4) traditional views of education was maintained; and (5) the unavailability of innovative materials and resources continues as a major factor in technology adoption and use. Future needs include the support of the government and funding.

The purpose of this study is fulfilled by collective experiential feedback regarding Hawaiian Language Immersion teachers (1) suggestions generated based on previous experience, and (2) recommendations for educational technology training to support change in a community of culture-based language learners. The purpose of this narrative inquiry case study was to investigate how teachers' attitudes towards technology and prior experiences affected their use of technology in the classroom. The significance of

this study was that it gave Hawaiian Language Immersion teachers (who were former HLIP students) a voice in the implementation of change as they are considered the digital natives. It is also significant that Hawaiian Language Immersion teachers even from the beginning years voiced the need for continued use of educational technology in the Hawaiian Language Immersion Program.

Recommendations

This research supports the use of technology for the revival of the Hawaiian Language in a number of ways. In the beginning when there was a lack of instructional materials the teachers and parents would cut and paste Hawaiian translations over books. Through the efforts of Hale Kuamo‘o and the use of technology, books have become readily available as they are printed and distributed for use in the classroom. Credit is given to No‘eau Warner for distributing books into the classrooms to reinforce various Hawaiian Language structure. Credit is also given online resources such as Ulukau.org, Wehewehe.org, ‘Ōiwi TV, and Moenahā.org for sharing Hawaiian Language resources with the public. The HLIP program has come a long way, but it has not reached its full potential like the similar Maori programs on which it was originally modeled. It is noted that the interest in technology is growing, but there are not enough tools in Hawaiian. This is consistent with the theme concerned about (20) the unavailability of innovative materials and resources.

This research supports the recommendation of teachers for continued use of technology in the classroom as a motivator for the learner. While we live in an age of

digital learners it is suggested that Hawaiian Language Immersion teachers implement the use of technology in the classroom so that it is relative to the lives of these digital natives. What once was a digital disparity for the program due to the lack of training and materials (Ka'awa & Hawkins, 1997) has flourished to inter-island training via Polycom and online resources. Hawaiian Language Immersion teachers are currently engaging the learner through various forms of media and tools. It was also expressed that as we are dependent upon the use of technology in our daily lives, it is quite practical in classrooms.

This research also supports the recommendations of teachers in regards to continued professional development for Hawaiian Language Immersion teachers. There is a continued need to evaluate the progress of the schools based on the language proficiency of the students. So ongoing training is needed to keep the teachers abreast of these sentence structures. Other needs include training on how to infuse technology in the classroom with the use of Smartboards, Mac computers and other tools. It is recommended that teachers continue to add to the resources. This population is so unique that more native speakers are welcomed to learn the language so that the mother tongue will be heard in the community. Government support and funding continues to be a need.

Conclusion

Given the lens of experiential stories (Rogers, 2010) and prior research reflected in the literature review, this research supports the continued use of technology in the Hawaiian Language Immersion Program. The analysis and evaluation of the relationship

between teachers and technology concluded this chapter with the following central themes: (a) technology as a consumer and producer of Hawaiian Language and Culture-based materials, (b) technology as a multimodal motivator for 21st Century student outcomes, and (c) the revival of the Hawaiian Language and Culture through community involvement and commitment. This chapter looked at specific issues as discussed by the participants and compared it to change theory in relation to themes found through earlier research.

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