DOCUMENTING A MARSHALLESE INDIGENOUS LEARNING FRAMEWORK

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DEDICATION

This dissertation is dedicated to my parents: Irene Bostinelos Reed, Don and Carole Nimmer, and Wine and Lincoln Lakjohn. All of you nurtured a love of learning at different phases in my personal and academic journey. Thank you and *kommol tata* for giving me the gift of your confidence in my potential and the encouragement and freedom to fly.

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ABSTRACT

While many Marshallese learners thrive in school environments, far more have struggled to find academic success, both at home and abroad. While this has been documented by educational researchers for decades, there is a dearth of research about how Marshallese students learn most effectively. Examining culturally-sustaining educational models that have resulted in successful student outcomes in other indigenous groups can inform strategies to improve educational experiences for Marshallese students. Understanding how recognized Marshallese experts in a range of fields have successfully learned and passed on knowledge and skills is important to understanding how formal school environments can be shaped to most effectively support Marshallese student learning.

This study examines the learning and teaching experiences of recognized Marshallese holders of traditional and contemporary knowledge and skills, in order to document a Marshallese indigenous learning framework. This research used *bwebwenato* (talk story) as a research method, to learn from the experiences of ten Marshallese experts in knowledge and skills ranging from sewing to linguistics and from canoe-making to business.

Key findings include the four key components of a Marshallese indigenous learning framework:

- Relationships
- Motivation for Learning
- Teaching Strategies
- Extending Networks

Teaching strategies are comprised of the commonalities among the way Marshallese have learned and mastered both traditional and contemporary skills. Chief among these are:

introducing the topic at a young age, scaffolding, demonstrating and observing, learning through relevant practice, and correcting learners constructively. To a lesser extent, and in a context in which the learner and teacher are not related in a familial way, learning and teaching occurs through visual aids and asking instructor for assistance.

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CHAPTER 1: INTRODUCTION

Problem Statement

Current educational models are not meeting the needs of Marshallese students, whether they are studying in public schools at home in the Marshall Islands, or in overseas public schools as part of the Marshallese diaspora. The Marshallese public school system was created during the U.S. colonial period, and while different from the public schools attended by Marshallese students in Hawaiʻi, Arkansas, California, Guam and other U.S. states and territories, all of these schools share a common foundation rooted in the traditional American public school model. Due in part to this, Marshallese students have struggled to find academic success by any measure.

Academic success is defined in many ways. According to Terry Hazzard, the President of the Public School System in the Marshall Islands: “The goal is for everyone to graduate and have a skill. To finish something they started” (personal communication, May 26, 2016). The leading voice on education in the Marshall Islands and President of the nation, Dr. Hilda Heine, defined success as the ability to achieve academically and use academic success to benefit one’s family and community (2004). However, it is not only an issue of measuring output; there is also, according to Terry Hazzard (personal communication, May 26, 2016), an issue of inputs:

> There is a missing sense of ownership of the school culture and curriculum. [Even] in my own schooling—both Catholic and public schools—I only learned about U.S. government. In 11th grade, I first learned about Marshallese government and it was only a little bit, maybe for one semester. We learned about the capital of New York, but not about our own places. This was not relevant to us.

Marshallese suffer from some of the worst educational outcomes of any group in the United States. Using high school graduation rates as one measure of student success, only 40.7 percent of Marshallese who attend schools in the Marshall Islands graduate (EPPSO, 2006). According to Terry Hazzard (personal communication, May 26, 2016), there are 2,000 to 2,300 out-of-school children in Ebeye, one of two urban areas in the Marshall Islands, with a total population of roughly 13,000. Of the 2,931 Marshallese who live in Hawai'i, 45 percent of the adult Marshallese population possesses at least a high school diploma.[1] (Heine, 2004).

These numbers improve with those in the largest Marshallese community in the continental United States, with 65 percent of Marshallese in Springdale, Arkansas, earning at least a high school diploma (Heine, 2004). In the United States, Marshallese and Samoans are less likely to earn a bachelor's degree than any other ethnic group (National Center for Educational Statistics, 2011). The most current data comes from the Communities in Contrast report by Empowering Pacific Islands Communities and Asian Americans Advancing Justice, which showed that the Marshallese population in the United States grew 237 percent between 2000 and 2010. As a whole, this report indicated that Pacific Islanders in the United States have higher-than-average rates of limited English proficiency and poverty, and lower-than-average rates of per-capita income and health insurance coverage, compared to other ethnic groups. Seventy-three percent of Pacific Islanders within the United States live in poverty, which is a higher percentage than any other ethnic group in the United States. Even compared to this broader group of Pacific Islanders, Marshallese have the highest unemployment rate and proportion of youth, and are less likely to have a high school diploma, GED, or bachelor's degree (2014).

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[1] There are concerns about the reliability of census data for Marshallese living in the United States, but some of the most comprehensive numbers available come from a Department of Insular Affairs study completed in 2003.

While these educational statistics demonstrate a lack of academic success, they tell only a small part of the experience of Marshallese students. The challenge, though, is in finding more data about this relatively unstudied group. According to Tuck and Yang (2012), educational and health statistics are often unavailable for indigenous Pacific Islanders because of the relatively small available sample sizes compared to other ethnicities and the trend to combine Pacific Islanders with Asians under the label Asian/Pacific Islanders.

When taken against the backdrop of how Marshallese educational leaders define their goals for students, these educational statistics demonstrate that Western teaching methods and curriculum have led to several generations of failed academic experiences. This is in stark contrast to the generations of successful passing on of knowledge using Marshallese indigenous methods, on topics ranging from genealogy to medicine to navigation to gardening. While there is a great need to improve these outcomes, there has been very little research conducted on Marshallese methods of education. Until 1999, according to Clarke (1999), there had not been a single published study about how Marshallese students most effectively learn:

> Thus far in this literature review, the voices of many cultures have been noted, however, no mention has been given to studies done on the educational experiences of the students at the center of this study—the Marshallese. There is a simple reason for that. Basically, I have not found any. What I have found is a pamphlet produced by Pacific Resources for Education and Learning (PREL) on a wide grouping of students from the Western Pacific, as well as information on Marshallese society. (p. 20)

As a part of his study, “In search of ‘better’ education: A study of the educational experiences of Marshallese students at a Hawai‘i public high school,” Scott Clarke interviewed Hilda Heine, the current President of the Republic of the Marshall Islands, who was on the staff of PREL during the time of his research. Heine stated, “there is no research study that I am aware of that has documented how or what it is like for Marshallese to come and live and go to school in the United States” (1999, p. 21). Five years later, Heine published her own dissertation on the topic, and discussed the need for “in-depth research on Marshallese students’ learning styles, examining how they learn and under what classroom conditions learning takes place… both in the U.S. and in the Marshall Islands” (2004, p. 218).

In Robert Barber’s 2009 research about adult Micronesian classroom environments, he noted studies about non-Western classroom environments, but “no studies on classroom environments either quantitative or qualitative were found for the Micronesian region” (p. 11). Since this time, a handful of studies have examined various aspects of the education of Marshallese students (Hogan & Nimmer, 2013; Kupferman, 2012; Nimmer, 2010), but none have examined a Marshallese indigenous learning framework.

This research will attempt to fill that gap in the field. This dissertation will first examine current research in the fields of indigenous education, culture-based education in Oceania, and indigenous learning frameworks. Next, it will examine how Marshallese experts in a variety of fields learned their skills and knowledge and passed it to others. Finally, the commonalities between the learning and teaching processes of these experts will be compared in order to document a Marshallese indigenous learning framework. The ultimate purpose of this research is to apply this learning framework in classroom settings in order to improve the academic achievement of Marshallese students.

Background to the Research

Two thousand years ago, the first people settled two parallel chains of five islands and 29 coral atolls running north to south, located slightly north of the equator, and just to the west of the International Dateline. The *Ratak* (sunrise) chain of islands to the East and the *Ralik* (sunset) to the West, are composed of about 1,225 islets spread over 750,000 square miles of ocean space. They have one indigenous language that includes two dialects. Today, these islands are referred to as the Marshall Islands, named for 19th century British explorer John Marshall. The people and language are referred to as Marshallese (Pacific RISA, 2017).

Like other indigenous groups, Marshallese employed traditional methods of education, rather than formal schooling, to pass down knowledge about nutrition, medicine, navigation, and weaving. Marshallese culture centers on respect, kindness, and harmony, with a focus on the modesty and integrity of women. Marshallese society is based on a hierarchical, matrilineal model that places a significant value on land (Walsh, Heine & MIMOE, 2012). These cultural components inform the way Marshallese students learn, behave, and respond in educational environments.

The first documented foreign entity to establish contact with the Marshall Islands was Spain. While Spain controlled the Micronesian islands in the 16th century, they focused on other regions and did not settle in the Marshall Islands. American missionaries established the first schools after arriving in 1852, mainly for the purpose of teaching literacy so the Bible could be easily shared (Peacock, 1985; Savage & Pine, 1989). Germany purchased the islands from Spain and in 1888, established a trading company in Jaluit Atoll. While they traded copra from their post in Jaluit, they did not establish educational policy or public schools for all inhabitants. There were limited opportunities for formal education through the German Catholic mission schools

(Pine & Savage, 1989). The first secular public schools were established in 1915 during the Japanese occupation, designed to acculturate the few admitted Marshallese students in three years of study.

After World War II, the Marshall Islands became a part of the United Nations Trust Territory of the Pacific, which covered the area from the Marshall Islands in the east to Palau in the west, and was administered by the United States. Since that time, schools have followed the U.S. educational model, with mandatory universal public schools for students through 8th grade. Students who earned a passing score on a high school entrance examination continued public education through 12th grade, but had to travel to Pohnpei for boarding school because there was only one public secondary institution in the entire Trust Territory of the Pacific (Peacock, 1985; Pine & Savage, 1989). During Trust Territory times, English was the language of instruction, which was "a policy decision made in distant Washington which enraged territory education officials who strongly supported vernacular education" (Pine & Savage, 1989, p. 85). In addition to English being the language of instruction, by 1966, over half of the teachers in the Trust Territories were American (Barber, 2009). By 1968, this language policy shifted, and the Marshallese language was used as the language of instruction in early elementary grades, with English introduced from an English as a Second Language perspective in upper grades. To ensure the policy would not return to the English-only model, the Congress of Micronesia passed a law in 1970 that required local language, culture, and customs to be included in the curriculum. This law prompted the U.S. Department of Education to establish the Bilingual Education Project for Micronesia in 1974, which delegated increasing levels of authority for educational policies to the local jurisdictions. The intent of this project was not fully realized, however, because about 75 percent of educational budgets were devoted to English language instruction (Pine & Savage, 1989).

With the move to self-governance of the Marshall Islands in 1979, all responsibility for developing educational policies became the right of their government. By the 1980s, Micronesians filled most teaching and administration roles across the region, replacing their American predecessors (Barber, 2009). The role of English language in schools shifted, often based on the language proficiency of the individual teachers, until 2015, when the government of the Marshall Islands formally adopted a language policy designed to institute Marshallese as the language of instruction through 6th grade, and to use a bilingual Marshallese-English model through 12th grade (*Marshall Islands Journal*, 2015). Regardless of the Marshallese-English ratio, since the 1850s, Marshallese educational methods have been reserved primarily for traditional areas of study, as American and other foreign methods became common throughout the school system (Peacock, 1985; Pine & Savage, 1989).

Placing the Researcher

I taught and served as a high school principal in the Marshall Islands between 2002 and 2011. During that time and since, I have been approached dozens of times about how to improve Marshallese student learning outcomes. Hawaiʻi and Marshall Islands educators are frustrated and want solutions. Thus far, I have just shared anecdotes and my personal opinions, but my own teaching experiences were riddled with frustrating moments of irrelevance—of both the curriculum and the pedagogy. I want to be a more effective educator of Marshallese students because I care deeply about them and their success. In addition, I have been an eager student of

Marshallese elders on topics ranging from language to ecology and from cooking to dancing. I want to find a way to teach their children as effectively as they have taught me.

I observed Marshallese using a similar learning preference in to the tena method from Niihau (Beniamina 2010), in informal learning environments such as the home, in contrast to the school environment. Similar to scaffolding, tena is a method that allows children to learn through gradually increasing the complexity of a specific task over time. In these informal learning environments, it is common to pass knowledge to intentionally-chosen individuals, most of whom are related to the teacher (R. Miller, personal communication, February 5, 2016). The first step of this method (found in most indigenous, culturally-based educational methods) is relationship-building (Kanaʻiaupuni & Kawaiʻaeʻa, 2008). This dissertation study, which documents a Marshallese indigenous learning framework, is related to the indigenous learning frameworks of Native Hawaiians, the *Nā Honua Mauli Ola* (Kawaiʻaeʻa, 2002), and of Native Americans, *Teaching Truly*'s Pedagogy and Procedures Checklist (Four Arrows, 2013). This research also borrows methods from other scholars who have worked closely and successfully with Marshallese communities.

In addition, Rachel Miller's (2010) research about documenting Marshallese canoe knowledge through the context of social change informed the research methodologies of this study. Heine's (2004) research on the attributes and tactics of successful Marshallese students in Hawaiʻi, California and Oregon, informed this study in relation to the role of cultural preservation and identity, and the role's correlation to student success. Further, I built on my own experiences at both Northern Islands High School and Majuro Cooperative School, as well as with Marshallese community events in Hawaiʻi, to identify study participants and influence the way in which I interacted with participants.

While some researchers choose to print indigenous words in standard font as a means of normalizing them, I will italicize Marshallese words as a reflection of my role as an outside researcher and second language speaker. I will use standard font for Hawaiian words because it is an official language of the State of Hawaiʻi, and thus the University of Hawaiʻi, the degree-granting institution for this study. Marshallese language has two main orthographies; I will use the new orthography for all words except place names. While I have my own ideas about Marshallese learning and teaching, I aim to use this study as a means of promoting Marshallese voices, perspectives, and beliefs on the topic.

Marshallese Request for Research

Heine (2004, p. 3) stated "there is virtually no information out there about how Marshallese students learn, what values and expectations they bring with them to school," and how this impacts their academic achievement. This research on a Marshallese indigenous learning framework can be beneficial to Marshallese both as immigrant diaspora and as students in their home country. When Heine served as Minister of Education, the Marshallese Public School System developed and adopted a language policy that called for a more prominent use of Marshallese language as the medium of instruction (*Marshall Islands Journal*, 2015). This policy is being implemented through six strategic priorities, including Bilingual Teacher Education / Professional Learning Practices and Pedagogies, and Employing Local Knowledge (PSS, 2015). Addressing this research area, as outlined by Heine (the preeminent Marshallese education scholar), and as called for in the Marshallese Public School System's strategic priorities, would honor the critical need for indigenous scholars to frame the direction of future research about, and for, their own culture (Dunbar, 2008; Smith, 2012).

Research Questions

At the heart of this study is the broad question: What is the most appropriate and effective means to transform education to promote Marshallese student learning? I will address this through three lines of inquiry:

1) What are the methods of learning and teaching, related to the transfer of traditional knowledge, among Marshall Islanders?
2) What are the methods of learning and teaching, related to the transfer of contemporary knowledge, among Marshall Islanders?
3) How can these effective instructional methods be implemented in a school-based environment?

Purpose and Significance of This Study

The purpose of this study is to identify ways in which Marshallese transfer knowledge and skills between people, and how these patterns can inform school environments. I did this by identifying methods of learning and teaching, used by respected knowledge holders, to inform the documentation of a Marshallese indigenous learning framework.

Taken to the highest potential levels, this could support the transformation of learning experiences for Marshallese students in the Marshall Islands, as well as influence the educational systems that teach students in the Marshallese diaspora. It can be used as the foundation for education in the Marshall Islands—where nearly 100 percent of public school students are ethnically, linguistically, and culturally Marshallese. In addition, this framework could be partially implemented by U.S. public schools with Marshallese students. Perhaps most powerfully, since this framework is related to the *Nā Honua Mauli Ola*, a Native Hawaiian indigenous learning framework, teachers in Hawaiʻi's public schools can use it to the benefit of their Pacific Island students as a whole.

This study will contribute to the fields of Pacific Islands Studies, as well as to Indigenous and Culture-Based Education. This knowledge could be shared in the University of Hawaiʻi's College of Education, as well as the teacher preparation program at the College of the Marshall Islands, the University of the South Pacific Majuro campus, the University of Guam, Palau Community College, College of Micronesia, and other regional institutions. It could also serve as a blueprint for other Micronesian cultures to document their own indigenous learning frameworks.

Theoretical Frameworks

This study was conducted using indigenous theory related to post-colonialism (Dunbar, 2008; Nabobo-Baba, 2006). This provided an appropriate perspective because of three periods of colonial influence on Marshallese education: the U.S. and German missionaries in the 19th century, the Japanese schools beginning in 1915, and the U.S. public school model employed from the post-World War II Trust Territory era until the present. The missionaries and colonial governments created schools as tools of acculturation into colonizer societies.

This study used an informed grounded theory (Thornberg, 2012) to document a Marshallese learning framework from the contributions of ten interview participants' stories of learning and teaching. Grounded theory is a process by which a theory is generated from the elements learned during the data collection process. In this case, I recorded the teaching and learning strategies gleaned from the ten research participants, and used these strategies to document a Marshallese indigenous learning framework. In traditional grounded theory, the literature review is conducted after the research is complete in order to shield the researcher from bias. In informed grounded theory, the literature review is conducted before, during, and after the research in order to inform the methods and situate the new knowledge in the relevant context (Thornberg, 2012).

These interviews were conducted using ethnographic methods. Grounded theory processes mirror the Marshallese concept of *Jitdam Kapeel* (seeking knowledge guarantees wisdom), which makes it an appropriate framework for an indigenous learning framework. By using informed grounded theory, I was able to study relevant literature before engaging with participants, which mitigated some of the challenges associated with being an outsider researcher (Thornberg, 2012).

Methodological Overview

Often when foreigners conduct research within indigenous communities, the benefit is for the researcher and the community is often harmed in the process (Dunbar, 2008). As I engaged in this work it was important to be mindful of this history, and remember that the participants might have experienced negative outcomes from past research projects. While I strove to be sensitive to this reality, as an American working in the Marshall Islands, my identity and use of language—both English and basic Marshallese—might have influenced the results of this study. It is unlikely this influence will harm the local community, though, and it is expected the results of this research will improve the educational experiences and outcomes of Marshallese learners.

Using indigenous voices to determine the direction of the research increases the chances the results will be of positive use to the community (Smith, 2012). Rachel Miller's (2010) study documenting Marshallese canoe building knowledge informed the research methodology, since she also focused on the sharing of knowledge and used in-depth interviews to gather data. In addition, her interviews were structured informally in a *bwebwenato* (talk story) format. As in Miller's research, I will try to "privilege Marshallese voices over those of others, including my own, and I believe a good way to start doing that is to approach the various forms of oral history… with the same respect as I would a more formal written text" (2010).

I engaged in informal *bwebwenato* sessions with ten respected Marshallese knowledge holders to document their learning and teaching methods. These sessions were conducted primarily in English, though some participants chose to incorporate Marshallese language into their responses, and one session was conducted with the assistance of an interpreter. These *bwebwenato* sessions were recorded and transcribed, then compared and contrasted to identify a Marshallese epistemology. This Marshallese epistemology is overlaid with the *Nā Honua Mauli Ola* and *Teaching Truly*'s Pedagogy and Procedures Checklist to document a Marshallese indigenous learning framework.

CHAPTER 2: LITERATURE REVIEW

The existing research that informed this study includes an examination of Marshallese student struggles in the U.S. educational model and external influences on Marshallese formal education. In addition, traditional and contemporary methods of extending networks offer an explanation for why many Marshallese seek further education through foreign institutions to expand their knowledge and skills. Finally, I will offer a case for culturally-sustaining education for Marshallese students, supported by an overview of Pacific models of culturally-sustaining education, and indigenous learning frameworks.

Marshallese student struggles in U.S. educational model

While some Marshallese students excel within the U.S. school model, such as Wilfred Alik, MD, Sheldon Riklon, MD, Hilda Heine, EdD, and Arsima Muller, JD, the majority of Marshallese students have struggled to find academic success. Academic success is defined by both the Marshallese President and the Marshallese Public School System as diploma or degree completion (T. Hazzard, personal communication, May 26, 2016; Heine, 2004). The struggle is true both in the Marshall Islands (where the majority of teachers are also Marshallese) and in the United States (where the students are learning in a cross-cultural environment). Students in both settings are often considered to be “lazy,” “unmotivated” and “lacking parental support” by their teachers who come from a variety of ethnic backgrounds, including Marshallese. These stereotypes are rooted in Western contexts and value systems, and often ignore Marshallese value systems and cultural identities (Heine, 2004; Hawaii Appleseed Center for Law and Economic Justice, 2011). For example, teachers often place a stronger value on school attendance than students who choose to be absent to care for a sick relative. Teachers also value completed homework more than students who are otherwise preoccupied with contributing toward the care of their family, e.g., providing childcare, cooking, or working in a paying job in order to contribute to the family's finances.

In addition to the differences between student and teacher values, there is also a stigma attached to the quality of education in the Marshall Islands. In the Marshall Islands, local families often consider the local school system inferior to the U.S. system, after which it is modeled (Ratliffe, 2010). Further, families in the outer islands consider their schools inferior to those in the population centers of Majuro and Ebeye, which attracted mass migration from rural to urban areas in the 1960s to the present day. Local education is so stigmatized that it is cited as one of the primary reasons, along with employment and healthcare, for emigrating to the United States by most families (Allen, 1997; Clarke, 1999; Hawaii Appleseed Center for Law and Economic Justice, 2011; Heine, 2004; Ratliffe, 2010). This exodus means families are sacrificing a familiar environment of being near extended family and friends, not to mention the parts of culture that cannot travel on an airplane, such as funeral practices and interpersonal interactions based on clan relationships, in exchange for the dream of a better education (Heine, 2004).

For Marshallese families who enroll their children in U.S. schools, most are placed in English Language Learner (ELL) programs, even those who are not tested. According to the Hawai'i Department of Education's Director of the English Language Learner program, Marshallese and Chuukese languages combined compose the second-largest language group within the state's public school system, behind Ilocano and Tagalog from the Philippines (Madrazo, 2007). In Hawai'i, few Marshallese students ever exit the ELL program, which prevents them from enrolling in courses that would prepare them for college-level academic work (Falgout, 2012). Only 3 percent of Marshallese in the U.S. have earned a bachelor's degree, compared with 12 percent of Samoans, 18 percent of African Americans, and 28 percent of the total American population (National Center for Educational Statistics, 2011).

External influences on Marshallese formal education

Historically, Marshallese and other Micronesian cultures valued migration and exploration. As Falgout (2012) notes:

> Those Pohnpeians who ventured beyond the island and successfully returned with knowledge and goods from the outside world were accorded especially high standing within the community—perhaps even a title within the chiefly system. Visitors from afar were also, and continue to be, treated with great respect and given the very best seats, foods, and goods at feasts. (186)

In Genz's study (2008) of Marshallese navigational traditions, he found that "they valorized non-traditional knowledge and cultural practices" (p. 73). Larry Carucci (2001) observed that Marshallese often reject or show apathy to their own traditions, while favoring other cultures.

This deep respect for those who migrated and for outsiders has enabled the status quo of U.S. model schooling to permeate nearly all educational initiatives in the Marshall Islands, even though the majority of students fail to find academic success. Heine (2004) argues:

> After years of colonization, many Marshallese see themselves as they are seen by Westerners as "lazy, impoverished and undisciplined." Simply getting through U.S. schools, irrespective of grades, total experience, or the potential to go on to college, may be the measure of "success" for some Marshallese families. (p. 6)

This trend can be seen in indigenous groups around the world. In Marlene Atleo's pivotal work, "Understanding aboriginal learning ideology through storywork with elders," she found "the very lifeways and thinking of peoples have been delegitimated, and the community control usurped through colonization" (2009, p. 454). The same is true in other parts of the Pacific, "Much of the context as well as the methods of our formal education systems have been and continue to be based on mainly western rather than indigenous belief systems" (Thaman, 1992, p. 6).

These attitudes in the Marshall Islands are partially attributed to the many successive generations of living under colonial governments. These colonial governments imported and taught their own culture, values, purpose of work, and patriotic rituals. Missionary schools in the mid-1800s through 1914 used English or German, and taught about Christianity. Japanese schools from 1915 through WWII used Japanese language and taught skills associated with Japanese work projects. Then the United States, under the Trust Territory, reverted back to English language schools, and later invested Compact of Free Association funding to continue this model of education.

While some outcomes might have been unintentional, dependency on the United States was by design. Waddell, Naidu, & Hau'ofa (1993) clearly state:

> The idea that the countries of Polynesia and Micronesia are too small, too poor, and too isolated to develop any meaningful degree of autonomy, is an economistic and geographic deterministic view of a very narrow kind… If this very narrow, deterministic perspective is not questioned and checked, it could contribute importantly to an eventual consignment of groups of human beings to a perpetual state of wardship wherein they and their surrounding lands and seas will be at the mercy of the manipulators of the global economy and World Orders of one kind or another. (p. 152)

The U.S. colonial-era government introduced “U.S. oriented curriculum” and “patriotic rituals” as a means of garnering support for a permanent connection with the United States (Belau, 1970; Gale, 1979; McHenry, 1975; United States, 1963).

This was not the U.S. government’s first foray into using education as a means of eroding Indigenous culture. The 1928 Merriam Report to the U.S. Congress outlined the failure of English-only Native American boarding schools and day schools, and argued for decentralized education that allowed indigenous children to be educated near their families in their own communities. This study resulted in funding for bilingual education, adult education, and teacher training for indigenous educators. Unfortunately, according to a 1969 U.S. Senate analysis, WWII shifted the nation’s focus, and this promising opportunity for positive change disappeared (Four Arrows, 2013).

Colonialism decimated indigenous learning processes in favor of a purely academic approach. “As members of a majority group in their own home, living under the authority of successive colonial administrations for over one-hundred years, Marshallese had limited opportunity to set political, economic, and educational standards that governed their own future” (Heine, 2004, p. 198). This eroded the cultural system of education that had existed for nearly 2,000 years. Across the Pacific the same trend can be seen. “Western institutions have to a large extent contributed to the demise of the integrated, holistic, and culturally-based learning associated with Pacific societies” (Vaioleti, 2012, p. 45). Western expectations tend to focus on what the individual student should know and be able to do. Sometimes Western schools espouse rhetoric about global citizenship and making contributions to community, but these are often add-on ideas for use in Service-Learning projects or as a part of character education, rather than as central to the curriculum.

This trend can be seen across the United States and has had a significant negative impact on minority students. “Subtractive schooling... promotes an assimilative process wherein minority children abandon their first languages and cultures as they acquire the dominant language and culture… it prevents the possibilities of building on the strengths of one’s first culture and language” (Buttaro, 2010, p. 10). This marginalization can lead to the long-term effects of a loss of cultural pride and practices, acculturation, and “language shift” (Berry, 2012; Christensen, 2009; Four Arrows, 2013; Ratliffe, 2010), which “occurs when minority language speakers adopt the dominant language, either voluntarily or involuntarily, and no longer pass on the language to future generations” (Rey, 2015, p. 6). Not only does this deficit-based schooling model lead to detrimental cultural and linguistic impacts, it contributes to academic failure (Four Arrows, 2013; Heine, 2002; Paris, 2012).

The negative influences on Marshallese student learning extend to their U.S. teachers. Some teachers have become frustrated by the needs of Marshallese students who struggle to assimilate into the public school system. In a study of a Marshallese community in Enid, Oklahoma, Linda Allen (1997) quoted a high school teacher as saying,

> We just had a meeting here at the high school and the faculty decided that there are just too many groups of migrant students in our schools now to worry about these Marshallese kids. This is America and they need to learn to do things our way… They can barely read at the third or fourth grade level when we get them here at the high school… Marshallese students just don’t seem to care. (p. 125)

This pervasive deficit narrative regarding Marshallese students makes it difficult for them to break through the stereotypes and to be recognized as high-achievers. Even when students are working at the same level as their peers of another ethnic group, this prejudice can impact teacher perceptions of student achievement.

In addition to devaluing prior knowledge, much of Western curriculum is irrelevant to indigenous life. “Western schooling has not satisfied Aboriginal learning needs… for transformative learning and strategic knowledge” (Atleo, 2009). Employing an irrelevant curriculum to teach indigenous students is not a newly-recognized trend. Since at least the 1800s, indigenous groups have recognized the inadequacy of Western schooling to prepare their youth for adult life, yet educational leaders in those schools have done little to reflect upon this feedback and transform the learning experience. White settlers in Virginia offered to provide free college education to Native American young men. Their community’s response was documented by Hopkins in 1898:

> We know that you highly esteem the kind of learning taught in those colleges, and that the maintenance of our young men while with you would be very expensive to you. We are convinced, therefore, that you mean to do us good by your proposal, and we thank you heartily. But, you who are wise must know that different nations have different conceptions of things, and you will therefore not take it amiss if our ideas of this kind of education happen not to be the same with yours. We have had some experience of it. Several of our young people were formally brought up at the colleges of the northern provinces, they were instructed in all your sciences, but when they came back to us they were bad runners, ignorant of every means of living in the woods, unable to bear either cold or hunger, knew neither how to build a cabin, take a deer, or kill an enemy, or speak our language. They were, therefore, neither fit for hunters, warriors, or counselors; they were totally good for nothing.

> We are not, however, the less obliged by your kind offer, though we decline accepting it. And to show our grateful sense of it, if the gentlemen of Virginia send us a dozen of their sons, we will take great care of their education, instruct them in all we know, and *make men of them.* (as quoted in Four Arrows, 2013, p. 13. Emphasis in original.)

More than a century later, 73 percent of even the American teachers at Northern Islands High School in the Marshall Islands reported that the U.S.-based curriculum was irrelevant, and 80 percent of them admitted to modifying the curriculum to address this shortfall (Hogan & Nimmer, 2013). Thaman (1992) advocates for educators to reflect on the relevance of what they are teaching to the local cultural context in which they are teaching. One of the most common outcomes of an irrelevant curriculum is that students think of school as boring (Suarez-Orozco, 2016). As a solution, Ratliffe (2010, p. 16) argues, “Micronesian children need to have culturally relevant curricular materials, orientation to U.S. culture, and appropriate educational support so they can be successful.”

This foreign curriculum also impacts the ability of parents to be involved with their children’s school because their intelligence, skills, knowledge, and worth have been marginalized (Four Arrows, 2013; Kala‘i, Nimmer, Noh, et al., 2015):

> I remember some of the learnings that I had. Your assignment was to make a mat and I went home and asked my mom to show me how to make that little placemat. I had to be able to do it and the connection you know how it’s easy for parents to help us because they know how to do our homework. My relationship with my daughter is different. She comes back home and would be sitting there doing her own homework and I would ask her if she needed help and she goes, “Oh you don’t

> know what I do" and she's right, I do not know. (Kalaʻi, Nimmer, Noh, et al., 2015, p. 21)

Parents in the Marshall Islands and across the Micronesian region want their children to learn a relevant curriculum in an environment that models respect. When interviewing parents and educators in rural Chuuk, a Micronesian location similar to the Marshall Islands, Mary Spencer (2015) found that the most common words used by the participants who described what they wanted children to learn in school included, "respect, English, community, home, school, family, and work" (p. 129). Micronesian parents in Hawaiʻi shared similar desires for what their children would learn in school. In addition they wanted their children to be educated in their home languages. One parent said, "Not to undermine or belittle the importance of the English language, but that it just helps the children empower their sense of who they are, that their language and culture is important" (Kalaʻi, Nimmer, Noh, et al., 2015, p. 22).

Extending Networks

Historically, people in Oceania traveled "unhindered by the boundaries of the kind erected much later by imperial powers" (Waddell, Naidu, & Hauʻofa, 1993, p. 154). This frequent movement and migration extended and cemented trading and social networks, as well as expanded access to natural resources (Falgout, 2012; Genz, 2008; Waddell, Naidu, & Hauʻofa, 1993). In contemporary times, thousands of Marshallese have moved to the United States, doing the same as their ancestors: extending networks and expanding resources for themselves and their families.

> William Safran included the notion that people in diaspora idealize their homeland as their only true home, to which they will someday return (1991: 83-93). Although

> this has been the case in some diasporas, we have several examples in the Pacific where the homeland no longer exists at all (some islets of Bikini), does not exist anymore as remembered (Banaba), or is not idealized (Kapingamarangi). (Rynkiewich, 2012, p. 282)

The case of nuclear testing on Bikini addresses the challenge of environmental refugees and their inability to ever return home. While this has historically been a reality only for small groups of people, the threat of climate change and rising sea levels might dramatically increase the number of people in this category. This is especially true for the low-lying Marshall Islands, which is one of the world's most vulnerable countries. During the national Marshall Islands Education Week in 2010, the student debate topic was, "Will we lose our culture if we are forced into mass migration because of climate change?" Teenagers from around the country researched the idea and wrote arguments for why they would cease to be a unique cultural group, and others researched what parts of their culture they would carry with them to a new location.

> No one family and no small group in diaspora can carry the full range of customs, traditions, and narratives from a homeland…. in the context of the surrounding community, song and dance may be the most obvious and understandable markers of identity but making and storing fermented breadfruit may drop off the trait list. (Rynkiewich, 2012, p. 289)

This is why it is quite common for cultural festivals across the United States and other diaspora destinations to feature dances, clothing, art, and music. On the other hand, it is far less common for traditional medicine or home language to survive more than a generation or two. In the context of Marshallese migrant communities in Hawaiʻi, Oregon, and Arkansas, Heine (2004) found they "took a way of life and transformed it, pretty much intact, across national boundaries," including food, clothing, child rearing and discipline methods, healing skills, and language. While this is true of Marshallese migrants who had lived in the urban centers of Ebeye or Majuro, who were already living in a cash-based economy, cultural transfer is not intact for those migrating from Outer Islands, who were living subsistence lifestyles. These Outer Island migrants are generally the people who hold traditional knowledge and cultural skills.

As time passes, these intact cultural practices have evolved. "Although it is crucial that we look to sustain… Pacific Islander American, and Indigenous American languages and cultures in our pedagogies, we must be open to sustaining them in both the traditional and evolving ways they are lived and used by contemporary young people" (Paris, 2012). In 2015, Micronesian parents from across Hawai'i shared about their hopes for a culture-based charter school for their children. One of the most-cited reasons for wanting this school was that they wanted their children to learn their home cultural values and language (Kala'i, Nimmer, et al., 2015).

Language teaching is fraught with challenges. With any language group, there are skilled orators and writers of Marshallese and those who are less proficient. Further complicating matters is that there are two main written forms of Marshallese: the original form documented by Christian missionaries in the mid-1800s, and the modern form developed through a University of Hawai'i collaboration between linguistic researchers and prominent Marshallese speakers. Both versions are still used, with the former being more prominent. However, there have been significant efforts in the last two decades to transition to the new spellings and orthography. As a result of this long transition, most Marshallese people spell common words in several different ways. For example, the word for "hello" or "aloha" is *yokwe, iakwe*, or *iokwe.* This language transition has hindered Marshallese literacy, because a student might learn several spellings for the same word from their different teachers. As a result, there is a loose understanding of the importance of spelling, which also impacts English language learning (Rehg, 2004).

The case for culturally-sustaining education for Marshallese students

While no one has developed a broadly applicable Marshallese culture-based education curriculum or learning framework, several researchers have noted characteristics of instruction and curriculum that could be combined for a culturally-sustaining model.

> Built on decades of work around minority education, language immersion and bilingualism, [and] culturally relevant curriculum… Culture Based Education [is] a framework linking practices, research and theory that advocate for the growth and well-being of students through the integration of their culture—history, language, values, ways of knowing and believing, knowledge, practices, places, and others—into teaching and learning (Kahumoku, 2015, p. 5).

Culture Based Education allows teachers to build a relevant curriculum that honors their students' identity, place and strengths, while also challenging biases in textbooks and other resources through the lens of their students' culture. For example, Marshallese students might learn about World War II by first hearing stories of their elders who lived during that time, followed by the role their geography played in the conflict between the United States and Japan, and see how events, such as the battle of Enewetak, coincided and intersected with other key elements of the war. In Culture Based Education, students do more than memorize the dates of battles; they conceive academic content through their cultural context.

One aspect of Cultural Based Education several researchers have noted is the community's respect for teachers, as people who hold knowledge and who are the experts in their fields (Heine, 2004; Ratliffe, 2015; R. Miller, personal communication, February 5, 2016). This respect is manifested in the classroom through the way students interact with their teachers. For example:

1. Students will not ask for help, trusting the authority figure will provide what is needed, and because they do not want to bother them. For this reason, it is important for teachers to be constantly aware of their students' needs so they can offer help when a student struggles (Barber 2009; Clarke, 1999; Heine, 2004).
2. Students become quite uncomfortable if another child talks back to a teacher or challenges a teacher by contradicting something that was presented, so classroom environment is important (Keju, O'Conner, & Capelle, 1994; Ratliffe, 2015).
3. In addition to being mindful of the teacher-student relationship, it is also necessary to recognize Marshallese students' silence as a sign of respect rather than a sign of laziness, lack of motivation, or apathy. Marshallese culture values humility, and talking too much in class is a sign of arrogance and disrespect (Barber, 2009; Heine, 2002; Heine, 2004).

The relationship between students and teachers can be reflected in these interactions, but also through the classroom environment itself.

In a study to determine success factors for adult Micronesian learners, Barber (2009), presented four "Factors Within the Classroom Environment that Promote Learning":

1. A supportive instructor, described as one who "motivates students through encouragement, feedback on progress and is 'there for' the students" (p. 92).

2. A hospitable learning environment, which is described as a supportive group environment that feels familial, with frequent opportunities to engage with peers and instructor.
3. Interactive and experiential instructional approaches, which focuses instruction on "a sequence of demonstration/observation followed by practice and correction… [then] individual hands-on practice, often unsupervised, [and] third… mastery is often indicated by a product, fish from fishing for example, so one knows one is successful in the learning" (p. 83).
4. A relevant curriculum includes both connection with their island context and alignment with their future plans.

All of these examples highlight the importance of relationships—between people, between information, and between instruction and assessment.

Students thrive when there is harmony (Heine, 2002; Ratliffe, 2015) and cooperation within the Marshallese school environment, such as assigning students to engage in group work (Barber, 2009; Clarke, 1999; Heine, 2002; Vaioleti, 2012). "Where students may be expected to problem solve and make decisions independently in any American classroom, island students may be reluctant at first to step outside of normal family practices in which problem solving and decision making are shared" (Heine, 2002). These shared decision-making and problem-solving practices are sometimes considered cheating in schools. Heine (2004) noted a lack of connection to the school environment—that it is foreign and irrelevant—as a risk factor for students who leave school.

In addition to the relationships within the classroom environment, the relationships outside of the classroom environment play a role in Culture Based Education model. The primary external relationships that play a major role in students' academic success are that of family. Marshallese students view their identity through the lens of family and *jowi* (matrilineal kin/clan) and *bwij* (family/tribe). Thus, family commitments come first, which sometimes compete with school priorities (Heine, 2004). Traditionally these family, *jowi,* and *bwij* connections played a significant role in the skills a person learned since certain families carried certain types of knowledge, such as medicine, canoe-building and navigation (R. Miller, personal communication, February 5, 2016). Other skills are more universal and are taught in the home, such as language development, house building, weaving simple baskets, and learning to participate in ceremonies (Barber, 2009; Nabobo, 2006; Ratliffe, 2015).

Culturally Based Education uses students' culture as an integral source for their education. "Indigenous education in the Americas emphasized oral histories, teaching stories, ceremonies, apprenticeships, learning games, formal instruction and informal tutoring." (Four Arrows, 2013, p. 72). The value of Oceania's vast resources—both natural and cultural—has been significantly challenged during the colonial period, through economic and educational reports, projects, and assumptions (Waddell, Naidu, & Hau'ofa, 1993). "There is a widespread concern among Native people about the preservation and revitalization of their traditional languages and cultures and how to incorporate these into the educational process" (Demmert, Grissmer & Towner, 2006, p. 7). According to Heine (2004), Culturally Based Education can make significant improvements for students whose home cultures and identities are ignored or maligned in the curriculum or school environment.

Another aspect of Cultural Based Education is the use of students' native language as a medium of instruction, which has been shown to improve engagement of the learners (Demmert, Grissmer & Towner, 2006; Four Arrows, 2013; Paris, 2012; Pobutsky, Buenconsejo-Lum, et al., 2005). In an effort to sustain *Kajin Aelōñ Kein* (Marshallese language), the Marshall Islands Public School System approved a language policy in mid- 2015 that said, "*Kajin Aelōñ Kein* will be the language of instruction for all subjects other than English Language Arts from grades kindergarten to sixth. *Kajin Aelōñ Kein* will be the language of instruction in a near 50-50 bilingual arrangement from grades seven to 12" (*Marshall Islands Journal*, 2015). This policy recognizes the expertise exists within the community, and calls for a process "which brings students, teachers, parents, knowledge holders and community members together so that we can write our own bilingual school materials and teach each other in the process," according to Alfred Capelle, Director of the Customary Law and Language Commission (*Marshall Islands Journal,* 2015).

In addition to the vast research base that suggests literacy in a first language eases the transition to literacy in a second language, this policy responds to the significant differences between English and Marshallese languages. For example, in Marshallese language "pluralization is seldom experienced grammatically… indirect article 'the' is rarely used… lack of verb conjugation… there are more than 20 pronouns" (Keju, 1994, p. 3). In addition to grammatical variances and the notation about pronouns—which demonstrates a cultural difference in the way people are perceived—many Marshallese words and concepts do not have a clear translation in English.

In addition to modifying the language of instruction, Culture Based Education honors the locus of student motivation to learn. As Heine (2004) notes:

> The successful Marshallese student is one who is able to achieve academically, paradoxically a very individual task, and integrate and apply that academic success in his/her relationships and interactions with members of his/her family and

> community… Therefore, a central finding of the study seems to suggest that *the success of the individual Marshallese depends on how integral that success is to the family and the group.* (p. 205, emphasis in original)

This focus on utilizing the learning in a way that serves the community is similarly important to other Pacific communities (Beniamina, 2010; Ratliffe, 2010; Vaioleti, 2006). For example, in the Niihauan community in Hawaiʻi, "[academic] standards fall short in a very crucial way. They do not necessarily emphasize the application of skills throughout one's life, which ultimately entails passing the content and skills on to the next generation" (Beniamina, 2010, p. 16). Demmert, Grissmer, and Towner (2006, p. 8) noted that the traditional learning system was effective because "failure to learn was not allowed for it was a matter of individual and clan survival." Within Micronesia, Barber (2009) asserts that:

> The communal aspect to traditional learning has several key elements: very connected social networks with easy access to people to help learn, shared peer responsibility for members' learning, social pressure shared by clan for individual learning with shared loss of face if knowledge is not acquired, learning all the time and as part of community activities, and learning together in groups often as part of social events. (p. 83)

In order to provide benefit for their community, Marshallese students would rather skip class, or even drop out of high school, to work or join Job Corps, because it would enable them to contribute financial help to their families, especially when school seemed irrelevant to their community and its survival (Allen, 1997; Clarke 1999). Understanding the critical importance of working for the benefit of family and community would enable teachers to more accurately interpret their Marshallese students' choices, values, and priorities.

At the College of the Marshall Islands, where all but a few faculty members are hired on foreign work contracts, the Marshallese Studies Department provides new faculty with a resource that explains some key factors of Marshallese learning paradigms. This includes, "cultural practices as opposed to attitudes toward learning… [such as the] burden of understanding, direct and indirect learning, body gestures, what silence means, and culturally sensitive dressing" (W. Alik, personal communication. May 27, 2016.).

Pacific Culturally Sustaining Education Models

Culturally sustaining educational models have been used across the Pacific, most comprehensively in New Zealand and Hawaiʻi. While models are tailored to the specific students served, there are some components that transcend the individual indigenous culture and are universal, such as the importance of "language, family & [sic] community, content, context, and assessment & [sic] accountability" (Kanaʻiaupuni & Kawaiʻaeʻa, 2008, p. 75). Family and community members take part in the development of curricula, learning, student support, and leadership (Kanaʻiaupuni & Kawaiʻaeʻa, 2008; Nabobo-Baba, 2006; Ratliffe, 2013).

In culturally sustaining education, the purpose for learning and the instructional method are important features (Beniamina, 2010; Heine, 2002; Nabobo-Baba, 2006; Vaioleti, 2012). In Pacific cultures, the purpose for learning is deeply connected to the learner's role in the community (Heine, 2002, Nabobo-Baba, 2006). At Northern Islands High School on the island of Wotje, Marshall Islands, where I taught and served as vice principal, we occasionally cancelled academic classes so students could engage in cultural practices, such as attending a funeral or participating in physical work like unloading ships or fishing during times of food shortages. While this reduced time in academic classes, participating in these activities taught important lessons of culture and survival. “The precedency of family obligations in the lives of Micronesian children and their families may, at times, appear to be impediments to achievement in school when children miss school and parents miss meetings. However, these values can also support children’s education” (Ratliffe, 2010, p. 14)

Learning is made meaningful by how the knowledge can be used by the learner to benefit her family, friends, or broader community (Kahumoku, 2015; Nabobo-Baba, 2006; Ratliffe, 2010; Rey, 2015; Vaioleti, 2012). “It is an education which drives the learner and the teacher to seek and build knowledge which will be used to benefit the collective (one’s family, community and environment), not just the learner” (Vaioleti, 2012, p. 46). When knowledge is tied to how a learner contributes to the community, education becomes key to identity.

In a culturally sustaining educational model, the method of instruction tends to allow students to learn through observation (Chun, 1996; Clarke, 1999; Low, 2013; Nabobo-Baba, 2006; Ratliffe, 2010; Vaioleti, 2012) or through hands-on, incremental practice (Barber, 2009; Beniamina, 2010; Chun 1996; Heine, 2002; Low, 2013; Nabobo-Baba, 2006). The goal is for students to master the skill and become proficient enough in the knowledge, to the point that the student can pass the knowledge or skill to the next generation (Beniamina, 2010; Chun, 1996; Low, 2013; Vaioleti, 2012). Nainoa Thompson, the Hawaiian navigator, recalled how he learned from Satawalese (an island identity within the Micronesan region) master navigator Mau Piailug, “The way that I learned from Mau was by watching what he did and trying to understand how he did it—by figuring it out for myself and then asking him if that was the right way. You don’t just go up and ask him to teach you. It’s not a classroom with handouts and lectures” (Low, 2013, p. 57). This learning style focuses on the individual learner, rather than assuming all children learn the same information in the same way at the same pace (Kala‘i, Nimmer, Noh et al., 2015;

Ratliffe, 2010). In addition to addressing the child’s individual needs, this method allows the learner to be shielded from the shame and embarrassment common in Western classrooms that expect all children to progress through the same academic standards, in the mandated sequence, according to the curriculum map’s calendar.

In addition to focusing instruction on the individual child, it is helpful to allow students to learn in peer groups. Many Marshallese students are hesitant to speak out in front of the class because it can violate the cultural value of humility, especially if there are other Marshallese in the classroom from higher-ranking families. Often, Marshallese students feel more comfortable sharing ideas in a small group setting. This is especially true in classrooms that use English as the language of instruction, because it protects students who are still learning the language from embarrassment (Ratliffe, 2013). When conducting an observation of student learning in Chuuk, Spencer (2015) noted, “As the teacher expands participation by encouraging students to chip in answers, this girl is seen quietly practicing pronunciation of English words, apparently using the teacher’s and classmates’ utterances as models as well as memorizing” (p. 57).

The persona of the teacher is critically important in Pacific education. The teacher is highly respected and this comes with intense responsibility for the emotional, cognitive, spiritual, and physical well-being of students (Vaioleti, 2012). In addition, teachers can gain immortality by sharing their expertise with students in the next generation, who master the knowledge or skill (Four Arrows, 2013; Low, 2013). According to *Pwo* (master navigator) Mau Piailug, “a navigator is never really considered a master until he passes on his skills to his students” (Low, 2013, p. 326). Perhaps just as important as passing on specific knowledge is teachers modeling respectful behavior through the way they interact with others, and by holding their students to similar expectations (Four Arrows, 2013). According to Thaman (1992):

> In my study of Tongan teachers, I found that the majority of them regarded their role primarily in moral, social and intellectual terms, in that order. The most important thing for a teacher was to be a good example for pupils, a role model… to be *poto*, or educated, is to be able to usefully apply *ilo* (knowledge) for the collective good. (p. 8)

The Marshallese word for teacher, *rikaki*, was first used for the missionaries who taught the Bible and language. These missionaries held status and were expected to behave in a respectable way. Using the same title for these early missionaries and for modern-day school teachers places similar expectations about moral behavior and responsible choices on educators.

Not only is the persona of the individual teacher a key component, but so is honoring the community, including religious institutions (Chun, 1996; Vaioleti, 2006). “Collaboration between all stakeholders has been an essential ingredient to the success” (Pobutsky, Buenconsejo-Lum, et al., 2005, p. 66). However, in the U.S. model of education that privileges Western knowledge, Marshallese parents tend to see teachers as the experts. The impact of this philosophy has been a division between parents and their children’s schools, with most families trusting the educators to take full responsibility for their children’s formal education (Filibert, 2008; Pine & Savage, 1989).

In addition to the actual pedagogy, culturally sustaining education in Oceania allows for the movement and migration of teachers and learners. The University of the South Pacific, with campuses in 12 countries, allows for common experiences across Oceania. The highly-mobile students and educators are able to maintain their engagement with the University over time and across countries (Waddell, Naidu, & Hau’ofa, 1993).

Indigenous Learning Frameworks

By recognizing a unique way to learn and conceptualize knowledge, indigenous learning frameworks honor the worldview of indigenous communities. While there is great diversity among Native Americans, and a different epistemology for Native Hawaiians and other groups within Oceania, there are many commonalities among the way these indigenous groups conceptualize knowledge. Four Arrows asserts that “indigenous teaching and learning paths are ultimately about cultivating cognition and consciousness via spiritual awareness and reflection on lived experience” (2013, p. 65), whereas Native Hawaiian Manu Aluli-Meyer asserts in the *Handbook of Critical and Indigenous Methodologies*, that learning about knowledge that has been passed down from ancestors is a spiritual act that enlivens learning. Denzin, Lincoln, and Smith assert in the same handbook that “function is vital with regard to knowing something” (2008, p. 223-224). All of these indigenous education scholars agree that knowledge is conceived through application and that it carries a spiritual component. Recognizing this spirituality and the connection of academic knowledge to lived experiences is critical to educating through indigenous learning frameworks.

Indigenous learning frameworks share a foundation based in relationships. “Relationships are important and… we need to broaden our ideas of who and what we are related to... we see relationships as encompassing all life on this planet, including the rivers, trees, and animals. We also consider our relatedness to the larger universe, seeing the sun and stars as relatives as well” (Four Arrows, 2013, p. 52). At the STAR Navajo School, the community has adopted a behavioral code that begins and ends with the importance of healthy relationships: “Bringing everyone back into community [is] the main objective” and there is a strong focus on seeking ways to engage in “honorable reciprocity” (Sorenson, as quoted in Four Arrows, 2013, p. 71).

These interpersonal relationships within the Native American context are echoed in Barber's (2009) work with Micronesian adult learners, "Instructors who are effective in this include those who: are relaxed, share their personal experiences with the students, are honest and open in discussions with students, and let the students get to know them as individuals" (p. 100). Building and honoring the connection between students and teachers is of primary importance in indigenous education. Other cultural values naturally fall into place if the relationships are central.

Summary

By any measure, the majority of Marshallese students have struggled to find success in the U.S.-rooted educational model, used both in the Marshall Islands and in the communities where members of the Marshallese diaspora have migrated. Since the founding of formal education in the Marshall Islands, the school system has been shaped by external influences as a result of colonization and evangelism from German, Japanese, and American entities. In addition to the influence from foreigners coming to the shores of the Marshall Islands, Marshallese have migrated to extend their networks and access new resources since pre-contact times. Today, Marshallese tend to migrate to access education, health, and economic resources.

In order to improve educational experiences and outcomes for Marshallese students, teachers should use a culturally-sustaining educational model that recognizes the knowledge and assets students bring to the classroom, while also honoring Marshallese culture. Pacific culture-based education places primary importance on relationship-building between teacher and student, followed by a relevant, place-based curriculum. Indigenous learning frameworks are a means of situating the tenants of culture-based education and also employing instructional strategies that align with indigenous experiences in informal education, such as lessons in the home.

CHAPTER 3: METHODOLOGY

The Researcher and Relationships

On July 22, 2002, I flew to Majuro for the first time, as a member of the inaugural class of WorldTeach Marshall Islands volunteers. WorldTeach is a Harvard University-based program that partnered with the RMI Ministry of Education to place volunteer teachers in one-year appointments in public school classrooms. During this appointment at Northern Islands High School, Principal Foster Heine asked me to consider applying for the vice principal position at the school for the following school year. I served in the role of vice principal for two years, chairing the 21-member predominately Marshallese teaching staff, planning professional development, and offering performance evaluations for the faculty. In addition to this work at NIHS, I served as Field Director for the WorldTeach program, orienting 43 volunteers, a quarter of whom represented countries outside of the United States. Finally, from 2009-2011, I served as the first high school principal at Majuro Cooperative School, a private, secular P-12 institution that employs a predominately American teaching staff.

During all of these experiences, I contemplated the challenges and assets of cross-cultural teachers. This focus led to both master’s degree research (Nimmer, 2010) as well as a publication (Hogan & Nimmer, 2013) examining the perceptions of Marshallese students and parents about these Western teachers and the quality of their instruction. While I fulfilled the expectations of the entities that hired me, I often engaged in an internal struggle about whether I was doing the right thing. The educational models in the rural Wotje public school and urban Majuro private school, as well as the model supported by WorldTeach, are based on the U.S. educational system. In short, I was a part of the problematic system this research attempts to address.

Through working in both a rural public school and an urban private school, and by directing the WorldTeach program which allowed me to travel to more than ten outer islands, I built relationships with hundreds of community members, both within the formal educational system and outside of it.

The biggest ethical issue I have faced in this study is that I am a non-Marshallese person documenting a Marshallese indigenous learning framework. As an outsider with insider experiences, I needed to practice constant vigilance of keeping Marshallese voices at the forefront of this research. Like the indigenous Fijian scholar, Unaisi Nabobo-Baba (2006), I have striven to write "with extreme care" so I don't misrepresent the participants in this study, and so I can clearly communicate to both a Marshallese and non-Marshallese audience about how to improve academic achievement for Marshallese learners. The participants have shared their knowledge as a gift to me, and I take seriously my responsibility to present it authentically and with the honor it deserves.

To this point, Glesne (2010) writes:

> Generally speaking, however, if researchers are making most of the research decisions regarding with whom they talk, what they observe, and how and for whom they analyze and write up the data, they are in a position of power relative to the research participants. One of the ways in which researchers address the power imbalance is through various modes of reciprocity. (p. 148)

Several scholars who performed research among indigenous groups have mentioned the importance of reciprocity, reflexivity, and sensitivity to the power dynamics (Chilisa, 2012; Miller, 2010; Ratliffe, 2013; Swanson, 2009; Vaioleti, 2006). "The effect of reciprocity is such that when people give *koloa* (in this case, time and knowledge) they will expect it to be respected and honoured, and to be used well" (Vaioleti, 2006, p. 26). In this study, participants shared their knowledge and stories with me. In return, I give the findings of this study, which I hope will make a positive impact on the academic achievement of Marshallese students. In addition, I hope the findings of this study will offer a validation that Marshallese ways of teaching and learning can be useful in mixed-ethnicity classrooms, as well as within homogenous Marshallese schools.

Founding Principal of the STAR Navajo School Mark Sorenson encouraged non-Native educators to engage in indigenous education as allies and partners in transforming the school environments for all children. "Most public and private school teachers, including those who teach Native students, are non-Indian… Our world is in too precarious a condition to wait until this situation changes before starting the process of indigenizing education. It must begin now," (as quoted by Four Arrows, 2013, p. 75-76). The same is true for Micronesian children in Hawaiʻi where only two or three public school teachers come from Micronesian backgrounds. A focus group of Micronesian parents in Hawai'i expressed the importance of teachers showing value and respect for their culture (Kalaʻi, Nimmer, Noh, et al., 2015). Sorenson highlighted the importance of working with the non-Indigenous teachers at the table, and the responsibility each bears for acting with urgency, "You are embarking upon a great and important adventure, and if you do not do it, no one else will" (as quoted by Four Arrows, 2013, p. 63).

As mentioned in Chapter 1, there is a dearth of Marshallese indigenous education researchers, and the needs facing Marshallese students are urgent. There are likely many reasons for the limited number of Marshallese educational researchers, but my assumption is that some primary contributing factors include:

1. Marshallese who study education are so desperately needed in the under-resourced schools that few place their efforts in research rather than practice.

2. Marshallese who are interested in research are often drawn or pushed toward environmental sciences, because of the pressing needs and relatively robust resources and infrastructure available to support this work.
3. While Action Research is relatively common in U.S. schools, where teachers are simultaneously working and studying for a graduate degree, the lack of graduate education programs in the Marshall Islands makes this much more difficult and rare.

In response to a similar reality for Native American students, Sorenson urged educators of indigenous children to “understand and accept that you teach in a school that is a product of colonialism, realizing that what and how you teach is essentially a political position no matter what” (as quoted by Four Arrows, 2013, p. 76). Essentially, anyone involved in indigenous education is engaged in a political act, so they should take the responsibility to reflect on that reality, and to respond to it. This applies to me as well as a researcher. I am not fully American, but I’m definitely not Marshallese. When I am there, I feel American. When I am here, I feel Marshallese on the inside. It is impossible to remove either influence from my identity. The values overlap. The identity overlaps. This research topic intersects with my life because my career has placed me in the midst of Marshallese education for the last 15 years. I like and enjoy teaching Marshallese students and deeply respect Marshallese values and skills. I want this research to let the sun break through the clouds so educators can meet Marshallese students in an instructional setting that allows them to shine.

In his summary of appropriate approaches for non-Indigenous educators, Sorenson asserts that “European-American teachers should admit their mistakes publicly” (as quoted in Four Arrows, 2013, p. 77). This allows teachers to challenge the dominant narrative that says all

White actors are right and all Native actors are inferior. I agree with this and offer a couple brief accounts of some of my least proud moments as an educator in the Marshall Islands.

One incident during my first year as a teacher still makes me blush, when I think about the way I misinterpreted a student's silence and then reacted in an aggressive, angry way. During a 12th grade English class, I asked the class a question. No one answered, so I called on a student who had not participated during class that day. I repeated the question in several different ways to help make sure my meaning was clear. She looked down at her desk in silence. Now I know I should have interpreted this as her demonstrating respect by not wanting to look me in the eye and staying silent when she did not know the answer. In my limited cultural understanding and predominately Western perspective at the time, though, it seemed like she was ignoring me, which I interpreted as a sign of disrespect. After several minutes of what I thought was the "silent treatment," I bellowed, "Would you just answer the fucking question?!" While I thought the room had been silent up until that point, the new wave of absolute silence stopped me in my tracks. One of her classmates timidly offered that the students did not know how to answer. At the time I felt shame for the way I reacted; today I feel shame for my arrogance in thinking I actually knew how to teach in this environment.

Seven years later, I had internalized this and other lessons, and had a much better sense of how to approach teaching in the Marshall Islands. I was teaching 8th grade physical science as a part of my role as the high school principal in an urban private school, and was using an approach that included frequent observations and experiments. Majuro Cooperative School, though, was deeply committed to a literacy-based instructional model in all content areas. In particular, the school's philosophy required content area teachers to use U.S.-sourced science and social studies textbooks as a means of instructing students to learn academic English literacy skills. Under pressure to conform to this strategy, and lacking the experience of how to effectively integrate the two approaches, I turned my back on what I knew was right for the students. After my Fall performance evaluation suggested I needed to focus on this literacy-based approach, I flipped my lessons from using the textbooks about 15 percent of the time, to using them 85 percent of the time. I knew the students were bored and I knew they were merely memorizing information from the textbook to regurgitate on the tests. I did not know how to advocate for their scientific learning within the context of a literacy-focused pedagogy. As the high school principal, I did not do the same for the classes at the high school level; instead I maintained a more authentic, place-based learning model. In anecdotal conversations with my former students, those who were in the 8th grade physical science class remember very little about the subject, whereas several of the high school students have since engaged in grassroots activism related to climate change, air and water pollution, and other issues of sustainability. I learned through these experiences to shift the focus from content knowledge to the lived experiences of Marshallese learners.

In addition to this work in the Marshall Islands, I have consulted for 17 Hawaiian-focused charter schools, all of which use culture-based education pedagogies. Some of these schools are based on the Kumu Honua Mauli Ola philosophy, which is the foundation for the *Nā Honua Mauli Ola* guidelines for creating “culturally healthy and responsive learning environments” (Kawaiʻaeʻa, 2002). My work with these schools has led them to seek and receive first-time accreditation through the Western Association of Schools and Colleges (WASC). The primary goal of accreditation is to conduct a school-based needs assessment, which results in a strategic plan for school improvement. A secondary goal of accreditation in this context is to validate an innovative, indigenous cultural-based educational program. During these experiences with indigenous educators who were in the role of learners, I urged them to tell their story through the accreditation process. By focusing on their lived experiences, the process of accreditation seemed less Western and more relevant to their indigenous education context. The resulting strategic plans for school improvement honored their Hawaiian values and education models, and led to measurable improvements for their students.

Indigenous Research Methodology

Chilisa (2012) suggests "the researched communities' language, cultural artifacts, legends, stories, songs, rituals, poems, and dances, are important sources of literature that should inform problem identification and formulation, research theoretical frameworks, and meaning making, as well as legitimizing research findings" (p. 70). Indigenous methods also call for the researcher to reflect on where knowledge and information about a community are centered, what are the sources and reliability of knowledge, and how a community can know if something is true. The primary goal is for indigenous research to benefit the host community (Chilisa, 2012; Dunbar, 2008; Nabobo-Baba, 2006; Smith, 2012).

Transformative Paradigm

Since reciprocity of benefits is so important in Marshallese culture (and to my own values), I chose to use the Transformative Paradigm for this study. Within the Transformative Paradigm, researchers argue that:

> Knowledge is true if it can be turned into practice that empowers and transforms the lives of the people… The relationship between the researcher and the researched … involves a transformation and emancipation of both the participant and the researcher (Chilisa, 2012, p. 36)

In addition, researchers who use the Transformative Paradigm “view research as a moral and political activity that requires them to choose and commit themselves to the values of social justice, furthering human rights and respect of cultural norms” (Chilisa, 2012, p. 36). In this study, I am challenging the colonially-rooted practice of teachers and seeking to connect this practice to the purpose of education. The purpose, as defined by the Marshall Islands Board of the Public School System and national President Hilda Heine, is to prepare students for higher education or a career, and to equip young people to contribute to their community. This study can be used to transform educational practices, for the purpose of improving educational experiences and outcomes of Marshallese students, at home and in the diaspora.

Indigenous Research Paradigm

While seeking benefits for the Marshallese community is the primary intention of this study, the other purpose is to focus on a positive, validating narrative about education and research in the Marshall Islands. Chilisa (2012) also presented an Indigenous Research Paradigm, with the purpose of “challeng[ing] deficit thinking and pathological descriptions of the formerly colonized” (p. 40). The goal is to “reconstruct a body of knowledge that carries hope and promotes transformation and social change” (p. 40). This Indigenous Research Paradigm focuses on the connections and relationships between people, the environment, ancestors, and the cosmos, including that knowledge itself is relational. Further, the relationship between the researcher and the participants demands “respectful representation, reciprocity, and the rights of the researched” (p. 40). This paradigm also calls for the researcher to gather data in a way that honors indigenous practices, such as talk stories and talk circles (Chilisa, 2012). This data gathering focus on talk stories is what informed my decision to adopt the *bwebwenato* methodology.

Participant Population

Like teaching, choosing well respected knowledge holders can be controversial, especially within this context of wanting to represent the diverse voices of the Marshall Islands, rather than only those who are considered experts through a Western lens. Documenting the learning and teaching experiences of Marshallese knowledge holders, identifying the key instructional strategies, and documenting them into an indigenous learning framework are ways to provide a tangible resource for those who have shared knowledge so freely with me, both as participants in this study and educators of Marshallese students. I hope my selection of knowledge holders will be met with approval, rather than controversy.

The criteria for selecting participants were quite simple: they must be recognized Marshallese knowledge holders who have passed it on to others. In this context, a Marshallese person is defined as someone who self-identifies as ethnically Marshallese. In order to be considered respected knowledge holders who have also passed down their knowledge or skills, the participants are adults, most over the age of 50. There are no criteria for the type of knowledge or skills they possess, so some carry traditional knowledge while others are experts in contemporary skills. "The participants involved will be the most suitable and knowledgeable for that particular time. If they are not, it is likely that they will direct the researchers to the most appropriate people, as dictated by Pacific natural and cultural order of things" (Vaioleti, 2006, p. 32). In several instances, the person I invited recommended a more suitable participant. In fact, of the ten participants, half of them were referred to me by others. I had an existing relationship with nine of the ten participants before commencing this study.

For the participants, I hope being a part of this study offers a type of honor of their practices, knowledge, and skills. In addition, these community leaders will benefit by contributing to a framework that can improve the experiences of their children, grandchildren and other community members. Producing something valuable for the community and participants is a key tenet of indigenous research methodology (Chilisa, 2012; Dunbar, 2008; LaFranc, Nichols & Kirkhart, 2012).

Consent

I abided by the University of Hawaiʻi Institutional Research Board policies regarding informed consent for participants. As a part of this, I explained consent and asked for permission to record prior to turning on the voice recorder. Then, rather than have the participants sign the consent form before knowing the content of the interview, I allowed them to make the decision about whether to allow me to use their knowledge after our conversation had concluded. This decision aligned with the importance of "ensuring that the writing and publishing do not embarrass" the participants (Vaioleti, 2006, p. 31). We again discussed consent and they were invited to sign the form. Some participants asked at that time to retract portions of our discussion or to redact names of people they had mentioned in their interview. Participants were also able to choose whether to participate as an anonymous source or whether to claim their identity by having their name appear in the study. This process was an important step of using indigenous research methodology: "they can also define their own rules on what can be known and what can be spoken, written about, how, when and where" (Chilisa, 2012, p. 15). All ten participants consented to having their names appear in this study. They are:

- Kenson Alik, Director of the Marshallese Liver Health Project
- Wilbert Alik, Coordinator of the Marshallese Studies Department, College of the Marshall Islands, with responsibility for teaching Marshallese grammar, ontology, and technology, such as the Marshallese spellchecker and keyboard

- Miram DeBrum, clothing designer, seamstress
- Terry Hazzard, MEd, President of the Board, Marshallese Public School System
- Gloria Heine, Administrative Officer, RMI Consulate, Honolulu
- Kiolina Joel, cook, Majuro Cooperative School
- Alson Kelen, Executive Director of Waan Aelõñ in Majel, a traditional canoe program, with skills in canoe building and navigation
- Ramona “Mona” Levy-Strauss, CEO, Momotaro Corporation
- Jitiam Silk, handicraft maker
- Veronica “Nica” Wase, musician and songwriter

Of the 10 participants, five of them are experts in traditional skills and five of them are experts in modern skills. The traditional skills are language, song writing, handicrafts, canoe building and navigation (apprentice), and cooking. The modern skills and knowledge include travel documents and consular operations, sewing, schooling, business, and Western understanding of liver health.

Bwebwenato

In order to create a research setting that felt authentic and honored Marshallese ways of communicating, I chose to engage in informal conversations with participants. The Marshallese concept of *bwebwenato,* or talking story, is analogous to the Tongan *talanoa,* which “is a derivative of oral traditions” (Vaioleti, 2006, p. 23). According to the former director of the Pacific Islanders Student Center, *bwebwenato* is a methodology used by Marshallese students at the University of Hawaiʻi-Hilo, for research sponsored through the Marshall Islands Club (V. Raatior, personal communication, January 21, 2017.).

“Talanoa is at the heart of the transmission and construction of knowledge in Pacific societies, especially the passing on of instructions, narrating, and the telling of stories” (Vaioleti, 2012). Essentially when Marshallese *jijet iomwin mā,* or sit under the breadfruit tree, they are participating in the common indigenous practice of storytelling and sharing information and knowledge through an oral tradition. "Talanoa removes the distance between researcher and participant, and provides research participants with a human face they can relate to" (Vaioleti, 2006, p. 25). I used this methodology of *bwebwenato* to transform the style of the in-depth interviews. Most questions were framed in a way to allow the participant to answer through telling a story (Dunbar, 2008; LaFranc, Nichols, & Kirkhart, 2012), which is like a "*grand tour*… a request for the respondent to verbally take the interviewer through a place, a time period, a sequence of events or activities, or some group of people or objects" (Glesne, 2011, p. 108. Emphasis in original.). All but two of the *bwebwenato* sessions occurred in the home or workplace of the participant, which was an effort to create a comfortable environment (Vaioleti, 2006).

Using a *bwebwenato* methodology is a culturally-appropriate way for the participants to share their knowledge (Dunbar, 2008; K. Ratliffe, personal communication. January 29, 2016). Also, it allows their voices to be central to the study (Dunbar, 2008). Like Miller (2010), I approached this as a topic "to be explored rather than a premise to be proven… any conclusions I reach must be based on personal interaction with Marshallese people themselves." As in Clarke's (1999) study to determine an effective learning environment and curriculum for Marshallese students in Maui, I strove to "listen to the voices of the Marshallese."

Building "a relationship of trust, through conversation rather than quizzing for information" is a worthwhile use of time (LaFranc, Nichols, & Kirkhart, 2012) and is the basis of *bwebwenato.* This building of trust is most effectively done through face-to-face contact (LaFranc, Nichols, & Kirkhart, 2012; Vaioleti, 2006), so all of the *bwebwenato* sessions were done in person in Guam, the Marshall Islands, and Hawaiʻi, between May and September, 2016. Each session lasted from 45 minutes to an hour and a half, depending on the depth of the discussion, which was driven by the participants themselves.

The length of *bwebwenato* session correlated with the personal relationship I shared with the participant. I have known some of them for 15 years, as close friends who have welcomed me into their families. I taught the children of other participants. In a few cases, we know each other through professional connections. Only one participant was a stranger to me prior to this research. We began getting to know each other through Facebook and email communication and met face-to-face for the actual *bwebwenato*. Since this time, we have kept in touch by email and Facebook and have strengthened our relationship.

Bwebwenato Language

Eight of the 10 *bwebwenato* sessions were conducted primarily in English, with only a few words of Marshallese language used. My basic Marshallese skills were sufficient to translate these words. One of the sessions was conducted about half in English and half in Marshallese. Again, in this case I provided the translation when necessary to convey accurate information. In one *bwebwenato* session, ironically in a workplace where English is the language of operations, the participant preferred to use Marshallese language. In this case, Kakki Lakjohn served as the interpreter. I understood the general ideas, but Kakki translated the conversation into English so it would be absolutely clear. Kakki is the niece of the participant and my adoptive sister, so she had a strong relationship with both the participant and researcher.

In one case, a participant explained he first was exposed to his skill through *inoñ*, the traditional practice of a young child using his elder relative’s arm as a pillow while laying down and listening to stories. In this case, the Marshallese phrase conveys the concept much more authentically than the English translation because of the cultural significance of this action. In these cases, I included both the Marshallese and the English in this study, because readers who speak Marshallese will understand this deeper meaning. Non-Marshallese speakers can get a sense of the idea by the translation, but they will not understand the full meaning.

Bwebwenato Guide

While I used these questions as a guide for the *bwebwenato* sessions, the conversations progressed organically:

1. What's your first memory of [the skill]?
2. What made you want to learn?
3. Who taught you this knowledge? When did this take place?
4. Will you please share some stories about how they taught you?
5. Were there times when you were confused in this process? How did they make sure you learned the information when it was hard to learn?
6. When was it clear to you or others that you were ready to share and teach?
7. Whom have you shared your knowledge with?
8. How did you determine whom to share with?
9. Can you share some stories about how you have taught these people?
10. How do you ensure they actually learn what you are teaching?
11. Is there anything else I should know about how you learned or how you have taught?

Coding and Data Analysis

I typed transcripts of each *bwebwenato* session as I had time during the months I met with participants. I used an open coding approach to analyze the qualitative data from these sessions (Saldana, 2009). This is the method used by University of Hawaiʻi scholar on Marshallese education Kathy Ratliffe (2010):

> I read each transcript several times, coding the content using an initial framework… Then through opening coding, I identified new themes that defined, elaborated, or explained… and that brought out new and related cultural issues… I initially identified general themes of x, x, x, and x… As the analysis progressed, I used axial coding to modify categories according to new or different patterns of responses and themes… This analysis was to identify relationships between identified themes and through these patterns, to be able to describe participants' cultural perspectives. (p. 8)

At the completion of the period of *bwebwenato* sessions, I analyzed the transcripts with a set of codes to highlight the modes, strategies and traits of learning and teaching. I began with eight themes that grew to 23 as I color-coded relevant excerpts in the transcripts. Then, I grouped excerpts from each of the participants by code, so I could see which themes were predominant across participants. After doing this, I combined some of the codes and eliminated those that were only mentioned by one or two participants. Then, I combined all quotations for each code together to analyze the commonalities between the various participants. I examined the transcripts holistically, and sought data patterns that might help to document the construct of a Marshallese indigenous learning framework, such as patterns of how people interact with specialists, respecting knowledge, trusting teachers, and the like. I checked for themes by gender, by traditional verses contemporary knowledge, and by those who were based in the Marshall Islands versus those who live and work in Hawaiʻi.

In the end, I settled on and analyzed 11 themes: introduction at a young age, scaffolding, motivation for education—benefit to family and community, relationship between student and teacher, demonstration and observation, learning through relevant practices, constructive correction, Marshallese language issues, extending networks, visual aids, and asking for help.

Credibility Threats

The greatest credibility threat to this study is my identity as a non-indigenous researcher and my resulting biases. While I have a deep connection to Marshallese education and culture, my lived experiences as an American of Greek and Lebanese ancestry influence my interpretations of the stories shared by the research participants. The other threat is the use of English throughout this study. I describe Marshallese concepts using English terms, which certainly has diluted or fogged the precise meanings.

Strategies for Dealing with Credibility Threats

Allowing participants to be named in the study, rather than to remain anonymous, will be the key in building credibility for the learning framework. Their credibility as knowledge holders will contribute to mitigating my role as a non-Marshallese researcher.

I have basic proficiency in Marshallese language, which made it possible for the conversations to switch to Marshallese language when the participant struggled with explaining a concept in English. In one interview, the participant was not comfortable speaking in English, so a close mutual bilingual Marshallese relative served as an interpreter. Many participants used hand gestures to augment their verbal descriptions and even modeled the instruction they provided to their own students. I recorded these in field notes, sometimes during the interview, and other times immediately after.

Summary

My experiences as an educator in the Marshall Islands, and my deep desire to contribute to the improvement of educational experiences and outcomes for Marshallese students, have driven this research, including the decision to use an indigenous research methodology, *bwebwenato* (talk story). By using *bwebwenato,* a common Marshallese practice, I honor the participants and their communication styles, while also demonstrating my belief that Marshallese methods are valid in academia. This indigenous method allowed me to be intentional during the research process that I was the learner and the participants were the teachers. This positioning enabled the research participants to actually use their instructional methods with me during the *bwebwenato* sessions, many times physically demonstrating their skill throughout the course of our conversation. This non-verbal demonstration of their instructional methods validated their verbal descriptions of how they taught.

CHAPTER 4: DATA ANALYSIS

In order to give privilege to the voices of the Marshallese participants, the data is presented in their own words with full quotations. In line with the communication style of *bwebwenato*, participants often shared a story to illustrate a point. Those vignettes are included here to provide context for their experiences. Since most interviews were conducted in English, which might have impacted the full meaning of the stories shared, I refrained from paraphrasing their words, which might further degrade the meaning of their statements.

Introduction at a Young Age

All of the traditional skills experts told stories of first learning about their skills or knowledge as young children, between the ages of four and nine, as did three experts of modern knowledge or skills. All of these participants first encountered the skill or knowledge while interacting with a parent, grandparent, aunt, or uncle.

> Alson: "The first time I heard about navigation was on Bikini because people in the northern part of the Marshall Islands are known for navigation. My father used to, in the evening, because we didn't have any TV or anything like that, we'd be laying down on the living room floor. Sometimes, I would use his arm as my pillow. He said, close your eyes. That's the way the Marshallese do it. They call it *inoñ* or *bwebwenato*. So, I closed my eyes and he told me a story about the legendary navigators who crossed the oceans and about their experiences when they crossed the ocean from Bikini to Rongelap … and that's how I learned about it and heard about it. I lived on Bikini when I was 7 years old. I was between 7 and 10. That's a perfect age to have a first taste of navigation."

> Miram: “When I grew up, when I was a small girl, I didn’t want to go play out with my friends who were the same age as me who were playing ball and all kinds of games. I was just interested in looking at my auntie doing the sewing… Every time my auntie sewed, I would just go and lay down and watch her sew until she finished.”
>
> Nica: “When I was like 4-5 years old, they taught me how to play ukulele.”

In addition, many of these chose to pass on their knowledge to young children, Kiolina: “[My daughter] is 7 years old, but I taught her when she was 6.”

Scaffolding

One instructional technique, mentioned by all ten participants, was incrementally mastering small pieces and then building upon this basic knowledge until they learned more and more complex skills or knowledge. In the Niihauan Hawaiian context, this is called tena, and in Western education it is referred to as scaffolding. This was mentioned both in the context of their own learning, and also in how they have taught others.

Some participants shared about learning knowledge incrementally, such as knowledge about the human body, consular affairs, or navigation. In all of these cases, participants described a skill they already knew and how their teacher added to it.

> Kenson: “[In the beginning, I learned the] parts of the human body, organs in the human body. That’s basically about it when I first heard about that. It was not really a lot of information or knowledge beyond that. That’s how I got to understand and learn a little bit about it and learn a little bit more.”

> Gloria: "They needed somebody to answer the phone, who was Marshallese. They said, 'Okay, you can just answer the phone, as long as they understand'—the Marshallese who calls the office. So I started as a receptionist. I have worked all this time. Learned during this time working with Consulate."

> Alson: "Of course, when we go out sailing and learn, he says, 'Your job is to man the rudder and make sure we have rice every day'. That was the first step. They give you all the dirty jobs. That's the only way you would have to prove yourself that you are really into it. It's a process."

Other participants shared about learning skills, such as cooking and sewing, incrementally. Sometimes the participants built upon the skill on their own; other participants described instances when their teacher guided them to the next level of complexity.

> Kiolina: "The first thing I learned to cook was *mā kwanjin* (roasted breadfruit). First, we made fire. I already knew how to make a fire. It is really easy! Then, I just threw the breadfruit in the fire."

> Miram: "One day I decided, okay, I'm going to make a panty for her, my younger sister. So I made a panty out of just—you know before we used to have a bag of rice—the bag were like fabric, so that's what I used for the panty. So I got the elastic. And I made that panty and I put it on and it fit her. So I said, okay, now I can make a dress. So I made a dress. She had it. It fits her. She was 2 years old or 3 years old. One day, I said, maybe I can do one for me. So I made one for myself. I was maybe 13 years old."

Some participants recounted the teaching process they used to pass on their skills to others and how they used an incremental process.

> Mona described how she taught the handicraft makers in her business: “When they came, they already had skills, but maybe only one style. So we just spiced things up. We helped them to be more creative. They already know, but we give them more ideas. Once you tell them, and show them different ideas, they come up with all kinds of different ideas. They are better than me. I’m just there to supervise them.”

> Wilbert: “I don’t dump it on them, I just explain the phrase. I come back the next day to explain more.”

Motivation for education: benefitting family and community

Nine of the ten participants explained their impetus to learn, by sharing how their expertise could benefit their family or community. Some contributed financially, others improved the health or wellness of their community. Some discussed how they were inspired to teach because they wanted to help their own young students. With young learners, the motivation was to help older family members.

Those who were motivated by helping their students included both economic and emotional concerns.

> Jitiam, who taught handicrafts to a dozen young women, described how she chose her students and the economic benefits they received: “Those who are not working: I really interested in helping them. Sometimes they come and ask me for a little sugar or other things. I feel happy to teach them. Now only a few times they come

> because they are selling handicrafts and going to the market. Now they can take care of their families."

> Alson, who teaches canoe-related skills to at-risk youth, explained that his motivation was partially about his own interest, but also a responsibility he feels for supporting his young students: "I want to be a role model. I see that the Marshallese kids really do need role models. It's not just from my own interest, but also the interest of young people... [I want to] give something for the kids to be happy and learn and to be really interested in it. The kids come into the program kind of sad; they have no interest in themselves. There's no confidence. By learning all of these things, they will gain confidence, and self esteem, and cultural pride."

Others were motivated to learn the skill because of their ability to contribute directly to their immediate family.

> Kiolina: "I wanted to learn because cooking was good for me. When I got older, I cooked for my family and my husband and my children… I wanted to know how to cook because I could get a job cooking, too."

> Mona, who excels at business and has taught the craft to her employees, continues to teach out of duty to her family: "I went back [to manage my family's store] five years ago because they needed me because the store went down. It's been five years now and the reason I went back there is because the store owed a lot of money to a lot of companies. So I went to help them to clear it. We are okay now. So maybe one more year and I'm retired. Because I didn't want to go back to business, but

> they really needed my help. I just thought, 'I just have to do it'. I wanted to clear my mom and dad's name."
>
> Nica: "Next month we are going to have a family gathering for one of the babies—Monique's Rainbow's birthday—we are going to have some singing and dancing and trying to bring back yesterday. We have been practicing some of mom's old songs… The objective was to get everybody on board and trying to teach the little ones so that music doesn't die out."

Others were motivated to learn and teach because of the benefit to the broader community, culture, and environment.

> Wilbert, who teaches Marshallese language and culture to college students, stated: "When I started to do it, I was overwhelmed by the huge responsibility. I'm comfortable with it because it is my language and culture. Why do I have to go teach an English class or a philosophy class or some other Gen Ed class or whatever? I could just jump in right here… Janet came to me and said 'we need future investment on these outgoing and emeritus professors. They cannot just go away with the knowledge with them.' In class, I still have recordings of audio tapes from those times when I was in class with them. From genealogy to other things."
>
> Alson: "Without the trees, the management on the land, the management of the people, the coordination and the respect of the land and Mother Nature, respect to the Chief, and the family, nothing will go right. They all have to work together in one circle and move forward. Navigation you learn that the seeds grow, that will give you canoe. When the canoe is done, when you cut down the tree, you replace

> it with another one. When the tree is down and it is on the beach, you have to give Mother Native a thank you with a ceremony. You say thank you and you put the canoe in the water. You make sure when you put the canoe in the water that you don't hit the reef. The reef that will continue in this process and will give you fish. And the canoe will help you bring the richness of the island and the water to your family."

Relationship between student and teacher

The relationship between students and teachers is critical in Marshallese learning. A majority of participants first learned their skill from an elder relative. By its nature, this relationship existed before the lessons began. Participants who acquired the knowledge or skill in their teenage years or adulthood tended to learn from an expert outside of their family. In both cases, the participants emphasized the importance of harmony, kindness, and helpfulness in the relationship between the teacher and student.

The participants who learned from family members tended to learn from a relative of the same gender. Clans in the Marshall Islands are tied to specific land parcels, and these locations are considered a part of the family unit. In Marshallese language, *bwij* (lineage), *bwidej* (land, earth, soil), and *bwijen* (navel) come from the same root word, which illustrates the sacred connection between land and the people who steward the land.

> Kiolina: "My mama taught me to cook. Now my daughter knows how to cook."

> Jitiam: "I learned from my mom and my grandmother… I taught 12 students, all ladies. They came to my house. Most of them were my relatives."

Nica: “My mom taught me. She is always there for anything, any new creations. She would like us to be a part of her music. Music rocks her world. All my siblings were involved. I was the eldest [girl] in the family, so I had to be around and help her take care of the kids. When the sun goes down, we sit down, and strumming out, humming… I had other teachers, but the best teacher was my mom because she kept me going and all of us.”

Miram: “My auntie—older than my dad—she was the best seamstress on island. I said, ‘Auntie I want to learn how to sew.’ She said, ‘Okay, come.’”

Alson: “Anybody can build the canoe if they really want it. But it’s the process; the whole process that comes with it is more important. It’s the process where you get to respect the islands, the very limited land on the island you live on. You get to respect certain sites on the islands. Reserve them for this long, long process. So our great-grandparents planted trees according to the actual process you live in, whether it’s canoe building, house building, or even navigation. They all are part of this process that continues from one generation to the other to the other. You are there to teach through your voice, but also by the practice of living. The tree you are planting today will be the tree your grandson will be using. And the tree you are using today, was a tree your great, great grandfather planted for you. It’s a process. It’s not just the words you say, but also the product that will go with the work. The tools, the trees, and everything that will go along with the work. So you talk, but you also plant the seeds. And then you make sure you plant it in the right place. I use two words: *kōtkan* and *jedkā*. *Kōtkan* is planted. *Jedkā* is choose and cut it.”

One participant mentioned that his area of expertise was traditionally only passed through family relationships, but he wanted to expand the learning outside of the family. He described the challenges associated with this, as well as the process he used to expand the type of relationship that had historically been used to teach about navigation.

> Alson: “If it is from father to son and father to nephew, we didn’t have to ask the chief permission to teach navigation or canoe-building. When I came into the picture, it had to be more serious and we had to go to the chief. It was Mike Kabua. There’s a process, but because I live in his house, we just had coffee one morning. I said, ‘Hey you know what, we are playing around with this idea of learning to navigate.’ Actually it wasn’t playing around, we had already started the process, but it’s not appropriate to tell him that. I said, ‘We were playing around with it. How would you feel if we do it alongside the canoe program?’ He said, ‘Well, it’s our people.’ I said, ‘We would consider it as a Kabua program.’ He says, ‘Well, now that you put it that way, yeah, talk to the old people. I’m supporting it.’ So, I went and just tell everyone I know that knows how to do navigation that they have been appointed. There’s some people that still had some friction. They didn’t really want to open it up. Because you know that navigation is one of the very sacred knowledge skills that only stick within the family… Even in the family, they only select one person. The whole family has to consult to see who would be the right person to select as the navigator, who to select as the medicine person, and everything else. So, you know, with the permission of the *Irooj*, the navigators were willing to share because they said they are dying and their knowledge would be

> gone and would go with them to the grave. Some said it's a tradition and if it had to go to the grave then it should. They are really serious. I had to convince them."

Even those who learned from and taught people outside of their family unit tended to do so within a familial or nurturing context. There was genuine care between teachers and students.

> Kenson, who had led the College of the Marshall Islands' Student Services office, used general interactions with students as an opportunity to mentor them about sexual health issues: "When the boys and girls come in, I say, you signed up? You are here for grades or counseling or something? Well don't forget to pick up your condom. They say, 'Oh thank you, we'll pick it up.'"

> Gloria: "I think they just look at me and think, 'Oh, that's a nice person. We can ask her to help us.' … You have to be really nice to all these people coming in. You know, they are here for your help. They are here to get help from this office. We are friendly."

> Wilbert: "I give [information and assignments] as handouts and send also via email. Some students say they haven't seen their email. So I tell them to check their Facebook. I go far and above to try to contact them."

Demonstration and observation

A majority of participants described how demonstration was a primary and effective teaching strategy. They emphasized the importance of close observation as a first step in learning new skills and knowledge. Several of the participants actively demonstrated the process to me as they spoke, indicating this is a natural way to communicate new information to someone who is unfamiliar with a concept. For example, Jitiam pulled out a partially-completed handicraft and demonstrated to me how she would teach, by actually teaching me through the same method. She exaggerated her hand motions so I could see the sequence of movements that created the woven pattern. Likewise, Mona used a nearby calculator to show me how she taught her staff to perform simple math tasks in the business. During our *bwebwenato,* Gloria went to another room several times to retrieve paperwork that would allow her to demonstrate her teaching techniques with Marshallese citizens, who come to the Consulate office for help in completing their passport applications and other documents. She showed me how she completes sections of the documents, and then encourages the passport applicants to copy her work for subsequent applications for their family members.

> Jitiam: "The kids, the girls, are learning how to make the *marmar* (necklace). My small granddaughter knows how to make them because I showed her and I taught her. I bring the materials and tell her how to hold this and she follows me. [Demonstrating:] You do this, then do this, and do this, this. She is holding one and I hold one and she follows me. Sometimes they were doing their own, but they have to follow me. If they don't follow me, I get mad. I say 'don't do that. You really need to watch.'"
>
> Mona: "Some of them, they didn't even go to school. So for example, Jobi, my handicraft lady, I taught her how to do business, like make change, with the calculator. I showed her how to [demonstrating:] add, add, add, then press it, then if there's change [pointed at screen of calculator]."
>
> Miram described learning how to create sewing patterns and how she echoes her auntie's teaching style with her own students: "[My auntie] said, 'Come and watch

me doing the pattern.' If she ask me to go and watch, I have to really watch. Then if I say, 'Is this how?' she would say, 'Didn't you hear? I told you to watch. Don't ask. Just do it. And I'll come and check.' So that's how I learned. When my auntie showed me how to do this and do lesson, I really go and just look. The first time she told me, she said, 'If you keep asking you are never going to learn.' [When I'm teaching] I say, "Next time you watch me, make sure you follow what I teach you.' Because my auntie was right, if you keep asking, you will never learn. You will never get it in your mind."

Kiolina described how she learned how to roast breadfruit: "[I wasn't confused] because I watched Mama and other people doing it before. I followed them and Mama taught me. She told me and showed me at the same time. 'Then, you roll it over.' My mom told me to do that. She showed me and made me do it."

Gloria: "If it is a large family or a group of more than three, they would come in here and we sit down. Well, I can help one of them first, to fill out the application. After I go over it, and say, 'This is how you do it.' Then I give them the application for the other one, so the other one can just do it. They look at the one I filled out. Like I gave them a sample and they can copy the sample."

Wilbert: "When I first taught them, it was a bell curve. Mostly in the Cs. So I thought something is wrong with the way I teach the classes. So when we started to build these materials, provided students most especially sample papers, their grades started to raise up. Before most were a C and many students failed. Now, we always provide a sample because it guides them. So basically what I tell them is, 'Here's the sample paper that I expect from this kind of work.' After the sample

> papers and assignment sheets, it started to shift towards passing. Now, most are passing with Bs and a few As. That's pretty much the learning for us. I'm not, 'I'm going to dump it on you, do it yourself." I give a sample. It is making a difference in students' grades."

Learning through relevant practices

The three participants who are professional educators in established programs, discussed learning paradigms and strategies in more direct terms. In all cases, they focused on the importance of learning by doing.

Wilbert, at the College of the Marshall Islands, spoke about the importance of conceptualizing learning through Marshallese thought processes or research methods, both of which require the students to engage in active practice:

> "The course we are piloting is Marshallese Composition. That's where we'd like to teach the traditional Marshallese rhetoric, which will lead us to the composition of Marshallese thought processes."

> "And then we tell them when they go out and *jitdam;* it is pretty much research. Not in a formal sense, but they didn't know anything about whatever they were assigned. Let's say for example, the social titles. They didn't know anything about them and they just found out about them by *jitdamming* with whoever, a grandparent, a friend, or someone who understands them. That's how we have integrated those kinds of materials with teaching and ways of learning."

One way to focus on Marshallese ways of teaching and learning is by using Marshallese language and cultural practices when available and appropriate, rather than relying on other cultures or languages. In this example, Wilbert refers to a teacher who said "Studying writing" using the Marshallese words for "studying", but not for "writing."

> Wilbert explained: "The burden is on you, the speaker. If you care about your students, you have to do your job. You can't say, '*Katak in* writing'. *Katak in* writing??? That's basically translanguaging in class."

> Terry discussed the graduation ceremony at the College of the Marshall Islands: "At CMI, they have brought in a Fijian dance instructor for the last two years to teach the graduation ceremony performance, rather than rely on local instructors. It felt so foreign and fake. It wasn't real."

Several participants focused on the importance of providing a relevant, place-based curriculum supported by instructional strategies that reflect the nature of the curriculum.

> Terry recounted his own learning experiences as well as on the needs for curricular reform: "There is a missing sense of ownership of the school culture and curriculum…With students, if these things are not relevant to their life, I don't know how they are going to learn… In my own schooling (both Catholic and public schools), I only learned about U.S. government. In 11th grade, I first learned about Marshallese government and it was only a little bit, maybe for one semester. We learned about the capital of New York, but not about our own places. This was not relevant to us."

> Alson relayed his experience of observing classes in a remote village, "When I was in the outer islands, I would tell the teachers in school on Ujae, 'It's so boring and hot in here.' I would ask what they were learning. They would say biology. I would ask, 'What is biology?' They would say it's so good. I would say 'Have the kids go

outside. The kids will learn better. Marshallese like to *do* with their hands. They are good with their eyes and their hands. Let them *do* it.' They went out one day and the teachers said, 'I'm going to do it more often. The kids love it. They come back with their homework, 100%, but when I teach them in class, they fail because they have to memorize.'"

Alson also shared about the age-appropriateness and effectiveness of learning in an academic environment, as well as the importance of a relevant curriculum: "My wife is a teacher. Her name is Bene. She works in the office now. But she used to be a teacher. I used to tell her, 'Don't teach the kindergarten with pencil and paper. Let them learn that in 2nd grade.' She would say 'I'm teaching them how to hold the pen and how to write their name. That's all.' She teaches them outside. They know every single tree on Ejit. The reef, the fish. They are learning more freely and happily and together. That's the same technique. The kindergarten kids were really, really into it… We are failing now because we moved from that type of learning to this academic type of learning. It's totally new to us. We were learning by practicing, by cooking, by fishing, by sailing. It was fun. It makes life sustainable."

Terry also commented on the effectiveness of instruction that allows students to practice the skills as they learn. He referred to two culture-based vocational programs, one that focuses on weaving pandanus mats and the other is the program Alson directs called *Waan Aelōñ in Majel* (WAM) that teaches canoe-making and navigational skills: "No one fails in weaving or WAM because all students *do* the work. Why isn't it the same with academic programs? It's very relevant to them. Sewing and building programs are successful because they all *do* the work…

> Students learn better when they are having fun instead of just doing academic work."

Six participants talked about working alongside their teachers or students as a means of instruction. This took place in both classrooms as well as in authentic environments.

> Terry: "In college I was able to pass English, science, math, reading, and other subjects because we had to demonstrate our skills and knowledge every day. We used the lessons in practice with our teachers."
>
> Alson: "I'm also an apprentice. So the best thing to do is to go out. To do it as we play. So, the more I learn, the more they learn. They will learn with me. When we went to Aur, I took the guys with me. They were part of the voyage. They were my sailors. Whatever happened on that voyage, they will remember."
>
> Wilbert: "One of the learning outcomes is, 'What is acceptable?' We try to be careful with the wording. I ask them, 'What is wrong with this sentence?' and we go through them one by one."
>
> Nica: "The kids were part of it, they would sing along with us. They were the *Kitwon Lometo* (the sound of the lagoon breeze). We started the project from 1992 on. Mottu was 10 years old. The twins were born then. We used to make time for music. From 5:30 to 8:00, that's our timing with the band to make music. Every day… For teaching, if you want to learn music, you have to sing along with me when I play my ukulele or guitar. I want you to play with me by ear."
>
> Kiolina: "She made [food] with me."

> Gloria: “They ask, ‘Will you help me to fill out [the passport application]?’[I tell them,] ‘Of course,’ so we fill it out together.”

Constructive correction

Participants described the importance of providing and receiving clear constructive feedback in a non-threatening way. They focused on practical feedback that would be used to repeat the same task, rather than moving on to the next level of complexity. In addition to improving the skill, this interaction with the teacher can build students’ confidence.

> Kiolina: “Mama watched me do it so I didn’t burn it. If it is burned, then it tastes bad.”

> Alson: “I actually brag about it to their friends, how good they are. I put their faces in the newspaper. We call it *tiemlo*. *Tie* is lips. *Lo* is tongue. If it’s *tiemlo,* it means people are talking about it. It boosts their interest.”

> Mona described receiving corrective feedback from her parents: “If we make a mistake, ‘You aren’t supposed to do that. It’s supposed to be this way.’ [With my staff], I just tell them to do it again because it is not right. If they make something, they have to make it the best they can. I don’t like it like *ebwe* (just enough); all of them know that when they do something, they do it really good or else I’ll tell them to do it again.”

> Wilbert: “I go to the student, and ask for their consent to remove their name and we can project it so we can look at the paper in class. I explain, ‘This is how I’m going to do the grading for the grammar class.’ I tell them I read through the paper to look

> for wrong spellings, disjointed sentences, incomplete sentences. Anything in yellow has to do with spelling. Anything in green has to do with composition, grammar, higher and lower order concerns. They ask why I mark the different things. Along the way, I make marginal comments. I say, ‘For instance, this one particular sentence is way too long [demonstrated on screen]. What you can do is split the sentence right here.”

Six participants related stories about how they were able to turn a mistake into something positive or about how they praise their students even when they have not learned the task with proficiency. They shared about the importance of not shaming students who misunderstand a lesson.

For Kiolina, she learned a use for the food she burned: “When it happened, I threw it to the pigs!” Alson explained his approach to correcting student mistakes, “I don’t tell them that they messed up. I just say, ‘Oh, that’s great. But if it was me, I would do this.’ I explain. I try not to lower their morale.”

Gloria, who earlier mentioned the importance of showing a smiling face to the people she teaches, mentioned, “If it’s not correct, we just start over again. We get an application and fill out the right answer to the questions. Oh, I’ll just say, ‘We have to do this over because this one is not the right answer,’ so we’ll have to go over it and re-do it. In a way that they don’t, you know, I don’t embarrass them.”

In the canoe-building and navigation program, Alson encourages students to push the boundaries of their skills: “One of the things, I say, ‘Go and max out the canoes and see the maximum capacity of when you lift the canoe. Go as fast as you can and see if it falls this way or falls that way.’ And they do it and it actually breaks the canoe. That’s part of the process. If you break it, you fix it. By doing that, they are not afraid, because they say, 'He doesn't mind if we break it because he knows we will fix it.'"

Extending Networks

Nearly all participants sought further education outside of the Marshall Islands. Six participants learned in Hawai‘i, and others furthered their education in Texas, Wisconsin, and Fiji. One participant mentioned learning by exploring new ideas on the Internet. In some cases, this additional education served as a validation of what they already knew; in others it broadened their knowledge base.

For example, Kiolina expanded her knowledge by learning about other types of culinary traditions: "When I was in Hawai‘i, I learned how to cook in Job Corps. *Ri-pālle* (White person, foreigner) food. They taught me to copy recipes in my notebook and follow them." Mona explained how she was able to teach handicraft makers to use ideas from the Internet to innovate their skills, "I go on the internet and get more ideas from there. I tell them new ways. To them, it is always the same thing, same thing. So that was another thing to teach them so they can be more creative."

Learning from teachers outside of the Marshall Islands validated that some participants already had advanced levels of expertise, learned at home. In addition, this experience allowed them to teach their skills to Americans.

> Miram: "I learned simple things there, but not the way I learned from my auntie. I learned basics. Even the school I went to in Dallas, Texas, many times the teacher asked me to help the other students because I already knew what I was doing. You learned from the simple one and it was boring to me because I already knew those.

> Like taking measurement, how to draw a pattern. I think everything, like making patterns and taking measurements, I learned from my auntie. But, like color combinations, I learned in school in Dallas and in Fiji."
>
> Alson: "We actually worked with Ben Finney from University of Hawai'i because some navigators… wanted to know *how*. If we talk about one swell, they know about that one swell. They want to know the scientific part of it... So, for instance, we would go out and put the buoy in the water and spend a couple of days and collect the data from the buoy. We would say, 'Okay, this swell doesn't come all the time. It's coming from Australia.' They would say, 'Yeah right!' Ben and Joe [Gentz]. Then they look at the buoy. The buoy doesn't give them the full detail, but then they go and search and they said, 'Actually there were some swells coming in kind of heavy from Australia.'… Joe was doing his thesis—he did his masters and even his Ph.D. on this topic."

Visual Aids

Participants who taught students with whom they did not share familial ties used visual aids. None of the participants mentioned that they consciously used a different strategy because they lacked familial connections, but all teachers who mentioned using drawings, PowerPoint presentations, or other images, fit into this category. Kenson teaches a range of community groups about liver and sexual health. Mona teaches employees about handicraft design. Gloria teaches citizens who need consular documents. Alson and Wilbert teach students who enroll in their respective educational programs. All of them highlighted their use of visual aids and drawings as instructional tools.

Some use computer-based presentations. Kenson, for example, uses a PowerPoint presentation to support his instruction. “My slides are full of pictures. That’s really simple. Make it a simple presentation. Not too much wordy. Very simple words, in the very simplest form.”

Others used hand-drawn pictures, such as Mona, “I do a lot of picture drawing. Cause it is so hard to explain, so I draw the way for them to put this there. I would draw pictures of necklaces and they could make them. They are very good... They will sit there and work on something until it is done. Because it is handicrafts and sewing, we need a lot of pictures.”

Even during our *bwebwenato* session, Gloria and Wilbert used visual aids to communicate their strategies to me. For example, while talking with Gloria, she got up to retrieve documents or other material resources several times so she could show me what she meant. Wilbert used a projector with his laptop to demonstrate his instructional processes.

> Gloria: “Have you come across the booklet for new immigrants?”
>
> Me: “No.”
>
> Gloria: “Okay, let me get it.” [Walks out of the room to get booklet.]
>
> Gloria: “You see this? We give them this and the ones in the reception area.” [Walks out of the room again to get more papers.]
>
> Gloria: “These are the things we have out front. We put it there and they take. Basic information. Immunization. These are in Marshallese. We got some from Joanne’s working place. Some from Tamera. Tamera got these from community colleges. Also, basic information for people going to Marshall Islands.”

Wilbert used a projector throughout our *bwebwenato* session to illustrate his narrative remarks. When describing the assignment sheets for Marshallese language classes, he would project an assignment sheet on the screen. Then he explained the materials he uses with teachers and colleagues, “This professional development is for existing teachers. We have created professional outreach PowerPoints for recruitment presentations for MLA and MSS… Grades speak. They mean something to students. So we had to come up with a grading system. I encourage my colleagues to use Excel. It’s complicated.” [Projects Excel grading sheet on the screen to demonstrate.]

Asking for help

Only participants who told stories about teachers who did not share familial ties mentioned asking for help when they did not understand. In two of these cases, the teachers were American. In two of the situations, both teacher and student were Marshallese, but not related by blood. Regardless of the ethnicity of the other person, participants talked about sometimes waiting to ask the questions. Perhaps the reason for this is that teachers who share familial relationships with students are more observant of their students, and can better discern when the student is confused and further instruction is needed. In addition, Marshallese students might feel disrespectful to ask a family member to clarify, because it is an indication that the earlier instruction was inadequate.

> During Job Corps in Hawaiʻi, Kiolina shared: “Sometimes it was hard because I didn’t know how to find the ingredients. I would ask the teacher and she would help me. She would go with me to the store and show me the foods and other ingredients. The teacher was happy to go with me to help me to learn. Then I could cook the new foods.”

> Kenson shared about the learning process as a patient with a medical team in Hawai‘i: “There were some times when I was confused about some terminology that I am not familiar with that I have to ask. Or maybe there’s a question that comes to my mind, and, ‘Oh I need to follow-up,’ ‘What is this side effect of this and that?’ It really depends on what you need to understand and on the follow-up questions I have. I kind of think about it and wait for the next time around and I have a chance to ask them. Sometimes I email and sometimes I phone call. My wife and I do that communication. Sometimes we wait for the meeting time. If it is urgent and something that I need to take care of right away, I have to call and clarify.”
>
> In the RMI Consulate Office in Honolulu, Gloria explained how some Marshallese citizens approach her for assistance, “First they say ‘oh.’ They are kind of scared. ‘We are here to get passport application.’ [I say,] ‘Oh, here’s the passport application. You have to get two photos, you have to get money order, don’t forget to sign the application.’ Then they will just sit there. Maybe take a minute or so. Then, ‘Can you help us fill it out?’ ‘Okay, of course, I can help you.’”
>
> At the College of the Marshall Islands, students approach Wilbert for help: “In the first two weeks, [we go over] just the syllabus. The next weeks, just the keyboard and the spell checker. After that, if they still don’t remember how to do it, they come to visit in my office hours.”

I welcome further discussion with Marshallese teachers and learners about this issue of asking for help. It could be a useful area of further research.

Marshallese language issues

Simply translating texts into Marshallese language is not enough to effectively teach Marshallese learners. With disagreements about standard Marshallese spellings and grammar, basic literacy is taught throughout all levels of education, from early childhood through college. Often students learn different literacy skills from different teachers, so they must re-learn basic spellings from year to year. This challenge has led to discomfort and a lack of confidence for teachers to use written Marshallese language.

For example, Kenson uses English language printed materials and speaks in Marshallese during his instructional sessions: "I don't want it to ruin my own project because I'm the one who screwed up. I think we can go with the certified, licensed translator service… We need it translated into Marshallese… I cannot translate because I'm not an expert… We want to make sure we do it right."

There are two main orthographies for Marshallese language: the "old spellings" from the 19th century missionaries, and the "new spellings" developed by a University of Hawai'i linguist, Byron Bender, in collaboration with Marshallese language specialists Alfred Capelle, Tony DeBrum, and Takaji Abo. Wilbert uses the new spellings in the college courses he teaches.

> I'm using the spellings in the dictionary. Some of the mistakes are when elderly people use old spellings. I kind of joke with them in class. I say, "I really hate you guys whoever is using the missionary spelling system." "Why teacher, why?" "I want you to die right now! Hahaha!" There is no consistency with spelling. They exchange papers and they can't pick up the language from each other. It really

> disrupts their reading comprehension. They ask one another. That’s why we have to “Alfredize, Tonify, and Benderize” their spelling.

Along with this effort to standardize spelling is an effort to honor and preserve Marshallese oratory traditions. Wilbert commented:

> My students come to me and complain that their English teachers say it is a waste of time to say, “Thank you God, thank you *Irooj*.” But, in this class, it is important. It’s the rhetoric that basically guides us to the composition. I’ve been to sermons at churches, to funeral events. These are different compositions to different events or venues.

Some of the linguistic traditions are contradictory to the way English language is used. Wilbert explained these differences:

> We love to start sentences with conjunctions. Incomplete ideas. Start it there. End it there. Where’s the connection? We have concept words and signaling phrases. We are not used to punctuations, so that is another problem. It’s mostly what I find in students’ writing is the disjointed ideas, incomplete ideas. In English, the grammar errors are different from the Marshallese.

Summary

After hearing the stories of these ten Marshallese holders of knowledge, I identified eleven themes that could fit into five broad categories: Relationships, Motivation for Learning, Teaching Strategies, Extending Networks, and Marshallese Language Issues. The first four categories serve as the major components of the Marshallese indigenous framework, with the fifth being a critical topic for teachers of Marshallese students to understand. These categories and themes, when explored further, share a number of commonalities with other indigenous learning frameworks.

CHAPTER 5: FINDINGS AND IMPLICATIONS

The participants in this study generously shared their learning and teaching experiences in order for me to document a first draft of a Marshallese indigenous learning framework. Documenting the key components of a Marshallese indigenous learning framework is just the first step in fully developing a comprehensive resource for educators of Marshallese learners. Future researchers—especially Marshallese educators—can contribute to this by analyzing these components to determine their effectiveness in capturing the critical processes to support Marshallese learners, and by breaking down each component to offer specific guidance for educators. The key components of this proposed Marshallese indigenous learning framework are:

- Relationships
- Motivation for Learning
- Teaching Strategies
- Extending Networks

These components can be implemented in a variety of ways, but each of them should be considered when preparing the most appropriate learning environment and instruction for Marshallese students, whether the learning environment is in the Marshall Islands or in a foreign institution. While not a formal component of the framework, Marshallese Language Issues are something to consider when addressing literacy instruction for Marshallese students.

Relationships

Bwebwenato methodology

Throughout the process of this research, I was in the role of student and my teachers were the research participants. These Marshallese experts in a variety of fields taught me using strategies in this framework, which demonstrated the primary importance of relationships. As with the *Talanoa* talk-story research methodology, the success of using *bwebwenato* as a methodology is based on the strength of relationships between participants and researcher *(*LaFranc, Nichols, & Kirkhart, 2012; Vaioleti, 2006). The *bwebwenato* sessions with people I knew well included many more anecdotes and stories, and meandered through a range of topics, straying from the guiding questions. These conversations tended to last longer than those with people I did not know as well. Future researchers who add to this Marshallese indigenous learning framework using this methodology would benefit from engaging with those whom they already have established relationships. If they include research participants with whom they do not have an established relationship, they should allocate time to build rapport. This same consideration should be considered by teachers of Marshallese learners. Educators will be more effective if they take time to build relationships before focusing on the content they aim to teach.

Constructive correction

What can seem like mild embarrassment, or even a mere annoyance, for a child in a typical U.S. classroom can feel like the deepest shame for a Marshallese student. Many Marshallese students drop out of high school, rather than face a teacher who embarrassed him in front of the class by calling out a mistake publicly. Even if the teacher does not intend to reprimand or correct in a shameful manner, it can have devastating effects (Heine, 2002; Filibert, 2008; Spencer, 2015). Even when a student stays in school, a common response after shaming is to intentionally fail the class. Often, U.S. teachers try to address the incident with a one-on-one, heart-to-heart conversation with the student, though this will generally make little difference to the student. To avoid the devastating effects of shaming Marshallese students, teachers must prevent the embarrassment from happening in their classroom environment.

When a student does not know the answer to a question, a teacher should not force her to guess in front of the class. Likewise, if a student answers incorrectly, the teacher can deflect the wrong answer by sharing something like, “That is a good idea, but I would do it this way.” Or when a Marshallese student is stuck on a word while reading aloud, the teacher can quickly model the correct pronunciation rather than sit in extended silence or expect her to mispronounce a word in front of classmates. Most importantly, the teacher must genuinely smile at the student and show support rather than frustration when the student does not understand the lesson. Teachers can do this by acknowledging it is a challenging concept, or that many students are struggling, or even that the teacher himself had a hard time when he first learned this information.

Sometimes, when a Marshallese student is frustrated by a concept or work product, she might abandon it. Rather than disparage the student for doing this, teachers can support the student by allowing a break from the lesson, or repeating the earlier steps that the student had already mastered. If given the chance to succeed by repeating existing knowledge or skills, the student can then try again to learn the next level of complexity.

Teaching styles

The type of relationship between teacher and student correlated with the instructional strategies used. For participants who engaged in teaching or learning with someone who was not a familial relation, they used visual aids and asked questions to clarify instructions or concepts. None of the participants who learned from, or taught, relatives used these two learning strategies. I did not question the participants on why they used either of these strategies only when non-family members were involved, nor did they note this criterion for using these styles. I only noticed this pattern after analyzing all participant transcripts. My assumption is that visual aids allow teachers to reach a larger group of students than the small group or individual instruction that happens between those within the same family. Perhaps they used visual aids, such as PowerPoint presentations and drawings, with non-relatives because these students might not know some of the same history or knowledge that can be taught through shared stories within families.

Again, I did not ask the participants why they did not learn through asking questions of relatives, and they did not note using this solely with non-family members. I gleaned this pattern from analyzing participant transcripts. However, one participant did share that her aunty told her not to ask questions because she would never learn if she doubted herself. Her aunty instructed her to *observe closely* rather than ask questions. In the cases when participants asked questions, perhaps they did so because they were not able to have the access to the teacher in order to closely observe the skill or knowledge. In addition, I considered whether they did not ask questions because it would suggest the relative was not a good teacher, or because the lesson brought confusion. Perhaps this concern for honoring their relative's knowledge and skills, in addition to respecting the relative's role as a teacher, prevented students from asking questions. Another possibility might be that an older relative who teaches a younger relative might be observing the student closely enough to determine if the learner needs extra explanation or demonstrations. For this reason, there might be fewer instances of confusion, because the teacher is more responsive to the student's learning in real time.

I invite Marshallese educators and scholars to offer their own explanations that will supersede mine to address why these two teaching and learning strategies were only used with those who were not related by blood. This is an area for future consideration and research, especially because most Marshallese children are enrolled in a school setting in which they are not related to the teacher.

Motivation for Learning

All participants mentioned their motivation for learning and teaching to be rooted in benefitting their family or community. Most often this benefit was an immediate direct result of the content knowledge in the lesson, rather than a more abstract rationale, such as education opening professional opportunities later in life. This suggests Marshallese students learn most effectively when the teacher makes explicit connections between the curriculum and practical applications of the content.

For example, a biology teacher could illustrate the connections between lessons on cell reproduction with terminology that might be communicated during a doctor’s appointment when a patient is seeking treatment for cancer. Often, Marshallese youth serve as translators in medical appointments, and feel confused when faced with unfamiliar terminology and concepts. Arming them with this practical application of biology lessons will enhance their value to family and community. Likewise, a math teacher could use examples, like payday loans, to illustrate the relevance of calculating compound interest, or large batch recipes to explain the purpose of ratios. Asking students to think about these experiences might help them to recognize the benefit to their family and community of even complicated, abstract concepts (Chilisa, 2012; LaFranc, Nichols, & Kirkhart, 2012; Thaman, 1992).

Teaching Strategies

Introduction at a Young Age

Most participants began learning their specialty at a young age, somewhere around three to ten years old. This implies that Marshallese students learn well when they can see the big picture of the eventual skill they will develop, by engaging in the simple steps early in life. Rather than merely teaching phonetic sounds, Marshallese students might learn best by connecting those phonetic sounds to words commonly used in daily life, rather than silly or purely fun words. Likewise, rather than teaching basic arithmetic through quick number facts on a page, students might learn more effectively by connecting the skills to broader math concepts, such as cutting a cake into enough slices for every member of the class to have a piece, or determining each student's share of materials for a group art project. By introducing advanced skills at a young age, students are able to envision their skills and role in the broader community.

Scaffolding

To support introducing advanced skills at a young age, scaffolding, or the Niihauan concept of tena, is useful. By building upon the simplest skills and students' existing knowledge, teachers are able to more effectively introduce new, advanced concepts (Spencer, 2015; Thaman, 1992). For example, when teaching English language skills in a science class, the first lesson might be about the word *tree*. Students might bring a leaf or a stick from a tree to share with their classmates, walk through the campus to count the trees, or sit under a tree while listening to a story about a tree. Once students are able to effectively use the word *tree,* the teacher might introduce the different parts of the tree. Rather than merely labeling a diagram of these parts, the teacher might draw upon students' existing knowledge, like using the *fronds* for weaving, eating the *fruit*, making tea from the *leaves*, sitting under the *branches*, or using the *trunk* to build an object. After talking about and demonstrating uses of the familiar parts, teachers might introduce unfamiliar trees that have familiar uses, such as eating the fruit of an apple or orange tree, or combining branches of an evergreen tree for Christmas wreathes. Scaffolding validates students' existing knowledge, which builds confidence and relevance when learning new concepts.

Demonstration and observation

Marshallese students learn well from frequent, repetitive demonstrations of new concepts. In this way, they recognize the expertise of their teacher and can learn from her by imitating her actions (Barber, 2009; Spencer, 2015). For example, in the early grades, teachers might implement this by modeling math skills with manipulatives, over and over, until the student can imitate the concept on her own. In upper grades, language arts teachers can implement this by sharing their own poems or essays as examples that can be useful guides to students as they write their first poems and essays. Rather than regard this imitation as copying, plagiarism, or cheating, teachers should recognize it as a useful step in the learning process that allows students to build confidence and skills on their way to mastery. This requires teachers to spend enough time on a concept for the student to proceed from observation to mastery, perhaps by continually reintroducing the concept in subsequent units to continue the demonstration-observation-imitation-mastery cycle.

Learning through relevant practices

Woven through the participants' stories about teaching and learning was the importance of practicing relevant knowledge and skills. As new learners, they prospered through practicing concepts alongside their teachers, especially when that practice resulted in useful, recognizable products, such as edible food or profitable business transactions. In general, Marshallese culture is pragmatic, without a lot of attention or effort spent on abstract ideas. In Marshallese churches, the sermons tend to focus on applicable rules or behaviors, rather than religious philosophy. The same is true about how participants described their learning—it was practical and had purpose.

In U.S. classrooms, we often refer to this type of learning as hands-on learning. Sometimes the products are referred to as authentic assessment. In Hawaiian tradition, the ‘olelo no‘eau (proverb) Maka hana ka ‘ike gives language to the concept: “the learning is in the doing.” Regardless of the skill or knowledge, the practice of it is the focus in effective instruction for Marshallese students.

Extending Networks

By seeking further education through foreign institutions, the participants were actually following the pattern of their ancestors who voyaged to distant islands to expand their resources. Likewise, Marshallese learned from explorers who came to their shores and traded for new resources.

As in these historic interactions with foreigners, modern Marshallese learned that their expertise is of value to outsiders when their foreign teachers asked them to share their knowledge with their new classmates, or even with the teachers themselves. Additionally, when foreigners purchased or traded for their products, their expertise and skill was validated because they could see their work had value in the global society.

In situations when participants expanded their knowledge by learning from foreign teachers, it was an opportunity to recognize that their existing skills prepared them to learn at a more advanced level. This affirms the effectiveness of tena, or scaffolding, as an instructional method.

When Marshallese students come to Hawai‘i or other foreign locations, teachers could more effectively teach them if they spent time to first discover their existing knowledge and skills. Likewise, when foreigners are employed as teachers in the Marshall Islands, an important first step would be to learn about their students' existing knowledge, to validate that knowledge, and then to build upon it.

Marshallese Language Issues

The lack of consistency in written Marshallese, both in school and in general society, is cause for concern. The "new" spellings were officially adopted and have been in place for an entire generation of students. However, teacher training and accountability were insufficient to ensure implementation, so the impacts of the adoption have created more confusion than clarification for Marshallese literacy.

The Marshallese Studies Department at the College of the Marshall Islands is working closely with the Customary Law and Language Commission to build spelling, grammar, and teaching resources to support the standardization of written language. In addition, the Marshallese Public School Commission's Marshallese Language Policy, adopted in 2015, presents a plan to systematize the way language is taught. These efforts are critical to building student literacy in both Marshallese and English.

Relationship to Other Indigenous Learning Frameworks

In *Teaching Truly*, Four Arrows (2013) proposes a five-step learning process for indigenous-serving institutions:

1. Place-based
2. Relationship-centered
3. Respectful
4. Elder wisdom-honored
5. Experiential

These steps align well with the findings of this study. Educators of Marshallese students will be most effective in their teaching when the lessons are place-based and relevant, when they have invested in building relationships with their students, when there is an atmosphere of respect among and between all members of the learning environment, when there is honor given to knowledge, skills, and wisdom from elders, and when the instructional strategies are experiential in nature.

In both *Teaching Truly* (Appendix A) and the *Nā Honua Mauli Ola* (Appendix B), Native American and Hawaiian educators provided guidelines for educators. Table 1 provides a comparison of those guidelines with the components of this Marshallese indigenous learning framework.

Table 1. Comparison of Marshallese, Hawaiian, and Native American indigenous learning frameworks

Marshallese	Hawaiian	Native American
	Nā Honua Mauli Ola Guidelines for Educators	*Teaching Truly* Pedagogy and Procedures Checklist
Introduction at a Young Age	*While the learning framework does not specifically mention introduction to skills at a young age, in practice the Nā Honua Mauli Ola is used as the foundation of the Punana Leo Hawaiian language immersion preschool programs, which accept students as young as six weeks old.*	
Scaffolding	(2) Maintain practices that perpetuate Hawaiian heritage, traditions, and language to nurture one's mauli and perpetuate the success of the whole learning community (e.g., Provide opportunities to learn through observation and hands-on demonstration of cultural knowledge and skills such as lei making, carving; Honor the cultural knowledge that students bring with them; Provide learning opportunities that help	(4) Student ownership of subject matter (8) Honoring student pace (14) Remembering that everything is connected/related

	students recognize the integrity of their knowledge and use that knowledge as a springboard to new understandings)	
Demonstration and Observation	(8) Engage in activities independently or collaboratively with community members to perpetuate traditional ways of knowing, learning, teaching, and leading to sustain cultural knowledge and resources within the learning community. (e.g., Provide opportunities for students to learn through observation and hands-on demonstrations of cultural knowledge and skills) (9) Utilize multiple pathways and multiple formats to assess what has been learned and honor this process to nurture the quality of learning within the community. (e.g., Utilize forms of assessment and evaluation other than written and standardized tests, including performance-based, serving learning; Utilize culturally traditional forms of assessment; Incorporate cultural values and beliefs in all teaching and assessment practices)	(18) Allowing for observation rather than participation
Motivation for education: benefitting family and community	(5) Provide safe and supportive places to nurture the physical, mental/intellectual, social, emotional, and spiritual health of the total community (11) Promote personal growth and development to strengthen cultural identity, academic knowledge and skills, pono decision making, and the ability to contribute to one’s self and family, and local and global communities (15) Engage in experiences which mālama the entire learning community and the environment to support learning and good practices of stewardship, resource sustainability, and spirituality (16) Cultivate a strong sense of kuleana to one’s past, present, and future to enhance meaningful purpose and to bring about joy and fulfillment for one’s self and family, and local and global communities	(3) Intrinsic motivation (12) Involving community (13) Doing activism and serving others (14) Remembering that everything is connected/related (20) Being aware of sustainability issues in the class, school and home environment
Relationship between student and teacher	(12) Develop an understanding of Hawaiian language, history, culture, and values through an indigenous perspective to foster a sense of self, place, community, and global connection	(15) Using humor whenever possible (17) Using peer teaching

	(e.g., Provide opportunities for learners to gather information from families and the community; Use local expertise, especially knowledge from kūpuna, as resource teachers/resources in classrooms and on excursions; Respect and validate all aspects of the learner's knowledge, encouraging an ongoing quest for personal and cultural affirmation; Create safe environments for learners to share prior knowledge of their language, history, culture, and values to expand the knowledge of all learners)	(19) Using storytelling prolifically and interactively that is related to the students' world
Learning through relevant practices	(1) Incorporate cultural traditions, language, history, and values in meaningful holistic processes to nourish the emotional, physical, mental/intellectual, social, and spiritual well-being of the learning community that promote healthy mauli and mana. (e.g., Utilize authentic learning materials and experiences, such as lauhala, flower lei, ʻulu maika) (2) Maintain practices that perpetuate Hawaiian heritage, traditions, and language to nurture one's mauli and perpetuate the success of the whole learning community (e.g., Provide opportunities to learn in settings where cultural knowledge and skills are naturally relevant such as field trips) (13) Promote respect for how the Hawaiian cultural worldview contributes to diversity and global understanding to enhance one's sense of self, family, and local and global communities. (14) Plan for meaningful learner outcomes that foster the relationship and interaction among people, time, space, places, and natural elements around them to enhance one's ability to maintain a "local" disposition with global understandings (e.g., Help learners see the interrelationship between local circumstances and the global effects of local conditions; Bring literature into the classroom which reflects global issues with a local perspective; Give learning opportunities to celebrate and participate in local traditions and cultural activities)	(1) Field Experience (6) Intuitive work (9) Using song and music (10) Honoring place
Constructive correction	(5) Provide safe and supportive places to nurture the physical, mental/intellectual, social,	(2) Cooperative learning

	emotional, and spiritual health of the total community (e.g., Enable learners to ask questions, state opinions, and offer suggestions about their learning in a safe, caring environment) (7) Engage in Hawaiian language opportunities to increase language proficiency and effective communication skills in a variety of contexts and learning situations (e.g.,Provide safe learning opportunities where learners can acquire, practice, and experiment with language without fear of ridicule or censure)	(8) Honoring student pace (14) Remembering that everything is connected/related (15) Using humor whenever possible
Extending Networks	(3) Sustain respect for the integrity of one's own cultural knowledge and provide meaningful opportunities to make new connections among other knowledge systems	
Visual Aids	*While not specifically mentioned in the framework, visual aids are used throughout grade levels in the schools that use the NHMO as the foundation of their educational program.*	
Ask for help	(5) Provide safe and supportive places to nurture the physical, mental/intellectual, social, emotional, and spiritual health of the total community (e.g., Enable learners to ask questions, state opinions, and offer suggestions about their learning in a safe, caring environment)	
		(5) Critical reflection
		(7) Visualizations and dream work
		(11) Using natural world as teacher
		(16) Employing wellness/fitness considerations
	(4) Instill a desire for lifelong exploration of learning, teaching, leading, and reflecting to pursue standards of quality and excellence.	
	(6) Foster understanding that culture and tradition, as constantly evolving systems, are grounded in the knowledge of the past to address the present and future.	
	(10) Support lifelong aloha for Hawaiian language, history, culture, and values to	

	perpetuate the unique cultural heritage of Hawaiʻi.	

While the backgrounds of these cultural groups vary, there is a high degree of alignment between the indigenous learning frameworks for all three. Two themes from this Marshallese indigenous learning framework were not explicitly mentioned in the *Nā Honua Mauili Ola* or *Teaching Truly*: Introduction at a Young Age and the use of Visual Aids. However, these are both used in practice in programs that are grounded in these frameworks. Likewise, future researchers might find that the areas mentioned in the Hawaiian and Native American frameworks that did not emerge in this study might indeed be appropriate additions for Marshallese learners. On the other hand, future researchers might affirm that these are marked differences between these three indigenous learning frameworks.

Since the majority of the themes overlap, though, teachers of Marshallese learners in the United States could improve the learning environment for a broad cross-section of their students. This is particularly true in Hawaiʻi where Native Hawaiian students also suffer from low academic achievement statistics. For teachers in places like Enid, Oklahoma, where large numbers of Marshallese live, using this framework could also benefit their Native American students, who also have been marginalized in the public education system, as demonstrated by a lack of proficiency on academic assessments.

Teachers in the Marshall Islands, most of whom teach in homogenous classrooms, could use this Marshallese indigenous learning framework as a foundation upon which to teach all curricular areas. The timing of this study is particularly relevant because of the recently-adopted Marshallese Language Policy. In addition, the end of funding through the Compact of Free Association in 2023, six years from now, will mean drastic cuts in educational resources for the

Marshall Islands. Currently the vast majority of educational funding comes from the United States through the Compact. It is unclear how education will be funded after 2023. Embracing a pedagogy and curriculum that centralizes a Marshallese way of knowing and learning will enhance student learning, community self-reliance, and might address the need for drastic alterations in response to financial and political changes in 2023.

APPENDIX A

Teaching Truly: Pedagogy and Procedures Checklist (Four Arrows, 2013, p. 79-80)

1. Field Experience
2. Cooperative learning
3. Intrinsic motivation
4. Student ownership of subject matter
5. Critical reflection
6. Intuitive work
7. Visualizations and dream work
8. Honoring student pace
9. Using song and music
10. Honoring place
11. Using natural world as teacher
12. Involving community
13. Doing activism and serving others
14. Remembering that everything is connected/related
15. Using humor whenever possible
16. Employing wellness/fitness considerations
17. Using peer teaching
18. Allowing for observation rather than participation
19. Using storytelling prolifically and interactively that is related to the students' world
20. Being aware of sustainability issues in the class, school and home environment

APPENDIX B

Nā Honua Mauli Ola: Guidelines for Educators

1. Incorporate cultural traditions, language, history, and values in meaningful holistic processes to nourish the emotional, physical, mental/intellectual, social, and spiritual well-being of the learning community that promote healthy mauli and mana.

Educators are able to:

- Model culturally appropriate behavior in their teaching. (i.e., hands-on group activities)
- Provide opportunities for learners to demonstrate culturally appropriate behavior. (i.e., talk story, show and tell)
- Develop and/or adapt curriculum that acknowledges culturally appropriate behavior in the community. (i.e., ocean science)
- Participate in local cultural practices. (i.e., makahiki, hālau hula, canoe clubs, Hawaiian churches)
- Respect religious beliefs among learners.
- Provide cultural activities that are developmentally appropriate. (i.e., tidal pool exploration for young children, net making for young adults)
- Utilize authentic learning materials and experiences. (i.e., lauhala, flower lei, ʻulu maika, kōnanae)
- Create and use learning materials that support cultural activities. (i.e., Hawaiian dictionaries, interactive software)
- Include kūpuna in activities to strengthen hanauna and kuleana understandings. (i.e., intergenerational)
- Deliver culturally appropriate curriculum within the contexts of the community. (i.e., local geography curriculum)

2. Maintain practices that perpetuate Hawaiian heritage, traditions, and language to nurture one's mauli and perpetuate the success of the whole learning community.

Educators are able to:

- Provide opportunities to learn in settings where cultural knowledge and skills are naturally relevant. (i.e., field trips)
- Provide opportunities to learn through observation and hands-on demonstration of cultural knowledge and skills. (i.e., lei making, carving)
- Commit to continuous professional development in Hawaiian culture and traditions.
- Base their teaching on cultural foundations.

- Become active members of the community in which they teach and make positive and culturally appropriate contributions to the well-being of that community.
- Exercise professional responsibilities in the context of local cultural traditions and expectations.
- Learn the Hawaiian language.
- Maintain traditional practices as an integral part of the learning process. (i.e., opening and closing of the class day, ceremonies, protocol, rituals)
- Honor the cultural knowledge that students bring with them.
- Provide learning opportunities that help students recognize the integrity of their knowledge and use that knowledge as a springboard to new understandings. (i.e., moʻokūʻauhau, history day)

3. Sustain respect for the integrity of one's own cultural knowledge and provide meaningful opportunities to make new connections among other knowledge systems.

Educators are able to:

- Provide experiences that encourage learners to appreciate the uniqueness of other cultures. (i.e., share cultural holidays, practices, dress, and foods)
- Provide activities and learning experiences that illustrate how each unique culture has an essential place in our global society.
- Assist learners in making comparative relationships between cultures through their learners' own cultural perspectives.
- Instill respect and understanding for others and their diversity.

4. Instill a desire for lifelong exploration of learning, teaching, leading, and reflecting to pursue standards of quality and excellence.

Educators are able to:

- Have access to appropriate materials and resources. (i.e., books, videos, charts, replicas of artifacts, websites)
- Share their expertise in cultural areas.
- Form study groups to enrich their learning and facilitate the same for their students.
- Engage learners in lifelong exploration opportunities. (i.e., surfing, skilled craftsmanship)
- Involve themselves continually in learning about the local culture.
- Honor the knowledge, skills, and ways of knowing of their learners' cultures.
- Provide many opportunities for learners to engage in the learning, teaching, leading, and reflecting cycle. (i.e., project-based learning)
- Demonstrate quality and excellence through product and performance. (i.e., hōʻike)

5. Provide safe and supportive places to nurture the physical, mental, intellectual, social, emotional, and spiritual health of the total community.

Educators are able to:

- Provide opportunities and time for students to learn in safe and comfortable settings where local cultural knowledge and skills are naturally relevant. (i.e., beach, lo‘i kalo, hālau)
- Enable learners to ask questions, state opinions, and offer suggestions about their learning in a safe, caring environment.
- Utilize multiple instructional strategies and apply those strategies appropriately and flexibly in response to the cultural and instructional environment in which they are situated. (i.e., singing, learning to speak Hawaiian)
- Provide engaging and stimulating learning environments outside of the classroom. (i.e., excursions, māla)
- Create and maintain a safe haven for learning in which all students are actively engaged and contributing members.
- Participate in local and regional professional development activities to enhance the learning environment.
- Encourage the ongoing participation of kūpuna.

6. Foster understanding that culture and tradition, as constantly evolving systems, are grounded in the knowledge of the past to address the present and future.

Educators are able to:

- Incorporate traditional knowledge in present contexts. (i.e., oli, ho‘okupu)
- Provide experiences and materials that encourage learners to adapt and use cultural and traditional knowledge with guidance from kūpuna, educators, and/or loea. (i.e., silk, yard and ribbon lei making, quilted cushions, rhythm instruments)
- Make personal connections to cultural and traditional knowledge and to the application of that knowledge to validate teaching and learning styles.
- Help other learners make their own personal connections to cultural and traditional knowledge, including knowledge distinctive to learner’s families that may or may not be available to share directly with the teacher or fellow students.

7. Engage in Hawaiian language opportunities to increase language proficiency and effective communication skills in a variety of contexts and learning situations.

Educators are able to:

- Provide learners with good language modeling and instruction.
- Foster good language learning attitudes and habits.
- Provide safe learning opportunities where learners can acquire, practice, and experiment with language without fear of ridicule or censure.
- Teach reading, writing, listening, and speaking skills using classical, traditional, contemporary, and emerging styles. (i.e., retelling mo‘olelo, newspaper)
- Develop purposeful use of contemporary and emerging language genre.

- Use traditional stories and literature to improve Hawaiian language proficiency and effective communication skills through reading and discussion.
- Use traditional Hawaiian contexts to create contemporary Hawaiian music, literature, and art. (i.e., mele, moʻolelo, kaʻao)
- Expose learners to a variety of Hawaiian language periods, styles, and dialects.
- Develop an understanding of the nuances, kaona, and other poetic uses and devices in the Hawaiian language.
- Utilize Hawaiian activities to promote learning. (i.e., arts and crafts, songs, games, etc.)
- Integrate Hawaiian ʻōlelo noʻeau into the curriculum.
- Maintain Hawaiian as a living language by incorporating new Hawaiian terminology where none exists. (i.e., pūnaewele puni honua)
- Learn about the benefits of learning Hawaiian through bilingual and immersion methods.
- Secure support and participation of local expertise to enhance the curriculum.
- Participate in professional development activities to expand Hawaiian language and cultural knowledge.
- Collect and utilize Hawaiian language resources. (i.e., videos, interactive software, audio tapes)
- Incorporate traditional cultural values, beliefs, and practices to promote the use of Hawaiian language and thinking)
- Incorporate traditional cultural values, beliefs, and practices to promote the use of Hawaiian language and thinking.
- Engage learners in activities that increase language proficiency and confidence. (i.e., singing Hawaiian songs, learning place names, flora and fauna)
- Teach reading, writing, listening, and speaking skills using classical, traditional, contemporary, and emerging styles. (i.e., haku mele, haʻiʻōlelo, moʻolelo, nane, drama)

8. Engage in activities independently or collaboratively with community members to perpetuate traditional ways of knowing, learning, teaching, and leading to sustain cultural knowledge and resources within the learning community.

Educators are able to:

- Recognize the validity and integrity of the traditional knowledge system.
- Utilize mānaleo and cultural practitioners in multiple ways in their teaching to engage learners' interest. (i.e., talk story, apprenticeships)
- Provide opportunities for students to learn through observation and hands-on demonstrations of cultural knowledge and skills.
- Utilize traditional settings (i.e., hālau, māla, hui, uka, and kai) as learning environments for transmitting cultural and academic knowledge and skills.
- Become active members of the community in which they teach and make positive and culturally appropriate contributions to the well-being of that community. (i.e., civic clubs, youth, church, and business organizations)

- Learn about and build upon the cultural knowledge that students bring with them from their homes and communities.
- Learn the Hawaiian language and promote its use in their teaching.
- Reinforce students’ sense of cultural identity and place in the community.
- Learn how to use local ways of knowing and teaching to link the knowledge base of the school to that of the community.
- Provide opportunities for learners to engage in journal writing on specific cultural concepts and content.

9. Utilize multiple pathways and multiple formats to assess what has been learned and honor this process to nurture the quality of learning within the community.

Educators are able to:

- Utilize forms of assessment and evaluation other than written and standardized tests. (i.e., performance-based, serving learning)
- Demonstrate the ability to utilize assessment data to improve their own teaching as well as to maximize the opportunities for learners to demonstrate their competence. (i.e., produce and performance projects)
- Utilize culturally traditional forms of assessment. (i.e., hōʻike)
- Utilize multiple instructional strategies appropriately and flexibly. (i.e., project-based learning, cooperative learning, inquiry, learning styles)
- Incorporate cultural values and beliefs in all teaching and assessment practices.
- Consider multiple forms of intelligence and problem solving skills in the assessment of the learning potential of learners.
- Gain experience and knowledge from those grounded in ways of knowing that are different from the usual ways of knowing utilized in schools.

10. Support lifelong aloha for Hawaiian language, history, culture, and values to perpetuate the unique cultural heritage of Hawaiʻi.

Educators are able to:

- Make effective use of local expertise, especially kūpuna, as co-educators whenever local language and cultural knowledge is being addressed in the curriculum.
- Create an immersion environment to provide a natural context for language and culture teaching and learning.
- Provide opportunities for learners to express aloha for Hawaiian language, history, culture, and values.
- Design curriculum and programs that promote and perpetuate Hawaiian language, history, culture, and values.
- Instill a desire in learners to be carriers of cultural responsibilities and traditions.
- Advocate for participation in cultural events perpetuating the unique heritage of Hawaiʻi.

- Provide a supportive learning environment that reinforces the cultural well-being of the learners.
- Utilize locally relevant curriculum materials with which learners can readily identify, including materials prepared by Hawaiian authors.
- Recognize the importance of cultural and intellectual property rights in teaching practice, and honor such rights in all aspects of the selection and utilization of curriculum resources.

11. Promote personal growth and development to strengthen cultural identity, academic knowledge and skills, pono decision making, and the ability to contribute to one's self and family, and local and global communities.

Educators are able to:

- Recognize the validity and integrity of the traditional knowledge system.
- Development curriculum reinforcing the integrity of the learner's cultural knowledge.
- Maximize use of the Hawaiian language and cultural knowledge in the curriculum.
- Use the local environment and community resources on a regular basis to link teaching to the everyday lives of the learners.
- Participate in community events and activities in an appropriate and supportive way.
- Recognize the educational potential of each learner and provide the challenges necessary to achieve full potential.
- Engage in critical self-assessment and participatory research to determine the extent to which teaching practices are effectively grounded in traditional ways.
- Participate in, contribute to, and learn from local community events and activities in culturally appropriate ways.
- Teach the importance of moʻokūʻauhau, and unique family connections to oneself.

12. Develop and understanding of Hawaiian language, history, culture, and values through an indigenous perspective to foster a sense of self, place, community, and global connection.

Educators are able to:

- Use kūpuna and mākua effectively in teaching Hawaiian language, history, culture, and values, especially those specific to geographic area where they live and teach.
- Provide opportunities for learners to gather information from families and the community
- Use local expertise, especially knowledgeable kūpuna, as resource teachers/resources in classrooms and on excursions.
- Use Hawaiian and locally relevant curriculum materials prepared by local authors or others. (i.e., contemporary Hawaiian literature and art)
- Participate in immersion/learning opportunities to learn the traditional language, history, culture, and values of the community in which they teach.

- Enroll in Hawaiian language, culture, and history courses at universities, colleges, or other places to improve content knowledge and skills, and implement a culturally appropriate approach to teaching.
- Respect and validate all aspects of the learner's knowledge encouraging an ongoing quest for personal and cultural affirmation.
- Create safe environments for learners to share prior knowledge of their language, history, culture, and values to expand the knowledge of all learners.
- Provide flexible scheduling and preparation time for kūpuna to share their knowledge in the classroom setting.
- Provide assistance in instructional methodologies for mānaleo (native speakers) – language teaching does not always come naturally.

13. Promote respect for how the Hawaiian cultural worldview contributes to diversity and global understanding to enhance one's sense of self, family, and local and global communities.

Educators are able to:

- Maximize the use of primary sources in curriculum. (i.e., Hawaiian language newspapers, traditional literature)
- Utilize traditional practitioners and kūpuna in the community.
- Integrate traditional songs, dances, games, stories and arts into learning.
- Recognize the importance of the Hawaiian worldview and its role in diversity.
- Develop and incorporate activities that promote the Hawaiian worldview and its place in global society. (i.e., voyaging)
- Respect individual and cultural characteristics of the learner's understanding and worldview.
- Acquire and apply the skills needed to learn about the local language(s) and culture(s) of the community.
- Use traditional teaching roles and practices in the community to enhance the educational experiences of learners.
- Help learners understand cultural diversity from within and beyond their own community and cultural region. (i.e., culturally mixed and blended families)
- Serve as adult role models by actively contributing to the local ways of living and to the traditions practiced in the community in which they teach. (i.e., attending community functions, joining community organizations)

14. Plan for meaningful learner outcomes that foster the relationship and interaction among people, time, space, places, and natural elements around them to enhance one's ability to maintain a "local" disposition with global understandings.

Educators are able to:

- Help learners see the interrelationship between local circumstances and the global effects of local conditions.
- Prepare learners to “think locally and act globally.”
- Bring literature into the classroom which reflects global issues with a local perspective. (i.e., native rights, land and environmental issues)
- Give learners opportunities to celebrate and participate in local traditions and cultural activities. (i.e.,Kamehameha Day, Kūhiō Day, Merrie Monarch, Boy’s and Girl’s Day)
- Develop a learner’s sense of responsibility to and appreciation for maintaining a healthy relationship between the community and its natural resources. (i.e., community service)
- Serve as a role model for healthy practices which sustain good relationships in the community.
- Be comfortable and flexible in utilizing the natural environment for learning. (i.e., beach, kīpuka, kuahiwi)
- Adopt and promote traditional practices in caring for the environment. (i.e., recycling, conservation, use of Hawaiian calendar)
- Engage learners in activities to develop their understanding and appreciation of the importance of the ahupuaʻa.

15. Engage in experiences which mālama the entire learning community and the environment to support learning and good practices of stewardship, resource sustainability, and spirituality.

Educators are able to:

- Provide opportunities for learners to mālama others and the land.
- Adhere to good stewardship practices. (i.e., recycling, māla, service learning projects)
- Develop curriculum that acknowledges traditional practices and spirituality.
- Continue one’s own lifelong learning.

16. Cultivate a strong sense of kuleana to one’s past, present, and future to enhance meaningful purpose and to bring about joy and fulfillment for one’s self and family, and local and global communities.

Educators are able to:

- Assist learners in learning and using Hawaiian language.
- Assist learners in learning their heritage culture.
- Utilize kuleana-based learning in the classroom. (i.e., room clean up)
- Design and implement curriculum that requires the use of kuleana in collaborative projects.
- Identify those cultural values and beliefs that are unique to the person. (i.e., teacher, learner, family)
- Build positive relationships and work together with families.

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