Culturally Relevant Education and the Montessori Approach:

Perspectives from Hawaiian Culture-Based Educators

Nanette S. Schonleber
Education Division
Chaminade University of Honolulu

nschonle@chaminade.edu
808-735-4701

ABSTRACT

The purpose of this study was to investigate why some Hawaiian language and culture-based (HLCB) educators perceived the Montessori approach to be congruent with their goals and values and to determine the salient features of the Montessori approach used by HLCB teachers who received Montessori training. Interviews and focus group discussions were conducted with 40 HLCB participants, including 15 key informants who had at least 180 hours of Montessori training. Data also included classroom and school visits and analyses of school documents. Data analysis revealed six themes and two linkages that related the themes and their elements. Four themes were related to why HLCB educators have perceived the Montessori approach to be congruent with their values and goals. These were (a) similar views regarding their work as a lifestyle, (b) common pedagogical practices, (c) shared values and beliefs as educators, and (d) an overlapping world-view. One theme described the distinctions between the approaches. The final theme included challenges to implementing and maintaining HLCB programs. The findings suggest that researchers and teacher educators interested in culturally congruent education should take into account the underlying world-view of both the research paradigm and the participants involved, and that school reform should be comprehensive, culturally congruent, and generated from within communities and other stakeholders. They also indicate that culturally congruent, place-based education may enhance academic self-efficacy and could serve as a bridge between seemingly disparate educational approaches.

Culturally Relevant Education and the Montessori Approach:
Perspectives from Hawaiian Culture-Based Educators

Background

As is common with many children of indigenous ancestry, the methods,

pedagogical strategies, and structures of mainstream or conventional educational systems

have not generally served Hawaiian children well (Bielenburg, 2000; Kanaʻiaupuni,

Malone, & Ishibashi, 2005). Comprising over 23 percent of the students served by the

State of Hawaiʻi Department of Education, they lag behind other children in public

schools in the State of Hawaiʻi throughout their formal school years (Yang, 2004) and

their standardized test scores on the SAT-9 norm-referenced test are consistently some of

the lowest in the nation (Kanaʻiaupuni, Malone, & Ishibashi, 2005).

Because conventional educational practices have not proved to be successful for

many Hawaiian and other children of indigenous ancestry, alternative approaches

incorporating a culturally congruent curriculum are being explored by educators and

researchers (e.g. Ladson-Billings, 1994; Yamauchi, 2003). One alternative that has been

seen as promising by some indigenous educators (Pease-Pretty on Top, 2002) is the

Montessori approach (Montessori, 1912/1964). This approach, with its well-

operationalized and replicable pedagogy (Cossentino, 2005), has been in existence for

over 100 years and is found in countries around the world in a variety of socioeconomic

settings (Chattin-McNichols, 1992).

Purpose of the Study

The purpose of this study was to investigate some why some Hawaiian language

or culture-based (HLCB) educators have perceived the Montessori approach to be a good

match for their goals and values as educators and to discover which, if any, of the salient

aspects of the Montessori approach were incorporated by HLCB teachers who had received at least 225 hours of Montessori training. While some indigenous and Hawaiian language immersion educators have incorporated the Montessori approach into their programs, stating it to be a good match for their goals and values (e.g., Carter, 2005; Mancos, 1998; Pease-Pretty On Top, 2002), the possible reasons for this perceived match have not been formally documented to date.

<center>Theoretical Background and Perspective</center>

The sociocultural approach to learning, a theory that has its roots in the cultural-historical theory of Lev Vygotsky (John-Steiner & Mahn, 1996; Kozulin, Gindis, Ageyev, & Miller, 2003), asserts that individual development and learning processes can only be understood in the context of the child's social world. Knowledge, seen as actively constructed by learners, is mediated via the tools or symbols of the culture (Hatano & Wertsch, 2001) with language one of the most important of these tools. Because cognition is seen as both predictably developmental in nature and dependent on the environment, both the process of going to school and the act of teaching, as it is done in school, become decisive forces in cognitive development (Scribner & Cole, 1973).

Because different cultures have different ways of understanding the world and socializing their young, they may also have differing expectations about the role of school and the teacher in that socialization process (e.g., Heath, 1994; Tobin, Wu, & Davidson, 1989; Yamauchi & Tharp, 1995). Additionally, children may learn best when school learning is based on the patterns of expected behavior and language learned in the home and community (Gallimore & Goldenberg, 2001). When home routines, language, and behavioral expectations are very different from those of school, teachers may

misinterpret the behavior of their students, and children may engage in what teachers consider inappropriate school behavior (Heath, 1994; Phillips, 1983; Yamauchi, 1998).

A Home School Mismatch

The relatively poor school performance of some Hawaiian children may be due in part to a mismatch between the culture of home and what has been called the culture of school (John-Steiner & Mahn, 1996). Such mismatches between expected school behavior and children's home routines and values have been observed and documented by researchers working with Hawaiian children (Tharp & Gallimore, 1988) and have been found to begin as early as preschool.

Early Experiences of Hawaiians with Formal Schooling

The Hawaiian people did not always struggle with this cultural mismatch between home and school. According to Chun (2006), Hawaiians in pre-contact Hawaiʻi had a well organized system for both informal and formal learning. Contact with non-Hawaiian traders and explorers throughout the late 1700s and early 1800s first exposed the Hawaiian people to the technology of the written word. Hawaiian people at all levels of society were eager to learn, and according to Benham and Heck (1998), by 1840 the Hawaiian people had achieved one of the highest literacy rates in the world.

Things changed drastically, however, by the time of the overthrow of the Hawaiian Kingdom in 1893. Disease and loss of political power resulted in the Hawaiian people becoming a minority in their own land (Osorio, 2002). As the power base changed, the culture of the schools changed too. Assimilationist policies, similar to those imposed on other indigenous peoples (Bielenberg, 2003; May & Aikman, 2003) downplayed and even punished the use and practice of Hawaiian ways and the Hawaiian

language in school. In 1896, a 100-year ban on the use of the Hawaiian language in schools was implemented (Benham & Heck 1998). This policy is considered by some to be instrumental in the change from Hawaiians being one of the most literate people in the world to a people struggling to keep up academically (Benham & Heck, 1998).

Revitalization of the Hawaiian Language and Culture

While the attempt to silence the voices of the indigenous people was almost successful (Kamanā & Wilson, 1996), in the 1970s, a movement began to revitalize the Hawaiian language and culture, resulting in the creation of Hawaiian language immersion, Hawaiian and English Bilingual, and Hawaiian culture-based English medium schools. These HCLB schools emphasize both the achievements of the Hawaiian people and the Hawaiian language and culture. Programs are designed to make use of the cultural strengths of the Hawaiian culture and community, and children are taught that cultural differences can be seen as an asset (Meyer, 2003; Yamauchi, 2003). A sense of cultural competence through the use of a culturally congruent curriculum will lead, it is hoped, not only to a stronger sense of what it means to be Hawaiian, but also to improved academic outcomes for the children who are students in such programs (K. Kamanā, personal communication, May, 2005).

A Pedagogical Challenge

One challenge HLCB educators face is the perceived lack of a well-defined and easily replicated pedagogy and curriculum that successfully incorporates traditional and holistic ways of teaching and learning with the high academic standards and requirements of today. A substantial body of research indicates that knowledge of both content *and* pedagogy are both important factors in the achievement of high academic outcomes for

children (Darling-Hammond 1998; Tharp & Entz, 2003). *How* educators teach is as important as *what* they teach and Buielenberg (2000) argues that without access to well-defined alternatives, teachers may be forced to fall back on mainstream educational practices that do not support their educational goals and values.

The Montessori Approach

The Montessori approach to education has a unique and well defined pedagogy that has intrigued at least some of the HLCB educators who have been exposed to it. Begun in Italy almost 100 years ago, the model today serves children of differing socioeconomic backgrounds, cultures, and ages (Chattin-McNichols, 1992) and is found in public and private settings. A small number currently utilize a language immersion, dual language-immersion, or a bilingual language approach (Carter, 2005; Farmer, 1998; Rodrigues, Irby, Brown, Lara-Alecia, & Galoway, 2003; Rosanova, 1998). Its viability in a wide variety of settings is supported by studies that indicate children in Montessori programs do as well or better academically than their counter-parts in conventional schools (Chattin-McNichols, 1992, 2001; Rodrigues, Irby, Brown, Lara-Alecia, & Galoway, 2003; Rosanova, 1998).

An Intersection of Paradigms

Although the Montessori approach is officially used in over 5,000 U. S. schools (Loeffler, 1992) and in more than 6,000 other schools worldwide (D. Schapiro, personal communication, April 8, 2004), there are currently only 20 accredited Montessori Teacher Education (MTEP) programs in institutions of higher education (G. Warner, personal communication, October 23, 2005). Chaminade University of Honolulu, a Catholic Marianist university located on the island of Oʻahu in Hawaiʻi, is one such

university, with an American Montessori Society affiliated MTEP that has been in operation for over 25 years. For the past 12 years I have been a faculty member there.

In most universities, the Montessori training is separate from more typical teacher education programs. However, during the time of this study, all students in the early childhood programs at Chaminade University received at least 225 clock hours (or 15 credit hours) of exposure to this pedagogy. Students who completed all requirements of the program could be eligible to receive both state licensure and the Montessori early childhood credential.

Chaminade students responded to this mandatory exposure to the Montessori approach in different ways. Some responded with hostility. Most students were neutral or mildly interested. Some adapted particular aspects to their own work in conventional settings. One group of students appeared to respond, however, with a consistently positive interest in the Montessori approach. Those were students who were either working, or planned to work, in HLCB schools, and who believed the approach to be congruent with many of their beliefs and values, providing as one of them put it, "a bridge from the past to the future" (J. Palakiko, Personal Communication, April 23, 2003).

<div align="center">Method</div>

Participants. There were 40 participants, all of whom were either currently working, or had recently worked, in HLCB programs. Fifteen of the 40 were key informants who had experience as both Montessori and HLCB educators. Twenty five others were focus group participants (Krueger, 1994) with no prior Montessori training. I

was specifically interested in HLCB educators with Montessori training who represented the widest possible variety of settings and situations.

   Data Sources. Data sources included semi-structured interviews, focus group discussions, field observations, school tours, and document analysis. A semi-structured interview was conducted individually with each of the 15 key informants. Five focus-group discussions with a total of 25 participants who had not had any previous Montessori training were also conducted. For the focus groups a one hour overview of the Montessori approach utilizing commercially produced videos and a short introductory presentation was first provided. All interviews ranged from one hour to 90 minutes and were audio-taped, transcribed, and coded using the QSR N6 NUD*IST qualitative software package.

   Using a running record format (Cohen, Stern & Balaban, 1997) and two checklists commonly used in Montessori Teacher Education Programs (MACTE, n.d.) I also observed the classrooms of 12 HLCB Montessori trained teachers to see if any features of the Montessori approach were evident. Each observation took place in the morning on the same day as the interview. The length of the observations ranged from one to three hours, depending on the schedule of the children. After the observation, I shared my observations and prompted the teachers regarding additional stored materials that may not have been in use at that time. The checklists and field notes were used to triangulate the data from the individual interviews.

   I was taken on school tours of each of the focus group sites. Each tour lasted from one to three hours. After each school tour I took field notes about what I had observed, using these notes to triangulate the data from the focus group discussions.

I also collected a sampling of the newsletters and web sites of the HLCB programs represented by participants. These documents were used triangulate the data from the interviews and focus group discussions. Documents were hand-coded.

Data Analysis

As is common with grounded theory methods (Ezzy, 2002; Strauss & Corbin, 1998), the data collection and data analysis process was an interactive one, moving, as described by Miles and Huberman (1994), from data collection to data reduction; from data reduction to conclusion drawing; from conclusion drawing back to a reading of the literature, more data collection, and further data reduction. Called "constant comparison" by Strauss and Corbin (1994, p. 283), this process is considered to be a cornerstone of grounded theory methodology.

Through ongoing interviews, open coding, and references to the relevant literature, categories began to emerge. The first six categories to emerge from the data were (a) demographics, (b) stories, (c) goals, (d) challenges, (e) aspects that fit, and (f) aspects that don't fit. Each of the initial 73 open codes was assigned to one or more of these categories. Through axial coding the open codes and categories were finally refined into six emergent themes. The emergent themes were then cross-classified resulting in two linkages between the themes. Selective coding led finally, to the core category, *A Way of Knowing*. Once the core category had been identified, I invited participants back into the process. The final step in the data analysis was to decide how to describe the data based on the unified grounded theory. As is common with qualitative research (Strauss & Corbin, 1994), the voice of participants was liberally used in an attempt to tell the story as accurately as possible in their own words.

Findings

Analysis of the data revealed six themes and two linkages leading to a grounded theory that tied together the themes, their relationships to one another, and the research questions. Four themes of similarity revealed (a) a similar professional identification, or *A Way of Living*; (b) similar pedagogical practices and strategies, or *A Way of Teaching*; (c) similar values and beliefs, or *A Way of Believing*; and (d) similar notions about the nature of reality, or *A Way of Knowing*. The fifth emergent theme, *Nuanced Distinctions,* described the differences between the two approaches. The final theme, *Challenges to the Dream,* included the stated challenges to implementing HLCB programs.

A Way of Living This theme included a strong role identification as HLCB educators and a sense of having been drawn in to the goals and values of the schools and programs they were associated with. These are common to Montessori educators as well, with many Montessori educators even speaking of themselves as "Montessorians" (*Welcome to the Montessorian World,* n.d.)

A Way of Teaching This theme included 10 valued teaching practices or strategies seen as shared in common. Like Montessori, many of the HLCB educators in this study viewed children as self-directed learners who learned best with hands-on instruction, observational learning in mixed-aged groupings, with an integrated, science-based curriculum based on reality and respect for nature. They preferred to utilize a pedagogy grounded in culturally congruent pedagogical practice and mastery based outcomes. Observation and performance assessment strategies, both formative and summative, based knowledge of children's stages of development and discerned talents were seen as key.

Self-directed learners. The pedagogical practices most frequently mentioned by participants included encouraging children to be self-directed learners who are responsible for the consequences of their actions. In the following conversation, Keomailani referred to a Hawaiian educator whose work has been important in furthering the culture-based movement in Hawai'i. Her comments resonate with Montessori's writings on the topic (Montessori, 1912/1964).

> [My colleague's work] was to show Hawaiian children learning together with a cultural base and learning through projects and . . . making their own discoveries on the way. Not so much a sit down and being taught to, but learning through what is inside of your *na'au* [intestines, guts; mind, heart, affections of the heart or mind (Pukui & Elbert, 1986)]. You know, if you want to be a taro farmer, then that's what you should be learning in high school.

Use of demonstration and modeling. Another pedagogical practice perceived as common to both the Montessori approach and HLCB education was teaching through the use of demonstration and modeling. Kaiulani told me during her interview that this aspect of the Montessori approach was especially resonant with Hawaiian ways of teaching and learning.

> It was obvious to me when I was learning [the Montessori approach] at Chaminade that when [Montessori] said, "hands on," we say, "*Ma ka hana ka 'ike*." There were specific '*ōlelo no'eau* [proverbs; wise sayings (Pukui & Elbert, 1986)] that matched up to all the major principles, including this one, "*I ka nānā no a 'ike,*" By observing, one learns, and "*Kuhi no ka lima, hele no ka maka,*" Where the hands move, there let the eyes follow, and "*Nānā ka maka; ho'olohe*

ka pepeiao; pa'a ka waha," Observe with the eyes; listen with the ears; shut the

mouth.

Use of hands-on activities. In both Montessori and at least some HLCB

classrooms, learning was designed to occur through the use of hands-on activities. Sol, a

focus group participant saw this Montessori teaching strategy as a clear match with what

he does.

> Definitely there's a match. Because that's the way I was taught to learn. That's
>
> the way I was taught as a child. And that's how we do things in Hawaiian culture
>
> — hands-on. Because back then, there were no books to read, so you could not go
>
> and do research. Only by doing it, you would know it.

Multi-age grouping. Multi-age grouping, common in Montessori schools, mirrors

the practices of a Hawaiian home where older children were expected to help and teach

the younger ones. Conversely, younger children were expected to "mind" older siblings

and to learn from them.

Caring for, and understanding nature. Many HLCB participants focused on the

importance of teaching children about, and connecting them with, nature and the natural

world. When Kaiulani described the things in the Montessori approach that she saw as a

good match, one of the things she noted first was a shared focus on nature.

> The relationship between us as humans and nature and what Montessori talked
>
> about . . . .We try to cultivate that, and build sustainability [when children] go to
>
> visit the *lo'i kalo* [taro field (Pukui & Elbert, 1987)] and learn about farming and
>
> being able to take care of themselves.

Reality based, culturally congruent curriculum. Some HLCB educators in this study stated that they place an emphasis on learning through a reality-based curriculum and connected it as a pedagogical practice shared in common with Montessori educators. Keomailani's comment illustrated the importance these HLCB educators place on teaching about the reality and history of a particular place.

> We wanted real things and things that are of their place. We truly believe that children need to be grounded in who they are and where they're from. That is definitely something cultural. People were of the land and they . . . took care of their land and their place and didn't go to *maha'oi* or bother other people in their place. They took care of their place. And I think a lot of that is missing . . . Our children don't truly know who they are, and so we want them to have that grounding.

Science-based integrated curriculum. Teaching through the use of a science-based integrated curriculum was mentioned as a similarity by both key informants and focus group participants. In both cases, similar to the timelines used by Montessori, the *Kumulipo* served as the focal point. Another way that a science-based curriculum was utilized was through the use of a place-based curriculum, that is, through using the physical place where the children's school was located as an integrating theme.

Observation of students. According to participants a shared teaching practice is teaching based on the observation of a child's actions and discerned talents by an elder, or elders. Kauanoe, a key informant, administrator, co-founder, and teacher at a Hawaiian language immersion charter school she discussed the way things are done at her school.

It's a way we think about things here. People have talents; they come with talent.

Your responsibility is to find out what they are. Be observant and find out what

those talents are and guide children to come into their own.

Knowledge of child development. Related to the practice of observing children, an

understanding of children's development was foundational to both traditional Hawaiian

ways of teaching and the Montessori approach.

Mastery learning. This key element of the Montessori approach was stated as

congruent with traditional Hawaiian ways of teaching and thinking. Teachers or elders

taught children as much as they could learn, and then provided opportunities to practice

until mastery was achieved. This continues to be a valued pedagogical practice in HLCB

programs.

A Way of Believing

This theme included seven values and beliefs that HLCB educators in this study

stated as shared in common with Montessori. They included valuing nature and the things

of nature, a belief in the importance of community and awareness of one's responsibility

to community, a belief in education as activist, and a belief in the role of the teacher as a

guide. They valued the qualities of humbleness, patience, and harmony in relationships

with the related values of beauty and aesthetics, order and closure. In both approaches

work, responsibility, and freedom to choose one's own educational path were important.

Valuing nature. The most commonly mentioned shared value or belief was

valuing nature. While I noticed a stronger emphasis on this value than is common in most

Montessori setting, I did not see the sequenced botany, zoology, and geography materials

and experiments commonly used in a Montessori classroom to teach principles of

biology. I also did not see, as would be expected in a Montessori classroom, specific

plants and animals used as exemplars inside the classroom of particular classifications of

plants or animals

Community. For both educational approaches, the notion of community included

the idea individual excellence enhances the functioning of the entire community. This

quote was an example of the inter-relationship of valuing the land, hands-on activities,

and valuing the community as a source of learning.

> For me, the community is important because it teaches the kids it's not all about
>
> them. It's about everybody. It's about your family, it's about friends, it's about
>
> people you don't know, teaching them about who you are, why you're here, the
>
> importance of taking care of the land, and the connections. And it's also good
>
> because they're not always in the classroom. It allows them to do hands-on things.

Valuing the qualities of humbleness, patience, and harmony. Montessori

(1912/1964) believed that teachers must possess the qualities of both humbleness and

patience combined with a reverence for life. The HLCB educators spoke of valuing the

qualities of patience and humility as well. They stated that a humble attitude opens

people, both children and adults alike, to mastery in learning.

Work, freedom, and responsibility. Work, freedom, and responsibility were all

values mentioned as being closely related to the notion that people should strive for

excellence in whatever they choose to do. Several HLCB educators mentioned that they

saw their role as helping the children achieve a balance among work, freedom, and

responsibility.

Teacher as guide. Puanani was an example of the HLCB participants who saw a similarity in the role of the adult in the two approaches. She noted Montessori's notion of "following the child" as she described her role as carrying children. The Hawaiian word *hāpai* means to carry (Pukui & Elbert, 1986).

> My role as a teacher is, I'm not even teaching. I am just *hāpaiing* them- carrying them-to do what they need to do . . . . I give them the tools, but it's really up to them how they're going to use it; how they're going to come to completion in whatever they're going to do. Once they do it, they're like, "I did it and this is my work." And they're so proud of it. So, I'm just following them- following the child, helping. Just, you know, "Come on, you guys can do it."

Beauty and aesthetics, order and closure. Like several other participants Kapuanani saw a similarity in these values.

> From Montessori you get beauty, aesthetics. On our side it's *maʻe maʻe kanani* and *maʻe maʻe. Maʻe maʻe* means to be clean. And *maiau hana. Maiau* means to do things cleanly and neatly and if you can't do it, the way our *kupuna* tell us, cleanly and neatly then don't do it at all. And it's like when you're taught to mix poi; there is a certain way of mixing poi. If it's not clean, that's not right you're not doing it right. You need to clean the bowl a certain way. Everything needs to be clean and beautiful. *Maʻe maʻe* and *maiau.* Your *hana* has to be *maiau.* Everything has a certain order-nothing chaotic.

Education as transformative or activist. Like Montessori, several of the HLCB educators I interviewed saw education as a way to change society and to take ownership of their culture and language through influencing not just children, but their families and

communities as well. An example of an HLCB educator who dedicated her life to this mission was Kauanoe. In her interview she described why she and others got involved as pioneers in the HLCB movement.

> We choose the context of education because that's where we can reach our children and our families. Through the context of education, we work together with families, but it actually is a mission that goes far beyond the educational context. In order for culture and language to survive it has to be a part of every facet of society and economy in order to be successful, yeah?

One aspect of this theme involved transformation and healing at both a personal and a community level. Many of the schools have a high proportion of placed-at-risk students and several mentioned the transformative nature of the school experience for their students. Lani described the transformation in her nephew, a placed-at-risk student.

> He came in walking like this. (demonstrated someone with their head held down, eyes to the ground) Everywhere he went he would always look to the ground . . . . And by the end of the half semester, he now walks like this, (demonstrated someone with their head held up) with a smile on his face wherever he goes. And he's not only doing hula and stuff, but now he plays basketball. He's starting to join other sports, and starting to come out of himself. He's starting to crack the shell now . . . . You know, it happened so fast, I barely even recognized him from before. And that is like a perfect example, because for me, seeing him transition from a regular public school to a charter school, I've seen him grow.

And then she said something that really surprised me.

> So we [the nephew and her] were talking story one day, and I said, "I think it's
> going to be the kids that's going to make my family realize, 'Eh, we are
> Hawaiian, you know?' And we should be proud of who we are. Because we lost
> that." And to see [the kids] having the chance to learn that, and bring it home, and
> to have our family actually see, "Hey, we are somebody, yeah?" "We did come
> from a solid background." It makes me proud that, "All right. We will live again.
> We will survive."

When I mentioned this conversation to another focus group, one of the participants
responded, "You're right. In our school it is a healing. It's going back to what our
families were a long time ago."

A Way of Knowing

The fourth theme, *A Way of Knowing,* included three shared elements in the
world-view of both sets of participants. They were (a) the notion that all of life is
interconnected, (b) the earth is a living entity that gives life, and (c) the nature of the
child is essentially spiritual with its own destiny to fulfill.

Interconnectedness. Montessori came to firmly believe in the interconnectedness
of all life, and to believe that it is important to teach this interconnectedness to children
(Montessori, 1948). According to many participants in this study, this was also important
to HLCB educators as a cultural underpinning. Kapuanani explained that some of
Montessori's "universal principles," one being the notion that all of creation is
interconnected in a timeless and seamless dance of life and energy, were common to
many indigenous people. She said that Montessori's focus on these universal principles,

more than any particular pedagogical practice, was what she felt the HLCB educators who first took the Montessori training at Chaminade were drawn to.

> I think what got Koa [a former Chaminade student], and the others, too, was that concept [of the interconnectedness of all creation-what Montessori called the cosmic plan]. It has Montessori's name to it, but the concepts are universal . . . . The beliefs and concepts that Montessori wrote down . . . are what indigenous people [like] our *kūpuna* [grandparents, (Pukui & Elbert, 1986)] believe. This is what we felt was a match.

> Kapuanani concluded her interview by mentioning the *Kumulipo* as an example of how the *kūpuna* see, like Montessori, the universe as an interconnected whole. As she put it, "We all have a place in the world. The *Kumulipo* shows that we're all related. We're related to the plants, we're related to the animals on the ground. We're related to it all."

> *The earth as a living entity* The notion that the earth is living and people should nurture and care for it was an explicit belief of Montessori (Montessori, 1948). Sol explained why he agreed with Montessori's cosmic plan.

> Because the whole world is part of who we are as people. Our philosophy as Hawaiians is that if you don't take care of what you have, in return, it ain't going to take care of you. And it is like our elder sibling, the heavens and all the plants and animals, because they came before you.

Sol explained more about the Hawaiian world-view and perspective, and concluded with one last similarity he saw between the two approaches.

And [I agree with] what they were saying. I think that everything in the universe

has a purpose. And once the kids realize that, then, they realize that they have a

purpose. And it's their *kuleana* to do the right thing.

The child as a spiritual being. Montessori (1966/1995) first developed the notion of what

she called the spiritual embryo to describe this particular idea. A Hawaiian world-view

may also include the notion that there are aspects to life that are unseen and spiritual,

including the unseen power or *mana* [supernatural or divine power, (Pukui & Elbert,

1986)] of each child. Puanani related this element to the notion that teachers can only be

guides to children.

It's a divine self, a self-identity that the kids need to connect with. They all have

that in them and if they can somehow find that in them, then they'll know that

where the peace is within themselves. We try to follow the child, you know, we

all do. And it's not easy for them, not even for [the ones who go to] our school, so

we just have to help them get there.)

Nuanced Distinctions

The fifth theme, *Nuanced Distinctions*, includes differences noted by the

participants as well as three values stated as important to the HLCB educators, but largely

absent in Montessori's writings. One surprising finding was the lack of ability of many

participants to articulate any differences whatsoever.

It's All the Same. In 10 of the 20 interviews, the response when I asked what

things did not fit, was "It all fits. This was surprising to me because the classrooms of the

HLCB educators I observed, all of whom have previous Montessori training, did not

"look like" typical Montessori classrooms. The following example came from a focus

group that works with middle school students. During the workshop, they were shown a video describing the *Erdkinder* model for adolescents. In the video, the students, who are in Houston, saw icicles on one of their trips to work on the farm. When I asked the group if they could think of anything that wasn't a fit, Kapono stated, "No, I think it will fit really well, the outdoors part will fit excellent, I think. But I didn't see anything that wouldn't fit." His colleague, Kapaʻa then added, "Nah, everything kind of matches." Kapono responded, "Right, basically just a lot of your culture content would be different from what we saw on the video. We're going to be working at the fishpond, for example . . ." and Kapaʻa chimed in, to laughter from the whole group, "Instead of seeing icicles, we'll be licking popsicles."

Differences noted by participants. One difference mentioned in three of the interviews was that the Montessori approach seemed to be too much of a Western model. Another difference was related to the role of the adult. From the perspective of the HLCB educators who mentioned this, Montessori educators encouraged too much equality between the adult and the child. A third difference, more free choice in a Montessori school than in an HLCB school, was noted by one participant.

Challenges to the Dream

The sixth and final theme, *Challenges to the Dream,* included six obstacles to achieving the dream of a restored language and culture through education: (a) a lack of specialized materials, curriculum, and resources, (b) a lack of specialized teachers and training, (c) a lack of funding, (d) academic issues related to No Child Left Behind testing requirements, (e) a lack of understanding and commitment by some parents,

particularly at the public immersion settings, and (f) students and families with special needs.

Understanding the challenges these educators faced helped me to understand the relative lack of Montessori practices in the classrooms of the HLCB educators who had been trained in the approach. Montessori teachers have access to a fully developed model, complete with training programs, well-developed and easily available materials, and a formal apprenticeship where students intern in an approved Montessori school for an entire academic year. HLCB teachers, on the other hand, had few mature models for what they were trying to implement. Kapono, a new HLCB educator articulated his need for training in the pedagogical practices that were unfamiliar to him.

> For me, I've got choke [a lot of] challenges because I'm a new teacher. I was brought up in that old school way of "You sit down, you shut-up, you do this; you do that." I know this other stuff works, but I don't know how to do it because it hasn't been modeled to me . . . . It's all a learning experience because I didn't graduate with a College of Ed. degree. I have a Hawaiian Studies degree. My training is all on the job experience.

Kamaka, the administrator at Maile's school, added that for him, the challenge was to design a system that worked for "us as indigenous people." He felt that with a stronger system, including systemic training, they wouldn't have to rely on individual teachers as much. As he ended the conversation, he added, "There's not necessarily somebody I can look up in the phone book to go come and do this training for us. Because we are in uncharted territory."

Koalani, a key informant and teacher in that same school, agreed on the need for a cohesive philosophy. She stated,

> In the classroom we don't have a cohesive philosophy, you know. We're not like a Montessori school. We don't have one cohesive something that's holding all of the instruction together. It's like a whole lot of, like the way Eric describes it, it's eclectic, yeah? It's a whole bunch of little pieces stacked on top of each other. Great ideas stacked on top of each other.

Discussion

A Grounded Theory

As noted by Strauss and Corbin (1998), one of the goals of grounded theory methodology is that systematically organized data will lead, through a process of inductive logic, to a theory that explains the meaning of at least one of the datasets. It is a perspective-based methodology, and the emergent theme that best ties the phenomena described by data into a coherent whole, into a story with a beginning, middle and end, becomes the grounded theory.

A Way of Knowing. The three elements within the theme, *A Way of Knowing*, comprise the grounded theory for this study. They provide the best interpretation of the results; through the two linkages described earlier they connect the other themes together into a coherent whole in a way that appears to explain the apparent tie between the Montessori approach and the HLCB educators, one purpose of this study.

To explain further, both Montessori and HLCB educators write and speak of relationships as timeless, interconnected, and conscious. They speak of the earth as an elder sibling that needs to be taken care of, and as living. They view children as having a

unique spiritual essence or energy that is connected intimately to both the past and the future. They speak of the interconnected nature of the universe, and of the role of the child in continuing this interconnected whole from the past to the future. From this, come the pedagogical practices and lifestyle choices perceived as congruent with their preferred cultural practices.

According to Hawaiian psychologist Rezentes (1996), the traditional Hawaiian perception of life and the world includes a holistic perspective with a timeless past, present, and future. In common with many indigenous peoples, there is a spiritual essence to all aspects of time, and all actions and things are considered to be relevant. Children are "full of mana that must not be toned down but rather must be placed in an environment to expend it" (p. 98). Rezentes maintains that the past extends to the beginning of time, to *'Io* or God. It is from God that all Hawaiians are descended. All decisions made today come from knowledge of the past, the stories of the past, the genealogy that ties all Hawaiians together. Not knowing one's history or past means not being able to know one's future because the two are intimately interconnected in a timeless way.

Hawaiian historian Osorio (2002) describes the nature of time as articulated by the Hawaiian language.

> *Ka wā mamua* and *ka wā mahope* are the Hawaiian terms for the past and the future, respectively. But note that *ka wā mamua* (past) means the time before, in front, or forward. *Ka wā mahope* (future) means the time after or behind. These terms do not merely describe time, but the Hawaiians' orientation to it. (p. 7)

These Hawaiian perspectives suggest that the basic essence of the universe is found in dimensions beyond what we can physically see or experience and that time has a non-linear aspect to it, with the past able to affect the future, and the future able to affect the past. Meyer (2003), a Hawaiian educational scholar, shows the connection between past, present, and future, as she describes a traditional morning chant.

> We stop, finally, and see the day for what is has become. We are all a part of creation and this vehicle of culture, this chant, has become the medium for this intimate knowing. Profound and exhilarating, simple and direct. We have helped the sun to rise; we have become a link in our own history. The experience of culture found in the integrity of action and ritual; peoples lives enriched, deepened, changed forever (p. 36)

This notion of timeless interconnectedness allows for a view of the spirit of the child as coming from both the past and the future simultaneously, and as both unique to, and in relationship with, the cosmos. It is a perspective that is common to many indigenous peoples, and many indigenous methods of education (Cajete, 1994; Greymorning, 2004; Setee, 2000).

It was also Montessori's view of reality, a reality that suggests humans are an intimate part of the universe and the earth. In her earliest lectures she spoke of the spiritual embryo (Montessori, 1956), and in her last writings wrote of the earth as a living entity (Maier, 2002) and of the cosmic plan, whereby all creatures are both interconnected and in creation to serve a specific purpose.

The grounded theory to emerge from this study suggests that the lens of timeless interconnectedness can provide one answer for why some HLCB educators working in

Hawai'i in the 21st century share a similar world view with an Italian physician who lived in the 19th and 20th century. This view of reality may provide a bridge between two kinds of educators separated in other ways by time and cultural circumstances. It may also provide a possible explanation for why so many participants overlooked what seemed to me to be obvious differences between the two approaches. The differences may not have been so much differences of world-view, as differences along a continuum of similar values or pragmatic differences due to lack of access to desired materials and training. In like manner, the shared challenges are at least partially explained by this shared world view as well.

A Focus on World-View

What might this mean to researchers and teachers today? Denzin (1994) suggests that all researchers today operate out of essentially four different paradigms that serve to impose order on the data. These four are positivist, post-positivist, constructivist, and critical. Sociocultural learning has often been associated with constructivism, both as a research paradigm and in terms of practical suggestions for effective classroom learning strategies (Denzin, 1994; Rogoff, Matsusov, & White, 1996).

On the other hand, the world view expressed by most of the participants in this study has not generally been associated with constructivism, nor has it been associated with any of the three research paradigms mentioned above. Although this world view is a way of understanding the world that may be common to many indigenous peoples, including many Hawaiians (Meyer, 2003; Smith, 1999), it is generally outside of the mainstream as a research paradigm. That it is outside of the mainstream suggests it is

possible that the voice and perspective of those who subscribe to such alternative world-views may be misunderstood and misrepresented.

This suggests that researchers who use the sociocultural perspective on learning as their theoretical framework and who work with indigenous peoples should include the possibility of such an alternative world view when designing research studies. In addition, those who work with pre service teachers and teacher education programs that focus on serving predominantly Hawaiian or HLCB school settings could possibly benefit from knowledge of this alternative perspective, as they continue to refine models and methods for culturally congruent approaches to teaching and learning. When underlying world views are congruent, or understood and taken into account, teachers and students may have an easier time understanding each other, thus lessening the chances of a home-school mismatch.

A Focus on Practice

According to participants in this study, access to culturally congruent models, materials, and pedagogical practices is imperative to educators attempting to provide an alternative to conventional or mainstream school experiences. Materials and structural support should be ongoing and appropriate.

Participants articulated many challenges regarding the acquisition of culturally congruent materials and pedagogy. Implementing desired pedagogical practices was often hampered by a lack of materials and other support. For example, a number of the key informants who had exposure to Montessori training wanted to implement the approach but did not have the proper access to materials, on-going training, and structural supports. On the other hand, participants who wanted additional training found it hard to access. In

Hawai'i, for example, there are no Montessori training programs that go beyond

preschool. Those who would like to implement the Montessori approach at the

elementary or middle school level would have to get that training out of the state, at

considerable cost and effort.

A Focus on Reform

The frustration over a lack of materials, training, and ongoing support expressed

by participants, as well as the lack of implementation of practices stated as desired, adds

to a growing body of research literature which suggests that school reform must be

comprehensive, culturally congruent, and generated from within the communities,

schools, and other stakeholders (Datnow, Stringfield, & Costello; Tharp & Gallimore,

1991. Teachers, administrators, parents, and members of the community want to create

their own models with the appropriate supporting materials, culturally congruent

pedagogical practices, and ongoing training.

To do this. pedagogical strategies that are a good fit for the learning needs of

students must be available. Structural support that facilitates culturally congruent and

preferred pedagogical methods and strategies must also be provided and ongoing staff

development must be offered (Buielenberg, 2000; Caine & Caine, 1997; Noddings,

1992). According to Datnow, Stringfield, and Costello (2005), simply inserting a new set

of strategies into an old model is not enough. Instead, they suggest the aim of school

reform ought to "challenge . . . social constructs of ability, race, and language (p. 198).

A Focus on Place-Based Education

As stated earlier, one of the possible challenges to Hawaiian children is what has been called a home-school mismatch (Au & Jordan, 1981; Boggs, 1985; Gallimore, Boggs, & Jordon, 1974; Tharp & Gallimore, 1988). Smith (2002) suggests that a curriculum incorporating a sense of place can adapt to the unique characteristics of that place, thus helping to overcome the mismatch between home and school. Application to real-life settings, a key to this type of educational experience, may help students to internalize abstract concepts. As described by Smith, the aim of place-based education is to "ground learning in local phenomena and students' lived experience" (p. 2).

For many HLCB educators, teaching children where they came from and teaching them to know in a three-dimensional way, through touching, smelling, seeing and experiencing, the names of the plant, animals, geological forms, and other aspects of their physical environment, was a key to teaching. Without this connection to the land, HLCB teachers did not feel that children could know who they were, as a people, or as individuals. Utilizing place-based education may support these educators in achieving some of these goals.

Like HLCB and other indigenous educators, Montessori recognized the importance of promoting a connection with the land. The approach and world-view of Montessori educators regarding the academic needs of adolescents is very similar to those of the HLCB and other indigenous programs (Feinstein, 2004; Settee, 2000) and although Montessori was only able to outline her vision for the *Erdkinder* model, others, such as Kahn and Ewart-Krocker (2000), have developed this approach to working with adolescents since the 1950s. Such place based education could perhaps

provide an antidote to the pressures felt by many Montessori schools in response to the high-stakes testing environment of today.

This pedagogy could also be utilized in the science curricula of conventional schools attempting to better serve indigenous students. Most children of Hawaiian ancestry are in conventional schools where teachers may not understand the culture and values of their families and community. According to Rothstein-Fisch, Greenfield, and Trumbull (1999), when teachers in conventional school settings understood the values and goals of the community, they were better able to understand how to teach children in their classrooms and how to communicate effectively with families. According to participants, place-based education responds to deeply held Hawaiian cultural values. Incorporating such a curriculum via the science program could support the development of a deeper understanding and rapport. Place-based science programs could easily incorporate Hawaiian culture into the content, helping to make the context more meaningful for all children living in Hawaiʻi, but especially for children of Hawaiian ancestry.

REFERENCES

Au, K. H. P, & Jordon, C. (1981). Teaching reading to Hawaiian children: Finding a culturally
  appropriate solution. In H. Trueba, G. P. Guthrie, & K. H. Au (Eds.), *Culture in the
  bilingual classroom: Studies in classroom ethnography* (pp. 140-162). Rowley, MA:
  Newbury House.

Benham, M. K. P., & Heck, R. (1998). *Culture and educational policy in Hawai'i: The silencing
  of Native voices*. Mahwah, NJ: Erlbaum.

Bielenberg, B. (2000). Charter schools for American Indians. In J. Reyhner, J. Martin, L.
  Lockard, & W. S. Gilbert (Eds.), *Learn in Beauty: Indigenous education for a new
  century*. (pp. 132-148). Flagstaff, AZ: Northern Arizona University.

Boggs, S. T. (1985). *Speaking, relating, and learning: A study of Hawaiian children at home and
  at school*. Norwood, NJ: Ablex.

Caine, R. N., & Caine, G. (1997). *Education on the edge of possibility*. Alexandria, VA:
  Association for Supervision and Instruction.

Cajete, G. (1994). *Look to the mountain: An ecology of indigenous education*. Durango, CO:
  Kivaki Press.

Carter, S. (2005, January 31). Culture in the classroom. *The Oregonian*. Retrieved July 21, 2005,
  from http://www.oregonlive.com/printer/printer.ssf?/base/news/1107176

Chattin-McNichols, J. (1992). *The Montessori controversy*. Albany, NY: Delmar.

Chattin-McNichols, J. (2001, November). *What does research say about Montessori?* Paper
  presented at the meeting of the American Montessori Society, Seattle, WA.

Chun, M., N. (2006). *A'o: Educational traditions* Honolulu: University of Hawai'i Curriculum
  Research & Development Group.

Cohen, D. H., Stern, V., & Balaban, N. (1997). *Observing and recording the behaviour of young children* (4th ed.). New York: Teachers College Press.

Cossentino, J. (2005). Ritualizing experience: A non-Montessorian view of the Montessori method. *American Journal of Education, 111*(2), 211-244.

Darling-Hammond, L. (1998). Teacher learning that supports student learning. *Educational Leadership, 55*(5), 6-11.

Datnow, A., Stringfield, S., C., & Castellano, M. (2005). School reform and the education of culturally and linguistically diverse students. In C. R. O'Donnell & L. A. Yamauchi (Eds.), *Culture & context in human behavior change: Theory, research, and applications,* pp. 179-203. New York: Peter Lang.

Denzin, N. K. (1994). The art and politics of interpretation. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 500-515). Thousand Oaks, CA: Sage.

Ezzy, D. (2002). *Qualitative analysis: Practice and innovation*. London: Routledge.

Farmer, M. (1998). Creating Montessori bilingual programs. *Montessori Life*, *10*(2), 22-25.

Feinstein, B. C. (2004). Learning and transformation in the context of Hawaiian traditional ecological knowledge. *Adult Education Quarterly, 54*(2), 105-120.

Gallimore, R., Boggs, J. W., & Jordon, C. (1974). *Culture, behavior, and education: A study of Hawaiian-Americans*. Beverly Hills, CA: Sage.

Gallimore, R., & Goldenberg, C. (2001). Analyzing cultural models and settings to connect minority achievement and school improvement research. *Educational Psychologist, 36*(1), 45-57.

Greymorning, S. (Ed.). (2004). *A will to survive: Indigenous essays on the politics of culture, language, and identity.* Boston: McGraw-Hill.

Goldenberg, C., & Gallimore, R. (1991). Changing teaching takes more than a one-shot
    workshop. *Educational Leadership*, *49*(3), 69-72.

Hatano, G., & Wertsch, J. V. (2001). Sociocultural approaches to cognitive development: the
    constitutions of culture in mind. *Human Development*, *44,* 77-83.

Heath, S. B. (1994). *Ways with words: Language, life, and work in communities and classrooms*.
    Cambridge UK: Cambridge University Press.

John-Steiner, V., & Mahn, H. (1996). Socio-cultural approaches to learning and development: A
    Vygotskian framework. *Educational Psychologist, 31*(3/4), 191-206.

Kahn, D., & Ewert-Krocker, L. (2000). Pedagogy of place: Becoming erdkinde*r*. *The NAMTA
    Journal, 25*(1), 145-167.

Kamanā, K., & Wilson, W. H. (1996). Hawaiian language programs. *Stabilizing Indigenous
    Languages* .Retrieved February 24, 2004, from
    www.ncela.gwu.edu/miscpubs/stabilize/additional/hawaiian.htm

Kanaʻiaupuni, S. M., Malone, N.J., & Ishibashi, K. (2005, September). *Income and poverty
    among Native Hawaiians: Summary of* Ka Huakaʻi *findings*. Honolulu: Kamehameha
    Schools-PASE, 05-06:5.

Kozulin, A., Gindis, B., Ageyev, V. S., & Miller, S. M. (Eds.). (2003). *Vygotsky's educational
    theory in cultural context*. Cambridge: Cambridge University Press.

Krueger, R. A. (1994). *Focus groups: A practical guide for applied research*. Thousand Oaks,
    CA: Sage.

Ladson-Billings, G. (1994). *The Dreamkeepers*. San Francisco: Jossey-Bass.

Loeffler, M. H. (Ed.). (1992). *Montessori in contemporary American culture*. Portsmouth, NH:
    Heinemann.

Maier, B. (2002). On becoming a cosmic educator. *Montessori Life*, *14*(2), 41-42.

May, S., & Aikman, S. (2003). Indigenous education: Addressing current issues and developments. *Comparative Education, 39*(2), 139-145.

Meyer, M. A. (2003). *Hoʻoulu: Our time of beginning*. Honolulu: ʻAi Pōhaku Press.

Miles, M., B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*

Montessori, M. (1948). *To educate the human potential*. Thiruvanmiyur, Madras, India: Kalakshetra Press.

Montessori, M. (1956). *The child in the family*. New York: Avon Books.

Montessori, M. (1964). *The Montessori Method* (A. E. George, Trans.). New York: Schocken Books. (Original work published 1912)

Montessori, M. (1966). *The secret of childhood* (M. J. Costelloe, Trans.). New York: Fides.

Noddings, N. (1992). *The challenge to care in schools*. New York: Teachers College Press.

Osorio, J. K. K. (2002). *Dismembering Lāhui: a history of the Hawaiian nation to 1887*. Honolulu: University of Hawaiʻi Press.

Pease-Pretty on Top, J. (2002). *Native American language immersion: innovative native education for children and families.* Retrieved September 15, 2004 from http://www.collegefund.org/news/research.html

Phillips, S. U. (1983). *The invisible culture: Communication in classroom and community on the Warm Spring Indian Reservation*. Prospect Heights, IL: Waveland Press.

Pukui, M. K., & Elbert, S., H. (1986). *Hawaiian Dictionary: Hawaiian-English, English-Hawaiian, revised and enlarged edition*. Honolulu: University of Hawaiʻi Press.

Rezentes, W. C. III. (1996). *Ka Lama Kukui Hawaiian Psychology*. Honolulu: ʻAʻaliʻi Books.

Rodriguez, L., Irby, B. J., Brown, G., Lara-Alecio, R., & Galloway, M. (2003). *An analysis of a public school prekindergarten bilingual Montessori program.* Paper presented at the Annual Meeting of the American Educational Research Association, Chicago.

Rogoff, B., Matusov, E., & White, C. (1996). Models of teaching and learning: participation in a community of learners. In D. R. Olson & N. Torrance (Eds.), *The handbook of education and human development*. Oxford, UK: Blackwell.

Rosanova, M. (1998). Early childhood bilingualism in the Montessori Children's House. *Montessori Life*, *10*(2), 37-48.

Settee, P. (2000, May 28-31). *Indigenous knowledge in the sciences and a practical application in the Super Saturday project.* Paper presented at the Annual Meeting of the Canadian Indigenous and Native Studies Association (CINSA), Edmonton, Alberta, Canada.

Scribner, S., & Cole, M. (1973). Cognitive consequences of formal and informal education. *Science, 182*, 553-559.

Smith, L. T. (1999). *Decolonizing methodologies: Research and indigenous peoples.* London: Zed Books.

Strauss, A., & Corbin, J. (1994). Grounded theory methodology: An overview. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 1-18). London: Sage.

Strauss, A., & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (2nd ed.). Thousand Oaks, CA: Sage.

Tharp, R., & Entz, S. (2003). From high chair to high school: Research-based principles for complex thinking. *Young Children, 9*, 38-43.

Tharp, R. G., & Gallimore, R. (1988). *Rousing minds to life: Teaching, learning and schooling in social context.* Cambridge, UK: Cambridge University Press.

Tobin, J. J., Wu, D. Y. H., & Davidson, D. H. (1989). *Preschool in three cultures: Japan, China, and the United States*. New Haven, CT: Yale University Press.

Welcome to the Montessorian World. (n.d.). Retrieved November 14, 2005, from www.montessorian.com/au

Yamauchi, L. A. (1998). Individualism, collectivism, and cultural compatibility: Implications for counselors and teachers. *Journal of Humanistic Education & Development, 36*(4), 189-199.

Yamauchi, L. A. (2003). Making school relevant for at-risk students: The Waiʻanae High School Hawaiian Studies program. *Journal of Education for Students Placed At Risk, 8*(4), 379-390.

Yamauchi, L. A., & Tharp, R. G. (1995). Culturally compatible conversations in Native American classrooms. *Linguistics and Education, 7*, 349-367.

Yang, Z. (2004). *HCPS II results: Grade 3 Hawaiian students in the DOE school year 2001-02*. Honolulu: Kamehameha Schools-PASE.