EXPLORING PLACE-BASED LEARNING AS A MODEL TO TRANSFORM
TEACHING PRACTICE AND FOSTER A PASSION FOR TEACHING

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Dedication

For my family, a representation of my past, my present, and my future.

For my parents, Larry and Ellen Konishi, for building a foundation for me and how they had modeled and embraced challenges in their own lives.

For Steve, for supporting and encouraging me to flourish and grow and who continues to inspire me with his zest for life. I am encouraged to be more mindful and embrace what life has to offer because of his example.

For Brett and Brooks, that you may always possess wonder and curiosity for the world – places filled with an abundance of culture and nature so that with modesty, you can explore the gifts you possess and can share with the world.
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I recently watched as a friend demonstrated how he took single strands of leaves from the Hala tree and lovingly interwove them into the beautiful Lauhala hat he wore. Lauhala weaving was similar to my journey as I completed my dissertation—there were many people interwoven throughout my doctoral process that I sincerely appreciate.

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I imagine that the Lauhala hat is a reminder of the time, energy and love a weaver puts into his/her own work. Similarly, this dissertation is a reminder of all the people that contributed to my knowledge, love, and dedication to education—I feel privileged and thankful to have had so many wonderful people interwoven into my life.
ABSTRACT

Educational reform and changes in policy require teachers to re-examine their classroom practices and make changes to their curriculum as they develop new methods for educational accountability and assessment (Porter, McMaken, Hwang, & Yang, 2011). In this three-year study, I examine place-based learning (PBL) as a curricular approach in a 5th grade classroom to explore the influences it had on my professional and personal satisfaction in teaching in the context of the educational climate from 2011-2014. This self-study used two research strategies to examine the changes in my beliefs and teaching practices. Data from students products, field notes, and self-reflective journals were analyzed using Cultural-Historical Activity Theory (Engeström, 2000) and longitudinal analysis to determine recurring themes. This research study produced six key transformations within my teaching as I explored PBL: 1) Self-awareness 2) Social-awareness 3) Environmental-awareness 4) Student-centered teaching 5) Cultivating relationships and 6) Renegotiating the distribution of power in the classroom. I found I was empowered as I continued to conduct place-based lessons over the three years and slowly developed a sense of my own agency as a teacher. PBL provided an avenue for me to reflect, critically examine, and develop my pedagogical practices aligned to my students, their families and community, despite external pressures from mandated curriculum and initiatives. This finding has implications for teachers if these reflective and place-based pedagogical practices more generally empower and build teacher skills and practices.
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PROLOGUE

This research study affirmed my love for teaching and gave me hope that teachers can forge their own pedagogical practice that aligns with their beliefs despite the educational climate. My teaching has since evolved and the years that I conducted this study were by far the most enjoyable years of my teaching career—when I used a pedagogical method known as place-based learning (PBL) to address my own feelings of teacher burnout. As part of this study, I explored how my professional and personal life, and the lives of my students, changed through our collective engagement in PBL. I begin this dissertation with a deep reflective look into my experiences growing up in order to provide a richer understanding of how my beliefs about teaching and learning had formed as a child and to provide a more holistic perspective from which I attempt to understand my professional and personal journey through place-based pedagogy.

I attended an elementary school in a suburban town about ten miles away from where I lived. Mountains and natural streams wrapped themselves around many large two-story homes in the quiet community that surrounded my school. In contrast, I lived in a colorful community bustling with people and cars. Although the landscape has since changed, I can easily visualize the community I lived and grew up in. In tightly nested homes with wooden frames and rusty tin roofs, my home was surrounded by low-income housing projects filled with immigrants trying to make a better life in America. My most memorable learning experiences occurred within the community I lived. Growing up in a diverse community and being surrounded by the blessings of a culturally rich tropical island made learning at home meaningful for me. Although I can’t remember much about the community my school was situated in, what I do remember is the chain-linked fence that bordered our school. It made it certain that I would not venture outside of the school grounds and

\[\text{\textsuperscript{1}}\text{The symbol } \textcircled{\textsuperscript{1}} \text{ denotes the beginning and end of a personal vignette.}\]
ironically it also kept learning bordered inside the four walls of my classroom.

❖

My family owned a small seafood and grocery store, in the heart of a culturally diverse community in Honolulu. I lived directly above the market. I spent many hours were spent exploring the live crustaceans and hidden treasures in the store. I would often study the live creatures by touching, holding, and observing them and then asking my dad questions about these creatures. It wasn’t only the ocean creatures that fascinated me. I also loved to watch all the people from different cultures visit the store. The people and community defined our store, and I learned at a very young age to embrace the cultures and diversity that surrounded my life. The store was my playground, my learning center, my lab for inquiry and discovery. It was a place that invited me to explore, imagine, and ask questions. I found it a place filled with adventure.

Several decades later, I can honestly say that this market was not just my home; it was also my way to learn about the world. Ironically, school was not where I was allowed to explore and muse over the relationships, cultures, diversity, and wonders of the world. In fact, my family’s store, the community I lived in, the cultures I interacted with, and the stories that my father shared formed the basis of who I am today—my beliefs, values, and identity as an adult and teacher. (Adapted from a September 2, 2010 “think/write” assignment for a place-based seminar at the University of Hawai‘i at Mānoa.)

❖

I was fortunate to have so many different experiences as a child and these experiences helped me as a young adult to embrace learning and explore opportunities for my own future. However, it may be important to note that I did not always want to be a teacher. It was after volunteering at a low income preschool in my community that I realized I wanted to teach. I was fascinated that the main portion of a child’s day was spent learning outdoors – I was equally
fascinated that the time students spent indoors were filled with opportunities to explore, sing, dance, imagine, and play together. I was amazed at how the balance of these learning environments promoted learning and this vision of learning carried on through my years as a beginning teacher. For many years I would take students on field trips to the tide pools, beaches, and streams where we would do experiments and learn about the organisms we found or about other interesting things we discovered. However, the longer I taught, the harder it became to take students on the water related field trips. I was bombarded with concerns for liability, paperwork for the field trips, ocean and water safety rules/regulations, justification in how the field trip fulfilled standards, and more often than not, I was often met with administrative resistance because of efforts for the school to be accountable towards students.

Field trips became planned experiences that were tailored to the standards and were often arranged in structured and fabricated environments such as the aquariums or indoor experiences such as plays. Although these were still wonderful field trips, they were often arranged at the sacrifice of the outdoor learning experiences that I used to provide students with. It was a struggle to continue the way I had originally been teaching and slowly, my teaching evolved and I eventually conformed to what was necessary; adhering to current policies, state standards and accountability efforts. Little by little, I relinquished planning my own classroom field trips and curriculum; rather, it became much simpler to teach the curriculum formed within our school’s textbook or take field trips that met the required curriculum or standards. As my role and practice changed, so did my love for teaching, my love for teaching slowly diminished.
CHAPTER 1

INTRODUCTION

After 24 years of teaching, it occurred to me that how I learned as a child and the beliefs I acquired as an adult played an important part of my journey as a teacher. Various researchers found that teachers’ beliefs can shape their pedagogical ideologies and practice. Thus, when there is a conflict between what teachers believe and what they practice, teaching becomes ineffective (Bussis, Chittenden, & Amarel, 1976; Stevenson, 2007; Vartuli, 1999). Teachers are said to have learned about teaching while they themselves were students, so it makes sense that the experiences a teacher provides for children are important since some of the memories students form may be lifelong ones that affect how they interpret experiences (Bowman, 1989; Danielewicz, 2001; Nespor, 1987). Researchers have contended what teachers say about their practice is most fundamentally, an influence of what their beliefs are (Anderson, 2015; Mansour, 2009; Olson, 1988; Pajares, 1992); In addition to beliefs, a teacher’s culture can also influence their practice. My experiences growing up helped to form an understanding of the world around me because it was rooted in the cultural, ecological, and even geographic places within my community and home. Thus, over the course of this study, I was able to reflect on the experiences I learned as a child outside of the classroom and formed meaningful markers that were central to my understanding of place-based learning (PBL). My exploration into PBL came in response to my fatigue as a teacher and after recognizing that I needed something new to rejuvenate the way I felt about teaching.

Teaching Roadblock

My teaching journey began in the early 1990s at a Title I school, a low-income school with a culturally diverse student population. Since then, I always chose to work in Title I schools, where I was able to learn about and embrace the different cultures and backgrounds of students. But within the two decades of my career, the context of teaching and educational goals had shifted in many ways. Since I had always taught students in the testing grade levels, I was aware of and sensitive to educational reform efforts and the pressures of testing, but when the No Child Left Behind Act (2002) was
enacted, high-stakes testing became a tool that determined how much “value” I added as a teacher to my students’ performance on tests. Staticians believed that monitoring the progress of the teacher each year could show the “value added” by the teacher to that child (Ravitch, 2013, p.100).

It was clear that Title I schools with low-income and culturally diverse student populations struggled academically and tended to adopt the most scripted and controlled curricula for the sake of raising test scores (Achinstein, Ogawa, & Speiglman, 2004). Therefore, it was difficult to equate how much value I added as a teacher, when I was required to teach from specific curriculum. My journey as a teacher in a Title I school was thus fraught with added professional and personal challenges. My role as a teacher became hazy as I began to teach rigorous test-taking skills and strategies that no longer encompassed the experiences and cultures I embraced as a child and thrived on as a teacher. I also had no time to appreciate and embrace the cultural diversity of my students; rather, I was expected to teach curriculum with fidelity from a published step-by-step textbook. By 2010, I had vested 18 years in a profession that I thought I loved, but with so much pressure to raise test scores, I was unhappy and I felt unfulfilled as a teacher. This was the first time in my teaching career that I contemplated leaving the profession.

Shulman (1987) explained that teaching begins with a teacher’s understanding of what is to be learned, how it is to be taught, and what teacher and student outcomes are desired. What makes someone a good teacher is not methodology or even ideology, it requires engagement with the way an individual conceives him/herself. So in this sense, teaching is not merely ways of acting or behaving, rather it is a state of being (Danielewicz, 2001). When mandated test scores had become my primary measurement of my students’ educational success, I became unsure of what my role as a teacher was and, although I still had a desire to continue in my practice, I no longer felt a passion for teaching or believed that I had a positive effect on my students’ learning.

**Focus for the Study**

The focus for this study was to examine the influences PBL had on aligning my teaching beliefs and practices in the current educational climate. Chapter 1 sets the stage for the inquiry and lays out the background, purpose, problem statement, the research
questions that guided the study. The chapter continues with the significance for this study, the theoretical framework in which this research was grounded, an overview of the methodology used, and the limitations and assumptions that impacted the study. The chapter concludes with a definition of the key terms used in this study and an overview of the chapter.

**Background**

In the history of American education, the purpose of educational reform was to help strengthen the curricula, improve student learning, and adapt instructional strategies to meet the needs of students (Levin, 2000; Toch, 1991). However, within the last decade or so, educational reform in Hawai‘i pervasively centers on a social construction designed to structure education to secure huge profits for private companies to develop things such as test materials, published curriculum, and remediation services. This social construction encourages the political debate that targets the failure of schools to adequately educate students to prosper in a globalized economy (Ravitch, 2010, 2013). There is tension between the need to educate students for a future involving global competition and the effects of such global competition, which encourages the current focus for education to prepare students to become active competitors and consumers in the global marketplace (Spring, 2007; Kahn, 2010). As such, efforts to close the achievement gap between what students know and should know and educate students to prosper in a globalized economy has led to a reconstruction of the educational system that encourage neoliberal commitments and market competition of our schools. This is carried out through the development of national and state curriculum goals, coupled with stringent measures of assessment and accountability for teachers, students, and schools. Most recently, this has occurred through America’s federal Race-to-the-Top (RTTT) initiative presented in 2009 as a way to incentivize states to improve their educational system.

RTTT was a comprehensive national educational reform agenda that provided federal funding for school by incentivizing states to adopt the National Common Core State Standards (CCSS). States competed to receive RTTT funds and as a result created programs that were designed to meet federal guidelines for performance based evaluations for teachers and administrators, adoption of academic standards, turning
around low performing schools, and improving student performance on high quality assessments, and the implementation of data systems to support decision making in schools around instruction, curriculum, assessments, and teacher quality (U.S. Department of Education, 2014). RTTT facilitated a nationwide emphasis on development and implementation of new learning standards and assessments to measure academic progress (Darling-Hammond, 2010; Durand, Lawson, Wilcox, & Schiller, 2016). This action necessitated public schools to include outcomes that are measurable and longitudinal in order to improve and inform instruction; an inclusion of quality indicators that represent normative frames of reference to measure students through quantifiable means, thus implying a process of educational change (Striano, 2009).

Some proponents of standards-based reforms believe that reforms spur resources for student learning, such as high-quality curriculum frameworks and assessments, more equalized resources for schools, or intensive teacher preparation (O’Day & Smith, 1993; Abrams, McMillan & Wetzel, 2015). Scriffiny (2008) contends that a standards-based adoption that includes standards-based grading helps teachers adjust their instruction and provides a launching pad to other reforms. It is believed that through a clear and concise understanding of standards, teachers are able to reexamine their curriculum and improve their instruction; teachers teach students that quality matters and teach them that standards are opportunities for students to measure the quality of their own work and help students to become proficient (ibid). National, state-wide and local standards and assessments have also had some success in drawing attention to the racial, social, and economic inequalities in the American school system (Kozol, 1991) and also have provided pathways that help to clarify educational goals and focus attention on achievement.

However, critics of standards based reform agree that these models encourage systematic inequities in our school and are not removed from, but are rather, the broader effects of globalization in which the economy is a driving factor in educational reform (Darling-Hammond, 2010; Striano, 2009). In many cases, reform efforts have “narrowed the curriculum, caused schools to abandon some successful programs, and created incentives for keeping and pushing low-achievers out of school” (Darling-Hammond, 2010, p 306). In fact, market based educational reforms have exacerbated
these inequities and the notion of standards and accountability are free market models driven by profit, which are also synonymous for continuous unnecessary testing (Turnipseed & Darling-Hammond, 2015).

Ideas about what a child should know and who they become as adults lie at the core of the development of learning standards (Popkewitz & Rizvi, 2009). These “ideas” are derived from cultural, economic and social development perspectives and imperatives. However, when educational development is seen as closely connected with economically driven policies, there becomes an imbalance of perspectives. Educational policies are becoming increasingly interconnected with social development practices (Striano, 2010). Educational systems are therefore created with the intention of economic development, social development, and innovation at the expense of “erasing two important functions of education: then transmission of normative heritage of particular societies and the development of critical thought” (Odora Hoopers, 2000, p.100). The emphasis of an economically driven educational system is a concern for teachers as it fosters a “corporate model of schooling that relies on the control of teachers and students through assessment requirement . . . a scripted education that specified the methods . . . where teachers follow a lesson script that would require exacting conformity to . . . content and method of instruction.” (Spring, 2007, p.53). Power and control is thus placed in the hands of for-profit corporations, which bolsters standardized data as the focal point for education at the expense of authentic learning (Ravitch, 2010, 2013a).

In a school system that reflects economic, rather than social and cultural curricula and practices, it is the marginalized student populations that appear to suffer and become victims of policies (Darling-Hammond, 2010). Although educational reform was presumed to provide a means for raising standards and achievement in all students, it is the marginalized student population, often found in Title I schools in Hawai‘i, with the least control over the type of quality and education they receive, who are the most vulnerable and often times the ones punished within the system (Darling-Hammond, 2010). However, students are not the only ones that are impacted by educational reformation. As test scores become the principal measurement of quality education and student success, it also becomes the primary influence on teaching as
teachers opt to exchange child-appropriate experiences for standardized curriculum and programs (Barksdale-Ladd & Thomas, 2000; Gaylor, 2005; Vogler, 2008).

Schools have experienced the most recent changes in policies and initiatives for the past year which included new mandated curriculum for English Language Arts and Math and statewide testing. Therefore, it is still unclear and too early to determine the effects of current reform initiatives in Hawai‘i, however what is clear that educational reform and changes in policy require teachers to re-examine their classroom practices and make changes to their curriculum as they develop new methods for educational accountability and assessment (Porter, McMaken, Hwang, & Yang, 2011). Since 2001, government and institutions have continuously introduced new curricula with the implicit assumption that new initiatives would improve teacher practice (Brown, Hanley, Darby, & Calder, 2007), but studies continue to show that there is little evidence of full adoption by teachers and the relationship to achievement in students (Baron, 2015; Bishop & Glynn, 2003). It seems that there is a call to look beyond the free market model for educational solutions, which are not fixated on products, but rather are focused on processes, and is necessary for change to occur (Baron, 2015; Ravitch, 2010).

The impact on teachers. Various research argues that mandated testing acts as a form of control over teachers’ work and compels “teacher-centered” practices by narrowing the pedagogical options that teachers have (Au, 2007, 2011; Vogler, 2008). However, Dewey (1897) believed that “education is the fundamental method of social progress and reform” (p. 16). Therefore, part of teachers’ responsibilities is to bridge what students learn in school to the real world and to make connections that help students define their experiences and understand why what they are learning is important. Doing so calls for action that requires teachers to find ways to use education progressively rather than only through accountable or globalized motivated measures.

Teachers need experience and opportunities to showcase practices that progressively help students to grow. A number of researchers also suggest that teachers’ knowledge and beliefs have an equal influence on teaching and can influence their work (Cimbricz, 2002; Neumann, 2013; Salinas, 2006). Shulman (1999) points out, “The inside beliefs and understandings must come out, and only then can something outside
The first influence on new learning is not what teachers do pedagogically but the learning that’s already inside the learner” (p. 3). Kagan (1992) claimed, “researchers have found that a teacher’s beliefs usually reflect the actual nature of the instruction the teacher provides to students” (p. 73). Many agree that it is time to focus on the required shifts in beliefs and practices in order to address student learning (Baron, 2015; Brown, Hanley, Darby, & Calder, 2007). Teachers’ knowledge and beliefs influence the way they teach (Neumann, 2016) therefore, change can also occur if teachers are able to reflect on and examine their own actions in terms of their beliefs (Schon, 1987).

**Searching for my beliefs.** Over time, research has established a robust relationship between teachers’ beliefs and their instructional practice by showing that beliefs can influence teacher thinking and behaviors, including teachers’ instructional decision-making and the development, delivery, and evaluation of the curriculum (Buehl & Fives, 2009; Gonzalez-Thompson, 1984; Philipp, 2007; Swars, 2015; Wilson & Cooney, 2002). Furthermore, Pajares (1992) contended that teachers develop their educational belief structure as a child through critical episodes and images; in fact, studies have found that teachers were influenced by episodic events, which played a key role in their practice as teachers (Goodman, 1988; Nespor, 1987; Pajares, 1992).

> When I was a little girl, my dad would take me camping on the North Shore of Hawai‘i and allow me to explore the tide pools and rocks along the beach. The rocks were always covered with tiny black shells clustered in the crevices. I had always thought they were so ugly and wondered why there were so many. “Those are pipipi, you can eat them,” my dad explained. I not only learned this snail-like creature had a name, but I also found them intriguing. We picked a bag full of pipipi that day, and my dad showed me how to boil them in salted water and how to lift the tiny, hard gill with a toothpick to get to the soft, creamy meat. It was delicious. I remember relishing this idea of picking something right from the beach and eating it. For the next several days, I would pick pipipi and bring them back to our cabin for my mom to cook—by then, everyone was
tired of eating the pipipi and there was often a bowl full of leftovers. My dad finally sat me down and told me, “Pick only what you can eat. You cannot put back what you don’t eat so if you over pick them, you will soon run out. You must let the pipipis grow and multiply so that others can enjoy and eat the pipipi, too.”

The lessons I learned and remember as an adult weren’t always from a textbook; they were the stories, conversations, and the exploring I did as a child. The most meaningful lesson came from the conversations I had with my dad and his interest in people and ocean creatures. Lessons such as the pipipi picking story were what built my understanding of the world I lived in. Ironically, the struggle I encountered as a teacher intensified as changes in education were induced and the beliefs that were instilled in me as a child about teaching and learning in the world we lived in were minimized; and I fell into a routine of reform-oriented curriculum. Cuban (1986, 2007) argued, “teacher centered” practices are a result when teachers are compelled to teach too much in too short a time period. He explained that teacher centered practices are coping mechanism that allow teachers to efficiently teach within the structural confines that are imposed upon them. By 2010, NCLB policies were in its last stages of implementation and RTTT initiatives slowly overlapped

September 9, 2010

To a certain degree, textbooks can provide a wealth of information to students. However, the problem I am addressing is that textbooks don’t necessarily address the needs for all types of learners and many times I find that students are learning what they are told to learn. I want students to explore and take risks and be able to solve problems that are much more worthwhile. More than just reading and doing projects, I want to find a way to teach students something that become lifelong skills for them and allows students to expand their knowledge beyond books.

I yearned to teach students in a way that was meaningful for them and struggled to find ways in which students found value in what they were learning and I found value in what I was teaching. Studies have shown that teachers at risk for burnout have a
reduced sense of personal accomplishment and see their work as futile and inconsistent with the ideals or goals they had as beginning teachers (Bullough and Baughman, 1997; Maslach, Jackson, & Leiter, 1996; Schonfeld & Bianchi, 2016). My childhood influenced my decision to become an educator, but I was missing a sense of accomplishment in my profession and equated these feelings to external pressures from my educational setting. It is from these feelings and the search for fulfillment in my profession, that in 2010 this study began. This was the year that I conducted a pilot study on PBL, narrowing the study in order to consider the potential transformative nature PBL.

**The exploration of place-based learning.** For me, PBL countered the realities of standardization and globalization by emphasizing a deep connection to place. My grandparents migrated to Hawai‘i from Japan while my parents grew up living on a plantation; neither my parents nor grandparents went to college. The meaningful lessons I learned as a child were rarely taught in a formal setting, rather, lessons came from the experiences and stories that were passed down. Despite my family’s lack of a college education, I never doubted their intelligence. They were well versed in sharing and passing down their knowledge through the stories and lessons that surrounded our lives. I found these to be much more valuable than what I was obligated to read in a textbook.

Thus, as a researcher, it was pertinent for me to reflect upon my interest in aligning teaching beliefs with practice in the midst of our educational climate. As a teacher, my experiences as a child were embedded in me and provided me with an understanding of how I wanted to teach and what values and experiences I could bring to the classroom, but my unhappiness in my profession conflicted with what I believed that I could offer in my practice. The place I embraced as a child defined who I was; it was a “happy” place where the approach to learning took on a different form than how I was teaching in the classroom. With this embedded understanding, the context of place and place-based pedagogy became a naturally fitting intervention to explore my attitudes, beliefs, and practice.

*January 2010*

*Sometimes I wish I had more time to reflect on what type of teacher I am or what my goals truly are. Throughout my many years of*
teaching, I have been through so many different school changes and reforms. All these changes make me tired and feel more and more isolated from teaching. I am emotionally exhausted and I have no desire to teach nor do I even want students to learn. I don’t know why I am teaching and I need to find a new job.

The decision to go back to school and pursue my doctorate was an alternative solution to find something beyond teaching. However, rather than finding a way out of teaching, I was introduced to a variety of approaches to learning that I did not realize existed. At this time, I began to realize that as a veteran teacher, I allowed years of educational constraints impose upon my growth as a teacher. I made up my mind to embrace different innovative approaches to teaching and learning and find the right paradigm that fit my teaching practice. One such practice was found after taking a place-based learning seminar in 2010.

Pilot project in 2010. In an effort to find the right paradigm that fit with my beliefs, I explored PBL and conducted a three-month pilot project from September 2010 to December 2010 at Island Elementary School, a school on the central side of Oahu where I was teaching sixth grade. I used a textbook to open my lesson and then posed a place-based field trip to a nearby watercress farm in order to help students understand the connection between Ancient Egyptian civilization and modern day watering systems. My observations at the time were on student engagement rather than teacher practice. I found that 100% of the students were engaged with the field trip, asking questions and engaging without any disruptive behaviors. The majority of the students strongly agreed that the field trip was a worthwhile experience that helped them connect to their lessons and to their own community. Following the field trip, students were able to create their own research questions and projects based on their interest of the watercress farm and its connection to irrigation. For example, students were able to find connections between modern irrigation systems and the Ancient Egyptian’s systems. They then pursued ways to reconstruct a modernized irrigation system, and they encouraged me to find ways to build an indoor irrigation system. We went to visit the neighboring intermediate school and took field trip to a local community college. Part of the reason for this field trip was to learn from community experts about aquaponics and how we could construct a system
for ourselves. As part of this curriculum, students went into the community to gather information, plan, and construct their own aquaponic system, which became the way to assess how they understood concepts of irrigation during both Ancient Egypt and the modern day watercress farm. For this pilot study, I collected some field notes, photos, and classroom observations.

**Findings from the pilot project.** Learning is based on the idea that new understanding is often constructed through the interaction of what individuals already know and the events or new knowledge that they come into contact with (Harland, 2003; Richardson, 1997). In the PBL pilot study, students were able to construct new knowledge by using place as a means to engage in inquiry, problem solving, and active collaboration with others. For example, rather than being a passive observer, the students positioned themselves within the nature and culture of their own community and they became active participants by applying what they learned from the watercress farm to research and build their own irrigation system in the classroom. Students were able to develop new knowledge as an extension to their learning and modify their worldview through these new experiences. Figure 1.1 shows the flow of assimilation of new knowledge that developed in the place-based pilot study.

*Figure 1.1. Place-based Pilot Study’s Assimilation of Knowledge Diagram (2010).*
It was meaningful for students to learn from a context of place because the resources were drawn from their families, communities, and environment (Falk & Dierking, 2002). It was equally meaningful for students whenever learning emerged from their participation in the place-based lessons rather than the textbook’s strict, internalized, cognitive methods (Livingstone & Sawchuck, 2004). The field trip opened my eyes to a different way of teaching, and I began to see how a community could potentially motivate students to learn. The trip to the watercress farm was a reminder that students learn by engaging in real life problems and it emphasized my belief that students need to learn in contexts that are rich with a range of social relations and experiences of the real world. The pilot study was an exploratory means to understand how PBL could affect student learning; however, patterns in my teaching were established as construction of new place-based lessons also took place. As students continued to assimilate knowledge, I continued to seek out opportunities to further students’ inquiry and learning.

Prawat’s (2002) research on conceptual changes indicated that in order for individuals to change beliefs, they must first be dissatisfied with their existing belief in some way. Therefore, if a teacher’s view of teaching and learning can influence their classroom practice (Carlsen, 1987; Smith & Neale, 1989), then it was clear that my dissatisfaction in teaching provided me with an opportunity to identify my beliefs and use PBL as an intelligible and useful means to extend my understanding of a new situation. For these reasons, I decided on a research question for this dissertation that was open enough to explore new educational approaches while at the same time enable an inquiry that would be the most promising for student engagement and teacher transformation in the current context of educational reform and neoliberal ideals.

This three-year study stems from John Dewey’s (1938) integral belief that experience and education are not synonymous to learning. Dewey implied that the effect of experience lies in the hands of the educator—therefore learning takes place when experiences engage students in activities that then promote future experiences. From the pilot project, I was able to develop an understanding of the connection between place and the students. Singleton (2012) asserts that PBL has the potential to transform individuals because it is multilayered and can be seen from global, societal
and personal perspectives. The concepts implemented in the pilot study and in the three years of place-based implementation varied in some form or another. However, despite my experimentation of various place-based lessons, the goal of this study remained constant. It was important to keep the focus of the study on my teaching practice and the influences that PBL had on re-igniting my passion for teaching and transforming my practice despite the current educational climate. In retrospect, the way students embraced learning in the place-based pilot study led me to believe that teaching was still a noble profession and that PBL could be an avenue to develop my personal satisfaction in teaching. PBL was worth exploring since it was not just a tool for personal transformation, it was also a tool for schools and agencies that are seeking to find more progressive, integrated, and inclusive solutions (Sobel, 2004; Theobald & Curtiss, 2000) to address teacher stress and burnout by developing passionate teachers.

**Purpose for the Study**

The purpose of this study was to use PBL as a curriculum to explore my teaching practice and develop a greater passion for teaching. The study aimed to explore the influences that place-based curriculum had on my professional and personal satisfaction in teaching within the current educational climate, and the changes that were fostered on my beliefs and teaching practice over a period of time. From the gamut of teacher beliefs, I chose to focus on *pedagogical* beliefs, namely what I believe about teaching and learning. This study was an exploratory journey in using PBL in my teaching practice (1) to provide a practical method for continuous improvement, (2) to engage students in learning and empower teachers to become agents of change, (3) to develop a passion for teaching in a time of intense accountability and reform. I would like to note that this study was not an attempt to propose solutions for raising student achievement scores, or resolving teacher burnout issues; nor was it a means to promote my journey over others. Rather, this study used PBL as a tool to investigate a new approach to teaching and learning in the current educational climate.

Also, before continuing further in this dissertation, I feel a need to clarify that my reference to passion in teaching was formed through my journey of this study. There are no clear lines as to what a passionate teacher means, and since my passion in teaching seemed to evolve through various experiences, my definition of passion in this study
meant having an unquestionable love for and joy in teaching. It meant teaching that extends content knowledge. Consequently, the extent of what a passionate teacher feels is intrinsic yet their passion is exhibited extrinsically in the work they do for others.

Feeling passionate about teaching is about inspiring others to discover their purpose and potential and having the desire to do so. It meant thinking about my lessons, students, and classroom with joy and waking up each morning, excited to go to work. As my study and my journey as a teacher evolved, evidence of passion in my teaching are exhibited in my love for my students, in what I do as a teacher, and in how I felt about my profession. In the following sections, I illustrate the challenges and share my journey in seeking passion and growth in my teaching.

**Statement of the Problem**

_I should have decided to do something much more worthwhile than teaching. I don’t feel the same as I did when I first started my career. I remember when teaching students was a lot more fun and right now, I just don’t like the teacher I have become (Journal, 2010)._  

After the implementation of various reform policies in the past two decades, teachers’ perceptions of educational changes in our nation have been less than favorable. My feelings in my journal were authentic and much of these feelings stemmed from the change in the educational climate. In 2004, the Civil Rights Project at Harvard University conducted a survey aimed at teachers to examine their perceptions and responses to the No Child Left Behind Act (NCLB), a United States Act of Congress that is a reauthorization of the Elementary and Secondary Education Act (Sunderman, Tracey, Kim, & Orfield, 2004). Key points from this study showed that teachers believed NCLB would not help to focus their instruction nor improve their curriculum. Rather, teachers believed reform efforts had narrowed curriculum by de-emphasizing and neglecting untested topics and excessively focusing instruction on tested subjects. Other studies suggest that reform policies in various countries resulted in absenteeism, teacher abandonment, and a negative impact in the quality of education provided to students (Day, Elliot, & Kington, 2005). Evidence from both past and present reform endeavors indicate the feelings of disempowerment in teachers where results are feelings
of burnout, loss of teacher autonomy, and teacher feel reluctant to embrace efforts that aim to improve the quality of education (Hargreaves & Lo, 2000).

Based on several studies, about 60% of all teachers show symptoms of stress and about 30% show symptoms of burnout (Antoniou, Polychroni, & Walters, 2000). Factors such as an increase in accountability, the lack of teacher involvement in developing curriculum, and an increase of teacher dissatisfaction and stress may potentially lead to feelings of ineffectiveness and inconsequentiality which are characteristics that lead to teacher burnout (Sunderman, Tracey, Kim, & Orfield, 2004). As more teachers suffer from stress and burnout, the overall achievement of our nation’s educational goals also suffer and thus posing a serious threat to the quality of education (Barrett, 2009; Farber, 1991; Leithwood, Menzies, Jantzi, & Leithwood, 1999).

Teachers play a critical role in making educational reforms successful; so it is important to understand that their beliefs about proposed and mandated policies can have a direct bearing on the success of educational reform (Cropley, 2001; Leung, 2008). Ironically, the role of teachers has shifted dramatically; and what is taught in the classroom is no longer controlled by a teacher or school, but rather through policy makers and regulated through assessments and excessive collection of data (Vallie & Buese, 2007). Nonetheless, teachers are highly aware of the policy’s impact on changing their professional practice as it limits their autonomy and empowerment to provide the educational value they were trained for (Barrett, 2009). This has also resulted in minimizing the needs of students and devaluing the ability of teachers to engage students in learning (Schiro, 2008).

Teaching in Hawaiʻi. According to the Hawaiʻi State Department of Education (HIDOE), more than half of Hawaiʻi’s public school teachers leave the profession within five years of being hired (Vorsino, 2010). Although data is muddled and the reason for the high turnover percentage is not specified, HIDOE does acknowledge that teacher retention is an issue. As part of its educational reform efforts, “staff success” and “successful systems of support” are goals within the state strategic plan (Hawaiʻi State Department of Education). To help reach these goals, an induction program was established, to provide teachers with mentoring and encouraging professional development (PD) programs, for the sake of supporting and retaining teachers on the
islands (Hawai‘i State Department of Education). However, without fully understanding why teachers leave their profession, addressing the issues through PD or mentoring programs may only scratch the surface.

Teachers complain that the skills and abilities of teachers have been reduced to a repetition of practice problems, diminishing teachers’ creativity and instructional abilities (Cawelti, 2006; Centolanza, 2004). Studies have found elements of burnout such as teachers’ job satisfaction and emotional exhaustion, related to their motivation to leave the profession (Skaalvik & Skaalvik, 2011). Therefore, teaching requires more than just professional development and mentorship to be satisfied in the profession.

Teaching is a profession that is driven by values and ethical motives or intrinsic motivations (Chang, 2009; Sahlberg, 2010). So it makes sense that teachers are often most comfortable when their teaching practice is aligned with their educational beliefs and values (Skaalvik & Skaalvik, 2011). However, in order to understand the reasons behind teacher retention, we must go beyond the investment on programs that focus only on new teacher mentorship or professional development. By focusing curriculum on abstract concepts that are hard to comprehend or are removed from the student’s place, teachers become disconnected to what they are teaching and students become disconnected from “the actual contexts of their own lives (places)” (Gruenewald, 2003, p.621). Wong (2013) suggested cost-effective alternatives to address teacher burnout such as tools and practices that empower teachers and provide teachers with opportunities that allow them to have agency in school-level decision-making.

**Research Question**

Plano-Clark & Creswell (2010) suggest that qualitative research designs operate on the understanding that the research questions focus on a central phenomenon and serve as the foundation for how the study interconnects the theoretical framework, the literature review, and the methodology. The overarching question guided and framed the inquiry of this study while the sub-questions helped to refine the relationships between PBL and my practice. Based on the results of the pilot project that demonstrated how PBL was an effective pedagogy to organize and bridge curricula in the current educational climate, the following research questions were developed:
**Overall question**

In a time of intense accountability and reform, can using place-based learning as a curriculum in a classroom change teaching practices and foster a passion for the profession?

**Sub-questions**

1 – In what ways will using a place-based learning model provide a practical method for continuous improvement of teaching and learning; placing teachers at the center of the change process?

2 - How does place-based learning curriculum foster changes in teaching practices and enable a passion for teaching?

**Significance for the Study**

Sustaining effective teachers is a valuable human resource and teachers have the agency to make positive changes to their practice and what they do daily in the classroom. In fact, studies suggest that capable and motivated teachers have the largest impact on student learning (Darling Hammond, 2000; Wilson, Floden, & Ferrini-Mundy, 2001). Consequently, motivated and capable teachers who believe in what they teach are able to connect students to learning and mold individuals to function in a socialized society (Dewey, 1897). Although the educational policy is often directly related to the teachers attitudes and the lack of creative teaching in the classroom, if a teacher’s beliefs are the strongest predictor of behavior (Pajares, 2003) and their views and preferences can influence instructional practice, then we need to keep in mind that teachers are an important tool in efforts to bridge content and learner within the context of educational reformation (Richardson, 1996; Roychoudhury and Kahle, 1999; Woolfolk-Hoy, Davis, & Pape, 2006). Consequently, improving teaching and learning needs to involve more than just shifting and revising policy or imposing demands upon teachers and schools. It should mean taking a closer look at what drives teaching and learning and finding ways to utilize a teacher’s beliefs to drive instruction.

This study was worthy of exploration since research on PBL was limited to the effects it had on student learning and professional in-service training (Chinn, 2007; Gruenewald & Smith, 2008; Smith & Sobel, 2010). Research has not included an in-depth exploration on the impact PBL can have on teachers’ beliefs, perception, and
practice in the classroom. In the midst of educational reform, the need to establish a realistic classroom opportunity that investigates how PBL can affect teaching and learning is necessary to sustain teachers. In this study, Cultural Historical Activity Theory (CHAT), which is an evolving theory, was used as a framework for examining PBL as a classroom intervention within the context of the larger educational system.

**Theoretical Framework**

Theory provides an informative framework, based on research that helps guide us to understand the world in which we live and the experiences we encounter within it. (Plano-Clark & Creswell, 2010). For this study, theory served as the lens for the questions in which I sought to answer, the manner in which I analyzed them, and the way I framed the experiences of my practice and the participants in my study.

Sociocultural theory was a relevant means to examine teaching beliefs and practice in the classroom because it assumes that learning, thinking, and knowing are constructed through social contexts. In fact, knowledge is personally constructed by placing emphasis on cultural experiences and social interactions in order to form individual meaning (Vygotsky, 1978). It encompasses multiple perspectives through interpersonal relationships that are located in a socially and culturally constructed world (Lave & Wenger, 1991; Vygotsky, 1962).

By using sociocultural theory as a theoretical lens, I was able to understand how knowledge and learning are socially constructed through the interaction and relationships among people, tools, and the environment (Hansman, 2001; Kilgore, 2001). Applying a sociocultural framework also allowed me to dig deeper and examine specific components within my study through CHAT. Through a CHAT lens, individuals make meaning of the world by including concepts of object-oriented (motivation) activity, collective activity, and culturally mediated human activity (Engeström & Miettinen, 1999), which is discussed more fully in Chapter 2. By using CHAT in this study, I was able to examine my behavior and the individual behaviors of students (Yamagata-Lynch 2003), and make meaning of these behaviors (Yamagata-Lynch, 2007), I was also able to identify activities that were critical in addressing my research questions. My intention in using CHAT as an approach to this inquiry was to analyze the actions within my study and to determine the changes in my teaching
practice that occurred over a period of time. Using CHAT as an analytical tool also helped me to identify tensions and to pinpoint conflicts that surrounded my teaching beliefs, practice, and student learning within a place-based context. One of the elements of using CHAT was being able to develop an understanding of real world activities and actions and to draw meaning from that understanding (Capper & Williams, 2004). Consequently, a sociocultural lens provided me with opportunities to reflect, organize, analyze, and problem solve (Borich & Tombari, 1997).

PBL was an ideal model for the sociocultural framework because it nurtured learning not just as a passive reservoir of knowledge but rather a deliberate and progressive means to deepen meaning through sociocultural means (Gruenewald, 2003; Smith & Sobel, 2010; Smith, 2002, 2007). PBL is an approach to learning that originated with John Dewey (1938) as he attempted to construct a progressively new educational philosophy that would link education and personal experience (Saltmarsh, 1996). PBL is an ideal connected to a social means of learning and is embedded in social events that occur when “children interact with people, object, and events in the environment” (Kublin, Wetherby, Crais, & Prizant, 1989). If learning were viewed as a social response, then using a PBL model for this study would be relevant to address the beliefs and behaviors of both students and teacher. PBL nurtures learning through cultural and social means, and thus is a perfect model within a sociocultural framework when it used as a lens to view teaching practice.

**Overview of Methodology**

Given the complexity of examining connections between my teaching and implementing place-based theories in my classroom, I decided to conduct my inquiry as a self-study while using action research methods. Kincheloe (2001) claimed that teachers who are involved in educational reform must model scholarship, which may be achieved through rigorous research. And rigorous research can be achieved through two methods: (1) self-study, which provides an empowering tool to examine a teacher’s practice (Loughran, 2004); and through (2) action research, which encourages teachers to be reflective of their own practice in order to improve their teaching (McNiff, 2002; Sagor, 2000; Lytle, 1993). Utilizing self-study and action research methods allowed me to address my research questions by modeling inquiry in my classroom setting and
allowed me to make sense of the problems that occurred within my classroom, which
could lead to better informed instructional goals—and ultimately lead to better student
learning. This is a basic overview of the methodology that will be laid out in chapter 3.

Limitations

This three-year study focused on PBL as it was introduced in my teaching
practice. It was important for the data to be carefully interpreted and analyzed because of
several limitations. First, the sample of the study was limited to the perspective of my
own teaching journey; therefore, questions regarding whether the results of this study
can be generalized may surface. This study takes place over a three-year period;
therefore, patterns that emerge are from methods that were reproduced from three
populations of students. Merriam (2009) explains that transferability can occur if the
researcher uses “rich, thick description” (p. 227) and gives careful attention to the
selection of the study sample. Thus, three years of data can provide a rich, thick
description that may help to address questions of generalization and offer a way for the
transferability of this study’s findings.

Second, the sample was restricted to lessons conducted in one classroom using a
relatively small population of students for each of the three years covered. Despite these
limitations, it is important to remember that the design of this study, including the
sample size and methodology, was deliberately chosen to take an in-depth look at
changes occurring in my practice through a CHAT framework.

Third, self-study can be messy and often includes narrative data that can create
biases, which may call the validity of the study into question. To ensure validity, the
narrative data was triangulated with additional forms of data and careful attention to
analysis and cultural interpretation was taken into consideration to avoid further biases.

Finally, PBL is dependent on the unique environmental, cultural, and historical
characteristics of a particular community, and thus lessons cannot always be replicated
or adapted from one place to the other. However, Smith and Sobel (2010) noted that
focusing on the local provides students with the power to engage in a real-world
relevance that is applicable to any subject area. Therefore, focusing on what is local is a
place-based model that could be replicated anywhere.
Assumptions

A general assumption regarding this study was that PBL could influence student learning and teaching practice. There was also an assumption that PBL could provide a natural means of motivation in students aside from the traditional learning setting. Another assumption is that students’ motivation can directly impact a teacher’s motivation to teach. Although there may be a variety of interventions that may render similar results, these assumptions were based upon the data and findings from this study and my pilot study.

Definition of Terms

A clear definition of the following terms is critical to understanding this study as terms in education often have multiple definitions. For the purpose of this research, the following list of key terms is defined within the context of their use and is included to provide clarity to the study:

Beliefs refer to the teacher’s thinking and principals of practice—what teachers believe their role of classroom teacher is and how students learn. Aguirre and Speer (2000) best defined beliefs as “the conceptions, personal ideologies, world values that shape practice and orient knowledge” (p. 328).

Burnout is defined by Maslach (1993) as “a psychological syndrome of emotional exhaustion, depersonalization and reduced personal accomplishment that occurs among individuals who work with other people in a profession” (p.20).

Common Core State Standards (CCSS) are the English Language Arts and Math learning goals developed in the United States for what students should know and be able to do at each grade level. The CCSS were adopted in Hawai’i on June 18, 2010 and began its implementation in school year (SY) 2012-2013 with grades K-2 and 11-12, and transitioning with full implementation of the standards in all grade levels in SY 2013-2014 (National Governors Association Center for Best Practices, Council of Chief State School Officers, 2010).

Culture in this study refers to the norms, values, beliefs, and patterns that shape a group’s (i.e., the classroom) behavior. Schein (2004) defined culture as a set of
shared assumptions that a group has accepted as true and is valued and used to solve problems.

**Cultural-Historical Activity Theory (CHAT)** provides an understanding of a phenomenon in activities and social interactions by using motivation (object) and cultural artifacts/tools to tease out tensions and contradictions within the activity (Engeström, 2001).

**Curricula/curriculum** is classified as subject matters that are specialized and divided into topics such as geography, science, math, etc. (Dewey, 1902).

**Depersonalization** refers to a “negative, callous or excessively detached response to other people, who are usually recipients of one’s services or care” (Maslach, 1993, p. 21).

**Educational Reform** is an effort to raise student achievement by revising existing practices in order to “improve teaching and learning in classrooms” (Glennan, 2004, p. 3).

**Experiential learning** is a dialectic process of learning that engages learners through the combined efforts of direct experience, focused reflection and perception, and cognition and behavior (Kolb, 1984).

**Native** is referred to in this study as the knowledge, cultures, and traditions that were passed down from the indigenous people that lived in Hawai’i. It also recognizes the essential interdependence of human beings and the natural elements (i.e. land, water, air, organisms, etc.) While Native Hawaiian is referred to in the study as individuals who are of Hawaiian descent.

**Neoliberalism** is the ideology that “open, competitive and unregulated markets, liberated from all forms of state interference, represent the optimal mechanism for economic development” (Brenner & Theodore, 2002, p.350). The ideology of neoliberalism promotes individual self-interest, unrestricted flow of capital, and privatization (i.e. privatization of schools) with the premise that competitive markets are more effective and efficient. Therefore, textbooks, programs, assessments, etc. developed by companies creates a free market in which companies profit from the marketed products that policies and forms of governance require schools to invest in.
No Child Left Behind Act of 2001 (NCLB) is a United States federal law designed to enhance several federal programs until 2014 and was created to improve the performance of schools in America.

**Passion** in this study refers to teaching that extends beyond content knowledge; having an unquestionable love for and joy in the professional. For this study, passion in teaching meant serving a purpose that was larger than myself and the burning desire to teach in a way that inspired students to discover their own potential and purpose.

**Pedagogy**, for the sake of this study, refers to the method and practice of teaching.

**Place-based education (PBE) and Place-based learning (PBL)**, are labels synonymously used to describe the interactive real-world approach to learning by using the local community and environment as the basis of learning (Sobel, 2004,).

**Perceptions/views** in this study refers to views, thoughts, understanding, knowledge, or values that influence individual behaviors.

**Practice** refers to the manner in which instruction in the classroom, schoolyard or community is taught and carried out and also to how concepts in a curriculum are taught.

**Western** was referred to in this study as lessons or situations that did not incorporate or reference Native perspectives or traditions (i.e. garden)

**Summary of the Chapter**

In this chapter, several key points stated the need, purpose, and relevance for this study. I discussed the importance of aligning one’s beliefs to one’s practice and the rationale of using PBL as a contextual curriculum to align my teaching. Using my voice and my story, I discussed the problem of burnout and my purpose for conducting this study. I described the research questions that guided this inquiry and touched upon the theoretical and methodological lens that framed my project. Finally, I discussed the limitations and assumptions that affected this study and defined key terms used.

Chapter 2 explores theoretical framework for this study in the literature review. In doing so, I hope to bridge past and current ideas so that they can be applied to this and
future studies that address teacher beliefs and teacher burnout. Chapter 3 expounds on the methodology of the research, including a closer discussion of how the qualitative study and CHAT were used. Chapter 4 provides the results and findings from this study, followed by a discussion of the findings and the implications of the study in Chapter 5.
CHAPTER 2
LITERATURE REVIEW

The purpose of this literature review was to provide an overview of the theory and background of teaching beliefs and practice, place-based learning (PBL) and sociocultural theory as it related to the current educational climate in schools in the United States. This literature review is organized into three sections. In the first section, I address the historical overview of the problem within the context of educational reform and the significance of aligning teaching beliefs with practice. The second section examines place-based history and development through a Native and Western context of place. I refer to Native in this study as the knowledge, cultures, and traditions that were passed down from the indigenous people that lived in Hawai‘i. While Native Hawaiian is referred to as the people who are of Hawaiian descent. The final section examines literature using sociocultural framework and concludes with a discussion of cultural-historical activity theory (CHAT) as a systems-oriented model to examine the history, purpose, components, conflicts, and outcomes of PBL all within the context of transforming teaching practice and fostering a passion for my profession.

Background

History of standards-based reform in America. In order to understand the constraints and costs associated with implementing PBL in a classroom, it was crucial for me to understand the logic behind reform efforts and how these external pressures affected my practice and beliefs. Although educational reform efforts have continuously been a part of education, one of the most significant moments in standards-based reform dates back to the original 1965 Elementary and Secondary Education Act (ESEA), which gained prominence after the 1983 publication of A Nation at Risk (National Commission of Excellence in Education, 1983) was released and became the impetus for the rally towards accountability and high-stakes testing. This publication alarmed citizens and lawmakers with its claim that public education in America was failing. As the report noted, it was believed that if changes did not occur in our educational system, our economic security would be severely compromised.

We report to the American people that . . . the educational foundations of our society are presently being eroded by a rising tide of mediocrity
that threatens our very future as a Nation and a people. What was unimaginable a generation ago has begun to occur - others are matching and surpassing our educational attainments . . . We have even squandered the gains in student achievement made in the wake of the Sputnik challenge. Moreover, we have dismantled essential support systems, which helped make those gains possible. We have, in effect, been committing an act of unthinking, unilateral educational disarmament. (National Commission of Excellence in Education, 1983, p. 5)

Almost immediately, the document inflamed “a sense of crisis over public education” (Scott, 2011, p. 273), and in the many years that followed, debates were ignited on various solutions to fix the educational system. One such solution was the No Child Left Behind (NCLB) Act. NCLB emphasized the role teachers played in the schools and the importance of effective teaching to improve public schools in America; it also targeted teachers as the reason for our nation’s failures and scrutinized their teaching abilities (Ravitch, 2010; 2013a). Dougherty (1983) hoped to curtail the blame from teachers by reiterating that the “list of culprits could be extended so no one group in society is blameless” (p. 3). But the report was aimed at delineating what students should know and be able to do at each grade level and, as an American culture, the claim that our schools were failing had been internalized to such a degree that questions to solve this crisis continued (and still continues) to be at the top of many policymaker’s agendas. As a result, testing became the logical approach to measure whether students were able to meet these grade-level requirements and teaching to the test became the solution for teachers to ensure that students met the requirements (Barksdale-Ladd & Thomas, 2000; Hamilton, Stecher, & Yuan, 2012).

In the years since Nation at Risk was first published, there has been rhetoric of high expectations and accountability for teachers. By 1989, efforts to redefine the school system were in full swing, as then Arkansas Governor Bill Clinton led a summit that would serve as an inspiration for President George H. W. Bush’s America 2000: Excellence in Education Act, which centered on school choice, national testing, and
charter schools (Scott, 2011). Although this bill did not pass, it opened up the idea of using free-market economics to define the school system (Burdick, 2012).

The continuous federal initiatives increased the demands on teachers and laid the foundation for an unprecedented federal intervention on state-level educational policy (Sunderman, Tracey, Kim, & Orfield, 2004). Thus in 2002, after a trail of educational initiatives and attempts to improve what was considered a failing school system and almost 20 years after A Nation at Risk report was first published, the most aggressive high stakes testing policy was implemented in the United States: the reauthorized Elementary and Secondary Education Act (ESEA), also known as the NCLB Act of 2001. NCLB shifted the focus of education to include methods to enforce accountability, flexibility, and choice so that “no child is left behind” (Olson, 2002). Although the goal of NCLB was to ambitiously bring all students to a level of academic proficiency within a fifteen-year period, it also introduced what David Hursh and Camille Anne Martina (2003) refer to as a “market system in public education” (p. 3).

NCLB identified what was important and valued with its emphasis on high stakes testing and highly qualified and effective teachers. This belief that the quality of teachers matters to the quality of education received by students’ dates back to the 1960’s where researchers (Coleman, Campbell, Hobson, McPartland, Mood, Weinfeld, & York, 1966) attempted to link commonly used measures of teacher quality (experience, educational degree, teacher certification, etc.) to student outcomes. The main effects of NCLB on teaching is that it explicitly required schools to have “highly qualified” teachers. Thus, the combination of requirements for quality of teachers and the more stringent testing environments made teaching appear to be costlier and risky as a profession, therefore changing the dynamics of the teacher labor markets especially in lower performing schools (Hanushek & Rivkin, 2010). The introduction of NCLB had altered the landscape that shapes teachers and schools; and teachers were now under scrutiny to raise student achievement and performance; thus increasing teacher turnover in lower performing schools (Clotfelter, Ladd, Vigdor & Diaz, 2004; Hanushek & Rivkin, 2010).

**Common Core State Standards and Race to the Top Funding.** In 2010, in order to address the disparate educational goals of NCLB and the inconsistencies in
academic expectations across individual states in the U.S., the National Governors Association (NGA) and Council of Chief State School Officers (CCSSO) released new curricular standards in math and language arts for primary and secondary schools known as the Common Core State Standards (CCSS). In June 2014, 43 states and territories adopted the CCSS (National Governors Association Center for Best Practices & Council of Chief State School Officers; 2010) although it was not field-tested. These standards were imposed upon and adopted by states despite the fact that they were unknown and new; a pilot study was never conducted and no one knew the effect it would have on schools, teachers, or students (Ravitch, 2013b). Additionally, initiatives such as Race-to-the-Top (RTTT) were proposed, giving states monetary incentives to reform their educational system and adopt the CCSS. But these initiatives also placed directives on schools to collect measurable and longitudinal data to improve and inform instruction (U.S. Department of Education, 2009), thus increasing standardized testing across our nation.

With the proliferation of corporate vendors who profit from key mandates such as NCLB, it is important to keep in mind these profits were generated from the failure of low-income students or students who perform poorly on tests (Burch, 2009). Similarly, CCSS and RTTT are key examples, as suggested by Brenner and Theodore (2005), of how government policies are used as a means to promote a market-based disposition by expanding the private sector in public education (Burch, 2009; Hursh, 2007; Ravitch, 2010, 2013a; Taubman, 2009). RTTT stimulated a “booming market” by selling a variety of products and services “to help states and school districts scrambling to meet the new standards” (Garland, 2011, p.1). Scott (2011) explicates that these corporate vendors also had significant influences in the development of the standards and assessments. For example, the authors of the McGraw-Hill Reading Wonders program, which was adopted by the State of Hawai‘i, are also key contributors to the development of the CCSS (Belardi, 2013) and the Smarter Balanced Assessments (SBA).

**History of standards-based reform in Hawai‘i.** Hawai‘i claims to have been engaged with the standards-based education reform well in advance of development of standards by national disciplinary groups. In 1991, the Hawai‘i State Legislature passed Act 334, which created a Hawai‘i Commission on Performance Standards to “insure that
students in Hawai‘i’s public school system are able to master basic skills and essential competencies necessary to succeed in life” (Hawai‘i State Legislature, 1991, p. 1045). The act noted that “one of the unresolved issues in Hawai‘i’s education system is accountability” (Hawai‘i State Legislature, 1991, p.1045 as noted in Brown, 2009).

First generation of standards – HCPS: The “Blue Book”. Subsequently the commission developed state standards for content subject areas that it considered essential to the education of all K-12 students in Hawai‘i (Hawai‘i State Legislature, 1999) and in 1994, they published the “Hawai‘i Content and Performance Standards” (HCPS), or what was referred to as the “Blue Book”. The Blue Book provided “standards for students completing the final year in each of four sets of grades—K-3 (primary), 4-6 (elementary), 7-8 (middle school), and 9-12 (high school)” (Hawai‘i State Performance Standards Review Commission, 1999, p.7). Teachers and schools were provided these standards as a guide in understanding what students should know in the final year of the four years.

Although in 1999, the Hawai‘i State Performance Standards Review Commission reported that “standards-based education is an extremely effective way to improve student learning” (Hawai‘i State Performance Standards Review Commission, 1999, p.2) they also reported that the Blue Book had lacked in various areas which hampered utilization of the standards, and it also failed to cover some academic areas. The Blue Book lacked an “overarching vision”, “systematic implementation plan” and measures in accountability. In addition to what was lacking in the standards, the report suggested Hawai‘i Department of Education (HIDOE) develop a “statewide assessment system” that aligned with the standards (Hawai‘i State Performance Standards Review Commission, 1999, p.2). Following this report, HIDOE drafted “a comprehensive needs assessment of the public schools’ system” and found that the Blue Book did not adequately address important “dispositions, attitudes, and skills that students should achieve” (Hawai‘i State Auditor, 2001. p.3). It had also only consisted of content standards and neglected to include performance standards (Hawai‘i State Auditor, 2001). With a great deal of clarity lacking in the standards, HIDOE used the comprehensive needs assessment and the Performance Standards Review Commission report as the
basis for developing the next set of content standards that replaced the Blue Book with HCPS II, or what was referred to as the “Rainbow Books”

**Second generation standards – HCPS II: The “Rainbow Books”**. Ambiguity in HCPS thrust legislatures and policy makers to require revisions to the first generation HCPS standards. The new standards proposed that students receive a curriculum that includes knowledge, skills, processes, and attitudes that are related specifically to academic subject. Therefore, in 1999, HIDOE developed and implemented HCPS II, which was referred to as the Rainbow Books because of the multiple colored books representing specific content areas. This second generation of standards covered a more comprehensive array of subjects, which included performance standards in addition to the content standards. HCPS II also focused on placing “standards at the core of curriculum, instruction, assessment/accountability, and staff development” (Brown, 2009). These new standards also reiterated the importance of General Learner Outcomes (GLO) as the goals for standards-based learning. The commission issued a report in 2003 that supported the notion of standards-based education and confirmed that it would “produce consistently high results for all children across Hawai‘i” (Hawai‘i State Performance Standards Review Commission, 2003, p.5). HCPS II was reported as a “work in progress” when it came to making connections to the GLO, clear criteria or rubrics, samples of student work, and strategies to meet diverse learner needs (Hawai‘i State Performance Standards Review Commission, 2003). Efforts to identify shortcomings in HCPS II lead to the revision of the standards and the creation of the currently used HCPS III.

**Third generation of standards – HCPS III**. In 2005, recommendations for revision of the Hawai‘i state standards were developed and the creation of HCPS III included content standards with specific grade level/course benchmarks, sample performance assessments and rubrics. In addition to changes to the standards, external policy developments impacted standards-based education requiring schools to align their Academic and Financial Plan with student achievement of the HCPS III (Hawai‘i State Performance Standards Review Commission, 2006). Presently, the Hawai‘i State report card is aligned to HCPS III and schools currently use this third generation of standards as their guideline for all subjects except Language Arts and Math.
Race-to-the Top. In 2010, Hawai’i was awarded a four-year funding from the federal RTTT grant. As part of the plan to raise the quality of education for Hawai‘i’s students, HIDOE established a comprehensive plan that focused on: data collection (to monitor student progress, identify effective teaching practices and inform decision-making in schools), a teacher evaluation system, and providing targeted support to struggling schools (http://www.hawaiipublicschools.org/racetothetop). In addition to the plan, as articulated in the RTTT application, Hawai‘i also set student outcome goals for its education reform agenda that included: Raising overall student achievement in English Language Arts (ELA) and Math, ensuring college and career ready standards and increasing the high school graduation rate, increase higher education enrollment, closing achievement gaps between student groups, increase STEM statewide (USDOE, 2015). As part of these goals, HIDOE decided to require a statewide use of core instructional materials for ELA and Math. Prior to the selection of common materials, HIDOE indicated that an inventory showed schools statewide were using “288 unique mathematics and 287 unique English language arts curricula” (www.hawaiipublicschools.org). HIDOE believed that providing a “consistent set of statewide instruction materials aligned to the Common Core will support the transition for educators and students to the new standards . . . teachers are still expected to be innovative and creative to address their students’ learning needs” (www.hawaiipublicschools.org).

The RTTT grant had ended in 2014; however, the state continued to utilize the implementation plans for common instructional materials from RTTT. As part of the implementation plan, the state had selected a common elementary ELA (Wonders) and math (Stepping Stones) curriculum, articulating expectations and timelines for schools to implement it. In August 2014, the Office of Curriculum, Instruction & Student Support (OCISS) presented to the Hawai‘i Board of Education Student Achievement Committee stating that all schools could “decide for themselves which school year to begin implementation”; however, “schools are expected to completely transition to the new program by SY (school year) 2016-2017” (www.hawaiiboe.net). HIDOE also continued to track implementation of the curriculum to assess whether the material was rigorous, and if the curriculum was providing the intended results. According to the
U.S. DOE executive summary, Hawai‘i is “still in an early stage of implementation . . . more time is needed to determine if Hawai‘i will achieve its ultimate vision to increase the rigor of instruction and improve student performance” (USDOE, 2015).

Reform and teaching. In the course of its three successive versions of HCPS and the current efforts to reform our educational system, I was teaching in the public school systems and experienced the multiple changes first hand. Hawai‘i had undergone a continuous restructuring and reform within the educational system and the intention was always to improve student performance. However, it is also critical to consider the effect of reform on teachers (Freedman, 2000). According to Rogers (2001), effective school changes include teacher input, and for change to work, teachers should be involved in the planning and implementation of the reform. Top-down control and accountability over teachers usually reinforces reform strategies that do not consider the needs of the teacher. The RTTT initiatives required an effective evaluation system that held teachers accountable for student growth and teacher effectiveness. The longer I stayed in teaching, the greater I felt the pressures for accountability. Consequently, efforts to redefine educational outcomes by holding teachers accountable had made teaching more difficult and less rewarding for me. With an accountability-based reform, curriculum and instruction became tightly controlled and affected schools and classrooms. The effect on classrooms trickles to teachers and the multiple effects from many years of sustained, centrally initiated government reforms upon teachers have affected their work, lives, and effectiveness in the classroom (Day & Smethem, 2009). The following section discussed the various effects of educational reform on teachers.

Effects of Educational Reform on Teachers

The classroom and school. The common basis for educational reform over the past several decades have been the use of high stakes testing to raise student and school performance while using accountability as a means to monitor progress (Brockmeier, Green, Pate, Tsemunhu, & Bochenko, 2014). The prevailing thought was that testing could influence what was taught in the classrooms, but what government and non-governmental organizations had ignored is how the process of standardization and testing affects the lives of those who interact with the new curriculum, such as teachers, administrators, students, and communities. Research had shown that educational reform
had critical effects on practitioners and learners in the classroom (Barksdale-Ladd & Thomas, 2000; Fishman, Marx, Best, & Revital, 2003; Firestone, Monfils, & Camilli, 2001), and when coupled with market-driven policies, teachers and their practice are drastically impacted as they seek to comply with these policies (Coburn, 2004; Darling-Hammond, 1990; Orrill & Anthony, 2003; Palmer & Rangel, 2011). Consequently, agencies and corporations search for a need to improve effective practices in order to increase resource allocation to build their own marketing plans (Darling-Hammond, 2004). And what educators may not realize is that neoliberal commitments and the market competition of our schools are naturalized in informal ways to exist in our schools (Thinnes, 2013).

Teachers and students are not the only ones impacted by educational reform policies. Koyama (2014) asserts that school leaders are also under immense pressure and are desperate to get their schools to achieve in this market-based, data-driven environment of accountability by using whatever comes to hand or “bricolage”, such as intensive reading programs, test prep, or data mining. Unfortunately, bricolage efforts have done little to move student achievement; rather, these efforts have increased the amount of work teachers have to do, increased the lack of support that teachers feel from administrators, and increased numbers of teachers leaving the profession (Jasper, 2015).

Teacher disempowerment. The aims for raising educational achievement and making teachers more publically accountable, are well documented within literature, most of which identifies the negative impact on teachers’ morale and professionalism (for example, Day 2000; Day & Smethen, 2009; Fullan, 2001: Hargreaves, 1997; Hargreaves & Evans 1997; Mahony & Hextall, 2000). One such impact on teachers is the loss of empowerment. Empowerment, according to Short, Greer, and Melvin (1994) comes in the form of teachers developing the “competence to take charge of their own growth and resolving their own problems” (p.38). Sweetland and Hoy (2000) pointed out that teachers who felt empowered had the greatest impact on student achievement, which is also crucial in creating effective schools (Wall & Rinehart, 1998). Yet, teachers report feeling paralyzed and ineffectual because they are forced to prepare for standardized tests by using market-based, commercialized resources to boost test scores (Webb, 2009), which in turn discredits the teacher’s professional knowledge of
curriculum and instruction (Kohn, 2013; Solley, 2007). Stacy (2013) acknowledged this and contended, “The current focus on standardized tests is a roadblock to teacher empowerment”. Thus, teachers are stuck in a “system of surveillance” where teachers are monitored for their compliance to standards teaching (Webb, Briscoe, and Mussman, 2009). Web et.al (2009) illustrated that teachers create an illusion of compliance by creating a “fabricated pedagogy” in which two teaching personas are created—one used when being observed and another used in the classroom behind closed doors. As a result, teachers lose their professional voice in order to comply with policies that are enforced through a scripted curriculum (Au, 2011) and thus lose the ability to assert their own professional judgment regarding their teaching (Stacy, 2013).

Educational policies that disempower teachers send out a message with a double-edged sword: improve the quality of education at the cost of strict mandates that narrow the curriculum and comprehensive accountability measures that monitor progress (Cochran-Smith, 2006). Policies surrounding standards, assessments, and student achievement have not only affected teachers’ work environments, but it also affected teachers’ instructional practice and beliefs about their own practice (Agee, 2004; Barksdale-Ladd & Thomas, 2000; Maisuria, 2005). Teachers view tests as a means of “hurting their performance and hurting children by forcing teach-to-the-test instruction” (Barksdale-Ladd and Thomas, 2000, p. 395). Notably, in his study, Davis (2000) found that the highly structured methods in a standardized curriculum made teachers feel less autonomous and that their expertise as a teacher was devalued to a facilitator for a national curriculum.

**Teacher burnout.** It is not a surprise that teaching has been reported to be one of the most stressful jobs in the United States (Dworkin, A.G., Haney, Dworkin, R. J., & Telschow, 1990; Johnson, Cooper, Cartwright, Donald, 2005). Stress can create challenges for teachers and even our nation’s Secretary of Education, Arne Duncan, admitted that the quantity of required testing is “not sufficiently helpful for instruction… too much testing can rob a school building of joy, and cause unnecessary stress” (U.S Department of Education, 2014).

Researchers at the National Education Association collected and analyzed survey data from PreK-12 teachers to find out what teachers felt about standardized testing
(Walker, 2014). Results from this survey indicated that testing environments contributed to lower job satisfaction and individual thoughts of leaving the profession. In fact, nearly half (45%) of the 1,500 individuals surveyed contemplated quitting because of standardized testing. What is clear is that over-testing has taken its toll on classrooms and the high percentage of teachers contemplating such a move underscores its corrosive effect on the profession.

These issues lead to additional concerns of teacher turnover rates, which costs schools and the government large amounts of money. Roughly half a million teachers in the United States move or leave the profession each year—an attrition that costs the government about $2.2 billion annually (Haynes, 2014). Deputy Superintendent Stephen Schatz recognizes that “one of the reasons people quit is because they’re struggling” (Kalani, 2015). Hawai’i’s five-year retention rate hovered around the national average of 50%, but retention rates have improved within the last three years, which HIDOE credits to a mentoring program that provides support for beginning teachers. However, these mentoring programs are organized to support teachers who are new to the profession rather than all teachers who need the support.

Studies have shown that teachers’ overall level of satisfaction and attitude are related to school performance: schools with satisfied teachers are more effective and are able to heavily influence the school community, climate, and student morale (Arifin, 2015; Brockmeier et. al., 2014, Moore, 2012; Ostroff, 1992). Hence, there is a need for alternative solutions that provide teachers with the opportunity to address tensions and potentially realign their external and internal beliefs in order to keep teachers satisfied in their profession.

Day (2005) found that creating contexts in which teachers are able to make connections between school priorities and their personal, professional, and collective identities and commitments are key to sustaining high-quality teachers and teaching. Therefore, if teachers’ core values, beliefs, and practices were connected to what they were doing in the classroom, then they would be more equipped to address stressful situations and respond to new challenges or circumstances (Hargreaves, 2005).

**Effects on teaching practice.** The continuous focus on testing has also affected the type of instruction teachers create in their classrooms (Brockmeier, Green, Pate,
Tsemunhu & Bochenko, 2014). Madaus and Greaney (2005) found that teachers emphasized subjects that are covered on the exam while choosing to neglect other subject areas both in their instruction and development of their curriculum. Limiting teaching to the questions on a test minimizes the importance of other content areas and the opportunities for teachers to claim ownership of their work, invest in their own teaching, and focus on real-world experiences for the students (Popham, 2001). As Stacy (2013) explained, empowered teachers are professionals who have the power to create curricula, administer their own lessons, and, as a result, have the ability to effectively teach their students.

Effect on students in Hawai‘i. Hawai‘i has unique educational governance because it is the only state in our nation with a single, statewide school district and an elected State Board of Education that does not have the authority to individually raise funds for operational or capital improvements in the schools. Unlike other states, Hawai‘i property taxes do not fund public education. Rather, funding for schools is determined by the legislative budget disbursed by the state’s governor (Thompson, 1999). Despite the unique educational structure of our islands, we are not exempt from the effect of policies instilled on our nation’s educational system. In Hawai‘i, RTTT initiatives are imbedded in the state’s Strive HI Performance System, where accountability and assessments continue to drive the curriculum, enforce test preparation, and instill accountability measures in our island’s schools until its expiration in school year 2017-2018 (http://www.hawaiipublicschools.org/).

On May 2013, the U.S. Department of Education (USDOE) granted the HIDOE a waiver from the NCLB and approved the new Strive HI Performance System in the latest attempt to “ensure all students graduate college-and career-ready” (Hawai‘i Department of Education, 2013). The Strive HI Performance System included components that measure growth and outcomes based on the CCSS aligned SBA and other indicators. This is problematic in that the actions of governing agencies and non-governing organizations determine and shape what happens in our schools, how teachers teach, and what students learn (Burch, 2007, 2009). As the pressures for accountability mount on Hawai‘i’s teachers, many complain that the constant changes and growing reliance on bureaucratic processes consume time that is taken away from teaching
(Kubota, 2014). Under those circumstances, teachers have begun to steer their curriculum towards test preparation strategies and skills (Neill, 2013; Ravitch 2013) rather than content that are meaningful to students’ lives.

One key focus of Hawai‘i’s RTTT agenda is turning around low-performing schools. Consequently, standardized testing and reform discriminates against minority and low-income students (Ravitch, 2010, 2013a). Therefore, students who are ethnically or socioeconomically segregated are impacted by the data-driven movement from low achievement and test scores (Madeus & Clark, 2001; Ravitch, 2010, 2013a). For example, data shows that there are gaps in Native Hawaiian educational outcomes such as lower achievement rates (Kana’iaupuni, Leward & Jensen, 2010). In fact, standardized achievement scores for Native Hawaiian students in public schools are among the lowest in the state (Kana’iaupuni & Ishibashi, 2003) and lag behind other major ethnic groups (Look, Trask-Batti, Agres, Mu, & Kaholokula, 2013).

The discrepancy in achievement may stem from the mismatch between students’ expectations and interests and the school’s, the latter of which is often based on the values and expectations of standardized ideologies (Sleeter, 2005). One must question the wisdom of standardizing what everyone teaches and learns and advocate for a wider array of knowledge beyond a traditional fixed approach to standards (Sleeter, 2005). Therefore, building a more contextualized instruction that incorporates what students already know with new information may help guide effective instruction for culturally diverse learners (Kawakami, 2004; Yamauchi, Wyatt, Taum, 2005).

**Creating an Effective Approach to Reform**

Creating an effective approach to reform requires a balance between standardization processes, such as CCSS implementation, and the consideration of teachers’ and students’ needs (Glennan, 2004). With changes to policies brought about through NCLB, CCSS, or RTTT, one thing remains clear: teachers are not given the autonomy to teach the way that best fits their area of expertise nor are they able to consider a child’s background as a basis for learning. Since our educational system’s current goals are to prepare students to respond successfully to the economic, civic, and global demands of the 21st century, states need to “create approaches to meet local context needs” (p. 19) that balance between local needs and coherent efforts of reform.
by adapting national CCSS and assessments to local districts and schools (Saavedra & Steele, 2012).

**Teaching Beliefs and Practice within Educational Reform**

*Teaching beliefs and practice.* According to Mansour (2009), beliefs are one of the most difficult concepts to define because there are no clear definitions (Savasci-Acikalin, 2009). For this study, teacher beliefs are referred to as how teachers think about the nature of learning and teaching (Aguirre & Speer, 2000). Teachers’ beliefs, practices, and attitudes are important for understanding and improving the educational process and are linked to how teachers cope with challenges (OECD, 2009). However, good instruction alone is not determined by the background, beliefs, and attitudes of teachers—instruction should be responsive to students’ needs and teachers should be able to adapt to the different social backgrounds and cultures of students (OECD, 2009).

In fact, Davis & Adrezejewski (2009) contend that beliefs are guiding principles that serve as lenses through which new experiences can be understood and even become a part of a teacher’s identity.

According to Pajares (1992), an investigation of teacher beliefs is a necessary inquiry for research and education. When one is able to identify and describe the influences of teacher beliefs on instructional practice, it enriches and deepens our understanding of the teaching process and classroom (Aguirre & Speer, 2000; Savasci-Acikaklin, 2009). Moreover, according to Thompson (1992), some studies support the claim that teacher beliefs can influence classroom practices through an interpretation of meaning in the classroom. For example, Yero (2002) suggested that teacher beliefs affect how teachers behave and practice in the classroom. She states,

> If teachers believe a program they have been told to use is based on a solid foundation, and if the program is based on beliefs similar to their own, they will notice ways in which the program works. If they believe it is a waste of time, they will notice evidence supporting that belief (p. 24).

Mansour (2009) argued that teachers’ experiences both in school and out of school are significant factors in understanding the relationship between teaching beliefs and practice. Therefore, how teaching tasks are conceptualized and the way in which pedagogical knowledge is interpreted play a critical role in determining how teachers
teach (Bryan, 2003; Pajares, 1992). Classroom practices are said to be strongly associated with learning (Hofer & Pintrich, 1997; Kagan, 1992), and if beliefs are misaligned with what teachers are mandated to teach, the students’ value in the educational experience deteriorates. Moreover, teachers who remain in their profession with beliefs that are not aligned with their practice are less likely to use an effective strategy, which in time often leads to teacher burnout (Black, 2001; Dworkin, 2001).

Various research studies have documented the relationship between teacher beliefs and practice (Bingimlas & Hanrahan, 2010; Ertmer, 2005; Calderhead, 1996; Kane, Sandretto, & Heath, 2002; Pajares, 1992) noting that teachers’ beliefs are associated with certain styles of teaching and can even influence teachers’ perceptions, judgments, and behavior in the classroom (Kagan, 1992; Pajares, 1992). Ertmer (2005) states that, “Early episodes or events . . . have the potential to color perceptions of subsequent events, especially if early experiences are particularly unique or vivid” (p. 29).

Earlier work on teacher beliefs and technological integration by Hadley and Sheingold (1993) and Becker (1994) investigated the relationship between teachers’ beliefs and student-centered learning. These studies found that teachers with constructivist beliefs tend to support student-centered curricula; and those with traditional beliefs used more teacher-directed curricula. Findings revealed that technological requirements did not change a teacher’s practice, especially if the changes were not accompanied by a shift in the teachers’ pedagogical beliefs. Similarly, even if lawmakers initiate educational policies or statewide objectives and programs mandates improve student learning, the outcomes may not yield the intended results if teachers’ pedagogical beliefs are not aligned to their intended practice.

Reform and teacher beliefs. Educators are under tremendous pressure to ensure that their students perform well on tests. Unfortunately, this pressure has caused teachers to teach to the test (Popham, 2001), teach in ways that contradict how they believe they should be teaching (Koretz, Mitchell, Barron, & Keith, 1996; Abrams, Pedulla, & Madaus, 2003), and even cause some educators to cheat on tests in order to score well (Amrein-Beardsley, Berliner, Rideau, 2010). While teachers understand the
impact of testing, their beliefs and experiences also play an important role in influencing their behaviors and practice and in determining what and how students should learn.

Smith and Southerland (2007) reported that teachers’ beliefs traditionally have been impacted by the way they “interpret reform and how (or if) changes have been enacted in their classroom” (p. 415). On the other hand, van Driel, Beijaard and Verloop (2001) are convinced that “reforms call for radical changes in teachers’ knowledge and beliefs” (p. 140) about content, teaching, students, and learning. Therefore, research has shown that teachers’ beliefs can affect reform implementation and, conversely, that reforms are often written in part to affect beliefs. This seems like a vicious cycle, but the purpose in this literature review was to provide a background of the literatures that this study was built on and also to look at creating opportunities that provide educational advantages through meaningful and practical reforms. Past educational reform efforts constantly failed because they often overlooked the value of the classroom teacher’s identity and beliefs within the process (Darling-Hammond, 1988).

**Aligning beliefs and practice.** In lieu of mandated curricular and accountability goals, various teaching and learning models provide a useful lens to examine beliefs and teaching practice. Song, Hannafin, and Hill (2007) utilized a “reconciliation model” (p 34) as a way to align expectations and beliefs of teaching and learning. In this model, successful teachers were able to recognize the difference between their teaching beliefs and the practices of their students. Reconciling what teachers believed with what students believed and practiced created a stronger relationship between teachers and students. For teachers, the reconciliation model extends how we conceptualize the relationships and interactions among teacher and students; thus acknowledging the shared nature of the teaching and learning enterprise.

There is also a growing amount of literature that documents the need to reinvigorate teaching to better engage students and teachers through meaningful application, relevance, and participation (Barab and Roth, 2006; Tytler, 2007; Williams and Semken, 2011). Even prior to the introduction of the NCLB and RTTT policies, Maslach and Leiter (1995) preached that various factors can play an important role in aligning beliefs with practices: 1) build student-teacher relationships, 2) design
intervention studies, 3) determine whether changes lead to different outcomes, and 4) search for existing programs that work successfully. If relationships are one of the key factors to aligning beliefs with practice, then the transdisciplinary nature of PBL was a well-suited intervention worth exploring for this study.

According to place-based educators, the localized and contextualized nature of PBL can be a viable means to build relationships and to encourage changes in education that will engage students and teachers (Gruenewald and Smith, 2008; Hutchison, 2004; Sobel, 2004). Chinn (2011) found that transformative learning took place when teachers were able to develop a connection between their personal experiences and their understanding of place in their role as teachers.

**Foundations of Place-Based Learning**

PBL is a pedagogical approach that promotes learning within the local environment or community where students learn about their environment by capitalizing on their individual lived experiences (Knapp, 2005). PBL requires that students not only acknowledge both the local and traditional knowledge of their environment, culture, and history of the place in which they live, but that they also learn and develop a relationship with their environment. Thus, place-conscious educators focus on the lived experiences of place by interconnecting culture and the environment and by providing a locally relevant path for multidisciplinary inquiry and democratic participation (Gruenewald, 2008).

As a framework for curriculum development and pedagogy, PBL can provide a basis of inquiry for all students. However, given the diverse cultures of Hawai‘i, this inquiry should not only be practiced through a Western context, but it should actively work to validate the local knowledge and perspective of students and their culture of our islands. This section of the literature review will provide the context of place within a Western and a Native or local cultural context in order to embrace the different perspectives of place-based concepts.

**A Western context of place.** Involving students with direct experience and reflection, or what is referred to as experiential education, has been practiced for centuries in the teachings and philosophies of people like Comenius, Aristotle, Pestalozzi, and Dewey (as cited in Singleton, 2012); however, PBL is a fairly new term
that emerged in literature within the past two decades. In the late 1990s, PBL emerged as a pedagogical approach to teaching and learning and as a way of purposely considering the physical, cultural, and historical contexts of one’s world. However, origins of place-based concepts date back to ancient civilizations where societies depended on their natural resources as a way to survive. Support for place-based ideas evolved from people such as John Amos Comenius, who was a seventeenth-century educational philosopher (1592-1670) born in the Moravian village of Comna and an early advocate of place: "we should learn as much as possible, not from books, but from the great book of Nature, from heaven and earth, from oaks and beeches” (as cited in Payne, 1892). Even the core principals of place-based ideas existed when Comenius further advised, “Knowledge of the nearest things should be acquired first, then that of those farther and farther off” (as cited in Sobel, 2004).

Visionaries as far back as the eighteenth century acknowledged other place-based ideas. Swiss Johann Heinrich Pestalozzi (1746-1827) and German Friedrich Froebel (1782-1852) both believed in the value of child-centered learning, where a child’s instincts, activities, and interests are the starting point of education. Both Pestalozzi and Froebel included place-based models in their early education programs and expressed the importance of the concept “education must harmonize with nature” (Heafford, 1967, p. 44). Froebel, who was the founder of the modern Kindergarten structure, included localized content in his curriculum such as nature studies and gardening (Buxton & Provenzo, 2012).

In the United States, similarly progressive philosophies have vacillated throughout our educational history. For example, Pestalozzi’s philosophy of learning influenced John Dewey (1859-1952) when he formed his philosophy of experiential education for democracy (Dewey, 1944; Singleton, 2012). Place-based concepts were an essential part of Dewey’s progressive curriculum. Place also played an important role in Dewey’s philosophy of learning as he advocated the importance of place by creating an educational model that immersed students in the fundamental activities of their community (Smith & Sobel, 2010). Dewey (1938) contended that students who learned “in place” fostered critical thinking, connected school to the students’ own lives, and developed students as whole social beings.
**Constructing learning through experience.** Dewey (1938) found that the connections between past experiences and present issues are instrumental for future endeavors as “education is a development within, by, and for experience” (p. 17), an idea that focuses on the inter-relationship of “the principle of continuity” and the “principle of interaction”. Experiences within an educational construct can occur in both traditional and non-traditional settings; however, what Dewey’s “principle of continuity” referred to was the value of educational experiences that connect and establish continuity to further one’s experiences. Although Dewey does not directly mention the notion of place in his essays, his educational philosophy of constructing learning through experiences intertwines with the dimensions of place (Jayanandhan, 2009).

In the 1890s, Dewey expressed his concern for the emerging disconnect between formal learning and community life in his book, *School and Society*, which then prompted him to seek out an educational approach that would recover that relationship. In 1896, Dewey’s educational model was put into practice when he founded the Laboratory School, a school that advocated for the integration of contextual learning by engaging students in fundamental community activities that emerged from their academic curriculum (Smith, 2002). Dewey’s progressive movement included tapping into the local community and addressing issues that were compelling to students at the present time (Smith & Sobel, 2010).

Most students see knowledge as valuable when it allows them to engage in activities that are meaningful for them and relates to their own social reality in some way (Smith, 2002). By developing childhood experiences in students, teachers have the ability to build road maps for new teaching experiences for both students and themselves. Learning that takes place in the child’s environment and maps out childhood place experiences is an important part of revitalizing not only place relationships, but also the reflective practices that foreground how these place relationships can affect teaching practice (Thomashow, 1996).

**Hawai‘i’s Culture in Education**

Most students from our islands experience education through a Western cultural lens, with textbooks and standards that do not emphasize the “values, actions, customs, culture, and identity” of students (Smith, 1999, p. 35). Things have not changed
much—in fact, my educational experiences nearly forty years ago are quite similar to the schooling today; textbook, tests, and teacher directed discourse is what I remember. Similarly, Ledward (2013) illustrates his thoughts about school systems in the 1970s: “while there was so much change going on outside [referencing various events during the “Hawaiian Cultural Renaissance], most of educational life was spent inside the four walls of a classroom. I could look outside . . . and see things happening, but inside the classroom I was taught about pilgrims and forefathers from textbooks. And the only time I really spent outdoors was during recess.” (p. 36).

Historically, schooling in Hawai‘i had evolved from a cultural into a Western worldview. The deliberate undervaluing of traditional Hawaiian values began from the time of contact with the West in 1778 and the arrival of the American missionaries in the early 1800s when colonization of the Indigenous people of Hawai‘i suppressed the use of their own native language and culture (Silva, 1998). The traditional Hawaiian educational system was replaced with religious aspirations for education through missionary schools that focused on Christian dogma and Westernized forms of thinking (Kahakalau, 2003; Kaomea, 2000). As Western ways were introduced, all aspects of Native traditions were criticized, which in turn denigrated Hawaiian culture and asserted its inferiority (Benham & Heck, 1993; Kahakalau, 2003). Cultural differences in the educational system led to a discrepancy between Hawaiian learning styles and Western methods of teaching (Blaich, 2003). Rather than creating a bilingual or bicultural educational system where individuals are able to continue their cultural traditions, the system alienated and coercively assimilated Native students through Westernized actions and thinking because it was difficult to integrate them into either culture (Dupris, 1979).

Hawaiian cultural practices and perspectives can contribute a great deal to our current issues and serve to shape and influence students to view themselves as interdependent and interrelated to the world that forms the foundation for their learning (Redefining How Success is Measured, 2007). Since the 1970s, there have been ongoing interests and efforts to create school programs that would perpetuate Hawaiian language and culture. Various HIDOE Native Hawaiian Immersion Schools and Hawaiian Immersion or culture-based charter schools were established to foster
Hawaiian language immersion and to encourage more innovative programs to include a Hawaiian culture based curriculum (Kelling & Schonleber, 2011).

Despite efforts to provide sustainable educational school programs that promote a deeper culture-based curriculum in Hawai‘i’s schools, local and Native knowledge in schools and in society are still marginalized. According to the HIDOE website, the Constitution of the State of Hawai‘i states that “the state shall provide for a Hawaiian education program consisting of language, culture and history in public schools . . . at the elementary level, the recommended time spent is a minimum of one hour a day for each student” (www.hawaiipublicschool.org/). Although, there is a move towards incorporating Native and local knowledge in schools, these programs are devalued when the fidelity of Hawaiian education programs are often determined by individual schools. Since teaching from a Hawaiian education curriculum requires additional time and resources to implement it successfully within the allotted school day, it is often only taught at certain grade levels or as separate content fillers (Kaomea, 2005). Even though teachers are provided with the constitutional freedom to teach a culturally rich curriculum, efforts to raise the nationally-normed standardized test scores “leads to administrative decisions to teach mainstream curricula” (Chinn, 2007) over what may be more meaningful for students.”

In fact, mandates from RTTT, CCSS, and SBA leave little room for the autonomy to teach non-tested curriculum. These mandates also imply that curriculum is taught in isolation and that certain content areas are privy over others. Nonetheless, the long standing achievement gap of Native Hawaiian students and students in low performing schools may be a wakeup call to reexamine both teaching and learning in ways other than traditional models that have not made a significant impact on student outcomes (Kana‘iaupuni, Ledward & Jensen, 2010).

A study called the Hawaiian Cultural Influences in Education (HCIE) was conducted to find the influence Hawaiian culture had on students. The study found that culture-based educational strategies could impact student outcomes, especially the student outcomes for Native Hawaiians. Students who learned through a culturally connected curriculum had stronger ties to their community and advocated within their community using the cultural skills they gained. Students also built a stronger
relationship with others and a deeper connection to the school (Kana‘iaupuni, Ledward, & Jensen, 2010).

By integrating culture with other content areas ways that are intentionally embedded within the curricular content—instead of being treated as an add-on—can help students see the significance of learning in a context where they can make connections to their own lives. Learning is thus linked to real-world problem solving and focused on what is significant and useful to students (Fukuda, Ah Sam, & Wang, 2010). Similar to Native Hawaiians, the Alaska Native people look and relate to the world, to the universe, and to each other by constructing and observing their natural surroundings, but their way of viewing the world and approaching education are jeopardized by “institutionalized forms of cultural transmission” and advances of Western social structures (Kawagley & Barnhardt, 1998, p. 2). This is not to say that one type of learning takes precedence over the other. It may just mean that the educational systems that are currently in place are not able to address the needs of all students, and it may also mean that the context of traditional textbook driven educational systems often are not relevant to the lives and cultures of many students in the islands.

**Characteristics of Place-Based Learning**

**Cultural perspective.** Hawaiian PBL looks at the land and local environment from a native perspective to study how it has been used over time. Local Hawaiian PBL incorporates perspective of the issues of modern land use, the relationships among place, history, culture, and tradition. In an indigenous culture, humans and nature work interdependently. Humans are part of the world in which there are spiritual and ancestral significance of living organisms such as plants and animals (Chinn, 2007). Some of the key elements in a Hawaiian PBL environment would include meaningful connections between the past and present day. For example, through history, one gathers information about the beginnings, including the meaning of place names and how it came to be as well as the people who once occupied and visited the islands. Cultural practices and traditions from a Hawaiian perspective, the geological structure and living creatures that inhabit our islands. Also, being able to bridge the past and present by looking for connections between the traditional and present day practices in order to foster a sense of connection to the community, also making a personal
connection to place and gaining a deeper understanding of caring for the land and sustaining the resources (Bishop Museum, 2011).

**Eurocentric perspective.** Kolb (1984) describes experiential learning as a process in which knowledge is created through experience. This requires learners to take an active role in the direct relationship with subject matter, make sense of their experiences through reflective practices, narrate individual experiences, and developed a sense of understanding about oneself and the place they are from (Singleton, 2012). When teachers are able to reflect on student learning and understand a student’s background and the place in which they live, then teachers are able to build the skills and knowledge necessary to understand their students. These become place-based narratives that provide a vital role in nurturing a sense of self and structuring individual thoughts, feelings, and experiences. These narratives also allow the teacher to create classroom experiences that thrive on the intricate relationships woven between student/student and students/teacher.

Building a relationship with students through place also builds a deeper understanding of one’s beliefs and teaching practice. In order to align beliefs with practice, one must understand that the teacher’s activities, lessons, tasks, functions, and understandings cannot exist in isolation but instead must be viewed as a larger system of relationships that are built around meaning (Lave & Wegner, 1991).

In a place-based classroom, learning extends beyond the four walls of the classroom and teachers are compelled to be the primary agents of change. Teachers use other means of learning besides a textbook—they tap into local resources, construct interdisciplinary units, and create curriculum that focuses on local contexts (Powers, 2004). For example, one high school helped students make connections between academic concepts and their culture through their place-based collection of data from various hikes and stream analysis (Yamauchi, Wyatt, & Carroll, 2002).

Smith (2002) claimed that there are five thematic patterns for adaptation of place-based approaches within different settings. The five approaches are: 1) Cultural studies, where the subject of investigation is the cultural or historical phenomena. Examples of cultural studies include conducting oral histories or cultural journaling. 2) Nature studies, in which the natural world provides the basis for an investigation into
local natural phenomena. Students observe wildlife, conduct water quality testing activities, or restore environmental areas. 3) Engage students in “real-world problem solving” such as service/community-based learning. Students are able to identify local issues and solutions to real world problems. 4) Incorporate “entrepreneurial and internship” opportunities that encourages individuals to partner with local businesses so individuals remain or return to their communities. Students explore local career opportunities and become involved with community life. 5) Induction into community, where students are inducted into several key decision-making situations where they actively organize and assume responsibility in the community, such as attending community meetings. Activities that fall within the five themes overcome what Dewey (1915) referred to as the classroom’s “isolation from life” (p. 89).

In this sense, PBL is unique because learners look for meaning and try to construct knowledge and an understanding of what they already know and believe through the interaction of ideas, events, and activities (Cannella & Reiff, 1994; Tam, 2000). PBL provides a natural path to reflect on learning and to gain a deeper understanding of what is being learned as opposed to the traditional didactic memory approach that is usually used in the formal assessment setting (Abdal-Haqq, 1998; Richardson, 1997). Teachers can meet the need for students to become active participants in solving local problems by using the environment in which students live (Gruenewald & Smith, 2008; Smith & Sobel, 2010).

**Cultural, Western, and Critical Contexts of Place**

Smith’s five thematic patterns of place reflect western educational views within the context of place-based pedagogy. However, a multidisciplinary analysis of place reveals that there are multiple ways in which place can be pedagogical and deeply intertwined with culture (Gruenewald, 2003). Acknowledging multiple views of place-based pedagogy allows individuals to draw on the strengths of multiple perspectives. Place-based educational strategies that draw from multiple worldviews provide teachers with a shared sense of place. These types of place-based strategies help individuals make connections to Hawai‘i and build relationships within the community (Ledward & Takayama, 2008).

Both knowledge systems—one based on the beliefs and pedagogical practices of
the local culture and another based on western pedagogy—can benefit from a placeconscious or place-responsive education where a deeper and more critical view of placebased concepts can be utilized. In fact, both knowledge-based ideas contain elements of place, culture, and community. Under both knowledge systems, ‘place’ provides the foundation for both contexts, while ‘culture’, defines the actions and behaviors of the individuals within each context, and ‘community’ determines the responsibilities and relationships that occur within each context.

Gruenewald (2008) proposed the phrase “critical pedagogy of place” to signify a combination of historical and critical traditions that are “concerned with human oppression, difference, and radical multiculturalism with geographically and ecologically grounded cultural experiences” (Gruenewald, 2008, p. 149). Critical pedagogy of place posits two fundamental goals for education: decolonization and re-inhabitation. Decolonization refers to culturally responsive teaching that makes changes to the damage done by various forms of oppression in education. One such example in Hawai‘i is the struggle for Hawaiian self-determination and the formation of Hawaiian culture-based charter schools (Goodyear-Kaʻōpua, 2013). Re-inhabitation refers to environmental conscious behaviors, such as learning to live together in a place without doing damage to humans and nonhumans (Gruenewald, 2008).

Examples of critical pedagogy in both Western (Gruenewald, 2008; 2010) and Native (Cameron, 2008; Goodyear-Kaʻōpua, 2013) place-based pedagogy reaffirms how both knowledge-based ideas use critical pedagogy to consider how economic and political decisions can impact place and how educators from both knowledge-bases respond to institutional and ideological domination. Figure 2-1 illustrates how PBL intersects concepts from Western, Native, and critical pedagogies of place.
Figure 2.1. Three articulations of place-based education in the context of Western, Native/cultural, and critical pedagogy.

PBL has been theorized by various individuals and used as a framework for curriculum development and pedagogy. It is localized through thematic entities such as the environment, community, culture, and history and is centered on building relationships. As humans, we live, act, and orient ourselves in a world that is differentiated by place, yet there is very little understanding of the constitution of place and the way in which we experience it (Relph, 1976). Here in Hawai‘i, students have a unique and ideal landscape that allows them to foster relationships between themselves and their culture, history, and the physical landscapes that surround them, such as the mountains and the ocean. The following sections will provide a better understanding of the educational context from a localized and native place-based lens.

Multiple Perspectives of Place in the Classroom

Bridging two knowledge systems—one based on the practices, beliefs, and pedagogical practices of a culture and the other based on Western perspectives and pedagogical practices—can often be challenging because of the stark contrast between the cultural contexts of Western and Native knowledge. Yet, if we want an educational system that encourages a responsive, multicultural place-based approach to education,
we can draw upon both a Western and Native knowledge base. Smith (1999) stated that integrating two knowledge systems does not mean “a total rejection of all theory or research or Western knowledge,” but rather that individuals who are marginalized now have opportunities to “transform what counts as important in the world” (p. 39). Place-based efforts where individuals take ownership in what is important and relevant to them not only environmentally and geographically but also culturally, historically, and spiritually can be empowering tool for students.

Although researchers have expressed difference between Native and Western knowledge systems (Aikenhead, 2000; Castagno & Brayboy, 2008), teaching in both contexts can have its merits (Kelling & Schonleber, 2011). For example, Castagno and Brayboy (2008) argued for a relational view of integrated knowledge within a cultural and Western system if they are grounded in place-based pedagogy and informed by community practices. Kelling and Schonleber (2011) concluded that both Native and Western instructional strategies can bring a different perspective to education by advocating for the inclusion of “traditional ecological knowledge” (p. 7) and “western modern science” (p. 8) in curricula. It is clear that for school systems to thrive in a modern setting, there is a “need for a two-way interchange between the traditional . . . learning environment and the school’s formal curriculum” (Ovando, 1992, p. 239).

Puanani Burgess (2013) beautifully illustrated her principle of building a community by “weaving tradition and modernity into a supportive, whole fabric” (p. 23) in her story about Dr. Isabella Abbott, a Hawaiian ethnobotanist who spoke at the Kalo (Taro) Festival in Wai‘anae. Dr. Abbott took thin slices of kalo, put them under a microscope, and invited children to observe the body of their ancestor Hāloa who is the elder brother that takes care of and nourishes the Hawaiian people. She first shared the story of Hāloa and then told the story of kalo from a Western academic perspective by discussing how kalo is one of the most nutritious foods for Hawaiian people. According to Burgess (2013), Dr. Abbott was able to weave “two perspectives into a whole [which] meant that people wouldn’t have to choose between . . . traditional or modern . . . [we can] allow for greater inclusion of many perspectives” (p. 31). The following subsections are examples of these woven perspectives in various educational philosophies and settings.
Merging Western and Native lessons. The Polynesian Voyaging Society’s Mālama Honua (“to care for the earth”) Worldwide Voyage is a primary example of integrating traditional Native knowledge with Western knowledge. This voyage has for the past couple of years circumnavigated the globe and combined ancient wayfinding techniques with Western modern science in an attempt to help people from all parts of the world to better understand the importance of caring for the world’s oceans (http://www.hokulea.com/). The Hōkūle‘a and Hikianalia wa‘a (canoes) are being used as a platform to bridge the gap between Native traditions and technology and between timeless values and new visions, and as a way to inspire future generations of leaders to build hopeful solutions for Earth’s future (Chang, 2014).

A‘o Hawai‘i is a community of educators that support the educational mission of the Mālama Honua Worldwide Voyage by designing an interdisciplinary curriculum that relates to the theme of the voyage. Holman (2013) states the following as the perspective of A‘o Hawai‘i:

To transform education to become a value-based, place-based, socially and culturally relevant program, that highlights the interconnectedness of all life, the importance of cultural diversity, and the value system of caring and compassion. Intrinsic to this value-based program will be the notion that we have a shared and global responsibility to care for our island home Earth, to which we are all Indigenous. Our children will grow up with the skills, values, and heart centered insight to cope with a changing climate and contribute to a healthy balanced, sustainable community and planet Earth.

What makes this cultural/place-based voyage so powerful is the impact it has to foster a global society based on the values of Mālama Honua. The ocean is our cornerstone of life, and the Mālama Honua voyage is a movement that impresses the understanding that everyone on earth is connected through these oceans regardless of the culture/perspectives one comes from (Holman, 2013).
**Bridging Western and Native knowledge in the classroom.** Another example of how two vastly different knowledge systems can be applied in schools is from a study on the integration of Western and Native knowledge at Ke Kula ʻo Samuel Kamakau Charter School on Oʻahu. The study found three factors that helped bridge the gap between Native and Western beliefs for both teachers and students: 1) the use of the *Kumulipo* (creation chant) as an integrating device to teach a place-based curriculum (Fogarty, 1991), 2) the use of an inquiry-driven and integrated unit plan that fit well with the *Kumulipo*, and 3) the use of a framework for Hawaiian cultural values and beliefs (Kelling & Schonleber, 2011).

Teachers at the charter school used methods of inquiry and place-based education to weave cultural knowledge from *Kumulipo* into the curriculum. Activities were designed to teach both Western scientific and Hawaiian cultural concepts while still meeting the state’s educational requirements laid out in the Hawaiʻi Content and Performance Standards III (HCPS III). Teachers were able to understand the connection between their current practices and the new PBL practices, and they felt more empowered to teach the content as measured by the standards.

**Sociocultural Influences**

**Influences on learning.** Sociocultural theory focuses not only on how adults and peers influence individual learning, but also on how cultural beliefs and attitudes can impact instruction and learning. The key understanding of sociocultural theory is that social interaction plays an essential role in cognitive human development. In *Mind in Society*, Vygotsky (1978) explained that interaction is an internalized process through social means and transformations. Learning therefore is not a product of the brain; rather, it is situated in social and cultural interaction.

For Vygotsky (1978), all learning was situated in a sociocultural context that determined what, how, and from whom a student learns. All students come to school with their own unique background or history and have varied expectations, knowledge and goals that are shaped by their interactions with their cultural communities (Yamauchi, Wyatt, & Carroll, 2002). For example, students who have difficulty in school might have different goals and expectations from their teachers (Tharpe, Estrada,
Dalton, & Yamauchi, 2000). Learning is thus promoted when new information is connected to what students already know and expect, such as teaching in ways that are familiar to students and using curriculum that connects their prior knowledge to academic concepts (Yamauchi et. al, 2002).

Culture informs the way we process information, and constructivist thinking is rooted in the concept that the way individuals construct the world is socially dependent (Bruner, 1986; Dewey, 1916; Orr, 1992). From a constructivist perspective, learning is described as changes that are constructed through experiences. Therefore, the aim of this study was best addressed by using a constructivist epistemology within a social context.

The social and cultural setting of a place-based classroom. Theobald and Siskar (2008) contended that social interchanges and grounding subjects in the lives of students through a place-based context are the best routes to achieve our goals and develop relationships and commitments in their lives, even if the goals were as narrow as raising test scores. Through a place-based setting, teachers and students learn to interact with one another through the implied relationship between the community and the classroom. In this sense, learning is a symbiotic relationship between social interaction and the environment it takes place in. Both Dewey (1916) and Vygotsky (1978) contended that humans are naturally social and develop their individual selves through relationships and experiences with others. While Dewey (1916) emphasized the relationship between the individual and society, it would be equally valuable to understand the relationship between an individual’s interaction with society and the internal connections created through these interactions.

Activity Theory and CHAT

Since human activity is culturally mediated and learning is always contextual, I paid closer attention to the relationships between structured formal learning and flexible informal learning in school (Taylor, 2014). For example, studies on experiential learning saw activities as legitimate objects of learning, while teaching through a textbook was perceived as isolated from students (Akkerman & Bakker, 2001; Guile, 2010, Taylor, 2014).

Most learning theories assume several things: 1) the individual is the unit of analysis for learning, 2) the process of learning is cognitive, and 3) learning is
constructed and internalized by knowledge and experiences from outside of the individual’s mind (Mezirow, 1991; Vygotsky, 1978). Jean Piaget, John Dewey, and Lev Vygotsky all viewed learning as an active endeavor to relate and interact rather than passively transmitting knowledge (Fenwick, Edwards, & Sawchuk, 2011). However, Vygotsky viewed human activity as a social and collaborative process that was a basic form of human life and our relationship with the world (Stetsenko, 2008). The sociocultural perspective provides a lens to examine the human activities that associate the individual to society (Leont’ev, 1977, 1978) and the relationship between the learning and social development of the individual (Brown, 1982; Engeström, 1987).

**Structure of activity theory.** CHAT is a framework that centers on the theoretical underpinnings of activity theory (AT). It serves as both a theoretical framework and method that attempts to make sense of the dynamics between individuals and society using activities as a source to systematically analyze everyday learning (Sawchuck, 2003). CHAT is built upon the concepts of Vygotsky’s (1978) sociocultural theory and is designed as a cognitive process (rather than a physical process) that reflects how insights and meaning are developed in individuals. In an activity system, human activity is not isolated from social relations or from the life of society (Leont’ev, 1978). Rather, object oriented activity considers the relationships and interactions among the subject, object, activity, motivation, action, goals, socio-historical context, cultural context and the consequences (Davydov, 1999, Yamagata-Lynch, 2010). When classroom lessons focus on the community students live in, learning is not isolated from the students, rather it is naturally nurtured through their social relations which also includes elements of activity theory such as objects, mediating artifacts (tools and signs), rules, community and division of labor (Engeström, 1987; Cole & Engeström, 1993). Dewey (1938) stressed the importance of active community involvement for learners. “This involvement and immersion in a community promotes what today is called a constructivist approach to teaching and learning” (Theobald & Curtiss, 2000, p. 107). Activity theory is based on the fundamental understanding that learning is a social and cultural process; therefore, it provides an appropriate approach in examining place-based practice.
CHAT was introduced to the western world by Michael Cole (American Psychological Association, 2006) and modernized by Yrjo Engeström (1987) but transpired through a theory developed by Russian psychologists in the 1920s and 1930s and is an evolving framework that spans over three generations of research. Inspired by the foundational idea of object-oriented human activity in Karl Marx’s (1845) Feuerbach theses, Russian psychologists introduced artifact-mediated and object-oriented action as a new theoretical extension of sociocultural theory (Vygotsky, 1978). The conceptual edifice of CHAT draws upon Marxist notions of contradictions and is reflected in the dual nature of represented exchanges that occur within the system (Avis, 2009; Wilson, 2006). However, CHAT offers a more optimistic view of social processes than Marxist analysis; rather than focusing on the Marxist ideas of social capitalism and inequalities, CHAT tends to analyze the inequalities for progressive development (Avis, 2009). Leont’ev (1978) expressed that social inequalities are generated by internal contradictions; issues, conflicts and tensions that are central to the human activity system.

CHAT is a progressive approach that promises the development of emancipatory practices and a movement towards improving the effectiveness and efficiency of institutional practices (Avis, 2009; Langemeyer & Roth, 2006). Since contradiction serves as a catalyst for transformative change in CHAT, it was an ideal framework that helped me examine the relationships and tensions within my teaching practice. CHAT identifies various tools and mental constructs that may assist in an activity; while at the same time considers the rules, norms and divisions of labor that could potentially affect the activity. By analyzing all the aspects of an activity, contradictions can be found in specific tools or constructs within the activity.

Using a CHAT framework and analysis for this study provided an opportunity to look at all aspects in the relationship between individual learning and development, which include cultural and social interactions. Studies that used CHAT as a theoretical framework were also able to analyze practice to understand the internal connections between individuals and society through both formal and informal experiences over a period of time (Cole, Engeström, & Vasquez, 1997; Engeström, 1999; Park, 2015;
The following are key reasons that CHAT was able to serve as both a theoretical framework and analytical tool for this study:

1) In CHAT, transformation occurs through human activity within a collective system that bridges the individual with society (Engeström, 1999; Leont’ev, 1977). Stetsenko and Arievitch (2004) found work that used CHAT as a framework to denote individual agency could be reclaimed within a social and relational view of self.

2) Transformations within CHAT are viewed as a “collective transformation” rather than an individual transformation (Engeström, 1996, p. 1). It allows individuals to view and expand development through multiple non-linear dimensions instead of a narrow linear view. In their technology study, Miettinen, Paavola, and Pohjola (2012) maintained that collective elaboration and shared artifacts suggested within activity theory are an essential part of the transformation of practice.

3) Using CHAT as a framework within a collective system provided a historical perspective that examined conflicts or tensions within activity systems over a period of time and made changes to the system or proposed solutions (Engeström, 1987, 2001; Engeström & Sannino, 2010, 2011). In this study, a historical perspective allowed me to see changes over a period of time rather than as brief momentary encounters.

CHAT evolved from the second generation of activity theory and uses a dialectical approach that constructs opposing categories that are mutually exclusive, such as individual – collective, subject – object, or structure – agency (Roth & Lee, 2007). Since its early introduction by Vygotsky in the 1930s, activity theory had evolved into three distinct generations that also provided a methodological framework to analyze learning, with each generation elaborating upon a broader concept of activity.

**First generation of activity theory.** The first generation centered on Lev Semyonovich Vygotsky’s (1896-1934) idea of mediation. Vygotsky articulated that activity theory emphasized the development of individuals within social contexts.
During the 1920s, psychology was dominated by orientations of psychoanalysis and behaviorism. Thus, a team of Russian psychologists including Lev Vygotsky (1978) and two other Russian colleagues, Alexander Luria (1976) and Alexei Leont’ev (1978) developed activity theory as a means to provide an alternative to the Western interests in psychoanalysis and behaviorism (Nussbaumer, 2012). Vygotsky (1978) thus formulated a new theoretical concept of artifact-mediated and object-oriented action. However, the limitation of the first model was that the unit of analysis was still individually focused (Engeström, 2001). In the first generation, mediation by other human beings and social relations was not integrated into the triangular model. Distinguishing between the collective activity and the individual action would be necessary to bridge this understanding.

In 1934, the first generation evolved into Vygotsky’s (1978, p. 40) “triangular model” and centered on the idea of mediation. In simple functions, there is a direct link between the environmental stimulus and a response; however, for any higher level functioning or process to occur, an intermediate link between the stimulus and response is also taken into consideration (Lindblom & Ziemke, 2002).

Vygotsky believed that the connection between the stimulus (S) and response (R) is not merely binary; rather it prevails over the mediated act (x) (see Figure 2-2A). Vygotsky maintained that a human never reacts directly to the environment; rather the relationship between human and environmental objects is mediated by cultural means, tools and artifacts (Engeström, 2001; Nussbaumer, 2012; Vygotsky, 1978) that evolved into a tripartite model represented in Figure 2-2(B).
The introduction of cultural artifacts to human action became a revolutionary concept that combined individual and social structure to create a unified system of analysis. Vygotsky’s understanding led to the idea that individuals learn and develop within social cultural contexts and encouraged the following course of mediation: first, an interaction of cultural meanings with human action; then, an interaction shared within groups; and finally, interaction that is eventually internalized independently (Richardson, 1997; Gruenewald & Smith, 2008). Vygotsky’s triangular model represented his idea of cultural mediation of actions through the triad of subject, object, and mediating artifact (Figure 2-2B).

**Second generation of activity theory.** Alexei Leont’ev was able to overcome the limitation of focusing solely on the individual by using Karl Marx’s concept of labor as a model of human object-oriented activity as a collective system. However, when using human actions as a unit of analysis, real life situations cannot be analyzed as isolated actions. Actions are always situated in a context and it would be impossible to understand situations without a context. Therefore, Leont’ev (1904-1979) expanded Vygotsky’s model by examining activity as a collective system while using artifact mediated and objected oriented actions (Leont’ev, 1981) rather than an individual or isolated system mediated by artifacts.

Leont’ev (1978) extended Vygotsky’s model and explicated the difference between an individual action and a collective activity by including interconnected units between community and division of labor (Nussbaumer, 2012).
further evolved and included within the collective system an acknowledgement that actions of the individual are driven by goals. Leont’ev (1978) argued that in order to understand and facilitate growth in individuals, the collective activity system has to be studied and may need to undergo changes.

The second generation of activity theory takes into account the interrelationships between the individual, the community, history, culture and the interaction of the situation and activity and can be illustrated in his famous example of the “primeval collective hunt” (Leont’ev, 1981, pp. 210-213):

... a beater, for example, taking part in a primeval collective hunt was stimulated by a need for food, or perhaps, a need for clothing, which the skin of the dead animal would meet for him. At what, however, was his activity directly aimed? It may have been directed, for example, at frightening a herd of animals and sending them towards other hunters, hiding in ambush. That, properly speaking, is what should be the result of the activity of this man. And the activity of this individual member of the hunt ends with that. The rest is completed by other members. This result, i.e. frightening of the game, etc., understandably does not in itself, and may not, lead to satisfaction of the beater’s need for food, or the skin of the animal. What the processes of his activity were directed to did not, consequently, coincide with what stimulated them, i.e., did not coincide with the motive of his activity; the two were divided from one another in this instance. Processes, the object and motive of which do not coincide with one another, we shall call ‘actions’. We can say, for example, that the beater's activity is the hunt, the frightening of the game the action.

Leont’ev was able to thus distinguish the difference between the activity, action and operation in three tiers. The uppermost level of activity is driven by an object related motive, which is often a collective goal such as the goal of catching food. The middle level of the individual action is driven by a conscious goal such as chasing the buffalo towards the hunters. The conditions and tools of the interaction drive the bottom level of automatic operations. In this example, Leont’ev established a difference between the individual action and the collective activity. He argued that individual action is not the same as a tool mediated action because mediating cultural tools includes a broader dimension of practice. Rather, activity is the foremost unit of analysis and actions serve as the motivation of the activity (Leont’ev, 1974).
Leont’ev believed that activity was based upon material production of the concrete, situational and the procedural nature of the activity. The motives of activities are conscious motives that require reflecting and provides the “means to analyze everyday learning systematically with or without reference to conscious reflection” (Sawchuck, 2003, p. 41). However, Leont’ev did not graphically expand Vygotsky’s model; rather, Engeström (1987) graphically demonstrated the expansion of the structure of the human activity system as an activity system as seen in Figure 2-3.

![Structure of 2nd Generation Activity System](image)

**Figure 2.3. Structure of 2\textsuperscript{nd} Generation Activity System (Engeström, 1987 p. 78)**

**Third Generation of Activity Theory.** By the third generation of activity theory, Vygotsky’s theories were introduced to the West by Michael Cole (American Psychological Association, 2006) and popularized by Yrjo Engeström (1987). Since activity as a theory was now accessible internationally, questions about diversity and dialogue between cultures, traditions and perspectives became an issue. Engeström (1999) argued that in the second generation, Leont’ev collective activity model was constrained to only the external forms of motivation and failed to include the internal sources of motivation within an activity (Engeström, 1987). Engeström (2001) expanded on the concept of activity systems and included a network of multiple interacting systems that utilized elements within the system to reveal any tensions or contradictions that occurred and encouraged collective learning through change.

The third generation of activity theory made it necessary for individuals to develop conceptual tools in order to understand the multiple perspectives, dialogue and the networks within the interacting activity systems (Engeström, 2001). Guiteirrez and
her co-authors (Guiteirrez, Rymes, & Larson, 1995) accounted for events that occurred in classroom discourse where teacher and students interact to form new meanings. In this example, the basic model was expanded to include multiple interacting activity systems between the teacher and students and included multiple perspectives. Yrjo Engeström conveyed this model in a diagram, which expanded and revised the triad of the collective activity system originally modeled by Vygotsky. The model expanded the role of mediation and included three more components: rules, community, and division of labor. Engeström’s model conveys the relationships between the two interacting systems and uncovers any tensions or contradictions within the system (shown in Figure 2-4) (Engeström, 1987; 1999; 2001). Tensions and contradictions within Engeström’s model are an important concept because these are the source for transformation within an activity system (Engeström, 1987).

![Figure 2.4. Third Generation of Activity Theory. Two interacting activity systems. (Engeström, 2001)](image)

This study relies on both the second generation and Engeström’s (2001) formulation of third-generation activity theory. Engeström’s expanded activity triangle (see Figure 2-5) was used in this study as a heuristic model that captured and unified concepts from activity theory that were relevant to the analysis of teaching practice and tool design. The triangle model provided a starting point in interpreting and applying activity theory ideas in relation to teaching practice in a classroom and the connections extending beyond the classroom. I believe that using this model to investigate PBL
extended my beliefs and practice from an isolated approach to a sociocultural context that include various social components for transformation.

![Engeström's expanded model of activity triangle (Engeström, 1987)](image)

**Figure 2.5. Engeström’s expanded model of activity triangle (Engeström, 1987)**

**Overview of CHAT.** CHAT combines three components: a systems component (helps to construct meaning from situations), a learning component (a method of learning from those meanings), and a developmental component (allows for expansion of meaning towards action). Through activity theory, learning is not simply a cognitive phenomenon but is gained through participation in social practice (Sawchuck, 2003). According to Capper & Williams (2004) the three components: system, learning and development are constructed from seven propositions (p. 3):

1) Activity Theory is based on the understanding that learning is a social and cultural process not simply a biological process, therefore thinking and learning are practiced and achieved in a variety of ways based upon situations.

2) Activity is what occurs when people act on their environment in order to satisfy their needs or motives rather than an action that is being undertaken. This is because the same actions may have different motives or vice versa. There may be different actions that may be taken to satisfy the same need.

3) Information we use to decide what to do must flow through the activity in order for desired results to be achieved and require mental processing. For example, there may be information about our needs which are within ourselves and may involve internal dialogue or there
may be information about the environment that comes from outside through our senses.

4) Tools mediate and shape the way we do work. The tools are used to manipulate the environment and get information and can be both physical tools such as a computer or conceptual tools, which extend our mental capabilities. While the tools are used to manipulate the environment, the nature of the tools can also shape our thinking about what we do and how we do it.

5) The social-cultural-historical-organizational system in which we work also mediates the way we conduct activities. The nature of social relationships and the structural organization in which activity takes place are also the product of historical and cultural perspectives. These perspectives play a role in determining how we work and why we work.

6) Learning proposition: When tools, rules, community operate as expected, individuals within an activity system proceed with predictable results. However, the system will often be interrupted by contradictions between the elements within the system. These contradictions in the system components allow for learning in the real world.

7) Developmental proposition: When a contradiction is triggered, individuals enter a “Cycle of Expansive Learning” (Engeström, 2001). New situations create opportunities that lead to learning. Learning can also be expansive in that consequences of actions can lead to more contradictions, thus expanding the boundaries of learning.
**Expansive learning cycle.** The Cycle of Expansive Learning (see Figure 2-6) is a central concept to the Activity Theory triangle and focuses on how new knowledge can occur and be nurtured once contradictions and tensions are brought to the forefront. The advantage of using an expansive model for learning is that it allows the teacher to reflect and transform through a developmental process (Engeström, 2001). The expansive cycle is also an interactive analysis of teaching practice and transformation based on Vygotsky’s (1978) concept of mediating instruments between the subject and object of the activity (McNiff & Whitehead, 2002). Using the expansive learning cycle as part of the CHAT framework provides a process that helps individuals analyze learning and therefore make changes to practice when designing instruction. Rather than focusing on individual knowledge, it focuses on the activities that people are engaged in and includes the nature of tools used in the activity, the social and contextual relationships, the goals and intentions of the activities and outcomes of the activity (Jonassen & Rohrer-Murphy, 1999).

![Expansive Learning Cycle Diagram](image)

*Figure 2.6. The Expansive Learning Cycle. Learning actions and corresponding contradictions (Engeström, 2001).*

**Summary of Chapter 2**

This literature review explored current educational reforms, the issues of employing standardized tests as a high stakes measure of student learning, and the effects they have on teaching beliefs and practice. From the existing literature, we know
that reform efforts have placed schools under educational scrutiny and forced them into positions that reinforce pushing for higher test results rather than recognizing and servicing the needs of students and their communities. Due to the pressures of raising student achievement, the role of teachers has been minimized to giving scripted curricular lessons that encourage uniformity, robbing teachers of their beliefs in teaching, their autonomy to teach, and their ability to take ownership in their teaching and practice. Ironically, various literatures point to the important relationship between beliefs and practice and the negative impact it could have on teaching and learning if the relationship were misaligned.

Place-based literature provides avenues to bridge the gap between teacher beliefs and practice and the influence it could have on student learning. While place-based efforts have been noted as a means to improve engagement in students, there is lack of detailed research from the teaching perspective on the influences PBL has on teacher beliefs and practice. According to the literature, CHAT provides meaningful a framework and methodology to study the changes in my teaching practice over a period of time. Chapter 3 will provide the methodological framework that guided the data collection and analysis of this study.
CHAPTER 3

METHODOLOGY

We shall not cease from exploration
And the end of all our exploring
Will be to arrive where we started
And know the place for the first time.

—T. S. Eliot, “Little Gidding”, 1942

In order to determine the influences of place-based pedagogy in my practice, choosing an ideal method was an important process in this study. The excerpt of T. S. Eliot poetically captures my methodological choice and my intent for this chapter. The poem reiterated the importance of exploring; even exploring what may have been taken for granted, in order to see through a new lens. Teaching was something that I had taken granted, so self-study was an ideal methodological framework for this study because the culmination of my beliefs about learning, my conflicts about continuing in my profession, and my concerns about my teaching practice all necessitated a research framework that informed and was informed by my lived experiences in the classroom. Additionally, using action research methods provided a means for me to implement place-based learning (PBL) in a genuine classroom setting while also being able to explore how PBL influenced my practice. For me, self-study using action research methods was a journey I chose to take in order to develop an understanding of who I was as a teacher and explore ways in which to see my teaching through a new lens so that I could continue to make changes to my practice.

This methodology section will provide an organized structure of the influences place-based pedagogy had on my journey as a teacher during a time of accountability and educational reform. The chapter begins by describing the research paradigm, including the research question, and the theoretical lens that led to multiple methodologies used in this study. Subsequent sections include a description of the participants and location for this study, the methods of data collection and analysis, a discussion of my positionality as a researcher, and the trustworthiness and credibility for this study. This chapter will conclude with, a brief summary of the methodology of the study.
The study addressed the following two-research sub questions:

(1) In what ways will using a place-based learning (PBL) model provide a practical method for continuous improvement of teaching and learning, placing teachers at the center of the change process?

(2) How do place-based learning curriculum foster changes in teaching practice and enable a passion for teaching?

Trede and Higgs (2009) explained, “Research questions embed the values, worldview, and direction of an inquiry. They also are influential in determining what type of knowledge is going to be generated” (p.18). Therefore, the methodology for this study was guided by my research questions, which prompted a deep exploration of the actions, processes, and perceptions found within the data I collected.

**Research Paradigm**

The research paradigm and philosophical worldview for this study includes theories, perspectives, and a systematic “basic set of beliefs that guide[ed] action” (Guba, 1990, p. 17). These beliefs were accompanied by the values and methods (Creswell, 2013) in which took place in my study and contained my philosophical assumptions, epistemologies, and ontologies as the researcher (Crotty, 1998; Denzin & Lincoln, 2011). The claims made in this study were based upon these understandings as described by Creswell (2013): the nature of knowledge gained and the nature of reality (ontology), how the nature of this knowledge (epistemology) was interpreted, the role and importance of values (axiology), and the process and language selected for this study (methodological). It was also important for me to acknowledge place-based epistemologies as a worldview since a place-based paradigm was used to guide this study.

**Qualitative Paradigm**

Place-based lessons tend to be dynamic and evolve according to current surrounding social situations. Thus, a qualitative research paradigm was ideal for this study because place-based epistemologies required an exploratory design that evolved in nature (Merriam, 2009). In fact, the exploratory nature of a qualitative design is also very useful when looking at events that occur in its natural setting. There were times when important variables such as student interactions or classroom dynamics were not
known prior to the study (Creswell, 2009; 2013) but formed as the study progressed. While qualitative design allowed me to be a part of the research process and adapt to the inquiry (Merriam, 2009), the data and the process of discovery were also fundamental aspects of this study.

Although quantitative data can provide important information for research, the purpose for this study was not to determine a cause or effect or attach any quantifiable findings (Creswell, 2009; Merriam, 2009; Plano-Clark & Creswell, 2010) to this study. Rather, I had hoped to seek information that would help to determine patterns, make connections, and generate an understanding of the relationships that evolved in my classroom between teacher and students as well as students and students (Bogdan & Biklen, 2007; Creswell, 2002, 2007, 2013; Denzin and Lincoln, 2005, 2011; Stake, 1995),

**Research Design**

The design of this study began with a careful consideration to the research questions, which helped me determine the best methodology to organize, analyze, and interpret collected data. Since the data collected also included reflective journals, teacher artifacts, and student work samples, a qualitative research design was fitting (Feldman, Paugh, & Mills, 2004; Herr & Anderson, 2005; LaBoskey, 2004; Stringer, 2014). Sociocultural theories, or more specifically, Cultural-Historical Activity Theory (CHAT) were the theoretical underpinnings that drove the methodological framework for this study. Using CHAT (Engeström, 1987, 1999) as part of the analysis allowed for deeper examination of the central activity and for opportunities to identify the tensions and contradictions within individual activity systems and interacting systems. The following section gives a general overview of the phases that this study addressed.

**Phases for the study.** This study followed my three-year journey teaching PBL in the classroom and was carried out in three separate phases. Phase I was the “exploration” stage and took place from 2011-2012. Phase I was my first year in a new school and it was also my first time teaching fifth-grade. During this phase, I used PBL as an exploratory tool to help me grasp the contexts of place and to explore not only the impact it would have on me, but also to explore how my beliefs and practices were impacted by place.
Phase II of this study took place from 2012-2013, the second year I began teaching at the school in which the study took place. Phase II, was considered “implementation” phase in which PBL was used a tool to provide me with a practical method to improve my practice. I continued to explore the characteristics of place within this phase; however, lessons required deeper exploration that involved the interactions and relationships between students and me.

Phase III took place from 2013-2014, the third and final year of this study. I refer to Phase III as the stage of “sustaining and diffusing”. By Phase III, several patterns had emerged and PBL was a mindset that I had adopted in my practice. Characteristics of place that evolved throughout the first two years of the study required a method in which to sustain this philosophy for teaching through place. Phase III focused on sustaining place-based philosophies and exploring ways to diffuse these philosophies beyond my classroom.

Place-based lessons were taught within all three phases of the study, but each phase was a new school year with a new class of students. Place-based lessons were also different during each of these years because lessons were never pre-determined; rather they were created and structured according to the needs of the students and circumstances at that time. Although this study focused on my teaching practice, it is important to note that the history, culture, and the interactive and emotional lives of other individuals (i.e., students, parents, administration, other teachers, community members) had also played a critical role in my practice; therefore, the contributions of other individuals to my journey may be addressed throughout this study since they were equally important to the method for this study and its findings.

Rationale for self-study. This dissertation was a self-study using action research method. Self-study and action research are a part of five major genres or forms for practitioner research, a field of study in which the practitioner simultaneously assumes the role as a researcher, giving the researcher an inside perspective on the inquiry process and making the classroom the context of the study (Cochran-Smith & Lytle, 2009). It is also a methodology that functions as a means of understanding teaching and learning with the intention of stimulating changes within individual practices. In fact, through self-study, teachers are able to focus on developing their
personal and practical knowledge and skill by examining their own beliefs, practices, processes, and relationships (Berry & Hamilton, 2015).

Studies have shown that transferring theory to practice is often non-existent in the classroom as teachers utilize very little theory in their practice and instead rely on their past experience as learners or their own personal preferences when selecting instructional practices (Korthagen & Wubbels, 2001; Schon, 1983). Self-study using action research methods can provide an essential methodology for personal and professional growth since it merges formative and contextualized experiences which influences how individuals teach and how students learn (Kosnik, Beck, & Freese and Samaras, 2006; Samaras, Hick, & Berger, 2004). When teachers recognize that how they teach can augment student learning, they are able to question the fundamental goals of teaching and engage in teacher (practitioner) inquiry or practitioner research (Cochran-Smith & Lytle, 2009). Labaree (2004) contends that when researchers are able to build upon their cumulative experiences in their professional biographies, it also impacts the kinds of work they pursue. Thus, my professional biography had shaped this study, grounding it in practical applications that were drawn from my challenges in teaching. Conducting a self-study was a fitting way to emphasize how I embraced a teacher change process in order to address feelings of teacher burnout.

The aim for this study was to gather rich description from my practice in order to understand the complex nature of PBL in teaching, learning, and of stimulating educational change despite the educational climate I was teaching in from 2010-2016. These descriptions provided valuable insight of the supports, the tensions, and the barriers in using PBL as pedagogy in my practice. It also provided valuable insight into my experiences as I questioned my own teaching practice and the assumptions I had about teaching. The process and focus for this self-study was influenced by two interconnected paradigms: reflective practices and action research. Both paradigms provide data that allowed me to explore my teaching beliefs by reflecting on my practice and students’ learning. The following section describes how reflective dimensions in self-study was central to the value of teacher education and teacher practice (Loughran, 2002; Samsaras & Freese, 2006; Schon, 1983).
Reflective practice. In the 1980’s, practical theories of teachers improving their practice were acknowledged as research (Cochran-Smith, 1991). Prior to that, educational research was typically referred to as something conducted by higher education researchers (Dana & Yendal-Silva, 2003). Self-study depends greatly on reflection as a way of inquiring into one’s practice. Although the use of self-study has grown in more recent times, the primacy of reflective practices to develop knowledge about teaching, learning, and curriculum development is not new. Understanding the impact of reflection on teaching can be dated back to Dewey, (1916) whose vision of improving school conditions weighed on the practice and development of teachers through critical reflection. Dewey (1916) recognized reflective teaching as a way for instructors to develop theories on teaching and learning.

More recently, Schon’s (1983, 1987) concept of reflective practice brought credence that reflective knowledge of an individual’s practice is also an enactment within the realities of classroom (Cochran-Smith & Lytle, 2009). Based upon Dewey and Schon’s ideas of the value of teacher reflection, self-study evolved as an acceptable methodology as a shift from university research, to fostering knowledge about teaching in multiple contexts emerged. Reflective practices within this self-study brought to light the tensions and concerns about my lived practices and programs within my classroom (Korthagen & Lunenberg, 2004; Loughran, 2002).

Reflecting on practice refers to teachers thinking about their underlying values and beliefs about teaching and learning and comparing themes to classroom practices (Farrell, 2008). So engaging in this type of practice, required a systematic collection of data about classroom practices, and examining any inconsistencies between beliefs and practices (Farrell, 2008). Therefore, reflective practices in this study provided a means for me to document my journey and investigate my inquiry. It also provided a way to articulate my thoughts, actions, feelings so I could reinterpret and reframe my experiences from multiple perspectives. Reflecting on my practice and revisiting these reflections became one of the key elements in transforming teaching; my judgements in the classroom become skilled and thoughtful with the benefit of improving and enriching my practice (Burbank, 2003; Larrivee, 2000; Schon, 1987). Through reflective practices and conceptualization of my practice, I was able to gain insights from the
experiences, develop new strategies, and use a different perspective in my subsequent teaching (Smith & Irby, 1997). However, the intent for this study was not to provide a prescription for self-study methodologies; rather through this self-study I used reflective practices and expressed them through narratives in order to offer readers a place to envision their own use and application (Clandinin & Connelly, 2000).

**Self-study and student participants.** Schwab (1973) alluded that self-study is a powerful way to test curriculum because it is able to identify the gaps between theory and practice by monitoring students’ responses to the design of the curriculum. Examining student work helps teachers think deeply about their teaching and what students are learning (Richardson, 2001). Examining what students produced in response to what I assigned helped me to understand what students knew and what they still needed to learn with the intent of improving my practice. The notion of practitioner learning includes ways that practitioners are able to investigate experiences and integrate other sources to inform their practice (Cochran-Smith & Lytle, 2009). According to Samaras and Freese (2006), self-study research is a qualitative process of discovery that forces the researcher to focus on the interactions that occur during the learning and teaching process. Thus, collecting multiple sources of data allowed me to triangulate my data across the sources in order to strengthen the validity of my study. For example, I compared my journals with the videotapes of my teaching and the student data collected from my participants. While my own practice cannot be separated from my classroom, focusing on my own personal and referred professional self was guided through the context of my classroom. As such, this self-study also lent itself to the context of my practice in my classroom through action research methods.

**Rationale for action research.** Practitioner research such as action research originated by university researchers who were committed to progressive education with the goal of empowering teachers to become agents of social change (Cochran-Smith & Lytle, 2009). Erickson (1979, 1982) contended that to move forward in teacher education, practitioner’s knowledge and meaning systems must be tapped as part of the explanatory process. I was naturally drawn to practitioner research, because solutions for my discontent in teaching were an integral part of this study. Also, integral to the
work of teaching was the study of my own practice in order to improve my own teaching as well as the abilities for my students to learn.

Action research or classroom-based studies conducted by teachers of their own practice (Cochran-Smith & Lytle, 2009), involves a cyclical process with several interactive steps that begins with the new strategy to implement, developing a framework for the project, developing a plan of action, implementing and assessing results, and then repeating the process (Herr & Anderson, 2005; Nelson & Slavit, 2008; Yendol-Hoppey & Dana, 2009). It is a term first attributed to Kurt Lewin’s work in involving social actors (teacher and others) with researchers as a way to make changes in teacher’s professional growth and for social justice in education (Hollingsworth & Sockett, 1994). Cochran-Smith & Lytle (2009) argue for action research as social inquiry or a vehicle in which teachers and students are able to raise questions about the status quo. The act of questioning the roles of both teachers and students in the learning process, the meaning and purpose of the school, or even equity in schools are all characteristics that have stemmed from action research. As such, action research comprises of at least three components: a systematic inquiry, a desire to change in order to promote some form of social justice, and planned teacher actions for teaching in order to move towards that change.

Using action research methods for this self-study inquiry connected my research towards an understanding of equity, engagement and agency in my classroom. Over the last decade, there have been a variety of practitioner researches reflecting issues of equity, engagement, and agency in classrooms and schools. In fact, teachers have embraced the challenge of defining equity more broadly than only through performance outcomes from high stakes testing (Cochran-Smith & Lytle, 2009).

Although I used self-study as a means to explore my own teaching practice, action research served as an appropriate method to establish agency and equity for a number of reasons: I was attempting to align my teaching beliefs to my practice despite external pressures from educational reform and initiatives, I wanted to find strategies that would help to ignite my passion in teaching, I wanted to engage in practice that could transform not only my practice, but also my attitude towards teaching, I wanted to feel empowered in my profession, and I was transforming myself and my pedagogy
based on the interactions and needs of my students. For these reasons, teachers who feel that they are agents of change or are able to promote/establish equity in their teaching, are able develop a solid basis for student learning in their classroom (Day & Smethem, 2009).

**Criticism of self-study and action research.** Both self-study and action research are both features within practitioner research. Over the past several decades, practitioner research has continued to grow in schools and teachers have found it valuable to investigate issues that concern them. The work of Atwell (1982) had gained critical acclaim in the 90’s. Encouraged by the pioneering work of Atwell (1982), a collection of teachers doing research such as the Brookline Teacher Research Seminar (2003), Goswami & Stillman (1987), and the Bay Area Writing Project, language arts teachers lead the way in doing teacher research and writing about it. Despite the growing popularity, criticism for practitioner research still persists. Huberman (1996) criticizes action research as exaggerated claims for teacher research. Berlin (1990), questions how teachers are supposed to change society in their classrooms by teaching; adding that there is no research evidence that teachers are able to accomplish all the lofty social goals. Noffke (1995) further argues that teachers don’t have the power or political weight to make social changes.

This self-study and use of action research methods was geared at building agency and teacher growth and development. I believe that my effort to improve my practice, transform my attitude towards teaching, and aligning my practice with my beliefs by critically examining my practice, addresses the criticism about the social changes in practitioner research. Methods such as these are geared towards empowering teachers and encouraging teacher agency. Consequently, when the quality of instruction improves, students also benefit in that they see themselves as agents in a democratic society.

**Positionality**

**Role of the researcher.** I am fully aware that my personal values and experiences about this research topic influenced the questions, methods, and potential outcomes of the study. In my role as a teacher educator in this study, I was both a practitioner and researcher. My focus for this study was guided toward the students I
taught during each phase and the contradictions found within my professional practice. Depending on the moment, the focus of place-based lessons varied as I navigated use of a new curriculum (PBL), addressed student learning, and made changes to my own practice. This is noted by Cochran-Smith and Lytle (2004) as “working the dialectic” (p. 87), which is characterized by a multifaceted relationship between research and practice found in all practitioner research. Working the dialectic involves

. . . symbiotic relationship of research and practice, analysis and action, inquiry and experience, theorizing and doing, and being researchers and practitioners as well the dialectic of generating local knowledge of practice while making that knowledge accessible and usable in other contexts and thus helping to transform it into public knowledge (p. 635).

Investing in self-study as a vehicle to investigate PBL. It was important to note that prior to the pilot study, I had never heard of PBL and, even after upon learning about it, I did not intend to adopt the concept of place in my curriculum. However, my values and experiences during the pilot study led me to reflect on how place-based ideas could fit into my practice. As both a researcher and teacher in this study, the need to self-reflect on experiences was a critical element to understand my positionality in the study (Harding, 2004). Thus, the following sections provide a general understanding of how place fits into my role as a researcher and teacher.

Role of place in the study. As a child, I developed a special bond to where I grew up. My direct experiences playing in our family market, along with influences of my family and the culture and community I grew up in, strongly influenced how I learned about my environment. Interestingly, the childhood landscapes I formed as a child also formed my identity as a teacher and have had a strong influence on my teaching. Measham (2007) identified these childhood landscapes as “primal landscapes” that form a part of an individual’s identity and provide a point of comparison for other subsequent places later in life. As adults, people tend to consider new places in relation to the landscapes they experienced during their childhood.

I grew up surrounded by so many different ethnic cultures that often times I would forget my own ethnicity and was gently reminded when my parents spoke to each other in Japanese. Diversity was a normal part of the community I grew up in, so it was
no big surprise that the first teaching job I accepted was at a Title I coastal school with an ethnically diverse student body. After receiving my tenure, I yearned to teach closer to my home and opted to teach at another ethnically diverse Title I school, Island Elementary School. After 15 years at Island Elementary School, I decided once again to transfer. With so many years of experience under my belt, I could have opted for many different schools—ones that were technologically equipped, or met academic standards, or had a low student-to-teacher ratio. I chose to teach at another ethnically diverse—and what the state deemed as a low performing—Title I school, Laulima Elementary School. This is the place where my study began.

I realized that culture played an important role in my “primal landscape” and in the connection I had to culturally diverse demographics. Much of the decisions about where I taught were connected to my core values of where I came from and the place that I connected to most. However, I never fully realized the value of place until I began teaching at Laulima Elementary School. Upon my departure from Island Elementary School I had established many relationships with teachers and families; teaching siblings, cousins, aunts, and uncles from multiple families.

**Role of researcher/practitioner.** My role as a teacher and researcher at Laulima Elementary School began with minimal background information. Although I thrived on diversity and culturally rich demographics, I knew very little about the history of the school, community, students, and families. This study was not only a theoretical inquiry into place-based pedagogy: it also allowed me to understand how much my childhood landscapes guide me as a teacher, to dig deeper into my work as a practitioner, and to see myself as a learner in order to transform my teaching practice. For all research, the researcher needs to acknowledge the role they play in the study and how this role can potentially affect the outcomes of the study (Stake, 2005). This study required me to engage in multiple roles: a teacher practitioner, a teacher as a learner, and a self-study researcher. As a teacher practitioner, I used an action research approach, implemented place-based pedagogy in the classroom, and engaged students in a different form of learning. Since self-study was used to inform my own teaching, I had a dual-role as a researcher as my role as a researcher connected to my role as a teacher. As a researcher, I was a teacher as a learner because I developed place-based lessons while in
the process of implementing the approach to students and applying what I learned through reflective practices. Yet at the same time, I was also a self-study researcher because I reflected on my practice and actions as a teacher to provide myself with ongoing data that would inform my other role of teacher as learner. Then, I used this data as a way to analyze and inform my experiences and guide my practice. As a self-study researcher, these dual roles allowed me to reflect on the interplay among my students, the place-based content, and myself in order to inform my role of a teacher as learner and practitioner.

As my positionality moved from an outsider to insider, my relationship as a researcher to my classroom setting began to shift. Outsiders want to understand what it is like to be an insider without “going native” and losing an outsider’s perspective (Herr & Anderson, 2005, p.51). However, as a practitioner, I am native to my classroom setting so great efforts were considered to see the aspects of my practice from an outsider’s perspective. Multiple forms of data were collected and triangulated and formed multiple platforms in order to address bias. Furthermore, to address both insider and outsider perspectives, multiple methods for analysis were used for various data collected.

**Role of an action researcher.** Self-study is a form of action research that focuses on an individual’s personal and professional self (Bullough & Pinnegar, 2001). There is a clear conceptual distinction between focusing on one’s practice and focusing on one’s actions initiated in the classroom. Rather than studying PBL as a program initiated in my classroom, my role in this study was to look at my own practice as an insider who was committed to the success of PBL in the classroom. In this sense, action research provided a means for me to demonstrate my role as a practitioner teaching PBL in the classroom, but also with the intent of learning about my own craft and identifying what I learned in the process. By using action research methods as a means to address my inquiry and improve my practice, conducting this study as an insider helped to generate important knowledge and build a knowledge base that can be shared amongst other practitioners (Herr & Anderson, 2005).

This study integrates action research methods within a self-study framework to improve on my own learning while also engaging students in learning through place-
based experiences. While I could have simply conducted a self-study to address my inquiry, the rich data retrieved from the students in the classroom and the interactions that occurred around the use of place-based pedagogy provided a rare emic perspective on classroom experiences. Teaching is in itself an action research: teachers often use the cyclical procedures of planning, developing, implementing, and reflecting on lessons within their classrooms (Mertler, 2014). Thus, using action research methods in this study provided a glimpse not only into the classroom, but also into the evolution of my teaching practice.

Context of the study

**Laulima community and school.** Laulima Elementary School is nestled in an old but growing community with roots tied to a historical sugar plantation. It is the oldest school in the district and gracefully stands amongst the historical architecture and refurbished plantation relics displayed throughout the town. Many students who attend Laulima Elementary School come from multigenerational households and are raised by a medley of single parents, grandparents, guardians, stepparents, and biological parents, many of whom had also attended the school as a youth.

In 2013-2014, the School Status and Improvement Report (SSIR, Accountability Resource Center Hawai‘i, 2014) found that about 58% of the student population received free or reduced lunch, which marks Laulima Elementary as a Title 1 school. The school served approximately 1131 students from Kindergarten to sixth grade, in which about 5.5% received special education services and 5.5% were limited English proficiency. Laulima School is made up of students from diverse ethnic backgrounds, but the majority of students are Native Hawaiian or Filipino. The ethnic background of the student population is roughly 44% Filipino, 26% Native Hawaiian descent, 6% Japanese, 7% Samoan, and the remaining 19% are either Portuguese, Black, Chinese, Korean, Micronesian, Hispanic, White, Indo-Chinese, or Tongan.

The following table taken from School Status & Improvement Report (SSIR) shows the percentage of fifth-grade students who were proficient in Reading and Math from 2011 to 2014:
Table 3.1. Hawai‘i State Assessment scores for grade 5 from 2011-2014.

<table>
<thead>
<tr>
<th>School Year</th>
<th>Reading Score</th>
<th>Math Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011-2012</td>
<td>63%</td>
<td>46%</td>
</tr>
<tr>
<td>2012-2013</td>
<td>54%</td>
<td>41%</td>
</tr>
<tr>
<td>2013-2014</td>
<td>59%</td>
<td>47%</td>
</tr>
</tbody>
</table>

**Participant description.** Although this was a self-study, action research methods were used to understand how students’ participation in place-based lessons also influenced my role as a teacher. Each year of the three-year study was distinguished as a separate phase (Phase I from 2011-2012, Phase II from 2012-2013, Phase III from 2013-2014) and utilized different student participants. In all of the phases, I was the primary participant studying my own journey as I implemented PBL in the classroom. With the exception of myself, students were also participants; however, the student participants varied each year and were comprised of individuals who were assigned to my homeroom class and obtained parental consent for the study. Table 3.2 provides a description of the student participants during each phase of the study. The student participants were selected as a sample of convenience as I was both the researcher and their classroom teacher.

Phase I of the study included a population of general education students; whereas Phase II and III included a mixture of general education students and students with a variety of special needs (learning, behavioral, and developmental). All classes in the study were heterogeneous and fully self-contained except for math, in which students reported to various classrooms according to their mathematical ability. Place-based lessons were integrated within all core content areas such as Reading, Writing, Science, and Social Studies; with the exception for math. Although, some of the place-based lessons incorporated mathematical concepts, these lessons were addressed during other subject areas since participation was limited to students who were from my homeroom. Students in my math class came from a variety of homerooms and parental consent had not been extended beyond students in my homeroom and place-based lessons were limited to the time I spent with students in my homeroom. All students in my homeroom
took part in place-based lessons, despite their participation in the study; however, it is important to note that non-participating students’ data were NOT used in this study.

Table 3.2
Description of participants from the study (2011 to 2014)

<table>
<thead>
<tr>
<th>Phase</th>
<th>Year</th>
<th>Total Number of Participants</th>
<th>Participant Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase I</td>
<td>Year 1</td>
<td>N=26 students (14 boys; 12 girls)</td>
<td>Grade 5 10 and 11 year old</td>
</tr>
<tr>
<td></td>
<td>2011-2012</td>
<td>0 special need students (SPED); 0 English Language Learner (ELL)</td>
<td></td>
</tr>
<tr>
<td>Phase II</td>
<td>Year 2</td>
<td>N=19 students (12 boys; 7 girls)</td>
<td>Grade 5 10 and 11 year old</td>
</tr>
<tr>
<td></td>
<td>2012-2013</td>
<td>6 SPED students; 3 ELL inclusion classroom</td>
<td></td>
</tr>
<tr>
<td>Phase III</td>
<td>Year 3</td>
<td>N=27 students (14 boys; 13 girls)</td>
<td>Grade 5 10 and 11 year old</td>
</tr>
<tr>
<td></td>
<td>2013-2014</td>
<td>9 SPED students; 0 ELL inclusion classroom</td>
<td></td>
</tr>
</tbody>
</table>

**Phase I (2011-2012).** There were 26 fifth-grade students who participated in Phase I of the study. The ratio of boys to girls in this class was somewhat equal with 14 boys and 12 girls. The amount of students in my class throughout the school year was fairly the same, with one participant exiting the school part way and another entering the school. Student participants were all a part of my homeroom class, and while their academic abilities and skills were diverse, none of the students received special education services or services for English Language Learners (ELL). Phase I took place during my first year in a new community, school, and place.

**Phase II (2012-2013).** Phase II consisted of 19 fifth-grade students with diverse abilities in an inclusion classroom setting. The student participants included six students with special needs and three ELL students. Two participants also received speech services. This was my second year teaching at Laulima Elementary, and as an inclusion classroom, I co-taught with a special education teacher. I also received a paraprofessional skills trainer who worked with a specific student. The inclusion setting allowed the special education teacher and I to collaboratively work on planning and implementing lessons, maintaining
classroom duties, and monitoring the progress of students. It is also important to note that the special education teacher (Miss Kristy) who co-taught with me was a brand new teacher who had just graduated from college. This was her first teaching job. The ratio of boys to girls in this class was high and more than half of the students were boys. There also were continuous movements of students exiting and entering the school during Phase II; however, the amount of participants and ratio of participants despite these movements remained fairly consistent.

**Phase III (2013-2014).** Phase III of this study took place in an inclusion classroom consisting of 29 fifth-grade students. However, only 27 chose to participate in the study. Miss Kristy, the special education teacher whom I co-taught with in Phase II once again worked as the special education teacher and co-taught with me in Phase III. Ten of the students in my class received special education services, and two of those ten special needs students also received paraprofessional services on a daily basis for academic and behavioral assistance. The paraprofessional skills trainer in Phase III was not the same adult from Phase II. I also had two students who received speech services and another student who required a behavior support plan to minimize disruptive behaviors within the classroom. The ratio of boys to girls during Phase III was fairly even with 14 boys and 13 girls. One-third of the class received special education services; however, none of the students required ELL services. The class count stayed fairly consistent throughout the year with two students exiting and three students entering during the year.

**Confidentiality and informed consent.** All student participants in all phases of this study were minors and were given assent forms and parental consent letters (Appendix A and B, respectively) before any curricular interventions were carried out. Although place-based lessons were included as part of the curriculum, participation in the study was voluntary; refusal to participate involved no penalty and participants and/or their parents were free to withdraw consent at any time without prejudice. Data of students who chose not to participate were not used in this study. Data collected from students for this study included video and audio recordings, work samples, photos, and
focus groups discussions. Any form of identification in the data, including student name or school, was kept confidential and, pseudonyms were used to identify specific students, other adults, and places in order to maintain anonymity. Identity as a participant was not disclosed to any unauthorized persons; and access to research data was kept in a secure location.

Institutional Review Board (IRB) and Hawai‘i Department of Education (HIDOE) consent to conduct research (Appendix C, D, and E, respectively) was completed and approved for the years that the study was conducted. In Phase I and II, consent letters and HIDOE approval were granted through the Systems Accountability Office. However, Phase III warranted a new HIDOE approval through the State Accountability and Data Governance Office. Revisions to the parent consent letter were made in Phase III, and consent to conduct research was granted for that year from HIDOE. The documents used for collection and analyses were from data collected between the dates granted approval in 2011-2014.

**Securing permission to use site.** This study was based at a public elementary school in the State of Hawai‘i. Permission to conduct the study at the site for a period of three years (2011-2014) was acquired from the principal of the school and the HIDOE prior to the start of the study.

**Data Collection**

In this study, the data collected included multiple sources in order to increase the depth of analysis and to provide a wider scope to triangulate information and validate my findings (Creswell, 2013). The study combined journals, visual documents, artifacts, and field notes in order to provide a deeper holistic understanding and analysis of the influences PBL had on my journey to foster and develop teacher agency and autonomy in my practice. Data collected from this study was placed into four categories: 1) self-study data; 2) artifacts; 3) observational data, such as observations and field notes; and 4) secondary artifacts, which are data retrieved from other outside sources (e.g., parents, community members, teachers, administration) as outlined in Table 3.3.
Table 3.3.
Data Collection sources for each phase of the study

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Primary Data Source</strong></td>
<td><strong>Primary Data Source</strong></td>
<td><strong>Primary Data Source</strong></td>
</tr>
<tr>
<td>1) Self-study data collected:</td>
<td>1) Self-study data collected</td>
<td>1) Self-study data collected</td>
</tr>
<tr>
<td>● Observations of teaching</td>
<td>● Observation of teaching from</td>
<td>● Observation of from visual</td>
</tr>
<tr>
<td>from visual documents</td>
<td>visual documents</td>
<td>documents</td>
</tr>
<tr>
<td>● 26 Self-Reflective Journals</td>
<td>● 24 Self-Reflective Journals</td>
<td>● 26 Self-Reflective Journals</td>
</tr>
<tr>
<td>● Analytical memos and notes</td>
<td>● Analytical memos and notes</td>
<td>● Analytical memos and notes</td>
</tr>
<tr>
<td><strong>Primary Data Source</strong></td>
<td><strong>Primary Data Source</strong></td>
<td><strong>Primary Data Source</strong></td>
</tr>
<tr>
<td>2) Artifacts</td>
<td>2) Artifacts</td>
<td>2) Artifacts</td>
</tr>
<tr>
<td>Teacher artifacts:</td>
<td>Teacher artifacts:</td>
<td>Teacher artifacts:</td>
</tr>
<tr>
<td>● Personal documentation</td>
<td>● Personal documentation and</td>
<td>● Personal documentation and</td>
</tr>
<tr>
<td>and artifacts (agendas,</td>
<td>artifacts (agendas, email</td>
<td>artifacts (agendas, email</td>
</tr>
<tr>
<td>email correspondence,</td>
<td>correspondence, proposals,</td>
<td>correspondence, proposals,</td>
</tr>
<tr>
<td>proposals, lesson plans, etc.)</td>
<td>lesson plans, etc.)</td>
<td>lesson plans, etc.)</td>
</tr>
<tr>
<td>● 3 Videos of teaching</td>
<td>● 5 Videos of teaching</td>
<td>● 2 Videos of teaching</td>
</tr>
<tr>
<td>Student artifacts:</td>
<td>Student journals and notes</td>
<td>Student journals and notes</td>
</tr>
<tr>
<td>from place-based assignments</td>
<td>from place-based assignments</td>
<td>from place-based assignments</td>
</tr>
<tr>
<td>● Photo copies of student</td>
<td>● Photo copies of student work</td>
<td>● Photo copies of student work</td>
</tr>
<tr>
<td>work from place-based</td>
<td>from place-based assignments</td>
<td>from place-based assignments</td>
</tr>
<tr>
<td>assignments</td>
<td>● Visual documents (photos,</td>
<td>● Visual documents (photos,</td>
</tr>
<tr>
<td>● Visual documents (photos,</td>
<td>video)</td>
<td>video)</td>
</tr>
<tr>
<td>video)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Primary Data Source</strong></td>
<td><strong>Primary Data Source</strong></td>
<td><strong>Primary Data Source</strong></td>
</tr>
<tr>
<td>3) Observational Data</td>
<td>3) Observational Data</td>
<td>3) Observational Data</td>
</tr>
<tr>
<td>● Observational notes</td>
<td>● Observational notes</td>
<td>● Observational notes</td>
</tr>
<tr>
<td>● Field notes</td>
<td>● Field notes</td>
<td>● Field notes</td>
</tr>
<tr>
<td><strong>Secondary Source</strong></td>
<td><strong>Secondary Source</strong></td>
<td><strong>Secondary Source</strong></td>
</tr>
<tr>
<td>Artifacts Collected:</td>
<td>Artifacts Collected:</td>
<td>Artifacts Continued to collect</td>
</tr>
<tr>
<td>● Memos, letters, (teacher,</td>
<td>● Memos (teacher, parent,</td>
<td>● Memos (teacher, parent,</td>
</tr>
<tr>
<td>parent, community, admin)</td>
<td>community, admin)</td>
<td>community, admin)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011-2012 Data kept in secure</td>
<td>2012-2013 Data kept in secure</td>
<td>2013-2014 Data kept in secure</td>
</tr>
<tr>
<td>location</td>
<td>location</td>
<td>location</td>
</tr>
</tbody>
</table>

Data collection process and research questions. In order to establish a ‘fit’ between my research questions and design, it was important that the process of my data collection and the design of my research were congruent to the nature of my research
questions (Draper, 2004). Therefore, an “evaluation crosswalk” (O’Sullivan, 1991) was used to demonstrate how I linked my data collection procedures to my research question in order to ensure adequate triangulation of data sources (see Table 3.4).

Table 3.4.
Evaluation crosswalk that links research question and data collection methods

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Journals (Self-Study)</th>
<th>Visual Documents (Self-study/Artifacts)</th>
<th>Student Work (Artifacts)</th>
<th>Observation (Observational data)</th>
<th>Field Notes (Observational data)</th>
<th>Secondary Artifacts (External data)</th>
</tr>
</thead>
<tbody>
<tr>
<td>In a time of intense accountability and reform, can using PBL as a curriculum in a classroom change teaching practices and foster a passion for the profession?</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>In what way will using a PBL model provide a practical method for continuous improvement of teaching and learning, placing teachers at the center of the change process?</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>How does PBL curriculum foster changes in teaching practice and enable a passion for teaching?</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

**Data collection and course content timeline.** Self-study data and student work samples were collected from the beginning of each school year (August 2011 to May 2014); however, place-based lessons were taught during specific time periods. Table 3.5 below provides a basic timeline for place-based content taught during each phase. During the time period stated in each phase, place-based lessons were taught weekly for a period ranging from one semester to a year-round curriculum. Place-based lessons ranged from 45 minutes to 90 minutes, where students engaged in a variety of place-based activities that required them to write journals, conduct experiments or complete classroom activities, and engage in discourse.
**Table 3.5.**

**Place-based curriculum timeline**

<table>
<thead>
<tr>
<th>Course Content</th>
<th>Phase I School Year 2011-2012</th>
<th>Phase II School Year 2012-2013</th>
<th>Phase III School Year 2013-2014</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Duration</strong></td>
<td>December 2011 to April 2012 (4 months)</td>
<td>October 2012 to May 2013 (7 months)</td>
<td>September 2013 to May 2014 (8 months)</td>
</tr>
<tr>
<td><strong>Time</strong></td>
<td>3 to 4 times a week (45 min)</td>
<td>3 to 4 times a week (45 min – 90 minute lessons) Afterschool -3 times a week for 30 minutes Before school- 5 times a week 15 minutes</td>
<td>Before and after school - 5 times a week between 15 and 30 minutes. 2-3 times a week (45 -90 minute lesson)</td>
</tr>
<tr>
<td><strong>Description of project</strong></td>
<td>History of community</td>
<td>Designing a class garden</td>
<td>Sustainability – garden project and aquaponics</td>
</tr>
<tr>
<td><strong>Field Trips</strong></td>
<td>Community Walk</td>
<td>Guest Speakers</td>
<td>Guest speakers</td>
</tr>
<tr>
<td><strong>Self-Study Data</strong></td>
<td>Throughout August 2011-August 2012</td>
<td>Throughout August 2012 – August 2013</td>
<td>Throughout August 2013 –August 2014</td>
</tr>
<tr>
<td><strong>External Data</strong></td>
<td>December 2011-May 2012 Throughout</td>
<td>October 2012 to May 2013 Throughout</td>
<td>September 2013-May 2014 Throughout</td>
</tr>
</tbody>
</table>

**Visual data.** Visual documents included video and photos that were used to also present findings in this research study (Stanczak, 2007). Videos and photos provided concrete information so that I could reference back to and check for accuracy without relying on my own memory (Bogdan & Biklen, 2007). Since this form of data collection captures activities and events as they happen, including “nonverbal behavior and communication such as facial expressions, gestures, and emotions” (Marshall & Rossman, 2006, p.121), it became a valuable data source to help interpret changes in my practice and explore new areas for growth (Samaras & Freese, 2006). Visual documentation was a viable means that allowed for multiple opportunities to view, review, and self-reflect on my own practice and, teacher-student interactions, and student engagement through a researcher’s lens.

**Reflective data.** Personal documentation refers to first person narratives that describe an individual’s actions, experiences, and beliefs, such as letters, diaries, and journals (Bogdan & Biklen, 2007). Merriam (2009) claims that teacher reflections or journals can serve as a reliable source of qualitative data because it takes the attitude of
individuals and the beliefs and views of the world into consideration. While considering the type of data to collect for this study, I chose to use reflective journals as a practitioner because it was a form of personal documentation that focused on my experiences and personal thoughts that were directly related to my practice (Burgess, 1982; Merriam, 2009). But as a researcher, reflective data also enabled me to identify patterns that formed in my practice. Reflective data helped me to foster a personal connection to the content of the situation and identify specific areas of need by reflecting and critiquing on my experiences and practice (Norman & Spencer, 2005). In order to utilize reflective practices, documents involved the surrounding entity that affected my practice; which included students, interactions with other educators or parents, policy, curriculum, lesson planning, and execution of lessons. (Freese, 1999; Loughran, 2002; Schon, 1983).

Although personal documentation such as journals can be biased in that the researcher selects what is important to him/her, it also can be argued that personal documentation can provide an account based on the author’s experience and personal beliefs. Through “reflexivity” (Lincoln & Guba, 2000), or reflecting critically on the self as researcher, I had to clearly identify and acknowledge my bias and assumptions in order for readers to understand how I arrived at the interpretation of my data.

The personal documentation included in this study included relevant personal memories that combined events, memories, and stories that helped to mold the study’s context. These personal documentations were at times woven into the present text as the study formed. For example, using reflective journals as a data source provided me with opportunities to capture situations and emotions throughout my place-based experiences. Through these teacher reflections, I hoped to reframe my teaching, which in turn would ultimately make for better student learning and teaching practice (Schon, 1983; Freese, 2006).

**Teacher and student artifacts.** Teacher artifacts included a collection of lesson plans, notes, agendas, memos, and email correspondences. Teacher artifacts were used to identify 1) patterns and/or identical themes that demonstrated evidence of changes in my practice such as autonomy and teacher agency, 2) contradictions within the teaching practice, and 3) patterns in teaching changes over time. Artifacts collected from students
included a culmination of work samples, journals, conversations between teacher and student, and assignments. On the other hand, student artifacts were used to identify additional changes in teaching practice that occurred through student lessons, interactions, and student work. Collecting and analyzing student data enabled me to provide valuable information on how student learning and engagement with regard to place-based lessons can also affect my teaching practice.

**Observational data sources.** Observations are primary sources of qualitative data that takes place in the natural environment. It represents the initial encounter with the phenomenon (Merriam, 2009) and the opportunities created for direct observation (Yin, 2009). The observational data used in this self-study was tricky since I was both the teacher and the researcher. Therefore, collecting observational data required careful planning. Creswell (2013) described this type of observer as one who is “fully engaged with people they are observing” (p.166). Place-based lessons were taught with the intent of fully being aware of students’ interactions with the lessons while still being aware of my teaching. Although I took field notes during the lesson and jotted notes either after the lesson or afterschool, videotaping my teaching allowed me to fully engage myself with students without having to stop to take notes. Videotaping my lessons provided me with an opportunity to observe the lessons as a “nonparticipant/observer as participant,” which is a perspective a researcher adopts as “an outsider of the group under study, watching and taking field notes from a distance . . . recording data without direct involvement with activity or people” (Creswell, 2013, p.167). This type of observational lens allowed me to look at my teaching and student interactions through another perspective and broaden my scope of information for triangulation (Agrosino, 2007).

Field notes and observations that were taken during place-based and non-place-based lessons, during field trips, and during talks given by guest speakers were used as a means to observe student engagement with the phenomenon. Observational protocol was used to record information and contained notes that were taken during the activities, which included descriptive notes of the activity and reflective notes on the process of the activity (Creswell, 2013).
Secondary artifacts. Secondary artifacts included data retrieved from other sources that were not directly involved in the classroom setting, such as administrators, other teachers, parents, and/or community members. These artifacts included notes, parent feedback, emails, and conversations with individuals (which were jotted in my notes). Secondary sources helped to build an understanding of the impact and influences place-based pedagogy had outside of the classroom. Using these artifacts as data provided me with information on teacher agency through a sociocultural perspective as my relation to the world or to my role as a teacher was mediated by social practices. In her study on transformation of learning, Hedegaard (2008) claimed that, “learning becomes a change in the person’s motive relation to the world through changes in the person’s relation to other persons and in the person’s contribution to shared practice” (p. 317). Therefore, the social interactions and relationships that formed outside of the classroom were also considered data that was relevant to the influences that occurred in my practice.

Data Analysis

CHAT as a framework. CHAT is a framework that explores the learning process and is best developed when the researcher enters the activity system and transforms it (Engeström, 2000). The value of using this framework to analyze my data was two-fold: 1) it provided me opportunities to view PBL in the classroom as a system that could observe the changes that occurred over a period of time, and 2) it also allowed me to deconstruct and analyze the interacting activities within my system and identify and understand the contradictions and conflicts that emerged within my practice. Activity theory was developed as a concrete psychological concept through one’s immersion in everyday praxis (Vygotsky, 1989). Therefore, it was necessary for the study to occur within my teaching environment in order to deeply investigate the relationships and interactions PBL had on my teaching practice as well as how the interconnection of society, culture, and other individuals provided to that process.

I had attempted to analyze my data from the pilot study in 2010 using CHAT in order to explore the influence of PBL on my teaching practice. However, CHAT can be a complicated process, so it was necessary for me to find an activity theory model that would guide and validate the procedures for this research. For this study, I utilized
Engeström’s (1987) expanded triangle (see Figure 3.1), in order to understand the changes that occurred over a period of time.

Figure 3.1. Engeström’s expanded activity triangle. (From Engeström, 1987).

One of the aspects of using CHAT as a framework is its importance in analyzing the complex social practices that acknowledges contradictions and tensions in the functioning of the activity system. Kuutti (1996) points out:

Because activities are not isolated units but are more like nodes in crossing hierarchies and networks, they are influenced by other activities and other changes in their environment. External influences change some elements of activities, causing imbalances between them. Activity theory uses the term contradiction to indicate a misfit within elements, between them, between different activities, or between different developmental phases of a single activity. Contradictions manifest themselves as problems, ruptures, breakdowns, and clashes. Activity theory sees contradiction as sources of development; activities are virtually always in the process of working through contradictions (p. 34).

In this study, internal contradictions experienced within the activity systems were the forces that encouraged my personal and professional development. Likewise, in an activity system, contradictions provide opportunities to make changes, opportunities for improvements, innovations, and new ways of structuring and carrying out the activities within a system. CHAT is unique in that contradictions are not problems; rather, they serve as a basis for growth and improvement that often lead to a transformation of learning. Contradictions are present in every collective activity and serve as a lens through which participants in an activity can reflect on the trajectory and
development of the system and understand the dynamics involved in this process. Transformation occurs when participants seek to resolve the contradictions within a system, through what Engeström (1990) refers to as an “expansive learning cycle” where “construction and resolution of successively evolving tensions or contradictions in a complex system” are addressed (Engeström, 1999b, p.384).

**The Eight-Step-Model.** In order to use CHAT as a tool for analysis, I separated each task into three distinct parts. I used the Eight-Step-Model to first help me to interpret the various components of an activity triangle in relation to the situation being examined. Mwanza (2001) incorporated open-ended questions based on the various components the activity triangle represented (Figure 3.2). The open-ended questions helped me to interpret the components found in the activity triangle. By determining the activity in a given situation, I was able to decide what resources would be necessary during the analysis.

![Figure 3.2. Eight-Step-Model. (From Mwanza, 2001)](image)

**Deconstructing the activity system.** Mwanza (2001) purported that activity systems can be very complex because it incorporates the various sub-activities that together make up the main activity system being analyzed. Therefore, *Activity Notation* (see Figure 3.3) was introduced to break down the components in a complex system into manageable sub-activities or parts.
Mwanza (2001) contended that activity notation should consist of the following three components:

1) An ‘actor’ that is represented by the Subject or Community component from the triangle model.
2) A ‘mediator’ that is represented by the Tools, Rules, Division of Labor component from the triangle model.
3) The ‘object’ that the activity is focused on or the motivation of the activity.

Each of the combinations within the activity notation is a representation of the sub-activity from the activity system in the triangle model (see Figure 3.4), which includes components that were broken down into smaller triangular units. For example, the combination of Subject-Rules-Object in the activity notation is a sub-activity that can be analyzed in terms of the application of rules.
Generating questions for analysis. By decomposing the situations in the activity system, the researcher is able to generate questions that are specific to any one of the combinations in the activity notation (Figure 3.3) or within the sub-activity triangle (Figure 3.4). These questions helped to guide how I was able to analyze my data. Mwanza (2001) provides some examples of questions that I also used as I decomposed the activity system and identified contradictions within the system (Figure 3.5). These questions were used to help identify contradictions within the activity systems in this study; however, the questions also changed as the data began to evolve.
**Example of Questions Generated by Decomposing the Activity System**

What *Tools* does the *Subjects* use to achieve their *Objective* and how?

What *Rules* affect the way the *Subjects* achieve the *Objective* and how?

How does the *Division of Labor* influence the way the *Subjects* satisfy their *Objective*?

How do the *Tools* in use affect the way the *Community* achieves the *Objective*?

What *Rules* affect the way the *Community* satisfies their *Objective* and how?

How does the *Division of Labor* affect the way the *Community* achieves the *Objective*?

*Figure 3.5. Questions generated by a decomposed activity system (From Mwanza, 2001).*

**Expansive Learning Cycle**

After a structural and developmental analysis (decomposing subunits for contradictions) for the activity systems, the potential for learning and development that occurred in each phase was analyzed through the Cycle of Expansive Learning. Expansive learning is one of the central concepts of a CHAT framework and is used to look at how new knowledge such as the changes that occurred throughout the phases of the study were nurtured. Emerging from Engestrom’s (1987) work, and further developed over several decades, expansive learning is understood as involving not only the acquisition of new knowledge or skills, or a production of an outcome, but rather, learning is expansive when it actively seeks to generate and create new outcomes by participating in the activity of learning. In terms used in CHAT, expansion of activities involves transformation or re-mediation wherefore new activity systems are generated when knowledge is produced in new ways and a reorganization of how problems or tools are approached occurs. In most instances, contradictions within each of the activity systems become the driving force for expansive learning.

The CHAT based theory of expansive learning in which activity systems are transformed, each cycle of development in an activity system is contingent upon and
sometimes overlapping of the previous cycle. Expansive learning describes transformation as a cycle of internalization/externalization of new mediating artifacts that lead to a reconceptualization of the object in the activity. For example, at the beginning of an expansive learning process, the thin tail of the arrow in Figure 3.6, contradictions are perceived by individuals that are part of the system. Recognition of a contradiction within an activity results in a reflective analysis of the activity and collective questioning or rejecting of an established practice(s). Therefore, through expansive learning, individuals explore the conflict and externalize their understanding of it, they may continue to search for solutions, model potential solutions, and begin to internalize new mediating artifacts in an effort to address the conflicts within the activity. This process is noted in the multi-shaded arrow in figure 3.6; the head of the arrow is wider than the tail indicating the amount of transformative learning taking place as the process continues; and the greater amount of internalization of what is learned, indicated by darker shade at the head of the arrow. The process of expansive learning is ongoing and as internalization/externalization of contradictions occur, new activity systems and transformations continue to take place.

![Figure 3.6 The expansive cycle diagram (From Engestrom, 1999a)](image)

**Methods for Data Analysis.**

Research for this study was conducted in three sequential phases. I collected and analyzed the data collected from all three phases. Multiple qualitative data sets were collected to generate descriptive and analytic data. The qualitative data analysis used was a systematic process that consisted of 1) preparing and organizing the data for analysis, 2) coding and condensing the codes, and 3) providing a means for the data to
be represented through figures, tables, or discussion (Creswell, 2013; Creswell & Plano-Clark, 2010).

Due to the length of time of this study, there were multiple sets of data collected and analyzed. The study combined student work samples, student and teacher artifacts, videotaped lessons, observations, and journals to provide a deeper understanding and analysis of how PBL changed teaching practices and fostered a passion for teaching. Data collected for each year was segregated and chronologically organized; however, data was not analyzed until after the three-year study. Self-reflective journals were analyzed separately and later cross-analyzed and compared for recurring themes and patterns. Data sets were combined and analyzed using a dual platform: descriptive/longitudinal analysis for reflective journals and cultural historical activity theory (CHAT) analysis for all data. Both platforms included self-study data (reflective journals), however, teacher (lesson plans, agenda, etc.) and student (student work samples) artifacts, observations, and secondary data (parent, administration, other teachers’ communication) were used during CHAT analysis.

The first phase of analysis consisted of organizing and preparing the data for each of the three years using CHAT; however, due to the nature of CHAT and its emphasis on activities, analyzing the reflective journals using CHAT minimized the rich details that were found in the journals. Therefore, reflective journals were re-analyzed using an alternate platform in order to draw out the realities exhibited through place-based pedagogy, which will be discussed later in this chapter. CHAT was used as a method of analysis that included videos, student work samples, reflective journals, field and observational notes because of its dual role in establishing contradictions and tensions within actions and its ability to analyze changes over time. Utilizing reflective practices with CHAT was helpful since it allowed me identify tensions within the activity and seek resolutions that were followed by a modified action (Gore & Zeichner, 1991).

After data was organized, the second phase of analysis consisted of coding and condensing codes. Here the analysis from each data set was compared and contrasted to each other in order to provide a complete picture of the influences place-based pedagogy had on my own teaching practice. In phase three of analysis, combining results from the
data sets provided a comprehensive account of the various forms of data sets using multiple methods for analysis.

**Multiple methods for analysis.** In order to ensure validity and reliability in analyzing multiple types of data, I chose to code and categorize the data that I collected using two different platforms. CHAT was used as a method of analysis for all activity and action related data such as videos, student work samples, and field or observational notes. Self-study data such as reflective journals were analyzed at first using a CHAT analysis, and then later through descriptive and longitudinal coding process. Codes and potential themes that were generated from the self-study data were then triangulated with contradictions and outcomes of the CHAT model to formulate common themes that emerged over the course of three-year study. The following is a description of the two platforms I used for analysis.

**CHAT.** Prior to analyzing my data I had come to believe that teaching through place-based experiences had changed my attitude towards teaching. One clear evidence in my change in attitude was that I no longer wanted to quit teaching and I felt motivated to continue learning as a teacher. However, I could not define what was causing these changes or how these changes were somehow an extension of place-based lessons. By using the CHAT model, I was able to deconstruct any mediating components that contributed to the activity system and also identify the contradictions that occurred within the system. I also compared the outcomes of systems to new systems that were generated in order to understand how one activity system generated by place-based lessons contributed to the transformation of another system. This transformation of multiple systems is what is Engestrom (1999a) refers to as the *Expansive Learning Cycle*, which will be discussed later in this chapter. Using CHAT to analyze my teaching practice and the place-based experiences conducted with my fifth grade classes provided a clearer understanding of how socially mediated components affected my teaching.

**Reflective journal data analysis.** CHAT was an effective model to help me understand how my individual actions developed within a social context. However, as I analyzed my reflective journals, the rich data that reflected my attitude, beliefs and, internal thoughts could not be represented in a CHAT model. Although I had analyzed
my self-reflective data for the three years using CHAT, the emotions and beliefs that drove my actions were left out, and these were important parts of my study. Therefore, I decided to re-analyze my reflective journals and the personal notes and field notes through descriptive and longitudinal coding methods. Doing so allowed me to use the self-study data as a way to identify how my potential beliefs, thoughts and attitudes had affected my teaching practice.

**Procedures for data collection and analysis.** Prior to starting school, journals provided me with a means to express my insecurities, thoughts, and ambition as I started at a new school. I collected data during the first year of this study starting with reflective journals. Reflective data was collected using a variety of formats: handwritten, typed and sent through email, or by using Penzu Post (a journal writing computer application). Penzu Post provided an effective format for me to collect and analyze my reflective journals because of its organizational and journal storage characteristics. Reflective journals for each year were chronologically organized in order to examine the patterns and trends throughout the course of the study.

Next, I transcribed and organized videos chronologically and labeled each video according to specific activities. Verifying the accuracy of the transcription was a necessary task in order to ensure that the data had been accurately transcribed and that transcriptions were verbatim. Transcriptions were read multiple times; jotting notes in the margins of any meaningful ideas and or patterns that had emerged. Data sets for each video were then placed into CHAT systems. Depending upon the activity being analyzed, either one CHAT systems was designed with “teacher/me” as the subject or two systems were designed which also included the student as the subject (Appendix F). CHAT systems were then analyzed for contradictions or tensions that emerged within each system. As contradictions arose, new systems were formed in order to address the contradictions within the prior system.

After reading each transcript multiple times and activity systems were completed, I created a coding matrix (Appendix G). The coding matrix identified eight cultural themes and patterns: classroom management, teacher practice and classroom instruction, curriculum, teacher collaboration, teacher learning, student learning, and teacher reflective learning. Using the coding matrix, I reviewed the videos, transcripts,
and activity systems again to recode. Coding results were re-organized and collapsed under three specific categories: self-awareness, social-awareness, and environmental awareness.

Once coding for CHAT was completed, I began to organize and analyze the reflective journals. Reflective journals were labeled, organized, categorized chronologically for analysis. Descriptive coding was first used on the journals in order to identify common topics. Descriptive coding was organized to clearly identify specific descriptors within the journals (Appendix H). Following the descriptive coding, the initial codes were further organized and categorized in order to succinctly narrow themes. Eight themes also emerged: Classroom management, classroom instruction, curriculum, PBL and collaboration, teacher learning, teacher empowerment, student empowerment, and student learning. Themes from the reflective journals were compared and contrasted over the period of the three years and re-organized into more specific categories: cultivating relationships, renegotiating the distribution of power, and student centered learning. Finally, themes that emerged from the CHAT and self-reflective journal analysis were compared and contrasted in order to provide a comprehensive picture of the influences that PBL has on changing teaching practice and fostering a passion for teaching.

**Emerging themes.** There were a total of six themes that were identified through both CHAT and longitudinal data analysis. Three themes emerged through a CHAT analysis and three themes emerged through the longitudinal analysis. Each of the themes is described in the following sections.

**Emerging themes from CHAT.** CHAT permitted me to make sense of the central place-based activities and identify three emerging themes. Each activity system demonstrated the use of a variety of mediating tools and contradictions that occurred in each of the systems which will be elaborated later in this chapter. After each system was decomposed into sub-activities, contradictions occurred within the decomposed system and between the different systems. Three themes emerged through the activity system: Self-awareness, social awareness, and environmental awareness. Figure 3.7 illustrates the themes as parts of a whole because features for each theme are characteristics specific to each part.
Although each of these themes may appear separate, they work in unison within the activity system. Table 3.6 summarizes three of the themes and the associated features that emerged through a CHAT analysis.

Table 3.6.
CHAT Themes from data analysis with features that emerged from data.

<table>
<thead>
<tr>
<th>Self-Awareness</th>
<th>Social Awareness</th>
<th>Environmental Awareness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beliefs</td>
<td>Students</td>
<td>Lesson plans (PBL &amp; non-PBL plans)</td>
</tr>
<tr>
<td>Experiences</td>
<td>Other teachers in the school</td>
<td>Classroom environment</td>
</tr>
<tr>
<td>Attitude</td>
<td>Community members</td>
<td>Instructional strategies</td>
</tr>
<tr>
<td>Teaching practice</td>
<td>Other schools</td>
<td>Physical resources</td>
</tr>
<tr>
<td>Autonomy</td>
<td>Parents</td>
<td>Financial resources</td>
</tr>
<tr>
<td>Perceptions</td>
<td>Administration</td>
<td>Student population</td>
</tr>
<tr>
<td>Habits</td>
<td>Cultures</td>
<td>Professional development</td>
</tr>
<tr>
<td>Agency</td>
<td>Diversity</td>
<td>School or state mandated</td>
</tr>
<tr>
<td>Confidence</td>
<td>Inclusiveness</td>
<td>Programs (textbooks)</td>
</tr>
<tr>
<td>Skills</td>
<td></td>
<td>Hawai‘i Content and</td>
</tr>
<tr>
<td>Assessing strengths and weakness</td>
<td></td>
<td>Performance Standards</td>
</tr>
<tr>
<td>Reflection</td>
<td></td>
<td>Teaching environment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Community</td>
</tr>
</tbody>
</table>

At first, themes emerged independently; however, as the CHAT model continued to create new systems, I realized that the themes did not work independently, rather themes continued to evolve and intersect each other within a social context.
In Figure 3.7, arrows for each component illustrates how themes can directly interact with other themes. As I became more self-aware, I was also able to recognize the social aspects that contributed to teacher transformation. And as I became more socially aware, I began to look at how the learning environment and the curriculum that I was teaching affected students. Likewise, as my self-awareness evolved, so did my ability to connect to students and lessons. I began to build relationships, I also began to understand the environment in which I immersed students in and I became cognizant of the lessons I was designing.

**Theme 1: self-awareness.** Self-awareness included my ability to recognize and acknowledge such things as my beliefs and attitude towards teaching, the experiences I had or habits that I have formed as a teacher, and other aspects that were related to my growth such as my perceptions as a teacher and engagement within my practice. These factors had shaped, informed and guided my teaching. Self-awareness helped mold and guide my interpretation of teaching and influenced my understanding and learning of students throughout the study.

**Theme 2: social-awareness.** Social awareness was embedded within my interactions with individuals and various organizations. This included how I addressed mediating factors such as the division of labor and the hierarchical and power components within my practice. Social awareness also included taking the perspective of others—especially those from diverse backgrounds and cultures in order to understand behavior and recognize external resources as a support. Originally, the lessons I did with students lead me to believe that social awareness meant how I socially connected to place or the community in which I worked in. It also led me to believe that there were parts of my social aspects in my teaching that were not being addressed. However, as I continued to look at the different types of data, social awareness meant a larger connection to the human interactions and the relationships I formed with various individuals. The role that my relationship played within the context of the study contributed to my transformation as a teacher.

**Theme 3: environmental awareness.** This capacity included the recognition of PBL in my teaching and the capacity it had to raise awareness in the impact that a community or environment can play in my practice. Environmental awareness took
place in all physical manifestations of my teaching that included: different instructional strategies (such as whole group, small group, individualized, collaborative learning, etc.), the physical environment of learning (in the class, outside of class, at the desks, on the floor), as well as the development and implementation of the curriculum. There were other environmental factors that I had little control over and while these were intangible factors (population of students in class, outcomes, state mandated programs, mandated tests), they still contributed to the dimensions of my teaching.

**Emerging themes from reflective journals.** Although analyzing my data through CHAT helped me identify themes and served as a transformative tool, I realized analyzing all my data through CHAT was not a sufficient means to capture the rich information gathered from unobservable nuances found in my reflective journals. A CHAT framework helped me merge my practice and how I identified with myself as a teacher; however, using multiple analyses were necessary in order to identify not only the changes in my teaching practice, but also the changes that I felt in my teaching. Self-reflective journals were used as a way to study the connection between what I thought and believed and the way I was teaching.

My interpretation of “self” within this self-study meant that I was able to use data that I collected to understand the phenomenon of my teaching (self in teaching) and my own teaching perspective (self as a teacher). By analyzing my reflective journals, I was able to clarify the themes that materialized through a CHAT framework. When I analyzed my reflective journals, I used a descriptive coding as the initial coding process. Descriptive coding was applied as the basic focus for reviewing the data and to help build a foundation for subsequent coding cycles. Saldana (2013) refers to descriptive coding as a “word or short phrase summary – the basic topic of a passage of qualitative data” (p.88) and is appropriate for studies with a wide variety of data forms. Descriptive coding was used to identify the basic topics from all the reflective journal data sets generating 79 descriptive codes in the first iteration (Appendix H). It was important for me to also organize my data chronologically in order to identify any patterns had occurred within each semester. Following the descriptive coding, a second iteration of coding was used “to bring meaning, structure, and order to data” (Anfara, 2008, p.932); the second reiteration is referred to as “code mapping” (Saldana, 2013, p.194). In this
iteration, initial codes were split into categories that naturally emerged from the data and eventually formalized into eight themes (Appendix I). A third iteration of code mapping was then utilized to further organize and re-categorize the categories. From this iteration, data was categorized into five themes that directly related to the study’s question. Themes were pulled from a complete analysis of data consisting of three years of self-study data that include reflective journals, observations, teaching videos and student work samples.

Following the three iterations of coding, data was then coded a second time utilizing a longitudinal coding method. Longitudinal coding looked at the attributions of a change process and helped to reveal ways in which changes in teaching and learning manifested through place-based pedagogies. Longitudinal coding permitted me to further develop the five themes and narrow them down to three distinct themes that emerged (Appendix J).

Since the themes had each contained multiple elements, longitudinal coding helped me to develop information from the data that showed any increase, decrease, constancy and so on within data for a comparative analysis and interpretation in order to generate inferences for change (Saldana, 2013). Chronologically observing changes over the course of the study allowed me to assess whether such change was part of the natural, developmental trends that are documented in literature; or if they were changes that were related to contextual or intervening conditions within my teaching practice, environment, or personal epiphanies.

The reflective journal analysis uncovered three distinct themes: 1) Renegotiating the distribution of power through empowerment 2) Cultivating relationships that build a learning community, and 3) Student-centered teaching. In the coding process, I counted and indicated the frequency of occurrence for the categories and themes within reflective journals and notes, which are described and supported by examples within this chapter. (see Table 3.7). The frequency scores are raw scores taken from the number of identifiers in the video transcription and reflective journal data sets. Over the timespan of the study, Student-centered learning had the highest occurrences with a percentage of 51%. Renegotiating the distribution of power through empowerment had a percentage of 31%. Cultivating relationships had a percentage of 27%, the lowest of the three themes.
The frequency percentages for each year was determined by the number of occurrences and the total number of descriptors for each year: Phase I had a total of 197 descriptors, Phase II had 192 descriptors, and in Phase III there were 235 descriptors for a total of 624 total descriptors throughout the duration of the three years. Although this is a qualitative study and frequency occurrences are typically associated with quantitative research, this study used a systematic approach to qualitative research therefore a frequency helped determine how the themes or patterns evolved over the three-year study.

*Table 3.7*

*Frequencies of themes for reflective Journals*

<table>
<thead>
<tr>
<th>Theme</th>
<th>Definition</th>
<th>Frequency</th>
<th>Total</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Phase I</td>
<td>Phase II</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year 1 (11-12)</td>
<td>Year 2 (12-13)</td>
</tr>
<tr>
<td>Total Descriptors</td>
<td></td>
<td>197</td>
<td>192</td>
</tr>
<tr>
<td>Cultivating relationships</td>
<td>This perspective is one of which relationships are perceived as a valuable resource for learning. Thus, relationships are cultivated inside and outside the classroom with the intention of building a community of learners.</td>
<td>12 (6%)</td>
<td>57 (30%)</td>
</tr>
<tr>
<td>Renegotiating the distribution of power</td>
<td>Power is renegotiated from control and teacher directed rules to empowering learning. Teacher empowerment in this study means having the ability and motivation to advocate for my profession, my students, and myself. Likewise, student empowerment is when students believe that they are capable and are able to make their own decisions about their learning.</td>
<td>28 (14%)</td>
<td>68 (35%)</td>
</tr>
<tr>
<td>Student-centered teaching</td>
<td>A method of teaching where I am a facilitator of knowledge and encourage students to become active agents in their learning. Students’ knowledge and skills are developed through discovery. And course content is co-constructed with students.</td>
<td>83 (42%)</td>
<td>105 (55%)</td>
</tr>
</tbody>
</table>
Blended themes of CHAT and reflective journals. Vygotsky (1962) suggested that by understanding how people learn in social contexts, and the social environments that influence the learning process, we are able to construct active learning communities. Therefore, by studying the changes that occurred in my practice through a CHAT framework and reflecting on these changes through self-study practices, I was able to identify overlapping themes and constructed new systems and learning communities based upon these overlapping themes. Themes that evolved using CHAT (self-awareness, social-awareness, and environmental awareness) interactively overlapped with one another to form the basis for self-reflective themes that had emerged through longitudinal analysis. This is illustrated in a new conceptual diagram in Figure 3.8.

Theme 4: cultivating relationships. The theme of cultivating relationships was an overlap of self-awareness and social awareness themes that were generated from a CHAT analysis. Self-awareness and social-awareness maintained the ability to look at my teaching and how it affected others or how others had affected my teaching. As these two capacities overlapped (Area A), relationships were formed. Through self-study data, cultivating relationships emerged as a theme and clearly demonstrated my ability to develop self and social awareness in my teaching. The interaction between self and the various roles involved in my practice or the specific conditions in which relationships were cultivated between aspects of myself (e.g. beliefs, attitudes, practice, etc.) and other individuals (e.g. students, parents, teachers, etc.) helped me to nurture and cultivate relationships with students and other people within my school and community. This perspective is one of which through the course of the study, became a valuable resource for teacher change. Relationships were cultivated in and outside the classroom with the intention of building a community of learners.
Figure 3.8 Overlapping of emerging themes from self-reflective journals and CHAT analysis

Theme 5: student-centered teaching. The student-centered teaching theme is an overlap of social and environmental awareness themes found through the CHAT analysis. Student-centered teaching is a method of teaching where teachers facilitate knowledge and skills and encourage students to become active agents in their own learning. This perspective provided students the opportunity to co-construct curriculum and develop their knowledge through discovery. Student-centered teaching also required me to be willing to take stock in my own practice and recognize that students’ learning environment played an important role in building a community of learners. Student-centered teaching (Area B) took place when negotiations and interactions between
relationships that were nurtured and the place-based curriculum that were developed contributed to student learning.

Theme 6: re-negotiating the distribution of power. As place-based lessons became an active part of my curriculum, I also began to understand details that contributed to learning in different types of environments. Renegotiating the distribution of power (Area C) developed through environmental factors shaped by introspective reflective practices (self-awareness). I found that renegotiating the distribution of power within the de-professionalization of teachers in the era of market based reforms became apparent as I began to change the balance of teacher agency versus compliance. In our current educational climate, what I once considered mountains had now become molehills and my attention to comply with mandated initiatives had changed to feelings of empowerment in developing lessons that were much more aligned to my own teacher beliefs.

In teaching, the relationship between authority and power is often manifested in the degree that control is exercised over students such as establishing rules and consequences in the classroom. However, a teacher’s power and authority can also be shared and as a capacity to empower students by giving them voice and providing opportunities for them to make decisions about their own learning. In this sense, classroom authority can be used as a tool for empowerment where students are encouraged to take ownership of their learning. Renegotiating the distribution of power meant that I was no longer the leader; rather, I served as a mediator and facilitator whose goals were to nurture a democratic environment within the classroom. Thus, the role of a teacher is not one that displays authority and control; rather, it is an individual who displays agency and initiative and sees her students as capable and able to make their own decisions about their learning.

When themes that were generated from CHAT were integrated with critical self reflection, changes occurred and therefore contributed to teacher transformation and an expansive learning cycle. Details for each phase of the study are addressed in the following section.
Methodological Considerations

Checking for trustworthiness helps to establish the validity and methodological rigor in a qualitative research. Rigor in self-study and action research is based on checks to ensure that the outcome of the research does not merely reflect the biases of the researcher. In order to have a sound research process, several key elements came into play. The first and foremost was that the methods used in this research reflected the theoretical framework of my study. Sociocultural theory was reflected in my use of both student and teacher artifacts and my use of CHAT as my method of analysis to understand the sociocultural influences PBL had on my teaching practice.

Validity and Credibility

Creswell (2013) pointed out that “validation” in a qualitative research is “an attempt to assess the accuracy of the findings, as best described by the researcher and the participants” (p. 249). In this sense, as Angrosino and Mays de Perez (2000) stated, “all validity can be considered interpretive and dependent on context and the understandings we bring to the observation” (as cited in Ellis & Bochner, 2004, p. 123). Interpretive approaches embrace the role that the researcher plays in the process. Thus, Plano-Clark and Creswell (2010) pointed out the importance of accuracy in determining findings and interpretations so that the findings are credible. Validating this type of data and analysis can be tricky, especially in methodologies such as this self-study where action research methods were used to explore and describe meaning created in contextual situations. To validate my findings and enhance the credibility of my study, I used multiple forms of data and CHAT as the method of analysis to allow data that supported alternative explanations, as Maxwell (2005) suggested that validation is a goal that is assessed in relationship to the purpose and circumstances of the research. Therefore, in any type of research, the report is really a representation by the author.

This study validated the findings for this research and established credibility by 1) collecting multiple sources of data and establishing a chain of events in the data collection, 2) using a “replication logic” (Yin, 2009) process, in which the theories regarding the influences of PBL was explored in the classroom multiple times through multiple years with multiple groups of students, and 3) following the appropriate
protocol and procedures to develop the database and analyze the information. To further ensure the quality of the research design, the data was peer reviewed for accuracy and externally checked by colleagues (Ely, Anzul, Friedman, Garner, & Steinmetz, 1991; Erlandson, Harris, Skipper, & Allen, 1993; Lincoln & Guba, 1985; Merriam, 1988). Since member checking is difficult in a self-study, peer review allowed me to solicit outside views on the credibility and interpretation of my findings from peers and colleagues who either observed place-based lessons in my class or were familiar with the lessons done in my class and the culture of the school.

In qualitative research, issues of quality, credibility, and transferability are often addressed by giving careful attention to the way in which the data is collected, analyzed, interpreted, and presented (Merriam, 2009). The data collected for this study were from both the teacher and the students in order to provide a varied understanding of the phenomenon. The integrity of this research was also dependent upon my own reflexivity and process of critical reflection (Lincoln & Guba, 2000). In order to improve the credibility and trustworthiness of this study, I also acknowledged my background, biases, and beliefs in order to disclose any influences on my findings (Fraenkel & Wallen, 2009).

**Limitations of the Study**

This study focused on the implications of place-based education on my teaching practice in an elementary school classroom over a three-year period. Data from this study was carefully interpreted and analyzed because of several limitations. There were four limiting factors to this study. This study is first limited by the narrow scope of participants for this study. The nature of self-study required me to deeply examine my own teaching, which limited the participants and data collected for the study. The sample was restricted to the lessons conducted in one classroom using a relatively small population of students for each of the three years (Year 1: N=26; Year 2: N=19; Year 3: N=27). Despite these limitations, it is important to remember that the design of this study—including the sample size—and the methodologies used were chosen to provide an in-depth look at changes occurring in practice through a sociocultural lens.

Since the sample of the study was limited to my classroom and my own perspective and teaching journey, questions regarding the study’s generalizability are
apparent. However, this study took place in a three-year timeframe that extends the sample population to three different data sets of student participants. Merriam (2009) explains that transferability can occur if the researcher uses “rich, thick description” (p. 227) and gives careful attention to the selection of the study sample. Thus, three years of data can provide a rich description to address questions of generalizability and offer transferability of the findings.

The second limiting factor for this study was the inability to capture the diverse influences and perspectives from other individuals such as students, parents, and other teachers. Although there was meaningful information retrieved from student work, taking a look at the perception of students throughout the process would have helped to emphasize the changes demonstrated in my teaching practice.

The third limitation was the multiple methods chosen for this study. The use of self-study and action research methods can be messy and includes narrative data that can often create biases that may call the validity of the study into question. To ensure validity and avoid bias, the narrative data was triangulated with additional forms of data and multiple platforms were used to analyze the data. Careful attention was paid to the analysis and cultural interpretation to avoid further biases. Videos of teaching practices were transcribed, viewed and reviewed and analyzed through an outsider’s perspective, while self-reflective journals from the videos were from an insider’s perspective. Both analyses were compared to ensure validity.

Furthermore, using activity theory tool as a sole analytical framework for a self-study can also be messy. Initially CHAT was used to analyze data collected, however the rich personal data collected from the self-study (i.e. reflective journals) was not fully represented solely through an activity theory model. Therefore, additional methods for analysis was necessary for the self-reflective data in order to capture categories and themes that represented the thoughts, behaviors, and feelings found in the journals.

An outside researcher may find CHAT as a useful tool to analyze activities. Since, this study also incorporated action research methods, CHAT was best used as an analysis for the actions and activities in combination with the reflective practices. I chose to use CHAT in this study, for the sociocultural characteristics that blended well with my theoretical framework. It was also a means for me to analyze the activities that
affected my practice over time and the expansive learning that took place throughout the three years of the study. Hence for this particular self-study, using two analytical methods (CHAT and longitudinal analysis) to show changes in my practice provided me with multiple viewpoints of my teaching.

The fourth and final limitation for this study was using PBL as a tool for this research. PBL can often be organic and evolve differently according to the environment, situations, and students in the class at the time. PBL is dependent on the unique environmental, cultural, and historical characteristics of the community, and place-based lessons cannot always be replicated or adapted from one place to another. Results may also vary from one place to another or from one time to another. However, Smith and Sobel (2010) noted that focusing on the local provides students with the power to engage in real-world relevance and is applicable to any subject area; therefore, focusing on the local is a place-based model that can be replicated anywhere. In order to address the fluidity of PBL, lessons revolved around the community of learners at the time. Also, each phase of the study focused on specific place-based goals for the year. This allowed me to address how my lessons developed as I also addressed changes in my teaching practice.

I chose to use PBL as the model to align my beliefs with practice and transform my teaching; however, it may not be the only model to look at teaching practice. Based upon the results of the pilot study, I felt that PBL had best fit my beliefs. Although PBL was a model that fit this study, it may not be a model that aligns all teachers’ practices. As I tried to share my ideas with others, there were individuals who were not interested in PBL and either held strong stereotypes about teaching and learning or a strong need or a strong belief that this was not a model that fit their teaching style.

I would also like to note not necessarily as limitations, but as an awareness as one reads through this study, many factors played into the results of this study. The support of my administration played an important role in how the study was carried out and may in essence affected the results of the study. My administrator had a strong, positive sense of place about the community and school because he had grown up in the neighborhood. His sense of place may have been optimal in the amount of support and involvement he had in the study. If my administrator lacked a sense of place to the
school/community or administrative support were different, I may have not been able to incorporate the same types of lessons with students or be able to obtain the type of data I gathered.

**Assumptions and Bias**

A general assumption regarding this study was that PBL influences teaching and provides a natural means of motivation in students that differs from the traditional learning setting. In PBL, learning often takes place outdoors or somewhere outside of the traditional learning setting and very rarely includes textbooks. Therefore, students are naturally motivated with lessons because it is different than the traditional form of learning with the teacher. Another assumption I had prior to this study was that the students’ motivation can directly impact the teacher’s motivation to teach. Although there may be a variety of interventions that would render the same type of results in teachers and students, these assumptions were based upon the information gathered from the pilot study.

**Summary of Chapter 3**

This chapter discussed the use of self-study and action research methods to investigate the influences of a place-based educational model on building teacher autonomy and agency in the classroom. Multiple forms of student and teacher data were collected over a period of three years for this study. Data was analyzed through a CHAT lens and components of PBL were implemented within the context of the study. Through CHAT, the researcher would be able to identify the conflicts that occurred within the activity and the opportunities that helped generate solutions to those conflicts. Using the information gathered from the pilot study, CHAT helped analyze changes in teaching practice over a period of time. In the following chapter, I share my analysis of the data and discuss the findings from this study.
CHAPTER 4
RESULTS

In Chapter 1, I explained that Place-Based Learning (PBL) was an ideal tool used to address teaching practice in the midst of educational reform. I also presented my research as a self-study while using action research as a paradigm that influenced the study. As with other self-study research, my research methods resemble those of other qualitative social sciences. However, it is also action-oriented in that the setting and methods for this study were designed and conducted within my own classroom. I examined my teaching and students’ learning as a basis for making changes to my practice. In Chapter 3, I elaborated on the use of Cultural Historical Activity Theory (CHAT) and longitudinal analysis as my methods for analysis to study my practice over a period of time. The epistemological emphasis required me as a teacher not only to engage in place-based lessons, but also to understand the nature of PBL by reflecting on the influences it would have on my own practice.

The purpose of this self-study was to use PBL as a curriculum to explore my teaching practice and develop a greater passion for teaching. The study aimed to explore the influences that place-based curriculum had on my professional and personal satisfaction in teaching within the current educational climate, and the changes that were fostered in my beliefs and teaching practice over a period of time. This chapter will further describe how longitudinal analysis and CHAT was used as a framework to examine the influences of PBL in aligning my teaching beliefs with my practice and to develop a professional and personal satisfaction in teaching. Results in this chapter are not organized by themes; rather, they are organized according to the phases of the study. Due to the length of the study and the wide use of data collected, the results were best represented by discussing the implementation of lessons within the phase of the study first, then at the end of each phase, an examination of the themes were discussed.

The value in using the CHAT framework, as discussed in chapter 3, comes from the understanding that learning continuously evolves through experience and interactions with the world (Driscoll, 2000). Historically, components of an activity are not fixed but can dynamically change as conditions within my classroom change (Nardi, 2007). CHAT provided a logical means for me to identify contradictions within the
activity system and find resolutions that would help me navigate through my own practice. This chapter is divided into three separate sections representing each Phase or Year of the three-year study and guided by the following questions:

**Overall question**

In a time of intense accountability and reform, can using PBL as a curriculum in a classroom change teaching practices and foster a passion for the profession?

**Sub-questions**

1- In what ways will using a PBL model provide a practical method for continuous improvement of teaching and learning, placing teachers at the center of the change process?

2- How does place-based learning curriculum foster changes in teaching practice and enable a passion for teaching?

In Chapter 4, I discuss the emerging themes and the major findings from my data. The beginning of this chapter provides a brief context of the study and reviews the process that was applied to my analysis. The second section of this chapter is divided into three phases for each year of the study. Each phase of the study is represented by a subsequent school year from the pilot study that took place in 2010 and are subdivided into three parts: activity theory analysis, expansive learning, and self-reflection analysis.

For each of the three phases, Cultural Historical Activity Theory (CHAT) (Cole & Engeström, 1993, Engeström, 1987; Vygotsky, 1978) is used a means to identify the contradictions and examine the changes that occurred over the course of the study. Descriptive narratives also follow the CHAT analysis to provide a clear understanding of the changes that took place. Within the phases, I also present a descriptive and longitudinal analysis of the self-study data and link the themes that emerged to provide a broader interpretation of the study’s findings. Finally, this chapter will close with a brief description of the impact PBL had on assessments and is followed by a summary of the findings.

**Data Collection and Analysis**

In order to evaluate my teaching practice, I analyzed the nature of my teaching as I carried out the learning activities; wherefore, emerging themes surfaced as the data was collected and analyzed. Each phase of the study was conducted during three consecutive
school years and multiple data sources were used to help triangulate the data. Each phase was divided into two semesters and identified as the beginning and ending of the school year. Table 4.1 is a timeline of events that occurred in each of the three years within my teaching practice. A detailed timeline is presented in each year of the study.

It is important to note that student data included in this chapter were left as it was written or spoken. It was important for me to keep the authenticity of the data and to demonstrate the individual voices each student had; therefore, spelling and grammatical errors were intentionally left alone. By leaving student data in its original form, readers are able to see the dynamics that are found in the social context of my classroom and also be able to understand the diversity represented by each student. However, for the sake of clarification and the readers’ consistent interpretation of the data, corrections to grammar or misspelled words were placed in parentheses next to the words/phrases in question.

**Table 4.1.**

*Event Timeline of 3-Year study*

<table>
<thead>
<tr>
<th>Phase</th>
<th>Year</th>
<th>Activity</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pilot Study</td>
<td>2010</td>
<td>• Moved to a new School</td>
<td>August 2011</td>
</tr>
<tr>
<td>Phase I Exploration</td>
<td>Year 1 School year 2011-2012</td>
<td>• Community walk&lt;br&gt;• Oral history project</td>
<td>December 2011 to April 2012</td>
</tr>
<tr>
<td>Phase II Implementation</td>
<td>Year 2 School Year 2012-2013</td>
<td>• Garden construction</td>
<td>October 2012 to May 2013</td>
</tr>
<tr>
<td>Phase III Sustaining &amp; Diffusing</td>
<td>Year 3 School Year 2013-2014</td>
<td>• Building a community</td>
<td>September 2013 to May 2014</td>
</tr>
</tbody>
</table>

Analysis for this study was conducted using multiple platforms. The CHAT process provided a detailed analysis of the changes that occurred within the activities and patterns of contradictions that evolved throughout my teaching. Themes that emerged through CHAT provided a glimpse of the transformation that took place within
my practice. Longitudinal analysis was also used in order to capture the patterns and changes that emerged through my reflective journals; longitudinal analysis provided a deeper analysis of the personal changes that emerged as a practitioner. This chapter is divided so that each section is a representation for each of the three phases of this study. Findings are elaborated in each of the phases, but may seem at first organic and semi-structurally organized. Within each of the three phases, analysis and findings are presented at first through a CHAT analysis, then presented through a longitudinal analysis.

**PHASE I**

**EXPLORATION (Year 1 - 2011-2012)**

I will refer to the first year of this study as “Phase I”, or the “Exploration stage”. Subsequent years will be referred to as “Phase II”, or the “Implementation stage” and “Phase III”, “Sustaining and Diffusing” stage. In Phase I, the first half of the school year was spent acclimating myself to the procedures, people and culture of my new environment. Hence, ‘exploration’ was an ideal title for this phase. The idea of exploration is about allowing oneself to make sense of things, places and people by interacting with others, investigating, questioning, and forming, testing, and refining ideas (www.ncaa.biz/Aistear). During Phase I, it was important for me to understand how PBL would fit into my teaching practice and the best way that I felt I could address this was by immersing myself in lessons surrounding place. The following section provides a description of my exploration of place in the first year of this study.

Although reflective journals were written and kept from the beginning of the Phase I school year, place-based lessons had not occurred until the second half of school year. Table 4.2 is a timeline for the activities analyzed during Phase I of the study.
**Table 4.2.**

**Timeline of Activities analyzed for Phase I**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>New teacher community tour</td>
<td>Summer 2011</td>
</tr>
<tr>
<td>Non place-based</td>
<td></td>
</tr>
<tr>
<td>Incentive points</td>
<td>January 2012</td>
</tr>
<tr>
<td>Place-based lessons</td>
<td></td>
</tr>
<tr>
<td>Conversation hearts</td>
<td>January 2012</td>
</tr>
<tr>
<td>Place-based lessons</td>
<td></td>
</tr>
<tr>
<td>Preparation for community walk</td>
<td>February 14, 2012</td>
</tr>
<tr>
<td>Place-based lessons</td>
<td></td>
</tr>
<tr>
<td>Community Walk 1</td>
<td>February 15, 2012</td>
</tr>
<tr>
<td>Place-based lessons</td>
<td></td>
</tr>
<tr>
<td>Community Walk 2</td>
<td>February 22, 2012</td>
</tr>
<tr>
<td>Place-based lessons</td>
<td></td>
</tr>
<tr>
<td>Community Walk Post Discussion/Save the Mansion</td>
<td>February 2012</td>
</tr>
<tr>
<td>Place-based lessons</td>
<td></td>
</tr>
<tr>
<td>Community Walk 3</td>
<td>March 2012</td>
</tr>
<tr>
<td>Place-based lessons</td>
<td></td>
</tr>
<tr>
<td>Poetry of Place</td>
<td>February – March 2012</td>
</tr>
</tbody>
</table>

**Phase I CHAT Analysis**

**Belonging to a place.** I had begun to write self-reflective journals prior to starting new school. I had included these journals as part of my data in Phase I because within each journal, I was able to identify the emotions, thoughts, and attitudes prior to starting place-based lessons. It also provided a baseline for the activity systems that occurred throughout Phase I and the perceptions I had about teaching prior to starting the place-based lessons.

*July 7, 2011*

_I don’t fit in. I miss (name of former community I taught in), everything is new and confusing. At least in (name of former community), I had relationships with students, teachers and families. I don’t get this community or the history and although people are nice, I feel so alone . . . Why did I change schools? I feel lost. Did I make a mistake? Everything is different._

◊

*There were a total of twelve teachers new to the school the year that I transferred. The summer before starting the school year, my new_
principal arranged an orientation that included a community bus tour to help the twelve of us understand the population of students we would soon be working with. Although I was thrilled to learn about the new community, I could not help but feel a bit alienated. I did not feel that I belonged to this new place/community. It was the first time I realized how my connection to a geographic place could affect my attitude and the way I identified with people and new situations. I missed the feeling of belonging and as the bus drove through my new teaching community, I yearned to understand and build a connection to my new place and a relationship with my students.

Figure 4.1 illustrates the activity system and the contradictions that emerged when I first began teaching in the new school. Although my principal was supportive to new teachers and the principal went out of his way to introduce the new teachers to the community in which students lived, I was unable to feel socially connected to the new neighborhood that I was teaching in. Names of streets, people and terminologies used during the tour were foreign to me and the outcome from this tour made me realize how disconnected I was to the place that I was teaching. The tension I experienced in this new community was unfamiliar and rather than motivating me to learn about my new environment, I became frustrated with my inability to make connections to the students I was teaching.
Figure 4.1. Activity System of new teacher community tour

August 30, 2011

It’s been almost a month since I started school. I don’t feel like I belong and I have no sense of connection here. I don’t know the kids or the culture. I don’t understand how things work here – everyone is a stranger and I have no sense of place. Did I make a mistake by moving schools?

Attitude towards teaching. Being in an unfamiliar environment forced me to reflect and make sense of my new surroundings. Although I recognized that the feelings and thoughts I had were equated to being new to the school, I had also wondered if I had always felt disconnected and moving to a new school had prompted these feelings to surface. However, rather than make connections I began to question my role as a teacher.
November 11, 2011

I think I’m really burnt out . . . my biggest problem is that I think my teaching sucks . . . I really don’t think I’m a good teacher . . . I don’t feel like I’m being productive. I seem to have been struggling in the classroom and realized that students do want to learn—but if that is the case I also wonder why they don’t always whole-heartedly put themselves into the lesson? Why don’t they ever do their homework? What is really holding them back? I think their attitudes get in their way.

It is clear that the loss of confidence in my teaching and ineptitude in my abilities made me feel like a third-rate teacher. However, my exhaustion from teaching and the change in teaching environment may have obscured the real issues and feelings I had as a teacher. Although it seems that I blamed students for the way that I felt, I still recognized that “students do want to learn”. Through these reflective practices, I can see that in Phase I of this study, I was still not able to admit that my own determination could shape my own circumstances. I claimed the lack of relationship between students and myself was because students’ “attitudes get in the way” yet at the same time, I admitted that I didn’t feel “productive”. Internal contradictions such as feeling disconnected to a new school and lacking a sense of belonging intensified my confidence and feelings about teaching. I craved connection and tried to look for specific experiences and students that would help me feel as if I belonged in the new community.

November 1, 2011

I’m frustrated about how I’m teaching again. I feel like I just need time to think about what I’m teaching and how I’m teaching - management. I seem to be losing the management. I tell the students to stop talking. But 2 seconds later, Chris is talking. I wonder why? Are they ignoring me? Are these kids rude? Do I need to be even more assertive? I am not clear with what my expectations are? What are my expectations? I want them to work and be quiet. I think I feel a little frazzled. I want to be a good teacher, but I can’t. I don’t feel like a good teacher. I can’t even control my students.
Contradictions (See figure 4.1) between and among the subject - tools - object are evident as I learn about the new school. These contradictions are noted with the red arrows. Contradictions played an important role in how this study began and how I chose to resolve conflicts. The community tour made it clear that I didn’t know about the community I was working in and rather than absorbing the information as a resource, I realized how much knowledge I lacked about where I was teaching. These feelings were also transmitted into the classroom and in turn forced me to reflect on my abilities as a teacher. The lack of connection to where I was teaching and the need to belong were the impetus for change within my teaching practice. The contradictions I experienced led me to explore solutions that could help me to resolve the internal conflicts I had. Since I had conducted the place-based pilot study the year prior, PBL was something I that I felt would be worth exploring.

**Phase I activity systems.** In Phase I, I analyzed four videos (1 non-placed lesson and 3 place-based lessons). I included a non-placed-based lesson in this study to provide a perspective of the contradictions that were appearing within my practice when this study began. Although there were a variety of place-based lessons implemented in Phase I, I chose to focus on analyzing specific lessons that addressed the inquiry. The following section provides an analysis of the various activity system and changes incurred in Phase I.

**Non place-based activity system.** Teachers’ beliefs and theories about teaching are thought to mediate their actions and behaviors, which in turn model students’ behavior and academic performance (Elias & Mace, 2005). I wanted to encourage a setting that promoted and valued learning in the classroom, but my teaching at the time was egocentric and my approach was not always in the best interest of my students. Classroom management had been something I felt was important; so I had implemented an incentive point system in order to manage students’ behaviors in class and at the same time encourage students to work together. Desks were arranged to promote collaboration and group work and teams. For incentive, teams were rewarded points for good deeds and deducted points for wrong decisions that were made either individually or collectively.
Although I felt that I had a good classroom management strategy, tensions developed in the classroom and students and I were not able to see eye to eye. I made it a point to explain to the class that “working together was important” and students need to “encourage each other to work on things rather than blame each other.” I also made it a point to explain that the points were used as a way to develop teamwork and should encourage students to work together. However, the following videotaped lesson demonstrated how my actions were counter-intuitive and how my reaction to tensions created external conflicts with students and internal conflicts within my teaching:

\textit{January 2012 – observation and dialogue of videotaped lesson}

After recess, students file into the classroom; two students quickly find their seat and put their heads down. Other students file into class and aimlessly roam the room and prefer to walk around rather than sit at their seat; a few stop to chat to friends before finding their way to their seat. I am gathering materials for my lesson as students are filing in. Two students approach me as I am getting ready for the lesson and want to tell me something. The conversation takes place to the side of the camera so I cannot see the conversation, but I can hear the conversation that takes place between the two students and myself.

\begin{quote}
[Student 1] Mrs. George, I don’t know why Team 4 has 35 points when before lunch they only had 33 points.
[Me] I gave them points as a reward for working together.
[Student 2] So they got two points for that?
[Me] Yeah
[Student 1] Oh. I think somebody erased some of our team points because I think we are supposed to have 38 points but we only have 35.
[Me] Ok – go back to your seat now. I will talk to you guys about this later.
\end{quote}

I am in front of the camera now and looking around at the students in class. The class is noisy and the majority of the students are now out of their seats.
[Me] minusing points from group 1, group 5 and group 6 – oh, group 5 is not even here. (All the children scurry to the seats and a few more heads go down.)

[Me] So, you guys know that the whole purpose of points is to work as a team and it’s not to get the most points – we need to help each other. For example, team 3 was trying to finish their work and find 5 facts so that their team could get points, but two people on their team couldn’t find 5 facts. But the other members on the team said, ‘that’s okay’ and encouraged each other. If you work together, and say things in your group like ‘I can help you’ or ‘it’s okay, keep trying’ and I hear you say those things, you can rack up plenty of points.

During this lecture, a few students are fiddling with things on their desk or are gazing at the wall; others are trying to silently communicate with others through hand motions and lip movements. Students are not looking at me as I talk, but I don’t have eye contact with students either. I’m gazing at the ceiling or at the wall in the back of the room as I am lecturing.

There were several misconceptions and areas of tension that exists within this particular incident. In my eyes, the points were a positive means that could encourage teamwork and appropriate behaviors in class. However, students did not have the same perspective as I did so the incentive system became an ineffective tool and therefore I was not able to accomplish my objective in creating a positive collaborative environment. As I watched and reflected on my teaching through the videotaped lessons, it became apparent that I did not value myself and my teaching and created lessons which became counterintuitive for productive learning.

Figure 4.2 illustrates the activity system generated by using incentive points as a tool for changing students’ behaviors. Incentives applied to all the students and teams were collectively (community) rewarded at the end of each week. General rules of the classroom (rules) were integrated within the incentive system so I became the primary agent that would distribute or redact points for the teams (division of labor). Division of labor was a top-down model and despite students’ attempt to seek ownership
and clarification in the point system, I refused to relinquish authority. Systematic contradictions arose in this activity and are depicted with the red lightning shaped arrows. One particular contradiction was in the way I addressed students’ concerns about their team’s discrepancy in points. I posed the situation to the whole class as if to make it a point that the purpose was to work as a team. It gave the impression that my decision was always the final decision and what students had to say was unimportant, once again generating a system that encouraged a top-down hierarchy.

I also positioned incentives as a tool to encourage teamwork, but the system was an ineffective way to manage good behavior. Rewards and consequences could only be applied when I was there to enforce it. As such, this mediating tool required me to manage students’ behaviors rather than a tool that would help students to manage their own behaviors. Furthermore, it seems as if I had no accountability or vested interest in the total points students received or lost and I used this incentive system as tools to threaten students into good behaviors, “Minusing a point from group 5 . . . oh group 5 is not even here”

The third contradiction that emerged was found in the rituals, routines and rules. It became clear how points were deducted (i.e. walking around, talking, and not ready), but it was not clear how points were awarded. The students who abided by the classroom rules, such as the ones that entered the class, sat down and put their head down were not acknowledged for their behaviors. The point system instilled sanctions and threatened students into good behaviors; therefore, the purpose in the incentive system and awarding points was contradictory to my actions as a teacher. The classroom incentive system mimicked the sanctions and reward system from No Child Left Behind that I had been held accountable to at that time. Students who questioned the fidelity of the system were unclear about their expectations in the classroom and my reaction to students demonstrated my lack of self-awareness and social insight to recognize the value in what the students were saying about my teaching.
Conversation hearts lesson. This lesson was a writing lesson where students demonstrated their knowledge of explorers (object) by constructing a letter using conversation hearts (tools). The following is a brief dialogue from the lesson.

[Me] Okay, let’s get on with the lesson. Remember when we talked about the different explorers? Do you remember who these explorers were? (A student raises his hand but someone else shouts out ‘Christopher Columbus’)

[Me] Raise your hand and I’ll call on you. Any other explorers?

[Boy student who first raised his hand shouts out] Henry Hudson found a passage.

[Me] Good, so if we could write a letter to Henry Hudson, what would you tell him?

[Boy student 2] Wassup – Mr. Hudson. Whatz going down? (the class laughs and the student smiles)

[Me] All right – calm down. Okay, we need to start off with a greeting. If we write a letter to Henry Hudson we need to know a little bit about him and we...
would probably be curious about what he thinks about the river being named after him. We could ask him questions that would help us get to know him.
(In the middle of the lesson a student gets up to go to the sink to drink water, but doesn’t ask permission. I see him walk to the sink in the middle of my lecture but it doesn’t seem to bother me. I count three students who seem to be listening intently; their eyes are focused on me. Other students are whispering to each other or playing with things while I am teaching the lesson. I seem to ignore the inattentiveness, but it appears that I am also inattentive to the students and the lesson. As I am talking, my attention seems to be focused on the projector that I am struggling to turn on.)
[Girl student] I would ask him why he wanted to be an explorer.
[Me] Good. So today all of you will have five candy hearts and you will be writing a letter to your favorite explorer using the proper letter format. You will need to use at least three of the conversations on the hearts in your letter.
[Students] Yeah- (excited oohs and aahs).
(I pass out the candy hearts, but I go back to the front of the class and fiddle again with the projector while students write their letters. Students are excited and are asking each other what is written on their hearts. Several students walk to other tables to show others the hearts they have, but no one is writing. Some students begin trading their hearts).
[Me] You need to sit down and work quietly. (name of student) go back to your seat.
(The student goes back to his seat, but conversations about the different hearts still continue within the teams. I go back to fiddling with the visualizer)

Contradictions had already existed within my teaching practice and as illustrated in the two activity systems, I had not developed lessons that were meaningful nor relevant to the needs of the students. In this particular lesson, I chose to use conversation hearts as a tool to motivate students to write. It is worthy of noting that I was still held accountable for the content and performance standards that I had to
address with students, but the lessons show that I searched for tools that would help me to motivate students.

Figure 4.3 illustrate several contradictions that emerged within this activity system. First of all, students focused on the candy rather than on the goals of the lesson. Therefore, there was a disconnect between the students’ purpose in using the candy hearts and the goals I had hoped to accomplish. Although the classroom environment visually represented teams and it was clear that I believed in the value of cooperative groups, the activity did not promote group work. Students were excited about receiving their conversation hearts and naturally tried to build a community around their candies by sharing what they had with others. But the lesson itself did not foster collaborative environment; rather, it encouraged students to work independently and I discouraged them from talking. Once again, I demonstrated practice that encouraged a top-down model for learning (division of labor) and created, mixed messages to students about teamwork.

Furthermore, my lack of introspection in how the lessons were planned and presented to students were clearly visible when my attention consistently turned to fixing the projector rather than the needs of the students. The focus of the lesson was diluted by my preoccupation in fixing the visualizer and although the objective of the lesson was student learning, it seems the visualizer was much more important than the students. Four students turned in their assignment, which indicated that the lesson had not been meaningful for them to complete.

Rather than reflecting on my own teaching practice (self) and improve learning experiences, my struggle to align my beliefs with my practice vacillated through my actions and how I designed and carried out lessons in my classroom. My lack of self-awareness within my practice made me unaware of how my design and presentation of lessons had affected student learning. The disconnect I had with my lessons and the vested interest I had in formatively assessing the learning environment was clear as I disassociated myself from interacting with students and fiddled with fixing a classroom equipment. Through my observations, there was a misconception in what I believed engaging students in learning looked like and I seemed to struggle with developing meaningful lessons that would engage students in thoughtful discussion and thinking.
However, despite the struggle to fully engage students in learning, the information gathered from this video alludes to the fact that my teaching style and beliefs encouraged an interactive and caring learning environment. I spent time and resources to teach a lesson that was not from a textbook and the physical environment of the classroom was set up to encourage group work. I wanted the students to be engaged in their learning and wanted them to work in teams together, but there was a disconnect between my thoughts and actions that became evident in my practice and the learning environment that I was trying to create.

Figure 4.3. Activity system of writing lesson using conversation hearts

**Place-based exploration.** Place-based activities did not begin until the second semester, February 2012. During the first semester in Phase I, I was still navigating my way around the school and adjusting to changes in my new teaching environment. The
unit for the place-based lessons was inspired by my lack of knowledge about the community I was teaching in and the students’ lack of knowledge of the community they lived in. When I first arrived at the school, I asked students about a large sign that read, “Welcome to historical (name of community)” and inquired about the large artifacts that were displayed throughout their community. However, none of the students were able to share information about their community. The most common answer I got was “I dunno” or “I think it had something to do with sugarcane”. I found that their lack of knowledge about their own community was a problem. So during the second semester, a string of various place-based community lessons took place. Although themes emerged and had often overlapped throughout the analysis of the lessons, I chose to detail the lessons chronologically in order to capture the expansive learning that took place in my teaching.

Preparation for community walk. Place-based lessons first began with a community walk. I hoped that students and I would learn about the community together just by observing what was in the community and mapping these landmarks out. The day before the field trip, we went over the logistics and rules in preparation for the community walk. My expectations as I prepped the students in the classroom for the walk and during the walk itself, were vastly different than the students’ expectations for the field trip. Figure 4.6 illustrate the activity system with the contradictions that occur within the activity. The following is part of the dialogue from the preparation lesson in the classroom:

[Me (to the entire class)] I told you we are going two times. Criteria we are going 2 times. If you have poor listening skills and behavior, you are not invited the next time. If you don’t wear shoes, you cannot go. If you are not listening, you cannot go.

[Student] Do we have to bring home lunch?

[Me] That’s a good question, but I have to get an approval so we need 3 weeks so we cannot – we will eat lunch (at school). Its not a special day. It’s a regular day. I’m taking you during the writing time because it is classroom research. Everything else stays the same.
[Student] Are we watching the movie before we leave? (student is referring to a movie about the history of the community)

[Me] Probably not, we may not have time. (I pass out worksheets in preparation for the community walk)

[Me] Everyone take a look at the paper. Put your finger where I’m reading. (but students are not putting their fingers on what is being read. I’m the only one pointing to the worksheet and reading. A few students are looking at me teaching, others are fiddling with things).

Although the lesson may have been in preparation for what was to become place-based, my teaching practice reflected a structured and regimented teaching format which contradicted the organic learning environment that usually evolved through place-based lessons. There are several distinct conflicts that occur within this activity illustrated in Figure 4.4. The first conflict appears between the hierarchy of the students and me. I begin the lecture with rules of the field trip which demonstrates that I believe management and student behaviors are priority rather than what students will learn from the community walk (object). Although students are eager for this field trip they slowly lose interest in the lecture when there are so many rules, some begin to fiddle with things on the floor. By placing rules as a priority in the lesson, I had narrowed the potential learning experiences for the students.

I was also still struggling for control as authority in the classroom and used a top-down teacher directed learning approach to relay information to students. When students involved themselves in the learning experiences and asked questions relevant to how they felt such as “do we have to bring home lunch?” I dismissed their questions with an answer that was guided by rules and a structure for procedures (rules). The constraints of time, procedures and rules that I encountered as a teacher had shaped my practice and manipulated how I interacted with students. These constraints were also what directed me to make various decisions as a teacher.

The final conflict in this activity was my inability to see students’ behaviors, actions and comments as a form of feedback for my teaching. However, it may have been inevitable for this conflict to occur given the prior two conflicts that were identified in this system. If I believed that teaching through a top-down hierarchy model
structured by rules was an effective teaching practice, then it would be difficult for me to recognize the value in students’ voices. For example, I instructed students to put their fingers on the paper and follow where I was reading, yet I never truly enforced this. Once again, what I said in the classroom did not truly reflect my actions. The struggles that I encountered as a teacher implied that I did not believe that the regimented structured teaching practice was effective for student learning or engagement. The more my practice conflicted with the way I felt, the more sensitive I was to the different behaviors that students exhibited. The following journal demonstrates the internal conflicts I felt earlier in the school year.

November 17, 2011

Frustration! Kyle has been a pill. When I stepped out of class he put a picture on the visualizer. I was livid. Ok so [for] the past week I’ve been very disenchanted with things. Frustrating is more like it. No homework done again. 2 out of 26 kids turned in their SS (Social Studies) homework. A funny thing is that a large part of the frustration could be changed not necessarily by the kids. But by me. I realize this- that I have the power and ability to move kids. Sigh, but I’m struggling with the how. How do I do this? okay so SS may have been too long. Why did I give it to them? Another teacher gave it to her kids, so I thought I should give it to mine. Was it just busy work? Maybe. Maybe I need to really work on the what and why of their assignments. Maybe I should think about what I want them to learn and why it is so important? Okay so back to Kyle. Would changing the way I teach change the way he learns and acts? I wonder.

Although I recognized early on that there was an incongruence between my teaching practice and the way students were learning, I was unsure of how to change things. I encountered conflicts while bound by rules that dictated my expectations as a teacher. However, as place-based lessons evolved during the remainder of the year, so did my ability to reflect on my teaching practice and address the different conflicts that arose.
Figure 4.4. Activity System of Community Walk Preparation

Community walk 1. Students participated in three community walks: the first walk took place on February 15, 2012, the second community walk occurred on February 22, 2012 and the third community walk took place on March 19, 2012. Although each of the community walks served a different purpose, it was clear that the community walks generated excitement and anticipation from students. As the students’ excitement grew, my excitement to teach the lessons also grew.

To my surprise, the community walk affected how I implemented the rules that were discussed the day before. Being in a new learning environment had changed my expectations for students’ behaviors and the need for me to maintain control over the classroom were secondary to how excited students were about learning.

February 15, 2012

In truth, I really didn't know where this (the community walk) was headed. I didn't quite know what to expect from the field trip and I hoped that the experience (community walk) would open up students to question and to look at their community differently.

During the community walk, it did not matter that the students weren’t walking in a straight line or that they were not able to stay together. I willingly allowed each
student to observe and learn at their own pace. It was interesting to see how students were able to monitor their own learning and I felt thrilled as a teacher that “students were excited about learning and discovering in an environment that was open and allowed them to explore” (Journal, February 15, 2012). What was even more powerful for me was that I not only allowed unstructured learning to take place, but I enjoyed seeing it. The feelings I had as a teacher reminded me of the PBL pilot study to the watercress farm. Students were engaged and I enjoyed watching students learn from each other.

One particular stop on our second community walk was a rusty machine that students found so peculiar. The following conversation is a transcription from the videotaped field trip:

[Girl student 1; running to tell me something] Mrs. George, come quick we found something interesting.

[Girl student 2; waving to get me to come quicker to the machinery] Hurry, there’s blades inside of it?

[Girl Student 3] What is this supposed to be used for?

[Me] I’m not sure. Ohhhhhh, so what do you suppose it could have been used for?

[Girl student 4] They used it (referring to the machine) for sugar cane.

[Girl Student 2, simultaneously with girl student 4] SUGAR CANE!!!

[Boy Student 1] I know that but what is that supposed to be? (Pointing to a bar on the machine)

[Boy Student 1] Oh - I think these are brakes and they needed to stop moving

[Me] How do you know they are brakes?

[Boy student 2] Mrs. George, I thought this was like a camera thing on it (pointing to a part of the machinery)

[Girl student 2] They (the machine) have blades in it so it cuts the sugar cane.

[Girl Student 5] Hey – there are blades inside of it (confirming girl student 2). Oh, I think people sat on this (pointing to a seat) and the horses carried people. Maybe it is how they watched the people who did the sugar cane.

[Girl student 1] Look there are ropes on it.
(We walk to the back of the machine)

[Girl student 4] Looks like they flew something off like a catapult (referring to a seat that looks like a bicycle seat).

[Boy student 2] It kinda looks like a seat.

(Group of students agree that it looks like a seat)

[Me] So how do you think it (the machine) works?

[Boy Student 3] I think maybe this container (pointing to a huge container on the back of the machine) was used to hold the sugar cane and cut it up with the blades. It looks like they probably tied the horses to this (pointing to a bar on the side).

[Boy Student 4] Yeah – and then they could brake with this (pointing to the bar that they initially felt was for the brakes).

Students were excited about this mysterious machine and talked all at once. They touched and looked at how the parts of the machine were connected. They also attempted to maneuver various parts of the machine figuring out how certain parts worked, and engaged in valuable discussion with each other. The social interaction students were having with one another was collaborative and conversations were meaningful. They were able to learn from one another by listening to what others were saying and forming their own learning experiences – as one student found ropes on the machine another student added that the small platform and the ropes could have been used as a catapult, while another student disagreed and shared that the platform “ kinda looks like a seat.” The conversation continued to build as students listened to what others were saying and I realized that throughout the community walk, I didn’t think about the lesson, nor did I think about all the rules I stated the day before.
Figure 4.5. Activity System of first community walk

The activity system in Figure 4.5 illustrates the community walk activity and the contradictions that occurred within the system. As students participated in the community walks (tool), I began recognize the difference in students when they were engaged with what they were learning. Although there were multiple rules that still applied when we were on the walk; time constraints was the most difficult for me. “I was on a time schedule so at times it was hard allowing students to linger” (Journal, February 15, 2012). Consequently, the rules that I had labored in the students the day before had been mainly to control behavioral issues and were cultural assumptions about how I felt teaching had to be done and how relationships should be managed within the classroom. Surprisingly what had been disturbances the day before had not occurred during the field trip, rather I began to think about how “I took for granted how teaching under a system that mandated curriculum and imposed initiatives could oppress my
beliefs in how students could learn” (Journal, February 15, 2012). Thus, I began to think about the lessons I was providing students and wondered “how much could PBL benefit students?” (Journal, February 15, 2012)

Community walk 1 post discussion. After the second community walk, I posed a question to the class to stimulate discussion, “what did you notice about the community that you didn’t notice in the first community walk?” Students seemed to have a natural tendency to share the new things they saw, but students also surprised me by advocating for solutions to problems they noticed within their community. One student complained, “I saw graffiti on the (name of wall) wall” while another student added on, “there was litter all around the trees that we passed.” Students began rambling off all the problems they were seeing in the community, “someone should take care of the cement by the old post office, and it was broken,” “the manager’s mansion is all busted up – why don’t they fix it?” “Yeah and maybe the mansion needs to be painted again.”

On the second community walk, students felt that they had to take action for various things within their neighborhood and they decided as a class that the area that needed the most care was the manager’s mansion. One student stated, “my eyes thought the mansion was amazing and it is something that we need to save.” They believed as a class that the mansion (Figure 4.7) and the surrounding yard should be taken care of and then elected to “save the mansion.” During this discussion, students began to take their own active role in solving the problem. One student asked, “can I write down our ideas on the board?” while other students began planning out their ideas, “I’ll ask my uncle to help us because he’s a painter”, “I can donate paint because we have plenty of paint at home”.

During this lesson, I became a facilitator and felt good about allowing students the freedom to find solutions on their own. For several days’ students searched for information regarding the owners of the mansion and I began to see that the more I allowed them the freedom to find solutions, the more they felt empowered to make changes within their community. However, as students were inspired to repair the mansion and as much as I was thrilled with their active role in the process, I was also unsure about my role as a teacher.
February 28, 2012

OMG-the kids want to save a mansion. How am I supposed to do that? This is crazy. I have no money and I don’t even know where to begin. What am I supposed to do now? This is way too overwhelming.

Figure 4.6 displays the internal contradictions that are manifested within the activity system. As students began to take ownership in their own learning, it tested my abilities as a teacher and created disturbances in the teacher and student hierarchy. Although I was thrilled with the outcome of the community walk and wanted to continue fueling the fire that both the students and I had, I also was unfamiliar with the new tensions I encountered. My role as facilitator changed the dynamics within the classroom and I was not prepared to facilitate students on their project to “save the mansion”. I was also still trying to digest the evolving process of PBL in the curriculum and felt ill equipped in using it as a tool for student learning. However, a side lesson using poetry to explore place, helped to bridge the internal contradictions I was having as a teacher with the contradictions I had in exploring place-based lessons further.
Where I’m from poems. After the community walks, I began to acclimate to the culture of my new school and teaching environment, I also began to develop a sense of awareness and understanding towards others. According to Goleman (2006), empathy is a competency that is associated with being socially aware. Empathy is referred to in this study as a way I understood other students’ emotions, needs and concerns. And as place-based curriculum began to take form in my classroom, part of being socially aware of students was developing a sense of empathy towards them and understanding their lives outside of the classroom.

By walking through the community with students and sharing in their stories, listening to the problems they saw, and giving input to their proposed solutions to the problems, we were beginning to form a culture within our classroom. We were beginning to share a commonality that focused on their community. In turn, I was slowly forming a relationship to the community that students were growing up in and I also began to appreciate the demographic of students that I worked with.

February 20, 2012

Despite my initial thoughts about longing to fit in, I am now beginning to see where I fit in and my place within this community.

I decided to implement poetry into the place-based curriculum as a way for students to see the power of literacy in sharing their perspective of their community. Students wrote poems inspired by George Ella Lyones’ poem entitled, “Where I’m From” to share who they were and where they came from. Through their poems, I began to see how much each student’s identity was deeply rooted in the environment that they grew up in. I relished their poems because for the first time I saw more than just the poetry of students. In their poems I saw human qualities that exhibited pain, heartaches, joy, tragedy, fear and so much more. In the past, these were qualities that I never dared to understand for fear of dismantling the top/down - teacher/student hierarchy. The following are a few poems written by students; areas of the text that are bolded help those reading this study to focus in on areas of the poem that I analyzed and reflected on in order to better understand the students.
Where I’m From
By Shirley

I am from (community)
From 2004 to 2012,
The best place I have ever
Saw from night to sun,
From rainy to sunny.

I am from a broken family
My mom is in jail
And my dad took me away from her

I am from mango trees
From falling with a great mango on me
From swimming at Surfer’s beach
To surfing my first wave
Then trying to do tricks
I am from moments
When everything was just fun.

--------------------------------------------------------

Where I’m From
By Ikaika

I am from music
From loudest to soft rock to pop
I am from a very mean environment
From all the people that tease me
Because I like Lady Gaga
I’m from being annoyed because I just can’t come and talk with you.
I am from these moments
Where before I used to love my family
And used to have a lot of friends.

--------------------------------------------------------
Where I’m From
By Leilani

I am from streets of mango trees.
   From white to plain houses . . .
   I am from moments
   That are sad
   **When my parents don’t get along,**
   **I cry myself and hope that it ends.**

Where I’m From
By Jennifer

. . . I am from emotions and feelings
   I cry . . . I cheer . . .
   I hide when I’m scared
   Mad when people tick me off
   **And hurt, when my dad and aunty leave me.**

The students’ poems opened my eyes to the lives students lived outside of school and this helped me recognize the importance of empathy and building a different relationship with them. I was upset that I allowed half the school year to pass before I even realized that Shirley’s mom had been in jail. Through her poetry and the one-on-one writing conferences we now held, Shirley was able to open up and began to share with me her thoughts about her mom and how she felt about not being able to see mom for a long time. I slowly began to see how much surfing had comforted her from her hurt.

Ikaika had a hard time working with others, but I had not realized how much he yearned for me to just sit and listen to him. The relationship I had forged with him as his teacher was filled with advice. Through his poem, I realized that this was not a relationship that he wanted. Ikaika felt alone and needed me to understand that his emotions did not have a schedule and he could not always control his feelings when it was based on my availability or when it was based on when I could make the time to talk. I realized that I had to be sensitive to how he felt and “no, this is not the right time. Come see me at recess” was a statement that hurt him the most. I made it a point to check on him often and sought out help from counselors when I wasn’t available.
Leilani’s attendance patterns had progressively changed and she often used the excuse “overslept”. A quarter of erratic attendance had gone by before the poem was written and our community and place lessons began. I didn’t realize that the days she came tardy were because these were nights she would hover under her blankets to muffle the fighting between her parents and cry herself to sleep.

Jennifer was a loner. She was independent and could often hold her ground. Earlier in the year, she came to me crying that someone had called her “homeless”. Jennifer lived with grandma so I had assumed at the time that the other student was just being mean. I reprimanded the student and no other incident had occurred. It wasn’t until we sat down to discuss her poem that I realized how hurtful those words from the other student were. Jennifer explained that at one time she lived in a car with her father and aunt, but she shared how the police had taken her dad and aunt away and now she lived with her grandmother. If I had built a different relationship with Jennifer earlier in the year, I probably would have been much more understanding to her needs.

Figure 4.7 reflects the activity system for the “Poetry of Place” lesson. Although this particular place-based lesson did not reflect the students’ connection to their community, it reflected how a student’s culture and community had molded who they were and where they came from. The poems empowered students and what they originally kept to themselves became powerful stories that they felt was important to share with others. I began to see the true value of connecting to students and empathizing with their stories that were steps in reconciling the conflicts I had when I first began teaching at the school. Evidence of community and culture evolve in my practice as students were seeking to become actively involved in making decisions in the classroom, such as requesting to present their poems to others in class. Students also thrived on the individualized instruction and repeatedly reminded me that they wanted to discuss their poetry with me. I did not find contradictions in this activity system; rather I saw value in this lesson and decided that “Poetry of Place” would continue the following school year.
After a few days of researching for information on the manager’s mansion, students found that the manager’s mansion was in the process of being restored. Although the students were disappointed that their “save the mansion” project did not pan out, they seemed to gather enough skills to find another project to focus on. One of the problems they constantly complained about as they sought answers to the mansion was the lack of resources about their community in their school library. One student complained in her journal, “Why don’t we have any books in our library about (community name)? How are we supposed to do research on it?” This lead to a discussion about providing community resources to our school’s library. I was impressed when a group of students came up with an idea of making their own resources for the library. In our whole group class discussion, one student expressed that, “it would be fun” to write and publish their own book about their community. What originally began as a project the students coined as, “save the mansion” became a project our class referred to as “the Laulima Oral History Project”.

Community Walk 3. As we planned how to execute the oral history project, the students realized that it might be important to do a community walk lead by experts in
the community. Students felt that the first two community walks left too many unanswered questions. “We should do the community walk again, then my papa can come. I think he knows about the graveyard (referring to a plantation graveyard) – he always cuts the grass over there” (notes dated March 2012). Other students chimed in and volunteered their grandparents and some parents. We were able to arrange several experts including our school principal to serve as our tour guides through the community. Like the other two community walks, students were thrilled but this time they were far more excited taking notes since I provided them with cameras to take pictures and record their experiences.

I took 211 pictures on that 1 hour walk. It was so much fun even though I was sweating like crazy I hope we can do it again and mabe (maybe) we will go farther. I learned so much about (community name) (Nina, March 2012)

I found that this community walk was better than the other ones because although we went to the same places as before, the old people helped me to learn more about these places. Can they take us again? (Sean, March 2012)

Guest Speakers. The students’ reactions to the community walk lead me to believe that experts within the community could contribute a great deal to place-based lessons, so I decided to invite individuals within our community to share their expertise with our class. One day, I invited our principal to share his perspective about growing up in the community. Students were surprised that the principal was willing to come into the classroom and teach them something about the community. One student asked, “who will take care of the school if he is with us?” Students recognized a hierarchy within a school system and believed that the principal served at the top of the hierarchy. They were also able to recognize the change in roles between teacher and principal and questioned the hierarchy of the system when tensions disrupted what they understood within the system. One student asked, “Are you (referring to me) going to be doing (name of principal)’s job now?” At this time, I did not understand the extent division of labor had played in the classroom or within an educational system, but I did begin to recognize the value of stepping back as a teacher and allowing other individuals to take a larger role in a classroom-learning environment.
I also began to see the value in seeking community resources outside of the classroom, which presented me with a different approach to teaching. Throughout this unit, several guest speakers were brought to the classroom to share their expertise and personal experiences. Students were exposed to a history of their community through living testimonies of people they initially began to build respect for. One morning a student ran to the door calling out to one of the guest speakers who was volunteering her time at our school, “Hi Grandma Nellie!” Then the student frantically asked me if she could be excused to help “Grandma Nellie” carry her bags. I was surprised at how considerate and thoughtful the student was in helping the woman, and also very impressed at the affection and respect she had for our former guest. Although I had originally introduced this woman to our class as Mrs. Nellie, students had begun to grow a personal attachment to the older members of the community and referenced them as “Grandma” or “Grandpa”.

Bringing guest speakers into class forced students to reflect on the past and in turn introduced them to new experiences and a different perspective in learning. It was the first time many of them saw a sugarcane plant (Figure 4.8) or even understood what life was like in the past. When Mrs. Valdez, brought in a sugar cane plant, everyone volunteered to hold it. Although I am not able to show the student’s facial expression while holding the sugarcane plant, she (girl on the left of Figure 4.10) was thrilled to be chosen as the one to hold the plant for the others. The following is a discussion that occurred between one of our guest speakers and students in class:

Figure 4.8. Guest speaker explaining how sugar cane grows
[Student] You mean you didn’t have TV or computers? So boring.

[Guest speaker] It was never boring for us because we always found something to do, most of the time we made up our own games to play or we would play plantation activities.

[Student] What kind of games did you play?

[Guest speaker] Um... We did stuff like – play with beanbags and marbles... we played with bottle caps or blew bubbles with papaya stems. Most times we made up our own games and played outside. There were so much things for us kids to do so we never got bored. And we never needed a TV or computer to keep us busy.

[Student] Wow - why can’t we play those stuff, too? Sounds like fun. Mrs. George, can we learn how to play the stuff they played long time ago?

I noticed how engaged students were and how motivated they were in learning how to play the games. How students developed as learners began to drive my lessons and planning became a little more difficult. Lessons I would plan for the day, week, or unit would evolve according to the interactions, discussions and observations that occurred in the classroom. Subtle contradictions such as students need and yearning to want to learn more about a topic prompted me to incorporate lessons that often required me to research, plan, and gather information on my own time. Thus, new activity systems and changes in what I taught were generated by the contradictions that evolved within a current activity. One particular example was when the students’ interest and engagement in games and activities prompted me to find extended lessons for my place-based unit. Hence, guest speakers were invited to come back to class to teach students some games they played with beanbags and marbles, which I incorporated into my Physical Education (PE) curriculum.

Students enjoyed these PE lessons so much; they asked, “Where can I buy beanbags?” And when students found out that the beanbags were handmade, they advocated in making their own beanbags in school. The PE activities lead to incorporating beanbags into art lessons. I sought help from another teacher at school, Mrs. Horita who came into class to teach students how to sew beanbags. Students used what they learned about beanbags and decided to collect seeds from the schoolyard and
used these as fillers (Figure 4.9a). Mrs. Horita, showed students what kind of seeds were best to use in their beanbags and patiently taught students how to sew their beanbags like she used to sew when she was young. (Figure 4.9b). Students were engaged in the lesson and because they were busy searching for seeds, stuffing their beanbags, and sewing their bags together, they were all engrossed in their lesson. During this first phase of the study, I was able to understand how guest speakers were an asset to providing students with knowledge beyond the textbook. In doing so, a community began to slowly form within our classroom that encouraged empathy for others and an understanding about the past that motivated students to want to learn.

Oral history project. As students learned about their community through guest speakers, they also conducted outside research about their community. Students formed research teams and not only conducted research, but also investigated stories from teachers and staff from our school who had grown up in the community. As a team, they decided whom to interview and organized interview sessions with the individuals. Although students began to develop and direct their own learning, I was still aware that I was held accountable to our state standards. However, my attitude was somewhat different than before, “I like planning for lessons and figuring out what to do next. Students are excited about learning and I can’t help but feel just as motivated to figure out much more enjoyable ways to hit all the standards” (Journal notes, April 2012)

I began to search for meaningful ways to address the standards that made sense to students and were not just driven by textbooks. I also began to use teamwork and collaboration as a tool to encourage joint decision-making, rather than using it as a
means for classroom management such as the incentive system. Working in groups also allowed students to tap into one another’s skillsets – some students were better at interviewing and others were better at videotaping.

As the class continued to put together the oral history project, I began to see the need to differentiate the curriculum for students who showed the potential to extend their learning. I gave them a choice to present their portion of the project by creating a website or an iMovie. Since the class decided that the oral history would be a book, a website and video could only be acknowledged in the book, therefore I also had these students research and write the introduction of the oral history book. None of the students were familiar with creating their own website or making their own iMovie’s, so they chose to use their after school hours learning how to manipulate the new tools. As students grew comfortable with the tools, they willingly devoted more of their own time on the project.

April 23, 2012

I can’t believe how much time Ethan and Hi’ilani are spending on their projects. They stayed in school until 4:30 today and are asking if they could eat their lunch in class so that they can work on their projects. They are so motivated and it makes me so proud of them – Ethan is so smart but he is really lazy. I’m so impressed that he is so motivated to actually finish something and is giving up his own time to do so . . . I’m just so impressed by these two students; they raised the bar and my expectations for them.

During the last two weeks of school, students shared their research project with one another and with the help of the technology instructor; they were able to compile their interviews into history books. Students made more than a dozen books that they presented to community guest speakers and individuals who participated in the interviews. A special book had been presented to our school library, the place where students were first inspired to create this project. They “hope(d) that it would help other students research the community . . . like for the Geography Bee” (student’s journal, May 15, 2012) and provide a reference and love for the school and community that students lived in (Figure 4.10).
Figure 4.10 Oral History Book donated to the library

**Place-based community activity system.** I used the various actions that transpired through the oral history project and tried to formally fit the data into the triangular model of Activity Theory (Figure 4.11). In order to identify the contradictions in terms of the elements of the activity and look for commonalities that suggested a systematic approach to a transformation in my teaching practice, the goals were tools and strategies used in the community and place-based oral history project. One particular contradiction that immediately became apparent was between the Division of Labor and the Rules within an educational system. At first, both students and I were more familiar with a top-down hierarchy within the classroom and somewhat uncomfortable as the division of labor shifted between principal, teacher, students and expert community members. Students worried, for example about who would run the school if the principal came into the classroom to teach and they were concerned that my role as a teacher would shift into an administrative role. Likewise, I was initially worried about the rules in addressing standards based lessons as guest speakers and community members were invited to teach the class. I addressed this particular conflict by playing a larger role in facilitating lessons that engaged students in learning yet found ways to guide the lessons to address the standards.

One commonality I noticed within this particular system was that although various tools were used through the activities, a great deal of concentration seemed to be along the bottom of the activity triangle. Most of the issues we spent dealing with seemed to be related to the elements on the bottom, specifically the Rules, Community and Division of Labor. Yet without specific contradictions within the system, certain
outcomes would not have existed. For example, guest speakers provided a basis for students to engage in various phenomena, such as beanbag activities, which allowed students to take ownership in their learning express what was important to them. Learning throughout the place-based project became a multi-directional community effort so in preparation for the second year of the study, I was able to utilize the outcome from the activity system in Phase I to generate specific place-based tools in Phase II, during the implementation phase.

Figure 4.11 Activity system for oral history project that include: community walk 3, guest speakers and the oral history project.

Expansive learning in Phase I – exploration. In Phase I, the process of expansive learning was understood as the construction and resolution of evolving contradictions throughout the year. Figure 4.12 illustrates the model used to demonstrate the expansive cycle. In this framework, the expansive cycle begins at the tail, where I questioned my teaching practice and introduced PBL as a new exploratory tool. PBL at this time was abstract or somewhat separated from the primary unit of the system. The notion of an expansive cycle is one that gradually expands into a collective movement in which learning is internalized and outcomes are consolidated as a new form of practice.
During the exploration phase of the study, I noticed that new activity structures emerged in response to moving to a new school. The process of expansive learning first occurred during a new teacher community tour when I internally realized my inability to connect to my new teaching environment. Consequently, ongoing construction and resolution of evolving tensions and contradictions produced a sequence of epistemic actions in an expansive learning cycle (Figure 4.12). When place-based lessons were introduced in class, internalization of PBL occurred as reflective and culturally advanced tools to help resolve internal conflicts, which are noted by the dark grey shade. For instance, the purpose of introducing an incentive system in class in the beginning of the school year was to maintain management in the classroom; however, as PBL became a larger part of the curriculum, it altered my structure in maintaining management with students in the classroom.

As the cycle advanced, the design and implementation of the new model for the activity also gained momentum, and learning was expanded. Throughout the phase, contradictions of the various activity systems became more demanding and the way that I internalized the system took on the form of critical self-reflection. I became much more vested in the use of place-based lessons in the classroom and internalized how elements within the activity were changing and sought solutions to contradictions that occurred. For example, I began to understand the value in providing students with opportunities to learn from expert within the communities and organizing lessons tailored to the needs of the students. At the same time, expansive learning occurred as I externally began to search for different solutions to problems which generated newly designed activity
systems that were subsequently implemented. It is important to note that during the exploration phase of the study I realized that the key feature in activity systems and expansive cycles was that development was not predetermined or one-dimensional (Engestrom, 1999a).

Figure 4.13. Expansive learning cycle from 2011–2012.

Phase I Longitudinal Analysis - Blended Themes

Cultivating relationships. In 2011, moving to a new school forced me to look at my teaching much more closely so during the first semester of that year, I struggled internally with my abilities as a teacher and I could not understand the students I was teaching. I was not clear with how to build a relationship with students in my class; the population and culture were so different from my former school and I grappled with who I was as a teacher and who these students were. The following journals are a few examples of how I struggled in the beginning of the school year to understand the population of students.

September 20, 2011

Yesterday, Manuel had been caught pretending to smoke. He rolled up paper and started to pretend he was smoking. I asked him why his actions were
bad – he didn’t know. I don’t get it; why wouldn’t he know? I’m having a difficult time trying to figure out these students. Kehau is interesting, I want to reach her but I don’t know how. She has poor work habits – but she is so talented and has so much spunk. I see leadership in these kids. So many of them want to be a good leader. But now I have a room full of leaders and they all want to be the boss. How do I encourage this leadership in them?

I saw so much potential in the students, but it never crossed my mind that connecting to them meant that I would need to cultivate a relationship with them. I had expected students to know and act a certain way and when they did not meet my expectations, I could not understand what the problem could be. The following is an example of a journal that clearly demonstrates my lack of knowing who I was as a teacher (self-aware) and understanding the needs of students (socially aware).

October 15, 2011

Manuel came to me first thing in the morning to tell me that he couldn’t wait to write in his journal. He begged me to start journal writing earlier. Really? Manuel, hates to write. He hates to do work; he hates school – what he loves is to bully the other students. The part that kills me is that he is so smart. Damn, I see things in him that is so bright, but he doesn’t work to his potential – so frustrating. Anyway, Manuel was so excited about writing in his journal because he wanted to share with me his story about his adventure last night. He couldn’t wait so he decided to tell me his story first – then write about it. Manuel explained how he and his cousin were throwing rocks at a frog in his backyard and then decided to throw lighter fluid on it and light it with some kind of lighter. He was so expressive and excited about this story – he said, “Mrs. George, was so cool – the buggah when puff up and then it exploded”. I was flabbergasted – seriously at a loss for words. I swear my mouth dropped to the floor – I was fuming inside. He didn’t care about the ethics about what he did; neither did he have any empathy for a living creature. He just cared about his story and was so excited about his discovery that frogs can explode. I’m confused, baffled and disgusted. I didn’t know how to react to this story. All I could tell him was, ‘I don’t think the frog thought it was so cool – it must have
hurt’. His response ‘nah, I no think so’. Man, this bothers me. Should I send him to counseling for thinking that this is okay? Maybe that’s why he bullies all the other kids. Was he just being experimental? Man, I don’t know what to do with these kids – it scares me to think kids think this is okay. This really really bothers me.

Manuel’s journal (Written after he shared his story with me)

October 14, 2011

Last night in my backyard I saw a toad and then I ran back to the rocks in my backyard then I flew it at the toad then the toad was stunned (stunned) and then I went in the bathroom then grabbed (grabbed) a lighter and palmichell (lighter fluid), it was flammable (flammable). And then I put some palmichell on top of the toad, then I grabbed (grabbed) the lighter than I lit the toad. Then the toad was jumping all around then after 15 seconds the toad started to get fat than I went back then it popped (popped).

This incident tested my abilities as a teacher. I felt something was truly wrong with the students and I was actually afraid that students who experimented with their curiosities this way would grow up to become sadistic adults. At this time, I was overwhelmed with all the changes I was faced with and for the first time in my teaching career I was faced with a decision that either I would need to change the students’ thinking or I would have to change the way I was teaching in order to work with the students.

As I became more socially and self aware of my role in the classroom, it no longer became a choice of changes between students and myself. I had naturally began to change the way I thought, my attitude in teaching, and the way I was teaching. I began to realize that “students do want to learn” (Journal, 1/18/12) and that I did want to build relationships with students, “if I really dig deeper into my students thoughts to see how they think and feel and how their peers can mold them, then something may happen” (Journal, January 21, 2011). That “something” I referred to was the necessity to cultivate relationships with students. During Year 1, as I got to know students, I had developed a relationship based on empathy. Through place-based poetry, I found the lives that many of the students had outside of school was a struggle and I began to
understand why school could be a struggle. Being able to empathize with students helped me to bond with them and see them as individuals rather than just students I was required to teach.

At first, I neglected to understand the influence I could have on students by ignoring how my teaching could change the way students learned. As I implemented place-based lessons, I began to see the need to nurture relationships as a means of adjusting to my new professional environment. My first few months teaching at Laulima were a struggle as I adjusted to my new work environment and my need to “fit in” and “belong”. But these circumstances allowed me to reflect much more deeply about why I felt “burnt out” and “struggled in the classroom.”

I was a veteran teacher who “had been through the system and was tired and old”. I was also “cynical and negative in my views of education and angry” that I felt that way because I wanted to be “excited about teaching” but was uncertain how to do so. My place-based solutions initially began like any other lesson I taught; it included a teacher as the leader and the students - as the learners. So when the first community walk was planned, I did not think of including anyone else in the activity. Although I knew I lacked the skills and knowledge of the community, I still led the group on the community walk and “I can’t help but wonder why I never asked for help from others from the beginning” (notes, 2012)

However, as I continued to explore different place-based lessons, I was much more aware of the social aspects of learning and I began to notice how inviting guest speakers and cultivating relationships with others also began to change students’ attitude towards learning and my understanding in the value other individuals had to offer in the classroom. As the place-based lessons continued during Phase I, I no longer blamed students for acting a certain way, rather I began to write about what “excites students” and how much they “are motivated to learn”. I also wrote less in my journals about feeling burnt out and wrote more about “finding new strategies that could motivate students” and ways that would help me “become a better teacher”. Figure 4.14(a) and 4.14(b) illustrates two-activity systems form the beginning of the year and the end of the year. It is clearly visible, how community played a larger role in students’ learning.
during the latter part of the year. The orange circles demonstrate how much I began to depend on the community as place-based lessons evolved during Phase I.

Figure 4.16

Figure 4.16(a) Activity system at the beginning of Phase I illustrating students as the only member of the community. (b) Activity system at the end of Phase I indicating an increase in the amount of community involvement.

March 6, 2012

I need to harness this (motivation) from them. Students are taking an active role in their learning and I’m so excited . . . I’m so motivated to look for community resources to help them. The more I learn about this community through all these people (guest speakers), the more I’m beginning to feel a part of it (the community). In fact, so many people want to come to my class to tell their story. So different than what I felt in the beginning of the year . . . I feel important.

I realized during the first phase of this study that as I included other people within the community to be a part of the learning experience, the more important and valued I felt as a teacher. Yet, in order to feel this way, I had to also understand the social aspects of my teaching environment. As explained in the beginning of this chapter, social awareness is a value that is part of an individual’s attitude and predisposition to respond to others. The changes I began to feel in my attitude towards my teaching, and myself may have been produced by the changes taking place in students, people in the
community and the social situation produced by place-based lessons. Zimbardo & Leippe (1991) believed that changes in one component of attitude produce changes in other components.

It has also been argued that individuals are able to influence each other more strongly based on the closer the interpersonal bonds are (Sassenberg & Boos, 2003), so when personal identity is salient (i.e. perceiving myself as a distinct individual and not as a member of a group), personal needs channel how relevant others are used as sources of validation of information (Wood, 2000). As a newcomer to the school, my students were the strongest influence in any changes incurred through place-based lessons. I began to see a necessity for cultivating relationships with students and the affect it had on students’ attitude towards learning.

**Student-centered teaching.** During the first phase of the study, teaching took place in a more traditional teacher-centered approach where I taught the lessons and students gathered information. The time and energy I spent on my reflections questioned why students weren’t engaged in their learning. My thoughts often lead to solutions that had to do with changes within my curriculum rather than the way I was teaching and presenting material to students.

*September 2, 2011*

*So now it brings me back to the students - what does inspire them? I think of myself as a learner and think about the different things that inspire me as a learner. One particular thing that may inspire me is if what I am learning is worthwhile for me. I pick and choose what I feel could possibly be a learning experience. Do students feel the same way? I think these thoughts may be worth exploring.*

*September 6, 2011*

*I am wondering what is missing from my curriculum? Several things are occurring. For starters it seems that I don't feel to engrossed in the lessons. Could the students perhaps pick up on these things? I'm not quite sure why I don't feel engrossed in the lessons.*
Although I may have felt that curriculum was an important part of the students’ learning experience, I believed that changing the tools in the classroom was a way to motivate students. In Phase I, I began to understand the benefits of the social aspects in learning and this led me to take a closer look at other aspects that affected both my teaching and students’ learning. Lessons that inclusively developed community relationships also helped to build capacity within the classroom. In the beginning, place-based lessons focused on the community and were used with the intention of helping me make connections to the students and the community. However, place-based lessons eventually were used as tools to build a culture within the classroom and influenced the way I made decisions as a teacher. Rather than allowing standards to drive my teaching, I recognized how students also played a role in “motivating me to make changes within my teaching” (Journal February 15, 2012). Similar to the pilot study with the watercress farm, the community walk motivated students to learn in an environment that contrasted with what they were used to within the four walls of the classroom. It also provided students with an opportunity to take charge of their own learning and gave me the opportunity to guide students with lessons that engaged them in learning.

February 15, 2012

. . . they (students) were motivated and wanted to learn at their own pace. The more that they (students) wanted to do, the more I need to do to teach them. This is what I’ve been talking about from the beginning. The feeling of knowing that I can become a better teacher; engaging them and immersing them to learn – wanting students to be vested in their learning. I need to do more for the students; I need to show them that they can dream and that they can make a difference.

When students demonstrated their excitement in the lessons, I saw this as an opportunity to reflect on specific instructional strategies that were working and focus on why these strategies were working. This helped me to “question the purpose of my lessons” and reflect on “how I was meeting the individual needs of the student” (Journal, February 15, 2012). The “Where I’m From” poems allowed me to see the exceptional qualities students had and opened my eyes to who students were and where they came from. I began to see them as individuals rather than just students in my class.
I also began to form an understanding of what teamwork was about. My classroom had been strategically arranged with desks clustered in groups to encourage working in teams. However, working in teams took on a new meaning as PBL began to take shape in my teaching practice. Teamwork slowly evolved from students working in a group that encouraged incentivized competition to teams of students that encouraged collaborative problem solving and collective decision-making. Lessons also evolved and were scaffolded to engage students in shared goals such as interviewing community members and creating a community oral history book. By creating situations that allowed students to learn in different environments, they formed natural learning conditions that encouraged them to work together and form relationships with one another.

**Renegotiating the distribution of power.** As PBL was introduced into the classroom, changes in how I began to teach took place. Students became participants within their own communities and wanted to learn and began to play an active role in defining and shaping projects and lessons in class.

*February 15, 2012*

... some students walked ahead while the others lagged behind. I noticed that students lagging behind were observing, thinking, taking pictures. Some students were eager to move on quickly. Some unwilling to move because they were still exploring. They were all going at their own pace. Most of them pointed out things they found and every so often asked me to look at what they were pointing at. I noticed that the kids who were dillydallying behind were observing, thinking, taking pictures. Showing me things. "Look, Mrs. George I found this" Jim picks up a mango on the ground. Can I keep it? Normally, I would say, “no”… But today, I let him keep it and realized that the experience of just being outside the school provided a difference in what they were doing. They were motivated and I think they were learning. Or at least it seemed like they wanted to learn.

*February 24, 2012*

Students can’t stop talking about what they discovered on their second community walk. They want to fix the mansion. They want to do a community
project. "lets paint it," "let's fix it." They have big ideas. I told them no more money, but they came up with raising money. They will clean up for money. They will fundraise and write letters to the legislature. Hey how about a carnival? These are all initiated by the students and not me. I need to harness this from them. What the kids want to do and change makes me realize that they have the ability to do something rather than just listening to me teach. Exciting. Okay, so now it brings it back to me as a teacher. What am I going to do about this?

It was the first time during the school year that I did not feel a need to maintain control over my classroom or follow a strict curriculum. It was also the first time I allowed students to take control over their own learning. When they found a need to repair the mansion, they began to design their own learning experiences to design their project. Efforts to build relationships and develop student-centered lessons slowly diminished my need to maintain order and control in the classroom. However, in the first semester of Phase I, I could not help but notice how I used a top-down hierarchy early in my practice.

In teaching, many worlds converge within a classroom and the dynamics among teacher, students, parents, administration, policies, and curriculum all play a role in the teaching and learning process within the classroom. In fact, the structure that a teacher sets up in the classroom can serve as a foundation for mastering the ebb and flow of interactions between the teacher and students. Since I believed that control was a form of management, the structure that I set up in the classroom using an incentive system placed me at the top of the classroom hierarchy and allowed me to play a dominant role in the classroom. The incentive points were disguised as a means to provide positive reinforcement, but this clearly demonstrated my misunderstanding of classroom management and control. My frustration in expecting to control the behaviors of students and equating this to classroom management demonstrates that I used classroom management and control interchangeably. Because of this misguided perception, it was easy to believe that being able to control my students, would illustrate how good a teacher I was.
November 1, 2011

I'm frustrated about how I'm teaching again. What I want to do hasn't quite happened yet. Management - I seem to be losing the management. I tell the students to stop talking and 2 seconds later Cameron is talking. Are they ignoring me? Are they rude? Am I not assertive enough? Am I not clear about my expectations? What are my expectations? I want them to work and be quiet. I think I feel a little frazzled. I want to be a good teacher, but I can't. I don't feel like a good teacher. I can't even control my students. There's a great deal of soul searching going on. I think there's a piece of PBL that I'd like to focus on. PBL can be a focus of my teaching, but I think there's a deeper rooted purpose. Just don't know what it is.

As PBL evolved within the classroom, the way I managed my classroom began to change. My expectations for students' behaviors were different and I was not as concerned with maintaining a classroom of well-behaved students who did what they were told. PBL prompted ongoing dialogue between the students and myself and actually forced me to renegotiate the way that I had maintained management in the classroom. There was now a balancing act between my authority and the way that students were seeking to take ownership in their learning. Although students were beginning to guide the curriculum and advocated for things such as repairing the mansion, I still struggled to maintain content and pedagogical authority in the classroom. But with curriculum that encouraged place-based concepts, I began to understand how delicate my role was in making continuous decisions about the curriculum and the students in the learning process.

Contradictions in Phase I. Contradictions within a CHAT model provides the driving force of changes. And as noted in the first section of Phase I, contradictions within the activity systems were inevitable features that generated subsequent activities. These new systems were attempts to resolve contradictions and often created a breakthrough in my teaching. However, there were also internal contradictions that appeared in my reflective journals and weren't clearly apparent in activities. Internal contradictions were often conflicting in the way I wanted to resolve them and I often struggled with decisions about what was the best way to resolve them. In Phase I, I was
faced with a conflicting journey in the way I was trying to identity myself as a teacher. As PBL began to take shape in the classroom, I was forming a different approach to teaching and although I had a better attitude towards teaching, I was exhausted with all the changes I was experiencing and “confused with these emotions and feelings that I’m feeling . . . I’m thrilled that kids are learning, but I’m also a little mad because I don’t feel fully vested in this (PBL) yet – I’m not sure if I can be fully vested; so it’s sad that I even feel this way” (Journal, June 10, 2012).

July 10, 2012

I see benefits in student learning, but it is so tough because in all my years of teaching, what I had always been teaching was so predictable. It was so much easier when I had control over what I was teaching. I think the toughest part of this PBL stuff is that I am not able to control what I am teaching; it may take me a while to understand how to deal with the unpredictable elements.

The loss of control over the curriculum left me feeling overwhelmed. In retrospect, if I knew that the community project would have evolved into the ‘save the mansion’ project, I don’t think I would have taken students on the community walks. I was affected by teaching PBL and beginning to see benefits in student learning but I was also torn with the amount of change that was required in my teaching. Although I held steadfast to my belief that students learn by doing, the years spent teaching out of a textbook that was geared towards the standards had changed the way I was teaching. After so many years of teaching, I had learned to thrive on “predictable” (Journal, July 10, 2012) teaching and molded my practice to fit a standardized environment. But PBL was different and it forced me to make some changes in my teaching. This created some conflict in how I could maintain the same standardized curriculum that was comfortable and predictable for me and integrate a curriculum that required me to become vulnerable because of the unpredictable, organic, and evolving nature of PBL.

Another internal conflict that I struggled with during Phase I was the issue of teacher knowledge. PBL seemed to test my insecurities and level of expertise as a teacher and I began to question my own abilities as a teacher. When students were eager
to learn more about their community, I was unsure about how to address this and felt very little control over the curriculum I was teaching.

*I need to do more, but I don’t what to do or how to do it. How am I supposed to teach the students if I don’t even know where to begin?” (February 19, 2012)*

I was conflicted with the loss of control over a curriculum and as students were advocating for various projects and lessons that I had very little skills or knowledge about, it made me feel vulnerable and fearful. I became a barrier between what students were advocating for and what they wanted to learn. My insecurities about teaching had interfered in the way I approached the lessons and I began to manipulate my own feelings about the lessons that I taught. It seems that I looked for ways to dissuade students from carrying out their ideas to repair the mansion because I was not prepared to address my own fear and insecurities about teaching. Rather than admitting to students that I was unprepared to take on tasks, I searched for negative aspects that prevented me from pursuing the task. When students planned to repair the mansion, my response was “no more money” but this excuse was not enough to stop students.

*February 20, 2012*

*Students came up with raising money. Great – now how am I supposed to support them through this fundraiser thing when I don’t even want to do it! Don’t get me wrong, it’s not that I don’t want to do it – it’s just that there are too many factors that I’m working against. I dunno how to get started, this would take so much time, I gotta get approvals, I gotta deal with parents and make so many different arrangements. What have I gotten myself into.*

*February 26, 2012*

*I heard a rumor that the mansion is being renovated for a museum. Thank goodness - I feel much better about this whole project – now maybe we won’t have to repair it. Man, that (repairing the mansion) would have been such a big task and I’m glad that someone else is doing the renovations. I’m sure the students will be happy that the mansion is being revitalized and they don’t have to worry about it. I’ll have the students come up with a new idea that doesn’t seem as daunting.*
It was clear that I was unsure of my own abilities to carry out the tasks students were advocating for, but the ultimate problem was that my individual insecurities and internal conflicts reflected how I made choices in my practice and manipulated the lessons. As a teacher who was trying to incorporate place-based concepts into the curriculum, I was still struggling with relinquishing my need to control the behaviors of students, the curriculum that they learned, and admitting to and embracing my own vulnerabilities as a teacher. My teaching during the first phase of this study may have undergone some changes and I was more accepting of student participation in their own learning process, but my attitude and beliefs still did not truly align with my practice. Progression of place in the classroom and continual transformation to my teaching practice took place in Phase II of this study. The following section presents the changes incurred in the second year of this study.

PHASE II

IMPLEMENTATION (Year 2-2012-2013)

Phase II CHAT Analysis

Phase II place-based activity systems. In Phase I, I experienced changes in how I engaged with students through place-based community lessons and sought the opportunity to further develop this understanding of building a relationship with students. Although I continued to teach fifth grade in Phase II, the teaching conditions were different than the prior year. During Phase II, I taught in an inclusion class setting with a mixed population of general education and special education students. I also co-taught with a first year special education teacher and was assigned a paraprofessional trainer who worked with a specific student. Teaching became a bit trickier during Phase II, since planning, coordination and communication with the special education teacher and paraprofessional were key elements to a successful lesson. Although I had worked many years with special needs students, co-teaching was something new for me, and the special education teacher, who was also adjusting to her first job as a teacher. With a classroom full of diverse learners and a new teaching situation for me and the other two adults in the class, I decided that establishing place-based lessons earlier in the school year might be beneficial in building relationships. During Phase I, the “Where I’m From” poems helped me form a bond with my students so I decided that in Phase II, I
would begin the school year with the same lesson, in hopes to nurture a relationship with students earlier in the school year.

**Poetry of place and culture.** In Phase I, students wrote “Where I’m From” poems with the goal of connecting their lives to where they lived. However, the population in Phase II was different than the year before, many of the students came from diverse cultures and backgrounds so I decided that it might be interesting to encourage students to use poetry as a means of sharing their culture and connection to place. Using culture as a basis for their poems added value to how the students and myself began to forge relationships with one another – “I love learning about these students. It makes me feel that I have a better connection with them . . . the poems also allowed me to cultivate a relationship with the students by understanding a little more about who they were” (Journal 10/18/12). The following are examples of how writing poetry had added a new dimension of PBL for me.

**Just Believe: Marsha.** Based on Marsha’s physical characteristics, I had assumed that Marsha was Samoan. At first, identifying Marsha as Samoan had simply been a means of demographics and I had no intention of correctly identifying her. However, after reading Marsha’s draft of her poem, I was struck with embarrassment at the lack of sensitivity to who she was and the culture she identified with. I realized that I had made cultural assumptions about a student based on her physical traits and this brought back memories of a time when I was about 8 years old. One of the employees in my parent’s seafood store would affectionately call me his “little Samoan girl” because he felt I looked like his daughter. I remember complaining to my dad that I was not Samoan and felt even worse when my dad proudly smiled, telling me that it was a compliment. It was not being called, “Samoan” that bothered me; it was the feeling that someone was identifying me as something I was not. I was suddenly reminded of how culture can be a strong component in how students are able to identify with themselves and how detrimental it was for me to stereotype students. It was even more important that I formed relationship with my students without any presupposed assumptions about their culture or who they were as students.
Just Believe
By Marsha

I am from Tonga to Hawai‘i to Germany.
I have many countries that fill my soul

The real me: Curtis. Through place-based and culture, I was able to understand the culture, attitudes, beliefs, and the way of life for students. One particular student shared a heartfelt and meaningful poem about his life, and it reminded me that for many students their lives outside school are filled with hardships. “I learned that Curtis has parents who are deaf and I didn't realize how much he hurts from the fact that his dad lost his hearing” (Journal, 10/18/12). I was appreciative of Curtis’ openness in sharing his thoughts and feelings of something that seemed painful to him and thankful that he was willing to share them with me and the other students in class.

The Real Me
By Curtis

I am from a divorced family
And arguing parents
Because dad lost his voice and mom was all done.
There are times I wish I could do something
I keep thinking, thinking.

October 19, 2012
Curtis’ poem was eye opening. He spoke about dealing with his dad’s loss of hearing. His (Curtis) parents explained that Curtis really never wanted to share with others that his parents were deaf. I found this (Curtis sharing his thought on his parents) fascinating. Curtis comes with a gift (American Sign Language) that he didn't even want to share with others. It just saddens me that Curtis never did see these as skills. He saw these (parent's disability) as being different and that it hindered them (him and his family). If only I can build upon these skills to make them (his ability to communicate through sign language) shine.

I could not help but wonder, if i did not have students write a place-based poem, would I have been able to learn about the students in the same way? During one of our
writing conferences, Curtis explained that it was hard because “sometimes I wish my
dad could hear”. It was often difficult for him to be an interpreter for his parents and he
wanted to find a way to “help them hear”. Curtis seemed to feel embarrassed about his
signing abilities. But, I found his skills remarkable and was disappointed that he did not
see his signing abilities as a strength. I decided to ask Curtis to teach the class how to
sign as a way to build his confidence and see his skill as a strength. Surprisingly he
agreed and as a class we talked about the gift Curtis had to offer to the class.

We talked as a class about being interpreters and how people who spoke
different languages often required someone to help them communicate to others. We
also talked about individuals who were not able to hear and how Curtis had a gift of
helping his parents communicate through sign language. Many of the students did not
know about sign language and many of them were in awe that people could talk by
using their hands and they began to bombard Curtis with questions, “Can you show us
how to say, ‘hi’ in sign language?”, “how did you learn how to do sign language?”, “can
you teach us more stuff in sign language?” Suddenly, in this short lesson, Curtis became
the proud teacher and he was able to help other students understand that being different
made each of us special.

Where I’m from: Marife. Empowering students to see themselves as valuable
individuals within the classroom helped us to build a stronger relationship early in the
school year. Students came from a variety of backgrounds and when we began to
celebrate each other’s diverse cultures and talents, it encouraged us to be much more
accepting of one another and helped to build a community within our classroom. Marife
was diagnosed as a student with intellectual disorder, but this never hindered her love
for poems. I was always amazed at her abilities to create beautiful poetry that showed
the depth and talent of a gifted student.

Where I’m From
By Marife

I’m from the Philippines.
From an airplane that traveled on a rainbow road.
A Place called, Hawai‘i – my pot of gold.
October 18, 2012

Marife felt that Hawai‘i was such a beautiful place and wrote in her Where I’m from poem that she had traveled on a “rainbow road” and that Hawai‘i was her “pot of gold.” Although it was difficult for Marife to communicate her thoughts to me, I couldn’t believe what I was reading. At first, I thought someone helped her write the poem, but then Kristin (sped teacher) told me that she had wrote it herself.

I had underestimated Marife’s abilities and initially had preconceived notions about her based on what was written in her records. But through a simple place-based poetry lesson, I saw abilities, intelligence, and talents that were never written in her records. Throughout my years of teaching, the use of categorical labels to describe and define students had stimulated debate and concern. But, I had not realized how much I had misguidedly relied on students records and labels to determine who they were. As I learned about individual students through their poems, I began to see how important it was to value each student as an individual with unique strengths, needs, interests, and skills. And as I became more aware of who students were, I also became much more aware of who I was not only as a teacher, but as a person who could help to nurture students’ true potential.

**Poetry of place activity system.** The activity system for this lesson (Figure 4.15) began with the simple objective of connecting to students and their place. Although the lessons began as “teacher as leader”, the division of labor slowly evolved into a collaborative discussion between students and teacher. In some instances, students also became leaders such as the lesson where Curtis was able to show the class how to sign. I began to adopt a clearer understanding of being socially aware of my teaching environment and acted upon situations quickly. Such as when I was able to recognize Curtis’ need to feel accepted and proud of his ability to use sign language to communicate by asking him to teach others in class. As students felt more comfortable with me, they were empowered to share their thoughts and feelings about themselves. In turn I developed an awareness for each student’s individual needs and talents and became more cognizant in how I addressed subsequent lessons. A community began to
emerge as students poems were addressed on a one on one basis and shared amongst other students in class. Rather than looking at the students with my teacher lens, I saw students through the lens of a caring adult. Doing so was so much more simpler than using a teacher lens, and I was able to see the students as individuals with their own talents and strengths.

*October 18, 2012*

*This (all the poems) amazed me and I found that knowing this (about students’ lives) helped me bond a little bit more with my students. I found truth and openness in their words and each of them had gifts to offer.*

![Diagram of the Activity system for “Where I’m From” poems](image)

*Figure 4.15. Activity system for “Where I’m From” poems*

**The Edible Garden.** Place-based lessons during Phase II focused on an edible garden. After the community unit in Phase I, the students and I unsuccessfully tried to plant sugar cane in a pot as a way to pay homage to the history of the community. But the sugarcane did not grow so students in the following year advocated to plant the sugarcane in the ground. However, students in Phase II also wanted to plant other things aside from sugarcane so they began to advocate for their own classroom garden.

Students were very confident about their expertise as gardeners but I was very apprehensive about starting a garden. I knew nothing about gardening or planting and
did not know where to begin. My lack of skills in planting and gardening also made me feel insecure about how I could apply this to our standards and curriculum. Once again, I was in a vulnerable position and PBL tested my level of confidence as a teacher to carry out lessons that I had no confidence in teaching. But the excitement and engagement that took place in students during Phase I convinced me that when students were able to create their own learning experiences, they were much more committed to learning. So, I decided to pursue this project and use place-based garden lessons as the tools for learning and addressing the standards.

Measuring the area of the garden. The first place-based experiences in the garden began as an observational lesson so students surveyed the area for their garden. The students took data for a week on the amount of time that sunlight and the amount of time that shade would rest on their garden throughout the day and used this data to figure out what type of plants to plant and where to plant them. They also calculated the area of their garden using paper yard strips and determined the dimensions of the garden beds and the maximum amount of garden beds they could place in their garden (Figure 4.16). I thought it would also be a great idea to have students measure and use their math skills to convert their measurement from yards to feet.

![Figure 4.16. Students measuring the garden area](image)

However, as students were manipulating the measurement tools, I noticed that they did not know how to use it. At first, students measured the area by placing the yard strips upside down and began to measure the dimensions starting with 36 inches. They didn’t realize that they would have to start from the other end. Secondly, as students
began to measure the length of the garden area, they had not realized that there was a correct method of using the tools. Students placed the measurement strips next to one another, but left huge gaps in between the strips. Some of the teams lined their strips up without a gap but placed the strips down by matching the numbers at the end of one strip to the numbers at the end of the other strip. (Figure 4.17). The first strip was placed down correctly ending at 36 inches, then they laid the second strip next to the first one starting at 36 inches.

When I began the lesson, I had assumed that students knew how to use a yard stick and knew that without that basic skill, they would not be able to complete the assignment correctly. I decided to hold off the lesson on calculating the area of our garden and dimensions of the garden beds. Rather, I decided to use the outdoor space to teach students how to properly use the measurement tools. Students practiced in teams to use the tools properly and measured different objects such the length of the sidewalk. Once students got the hang of using the measuring tools, they were able to measure the area of our garden and dimensions of their garden beds and even convert their measurement from yards to feet. Students were also able to check the accuracy of their measurements and conversions by using a tape measure and calculator to re-check their work.

Figure 4.17. Students incorrectly use the tools to measure the area of the garden.

Contradictions arose in the lesson when I realized that students lacked a few skills. These contradictions are presented in the activity system in Figure 4.18. My assumptions about what I thought students should already know lead me to creating lessons that were planned according to my own assumptions rather than my knowledge of students’ skills. However, outcomes for this activity demonstrate changes in how I begin to handle unplanned situations. I was able to see the need to stop the lesson and
teach something that was based on the needs of the students. I began to look carefully at what students were doing and how I could help them learn to use the tools. The outcome of the lessons demonstrates that changes in the way I addressed conflicts were evident and I was beginning to become more aware of how I was teaching and how students were learning. When I noticed students were challenged with the measuring tool, I felt that it was an important opportunity to teach students the correct method of measuring and allowing them to re-measure the area of the garden in addition to verifying their work using an alternative tool.

Figure 4.18 Measuring the area of the garden in Year 2. Activity system with one contradiction.

**Constructing the planter boxes.** Based upon the area that they planned to place their planter boxes, students calculated the dimensions of the boxes. Cost was a big factor and students suggested that we “construct our own planters so we just have to pay for materials”. I agreed and thought that it could potentially be a meaningful experience for students to construct their own planters as opposed to buying a pre-made one. However, I was unsure of how to go about building the planter. Although I had some experience repairing small projects, this project was much bigger. I did not feel 100 percent confident and was worried that I lacked the knowledge and skills necessary to build the planter box and design a garden that we could be proud of.
Although I could have simply asked someone to build planters for us, I also knew that when you build something from scratch, it is much more meaningful. In a November 2012 journal, I wrote, “If students suggested building the planters, then so be it – I’ll try to help them build it. I know that if they built it themselves, they would feel proud – like they actually did it themselves”. It took many hours of researching about different wood to use and different types of designs that would be best. I grouped students into teams and rotated their tasks so that each team and student had an opportunity to experience the tasks more than once. Stations consisted of sanding the boards, researching different plants, cutting wood pieces, and constructing the planters. It was important that all students were able to sand, drill, construct the planters and feel ownership in the garden. (Figure 4.19a and 4.19b), especially when this was the first time many students were able to construct something from scratch. Students loved working on the planter boxes and it was not uncommon for students to ask me, “are we making the planter beds today?” It took four different class periods within a two week period to complete 3 garden beds.

Figure 4.19(a). Students working together to sand the boards for the garden bed

Figure 4.19(b). Students work collaborative to construct the garden bed.
Students with special needs. Teaching students from a variety of backgrounds was not new for me, and although data from Phase I and my previous pilot study gave me some insight on how engaged students became through place-based practices, I was still exploring changes it had on me. I was always aware of different modifications necessary to help students meet specific goals and objectives, but I was beginning to see strengths in students rather than disabilities.

Gerald’s team was constructing the planter boxes and screwing in the panels, but it was the first time Gerald had seen an electric drill. At first Gerald was apprehensive about even holding the drill and chose to watch his teammates drill in the screws. This behavior was not unusual for Gerald; he was reluctant about trying anything new and attempting to use a power tool was a big step for him. The following conversation was captured on videotape (November 2012).

[Me] Gerald, if you don’t want to use the drill to screw pieces together, it’s okay. But, would you like to just hold it (the drill)?

[Gerald] Ho – It’s (drill) so heavy. I cannot hold it!

[Me] Gerald, I think you can hold it. It’s not heavy. Here, try it. We can hold it together if you think it is too heavy. (I help Gerald hold the drill and let him hold it on his own since he looks much more comfortable)

[Me] Do you want to try to screw something in? (Gerald nods) Hold this tight (the drill) and make sure it fits in the grooves of the screw (I show him how the drill bit is placed on the screw). Then press the button slowly so that the screw will screw in.

[Gerald] Ok, I can do it by myself. (Gerald tries it but the screw falls over – Gerald tries 4 more times but is having a hard time maneuvering the screw and drill)

[Me] Okay, let me hold the screw and then you place the drill on top, but don’t push the button until I tell you. (Gerald pushes the drill button, but I didn’t instruct him to)

[Me] Gerald, you can’t push the drill when my hand is in front, otherwise you are going to screw in my hand! (I gently remind him) Remember we need to be safe.
[Gerald](laughs)Oops sorry.

[Me] Okay, how about you, me and Chance hold it together and drill. But let me try something easier. (I rearrange the wood pieces so that it is easier for Gerald to position his body)

[Gerald] (Drills the screw in) I can do one more.

Although Gerald was apprehensive about the task at first, he began to show confidence and resiliency by attempting to drill the screw to the wood pieces multiple times. By encouraging and believing that Gerald had the ability to accomplish the task, despite his challenges I was also able to see his willingness to persevere through something that was new for him. Often Gerald would complain, “It is too hard” and then refuse to do the work. However, I realized that when he found value in learning something new, he refused to quit.

By now I was beginning to see how much I underestimated the abilities of various students, especially students who were categorized as special needs. I also began to notice hidden talents and strengths in students who had normally struggled academically in my classroom. Travis required multiple forms of support and accommodations due to the variety of triggers that would often set him off in school. It was not uncommon for Travis to express himself by aggressively displaying his anger and frustration physically and verbally. Schoolwork and working in teams was especially difficult for Travis and when the work was hard or other students did not agree with him, he became easily frustrated. The beginning of the year had been a challenge and although the special education teacher and I attempted many different modifications, it was through the construction of the planter boxes that Travis blossomed and began to take charge of his own learning.

November 13, 2012

Travis amazed me. At first Kristen [the special education teacher] and I felt that it wouldn’t be a good idea to allow Travis to drill in the screws for the garden bed. He was too much of a risk. I was worried about his safety and the safety of others if he had a tool in his hand. But at the last minute I thought maybe we could really supervise him because I couldn’t leave him out. Man, I’m so glad that I let him build the planters. He surprised all of us. When we began
to build the planters and drill in the screws, many of the kids struggled to manipulate the drill. But Travis took the lead and guided the kids in his group with instruction and encouragement. I watched in disbelief at his knowledge and skills as he told other students that the best way to hold the drill was for them to use “firm gripping”. Normally Travis was uncooperative and oppositional to others, but constructing the planter boxes made him confident and willing to help. At one point, one of the students drilled the screw in wrong and Travis wanted to fix it so the sides weren’t crooked. At the end of the day I asked Travis to be our lead foreman and if he would be willing to help the other teams.

November 15, 2012

Travis really likes his role as a foreman. I must say that he is doing the job surprisingly well. Today he instructed and gave directions to the other teams, there were a few times that he became bossy and bark out orders, but after a few reminders he understood how to change the tone of his voice. I think I was more amazed that during the past two days, no one triggered his anger.

Travis was able to demonstrate talents that would have never been possible to observe from the traditional textbook lessons that were also being done in the classroom. Although I privately lacked faith in his ability to use the tools safely, allowing him to have the same opportunities as others showed Travis that I believed in him. I had been able to separate my own personal doubt and feelings about Travis’ abilities when making teacher decisions and by doing so, I was also able to recognize how he could communicate and work constructively with others.

Placing Travis in the role of a foreman gave him the confidence to teach others. He was excited with this recognition and his ability to help others began to shine through the rough exterior the class was so used to seeing. The Travis that we had seen throughout the beginning part of the school year had disappeared when he was teaching others, he was poised, relaxed and engaged in what he was teaching the other students.

I watched as he helped students drill the screws in, "No, keep the screw straight - going go in crooked. Here you gotta hold the drill like this". Aside from showing students how to hold the drill, he also gave them advice about drilling. Once, he was helping one of the higher achieving students, “Try wait -
put the skrew on first you gotta lock it otherwise not going work. Yeah, there that’s how you gotta do it. Yeah, that’s good – now you got it.” I became a facilitator and watched as Travis taught others about safety as well. “Go-put on your goggle, the screw might fly in your eye and buss (ruin) ‘em (the eye)”. If I had relied on my own personal doubts about Travis and prevented him from being a part of the class, then I probably would have never been able to see this side of him. It was a skill that he always had and I had not seen it prior to the place-based lesson because I had never allowed it to develop in the classroom.

Gerald and Travis were just a few examples of how place-based activity was able to bring out the hidden talents of students who had academic and behavioral challenges. Figure 4.20 shows two different activity systems. The activity system on the right is the system that was generated by the sped students when we constructed the planter boxes. Although most components are similar in both systems, the effect of contradictions are demonstrated within both systems and the cohesive outcomes generated between the two systems.

The activity system on the left illustrates the components that were found within a system with me as the subject. Like the contradiction in Gerald’s system, my lack of skill and knowledge in constructing a garden planter was a contradiction that initially hindered me from completing the task. However, I was able to address this tension by finding ways that would help build my confidence. Another contradiction within this system was the lack of confidence I had in specific students. I was afraid and concerned about the unpredictable nature of sped students and on many occasions there was an internal battle in how I would make my decisions as a teacher. Despite the internal contradictions that I had in allowing students to help construct the planter boxes, I was still able to find meaningful solutions to carryout the desired objective, such as allowing all students to work on the construction of the planters. The contradictions within my system and the way I chose to address them had generated many unexpected outcomes that naturally merged both the students’ and my systems together.
Planting and harvesting. The day we were able to lay out our garden beds and begin planting our seedlings, we began to refer to the garden as our “outdoor classroom”. All the students took an active role in laying out the beds, filling it with soil and planting the seedlings. It was a combined effort and all the students had a vested interest in seeing their seedlings grow. Everyday we would make time do something in our outdoor classroom. When we weren’t tending to the plants, we would take our journals outdoors and use the time to do some freewriting. Other times, the garden was used as a quiet place for students to complete their assignments.

Harvesting was always exciting for students because they anticipated eating the plants they were growing. Whenever we harvested, I would take students outdoors and we would share something about the garden. On one occasion we were harvesting herbs for the pizza sauce we were making. Students were used to picking fruits or vegetables from the plants, but they were unfamiliar about picking the herbs in the garden. I explained to them, “if you pick the top leaves they are younger and sometimes a little more tender and less bitter”. Students often listened intently during these harvesting lectures and it was not unusual for parents to share with me something that their child taught them about the garden. I was also beginning to see that the lectures in
the outdoor garden often tapped into my values and beliefs and this is demonstrated by video from a harvesting lesson dated *March 2012*. Students sat in their outdoor classroom on bales of hay and listened intently:

[Me] *You are able to pick all the herbs you want from the garden for the pizza. However, what you pick, you must use. So think about what you want on your pizza carefully. You worked so hard growing all the herbs so if you over pick and not use the herbs, that means you just wasted perfectly good herbs that you could have picked and used in the future. We take care in what we are picking, right?*

[Several students] *right.*

[Me] *You are more than welcome to pick the herb and taste a bit of it if you are not sure what it taste like. Keep in mind that you will be tasting a fresh herb so it will be very strong.*

[Margaret] *Do we have to only pick the things that are growing there? (pointing to the pizza garden)*

[Me] *No, feel free to pick whatever is edible. But remember what you pick you must use. So you need to decide as a group what you want to put in your pizza sauce and how you are going to make everyone happy with what they eat in the group.*

As I gained confidence in encouraging place-based philosophies through the garden, I also noticed that my beliefs were beginning to inform my teaching practices. Through the garden, I was instilling values I adopted as a child and passing these values onto students through my practice. Picking the herbs and edible treasures in the garden were no different than the value I learned as a child. The lesson my dad taught me when I over picked the pipipi as a child was clearly ingrained in me and I was able to foster the same type of values as I began to teach through the garden. These beliefs had been instilled in me as a child and by using the garden as a tool for learning, the value of these beliefs were freely re-introduced, within my practice.

*Garden activity system.* Figure 4.21 illustrates the activity system generated by using the garden as a means to address place-based lessons. From an activity theory perspective, changes within my teaching occurs through the bidirectional relationships
between the context of the activities and the components within the system. For instance, using the garden as a context for learning had reminded me of the values and beliefs I learned as a child. At the same time, the decisions I made within my teaching practice also changed the context for learning. For example, including students such as Travis in activities, despite their disabilities allowed them to develop social-emotional learning experiences and allowed me to see the potential of all students. Consequently, I began to recognize that the context of place-based lessons was changing my teaching practice and attitude towards teaching, yet at the same time, my teaching practice was also changing the context in which students were beginning to learn through place.

Figure 4.23 Activity system generated from various lessons using the garden as a tool.

**Students’ passion for learning.** Students enjoyed the outdoor classroom and were developing a joy in learning as more place-based lessons revolved around the garden. However, I also realized that the students’ passion for learning and my passion for teaching were developing an interdependent relationship between us. I was motivated in searching for opportunities to grow as a teacher through professional development and much more vested in developing place-based subject matter that students were interested in. “The more I see students engaged and excited about
learning, the more I want to do . . . I wish that I had more time to provide them with what they deserve” (Journal, January 15, 2013). Students clearly enjoyed being outdoors and would ask on a daily basis if we could “work in the garden” or “go to our outdoor classroom”. Students showed me that place-based experiences can provide them with meaningful learning experiences that go beyond the textbook. The following excerpts are from students’ journals where students are able to share their thoughts about their day.

I learned that worms and pill bugs are decomposers and scavengers. At first I didn’t like them because they are ugly, but then I realized (realized) that they are important because they break down stuff for us.

(Ariana, Garden Journal, February 2013)

I learnt (learned) about the Fibinocne numberses (Fibonacci Numbers) and counting nature in numbers. I didn’t even know that you can actually use math by looking at the pedls (petals) on a flower. We even read something about this in our reading, but I already knew about it because we already were doing stuff with fibince (Fibonacci) numbers (numbers) in the garden before we had to read the story.

(Assignment by Don, n/d 2012).

The pearf (purpose) is that that you get to shear (share) are (our) garden with others (others) and learn. Like I learnt (learned) that all plant has a Fider noche numder (Fibonacci Number). What did you lern (learn) Mrs. Gerge (George)?

(Assignment by Kehau, n/d 2012)

I liked how we got to learn about colonial times and getting to plant the corn. I didn’t like nothing. I liked everything. My class garden taught me that I should take care of the earth. The garden changed me because (because) it taught (taught) me that I should like coming to school.

(Garden Journal by Eric, March 2013)

My passion for teaching intensified as I found that learning was not about teaching skills and content; rather, it required me to reposition myself as a learner with the students in the classroom. The place-based lessons covered during Phase I and II were outside my comfort zone and it was a constant reminder of how much teaching is
also about learning. I loved going to work and began to realize how much PBL was helping me to build confidence in my teaching and create a culture in the classroom where students and I actually cared about what we were learning and teaching, cared for our environment, and cared about one another.

**Vandalism.** The garden became the driving force in establishing a culture within the classroom. “The behaviors and relationships that students nurtured in the garden were also carried over to the classroom” (Journal, May 15, 2013). Despite the ongoing transformations that occurred in my classroom, I also faced challenges. At one point in Phase II, I was ready to quit implementing place-based lessons and go back to teaching through the traditional textbooks.

My desire to continue teaching through place was still there and my passion for teaching was still strong, but unexpected challenges had reaped all my energy to continue building the same type of service to my students. From the start of the place-based garden project, we endured through minor damages and thefts in our garden. The damages initially done to our garden were always repairable and students often took the liberty to find ways in fixing what was damaged.

The vandalisms were frustrating but the damages were still repairable and often focused on only a few plants. However, as our garden evolved and we began to expand the area of our garden, the vandalism progressively got worse. On multiple occasions we would come back to school with our bales of hay missing, or garden signs that were pulled or damaged. Some of our plants were often stomped on or pulled out. On one occasion we came back to school to see that someone had burned our bell pepper plants. The students were much more resilient than I was and they often would gather the damaged parts of the garden and on their own figure out ways to repair what had been damaged. I had admired their tenacity to continue, but I was also frustrated and was beginning to have my doubts in continuing on the project.

But, it was when vandals destroyed the entire garden that I questioned the purpose in completing the project. I could not find solutions to the vandalism and although other teachers sympathized with the issue, I felt alone, discouraged, and ready to quit (Figure 4.22).
March 4, 2013

This vandalism was most heart wrenching. Everything is ruined. The garden beds are overturned, the plants are all pulled out, and the hay and signs are damaged. The garden is truly damaged. I am devastated beyond words. The students cried today and I can’t think of what could be done to make them feel better. I want to give up - I am ready to give up. But then I think about the kids and think about what would happen if I gave up. Maybe I can just tell them that we don’t have money – they’ll understand. Kids are so resilient. I’m not.

I had to remind myself that I was not the only one that felt discouraged. Students also had been going through their own emotional stress from the vandalism and because my only solution at the time was to quit, I decided that it was best for me to remain silent and allow students to express themselves in their journals.

March 4, 2013

Something inside of me tells me that I just need the right words from someone that would help to keep me going. I am tired and suddenly feel unmotivated – I just feel that all our hard work was wasted. I also feel defeated. I am ready to give up – ready to throw in the towel and get back to teaching how I did before. Things seemed much more predictable in that learning environment. I want to quit and level off the whole garden so that the grass would grow back and cover up all the hurt and anger I feel.

Figure 4.22. Students discover the vandalism in the garden.
I allowed students to share what they wrote in their journals and made sure we talked about how we felt as a class. The following journal was from a student who spent a great deal of time in the garden:

*Dear Mrs. George. Today was the worst day of my life. When me and (student’s name) and (student’s name) was in the garden and something terrible happened. The garden was ruend (ruined). Someone pull out some of the garden plants. I feel mad because I really loved the garden. I wish I can go back to the future so I can find the person who did it. The garden is a girl’s best friend.*

Even students who struggled academically and had a difficult time communicating their thoughts in class shared their thoughts in their journals (Figure 4.23). Students wanted to share how they felt about the vandalism and their emotions were expressed vividly despite their academic challenges. Rather than judging their skills in writing, I found their journals to be thoughtfully written and was proud to see the emotions and passion they had for their garden; I was equally impressed at their desire to seek solutions to this problem.
I was able to recognize how much students were vested in their garden and how much the vandalism was also bringing out raw emotions in the students. The following is part of the discussion that occurred in class:

[Me] What can you tell me about what you saw with the garden?

[Girl student 1] Everything is broken.

[Boy student 1] The plants pulled out.

[Me] How did it make you guys feel? You told me what you observed, but can someone share how you feel about what you observed?

[Girl student 2] I feel upset because we worked so hard on the garden and someone ruined it.

[Girl student 3] I’m angry and upset.

[Boy student 2] I feel pissed off because they did it three times before.
(There were whispers, giggles and a few gasps from the class – they were surprised that boy student 2 used the words, “pissed off”).

[Me, talking to boy student 2] I understand – I feel the same as all of you. It sounds like you are angry. Was it hard for you to find a more appropriate word for you to express how you felt?

[Boy student 2] Yeah, I’m just mad.

[Me] Yeah, I know what you mean. Sometimes it’s hard to hold back how we feel and it seems you were definitely able to express your emotions quite well. I feel the same way as everyone – angry, sad, upset, and frustrated. We worked very hard on the garden and we cared a lot about it, but other people didn’t. It also took a lot of time for us to grow things from seeds and we actually had fruits and veggies growing on the plants, and now these plants are dead.

During the class discussion, I decided to share my personal thoughts and feelings about the vandalism and how I wanted to quit. Although my feelings were similar to the students, I thought it would be important for them to hear how I felt, too. In the past, I had never allowed students to see when I hurt, I had believed that these were insecurities, vulnerabilities and signs of a weak teacher. I had thought that if students saw a teacher’s weak spot, then they would lose control of the classroom. This was my first attempt at sharing a personal side with students and rather than feeling weak, I became stronger as a teacher.

[Me] I’m just as angry as you. I’m frustrated and sad. I know that everyone here worked hard and it hurts me so much to see that other people have made all of you so sad. As your teacher it is hard to watch so many of you cry because something so unfair has happened to you. I’ll be honest; I really don’t know what we should do now. I feel like quitting, but I’m not sure if that is the right thing to do. Maybe it is something we could figure out together.

[Me] . . . but the real question is not just about how we felt or what we saw. The question is ‘what are we going to do about this now? How do we deal with these feelings and what do we do about the situation?’

[Boy student 3] We can build an electric fence around the garden and electrocute people that break in.
[Girl student 4] We can find out who these people are and call the police.
[Boy student 4] Yeah and then when we find them we can stab them or beat them up.
[Girl student 3] We can make them go to jail or put a booby trap and catch them.
[Girl student 5] We should buy a camera and it can catch the people doing bad stuff to our garden. Or we can come on the weekend and do a stake out. We can watch from the room so people won’t come in.

(Students from the class like this idea and get excited, “yeah”, “oh, yeah”)

March 4, 2013

It was once again the students that helped me to see differently.

When they saw their garden demolished, their hearts sank deeper than mine.

However, this time there was a darker emotion running through our garden - there was anger in their voices - and there was “HATE”. They wanted to “kill”, “electrocute”, “stab” the people who did this to the garden. Three of the students balled their eyes out and frantically tried to dig holes and replant the already dead plants. Others shouted death threats to no one in particular. I watched this crazy scene for a good 10 minutes with tears in my own eyes. It was so difficult to watch and much more difficult to see so much emotions running through my students.

[Me] These are all possibilities, but they are pretty violent. I agree that a camera will be very helpful. I wish I could say that a stakeout would be a good idea, but it also could be dangerous and I’m sorry but I am not going to do a stakeout. Realistically, all your ideas are feasible ideas, but it doesn’t stop people from damaging our garden. We cannot make people stop ruining our garden. But what we can do is make more people than just our class care about the garden. We could share with others how important the garden is to us. If more people care about the garden, then maybe we will have more eyes watching the garden when we are not in school. So how can we get others involved with the garden with us?

[Boy student 1] They can help us work in the garden.
[Boy student 2] . . . or we can teach them about the garden.

[Boy student 4] But what’s the use; we don’t have a garden anymore.

[Me] That’s true. But we can always rebuild the garden again. But this time how would you feel about going to different classrooms and sharing with others your story about your garden and letting them know that you need their help in also watching the garden for you, too? If you let people know what happened to the garden, then maybe more people will begin to realize how important it is to you. You can teach them about the garden. How many of you will be willing to do that? (Seven students raise their hand) You mean only 7 of you are willing to do that? Why is that? Is it because you don’t really care about the garden?

[Boy student 5] I don’t like to present. It’s scary.

[Me] How many of you are afraid of presenting in front of others in other rooms? Wow, all of you? Well, maybe we can start to practice and build our courage. You will be surprised at the difference you could make. How many of you are willing to work on building our courage to share how important our garden is to us?

(Majority of the students raises their hands. A few are still a bit apprehensive about raising their hands)

Giving students the opportunity to express themselves helped me to understand what they were feeling. Although personally I felt like quitting, hearing students’ responses and thoughts helped me decide on appropriate solutions to the problem. It reminded me that believing in something and acting upon it is much more difficult than quitting. It also reminded me that I found joy in my practice when what I was doing was really for the sake of the students. The following excerpt from my journal (March 4, 2013) demonstrates the effect that the students’ responses had on my decisions.

March 4, 2013

I dunno. If I give up, they would give up. They (Students) always give up - their easy way out is to give up. When things get hard, they quit - it’s so common. Crap, I may have to decide that I am not going to give up. Double crap, I gotta show them that they should not give up. I really have to take myself out of myself and do what I think would be the best way to deal with the
situation. Maybe if we decided that we could get others to help us support the garden. The more people that could have ownership in the garden the more the garden would mean things to others.

It was extremely powerful to allow students to express their thoughts and feelings. I had not realized how much power I had as a teacher to guide students’ thinking in a direction that nurtured their characteristics as a human being and allow them to make decisions based on values and beliefs that were formed in the classroom.

*Students’ activity system.* Figure 4.24 illustrates the students’ activity system based upon the actions and outcomes that took place from the vandalism. Conflicts in the student system are centered on the events of the vandalism and how students felt under these circumstances. Students believed the garden to be special and took ownership in it, thus contradictions naturally arose as they searched for solutions to stop the vandals from ruining their garden. The students’ outcome from this system influenced the components within my activity system. Students’ rage in the vandalism had influenced the actions and components within my activity system.

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*Figure 4.24. Activity System of Vandalism – Students’ Perspective*
Contradictions within my activity system. As illustrated in Figure 4.25 by the red arrows, the vandalism created multiple internal and external contradictions within my system. I was torn in my decisions to continue working on the garden project and finding a way out of it. My belief about the needs of students conflicted with how I really felt. I was faced with the internal conflict of dealing with financial issues (rules); supporting the garden when my grant money had been depleted from the ongoing vandalism that occurred would require me to make personal financial sacrifices. The garden itself became a conflict. Students loved working in the garden and I wasn’t sure what would happen to the tight culture we built in the classroom if we did not have the garden as a common goal.

The components within this activity system were bidirectional and contradictions did not just affect single components within the system, each contradiction created tensions throughout the system. For example, the hours I spent on the garden outside of the school day were contradictions for me because only few students were able to benefit during these times and I felt that there should be flexibility within the school day to nurture this type of relationship at any given time. I also found it a contradiction that our class was identified as the class with the garden; rather I felt that the garden was meant for all the students in the school to benefit from. One of the most difficult contradictions that affected this system was that students were always eager, but convincing teachers to use the garden to help students to take ownership in their learning was a conflict that I had continued to struggle with. Teachers seemed too busy to add place-based garden lessons to their day or felt that there wasn’t enough time to incorporate the garden.
Figure 4.25 Activity System on vandalism – Teacher’s Perspective

Merging activity systems. As students and I began to share and listen to each other’s ideas, the objective of our activity systems (Figure 4.26 and Figure 4.27) began to merge. Two systems worked synergistically in order to produce shared outcomes between the students and myself (Figure 4.26). The combined efforts between the two systems illustrates the relationships that evolved between the students and myself and the outcomes that determine a new evolving system.
Figure 4.26. Merging Activity System of Students and Teacher.

Rebuilding the garden through community awareness. One of the newly generated systems that emerged as a result of the merged system was a rebuilding process. Students decided that rebuilding their garden required that they seek help from other students and teachers. They prepared speeches that advocated for the care of the garden. In teams, students visited each classroom to share their plight to re-build their garden and ask for help from others to keep the garden safe from vandals. This lesson gave students a purposeful opportunity to get others to care, too. After this presentation, we began to see a growing number of students interested in helping to repair the garden.

April 9, 2013

My students had shared their dilemma to other classes that the garden was vandalized and they were seeking others to help them care for it. What an amazing thing that has occurred since then - many of the students had stopped by my classroom and just wanted to ask questions such as: Do you know who did it? Why? What will you do if you catch the people?
Today afterschool 5 kids from various grade levels stopped by my class and helped in the garden. I didn’t even know who these students were – they just decided that they would like to help. I felt as if the garden was a meeting place for kids and this felt really special.

**Building a community.** As students rebuilt their garden, I saw a completely new group of students. The students were not just working together, they formed a community that depended on one another and encouraged each other. Students grew to respect others for who they were and depended on one another. As a class, we believed in the same goal and created a culture where everyone felt important.

“I liked building our garden together because working together was so much fun. I learned that when all of us were working on the garden together we were able to accomplish something” (Krystal, May, 13, 2013).

“To me, we were like a family. I feel like I experienced something new because I never did make a garden before. I hope the kids that come here next year will take care of it just as much as we did” (Curtis, May, 10, 2013)

“When we rebuilt the garden, I felt like I could do anything in the world. I was able to work together and had so much fun with everybody” (Neal, May 10, 2013)

One of the benefits of encouraging place-based philosophies is relying on experts outside of the classroom to provide meaningful learning experiences. I felt that including individuals in the community would help students see the benefits of building community relationships. One of the things that was missing from our garden was the local connection to plants so I invited a student, Kanoe, whom I met from a place-based seminar at the University of Hawai‘i and who worked at Ka Papa Lo‘i o Kanewai. She was willing to share her knowledge about the importance of kalo (taro) to the Hawaiian people and show students how to plant kalo in their garden. Kanoe brought in a kalo plant and shared with students her knowledge about the kalo and told a beautiful and symbolic mo‘olelo (story) about the interdependent relationship between the people and
the ʻĀina (land) (Figure 4.27a). Kanoe brought kalo from the loʻi she worked at and taught students the best way to plant (Figure 4.27b) and care for the taro plant.

Figure 4.27(a). Sharing stories by using Kalo. (b). Community involvement in garden.

Students were thrilled with her visit and Kanoe’s knowledge and cultural sharing inspired many of the students. The following are excerpts of letters that were written to the Kanoe.

. . . thank you for helping us plant the kalo (taro) and for letting us taste it. I learned that you cut the kalo at the line above (above) the stem. I hope you can come back or that we can come see you at the taro farm. (writing and drawing in Figure 4.28 by Mitch, 2013).

Figure 4.28. Kalo drawing by Mitch
. . . now you are part of our ohana (family) and teaching us how to Laulima (work together). Can you come back? Come often to check on the kalo (taro) plants since you know where we are (Writing and drawing in Figure 4.29 by Nelson, 2013).

![Kalo planting drawing by Nelson](image)

*Figure 4.20  Kalo planting drawing by Nelson*

Thank you for teaching us the Hawaiin (Hawaiian) way of taro and feeding us kalo (taro). I will like to go to your job and go into the water and make the taro grow to. I want to be like you because it looks fun to me. I going Exploration (culture based program) at Kamehameha School for a week, will I see you? Maybe they will teach me things about the Hawaiians or about kalo just like you taught me. I no can wait (written by Kawika, 2013).

I was amazed that students were connecting to what was shared by the UH student. I was surprised not only in their interest of kalo, but I was impressed in their ability to communicate their thoughts so effortlessly. Mitch is a special needs student who often had a hard time focusing and expressing his thoughts. He preferred not to write and often times, he struggled to complete his assignments. However, Mitch surprised me with his drawing and thank you letter. He was able to share something that he learned in the presentation and also provided a very detailed picture of his taro plant. This meant that Mitch was capable of accomplishing much more and I was thrilled to see such progress.
Nelson’s letter demonstrates how important he felt cultivating relationships not just within students in our class, but also within our community. Nelson felt so strongly about the relationship cultivated between Kanoe and the class that he welcomed her as part of “our ohana”.

Kawika’s thank you letter demonstrates how much he identified with the speaker. Kawika seemed to be inspired by Kanoe’s cultural connections and it motivated him to want to work in the Loʻi. Kawika seemed to identify with the speaker and this made me realize how much he may have yearned to learn more about his own culture. He was so eager to share with Kanoe his plans to learn more about the Hawaiian culture and asks whether he is going to see her at the culture-based ‘Explorations’ program.

**Activity system and contradictions.** Throughout this phase, both the students’ system and my system continuously merged. The students and I co-constructed curriculum as we rebuilt the garden. Contradiction within the two different systems often provided a balance between the students and myself. For example, students encountered tensions when they were afraid to present to other classes. Likewise, I encountered contradiction within the activity system when I neglected to consider the importance of focusing on the cultural aspects of PBL. “*These are times I wished I did not have to be accountable towards the standards. If only I taught 4th grade*” (April 8, 2013 journal). When I first applied for a teaching position at Laulima Elementary, I applied to a position in 4th grade because I was drawn to the Hawaiian studies curriculum and yearned to learn more about it. Figure 4.30 shows how being held accountable to specific standards created a conflict in my teaching. Through the engagement of others within the community both students and I were able to recognize that there are areas, which I still had to develop as a teacher and that students would need to develop as learners.
End of the school year activities. As we focused on rebuilding the garden, I realized how much the students were taking an active role in their own learning. I also began to see the value in working alongside students and allowing them to take a leadership role. However, I also felt that it was important for others to see how much the students had progressed throughout the year. Initially I had planned for students to showcase the rebuilding of the garden to their parents or family. But the more I thought about it, the less attractive the culminating activity was. I decided to change my plans. Throughout the year, I saw that parents often disappointed their children by promising to show up for events and at the last minute decide that something else took precedence. I also saw the sadness and loneliness when students do not have someone that will come to their events and instead they watch as other parents interact with their child. I decided that rather than inviting their parents, each student could invite one person from our school that they either worked with or provided them with support throughout the year.
Students decided that they would name the end of the year event, “The Laulima Garden Palooza”. The following is an excerpt from my journal entitled, “Underestimating kids”

May 4, 2013

Planning the last day palooza with the kids was fun – we decided as a class on having several committees that students would sign up to be a part of: food, favors, centerpieces, decorations, entertainment, and invitations. At first, I wanted to plan out the ideas and basically control the situation, but at the last minute decided to see what type of plans students could come up with.

I was so surprised at what they came up with. In fact, having students plan things turned out to be a great thing. Students from each committee planned out how to organize their roles and decided on the types of entertainment, favors, centerpieces, etc. Because I was now spending my own funds, I gave each committee a meager budget and they all had to figure out creative ways to accomplish their task on a limited budget.

The favors committee came up with a recipe book that included all the recipes from the party. It was a great idea and I thought their idea was so clever. Students decided on homemade decorations with streamers, balloons and a giant welcome sign.

The entertainment crew struggled with entertainment but finally decided to find great talents from our class to perform for the guests. The invitations committee designed their own invitation and facilitated the guest list. While the centerpiece committee decided on mason jars with fresh flowers that they picked rather than bought.

I underestimated the students in their ability to come up with great ideas. It was even more amazing because I didn’t even manage them, they were managing themselves. I got to watch as students took over their own event. I
learned a great lesson today, I underestimated the abilities of the students. They never cease to surprise me with what they can do if I just allow it more often.

It was already the end of the year, yet I was still amazed at what I was finding each day in students. The more that I discovered that students were capable, the more I point in my profession. Not only did I grow passionate about my profession, but I began to see the value of others in my profession. The final turning point in the second year of this study came on the last day of school while constructing a compost bin.

Constructing a compost bin. After a unit on producers, consumers and decomposers in Year 2, students began to save their fruit scraps from lunch to feed our vermicasting worms. But students realized that the the worms weren’t able to keep up with the amount of food scraps they were feeding them so they decided a compost bin would be an ideal way to solve the problem. They rallied that it was important for our garden and that we could use the pallets that I had been saving so we didn’t have to spend any money. It was the ending of the school year and I was swamped with closing of the year teacher responsibilities, but I allowed them to share their ideas. The following is a short discussion that took place regarding the compost bin.

[Me] can you guys convince me why we should make a compost bin now?
[Boy student 1] Mrs. George, look at how much scrap is being wasted. The worms cannot eat it all and otherwise we are going to just throw it away.
[Girl student 1] Yeah, you told us that we can put the scraps in the plants and it will decompose, but I think it will be gross and stink.
[Boy student 2] Yeah, if you build a bin that we can throw in the scraps, we can see it decompose.
[Me] I have to build a bin? How am I going to build it? I don’t have materials for it.
[Boy student 2] no, we can build the bin but I think we need your help.
[Girl student 2] oh – we can use the pallets you are saving in the garden. You have so many, what are you saving those for anyway?
[Me] Hmmm . . . the pallets are a good idea. I don’t know what I’m saving those for. I thought that I could use them for something but didn’t figure that out yet.
Okay, you guys are a little convincing but I gotta think about this because this next week is the last week of school. When will we build this?

Students were able to convince me of their plans by taking me out in the garden and presenting different ideas in how they would construct the compost bin with the pallets. In the days that followed, they refined their ideas and on the last day of school, we built our compost bin Figure 4.31. Students were already well versed in knowing how to use the tools and delegating how to work together so they were able to complete their job much more efficiently than I had imagined.

Contradictions were resolved as students began to demonstrate their abilities to proactively contribute to their own learning. Time constraints are always a factor in teaching, but students were unwilling to accept time as an excuse not to build the compost bin. Different beliefs between students and myself regarding time constraints were negotiated rather than me making the final decision. Since activity systems were now merging between students and myself, resolving contradictions within our separate
activity system required an activity collaboration between the students and myself.

Figure 4.32. Activity System – Building a Compost Bin

The following is an excerpt from my reflective journal entitled, “Building a compost bin”. The journal demonstrates how my reflections had evolved and the changes that had taken place in my practice over the course of the year.

May 24, 2013

It was so last minute to build the bin. The pallets weren't quite ready for making a bin, they needed to be sanded, but the students didn't care. When it was finally time to build it (compost bin) it was the last day of school. They (students) once again worked together to make the bin and did a fantastic job.

The boys really pulled together. Its students that don't normally succeed in school that provided the best amount of resource for the job. Kelvin who is not academic, lazy and doesn't do a stitch of work became the foreman for the job. He took it into his own hands to teach the other boys about things. He told them not to push too hard when they drill since this loosens the hold on the screw. He wasn't bossing them around, but giving them instruction about how to do it. I got to stand back and enjoy the lesson, too.
Through experience, the students were able to put their efforts together to build something grander than they imagined – or actually grander than I ever thought they could. Boy did I once again underestimate them. Kelvin also tried to instruct kids how to saw. "put the saw at an angle, less than a right angle." "it's a little cooked, let me show you how to do it so it's straight". Huh? did Kelvin just use math? Baffling, it was so clear that he (Kelvin) brings knowledge elsewhere to be able to build the bin. He tells the kids. "Feel the rhythm of the saw" then all of a sudden the students chant "feel the rhythm of the saw." The whole class begins to chant and sing and saw. So much joy today. I loved it. I giggled and enjoyed the day with the kids. Also, Keone was such a good help. he's smart, but at times has a difficult time taking a leadership role. Building the compost was amazing, he knew what to do. When I asked him what they were trying to build, he told me “Right here is the door, you need to open the door to put compost in it”. I was blown away, the kids put a door on the compost. I didn’t even tell them how to build it. Keone definitely stepped up to the plate, when all the students were moving the bin to where they wanted to place it, he instructed the group of students which way to go. “to the left" " move back a little more". Then when the compost bin broke, they said . . ."lets repair it." and they did. They worked so collaboratively together to accomplish the task. And at the end we were able to admire our work -student patted each other and high fived one another. They were so proud of their work. I later put a sign that they made up on the compost - Its amazing how one project with one goal in mind can bring a group of kids together to accomplish a task. The kids who normally struggle in school academically came together to serve a purpose that they truly enedere and they are able to build something together without fighting.

Expansive Learning in Phase II – Implementation. The expansive learning cycle (Figure 4.33) in Phase II demonstrates the collective transformation as PBL began implementation. Changes that occurred were based upon the multiple activity systems that were carried out over the course of Phase II of this study. Changes were built upon the internal contradictions and emerging learning process found in each system. Three
key themes using CHAT evolved through the activity systems in Phase II; however, themes generated through a CHAT analysis were integrated with self-study data using descriptive and longitudinal coding. The following section provides a description of how these were manifested in the implementation phase for this study.

**Figure 4.33. Year 2 (2012-2013) Expansive Learning Cycle**

**Phase II Longitudinal Analysis - Blended Themes**

**Cultivating relationships.** Place-based lessons that revolved around the garden helped me develop an understanding that teaching should not be a solitary profession. Seeking out resources from others and being socially aware of the needs of students also helped me to develop an interdependent relationship with my students. As I began to understand the value in reaching out to others within the school or community and recognizing the talents in students, we began to forge a cultural bond within our classroom. Although the vandalism had presented its challenges for my students, and me there were also positive outcomes that resulted in the necessity for me to cultivate more positive relationships in others. The restoration process helped to develop a
stronger community in our classroom where both students and I found ways to cultivate connections with others.

**Relationships outside the classroom.** My husband also involved himself in the restoration process and surprised me one day with a second hand security camera he purchased (Figure 4.34). He was also affected by the stories of the students' loss and inspired by their resiliency to rebuild what they lost. So he took time off from work to install the video camera and ensured students in class that their garden will be taken care of. The students were thrilled at this surprise and even more motivated to continue their work in the garden. The importance of building a community within my classroom had extended into my personal life and prompted my husband and family to become part of the garden rebuilding efforts.

![Figure 4.34 Installed security camera](image)

April 10, 2013

Today a student in 6th grade brought in some marigolds that he started growing from scratch. He wanted to donate the five marigolds to the classroom. It seems that the speeches that my students did in other classes did make a difference. Random students have been coming around more often inquiring about the garden and asking to help take care of it. Kim from Jayne's class has been coming every day after school to help water the garden. Aiden and Sean in 6th grade also come to water the garden. There are students who come by as I'm working in the garden and taking interest in it, and I'll just invite them to help. One of the things I think is important for all the students to understand is that this isn't one person's garden – it is Laulima School's Edible...
Garden. I like it because other students want to be a part of it and make an effort to do so.

April 11, 2013

Students from other grades and classes have been coming to help in the garden. Today I decided to teach these other students about caring for the garden and show them what we were replanting in it. I had some of them try stevia, which was growing in one of our planters - what an experience that was. It sparked conversation and curiosity. We talked about what they use stevia for and how the plant is able to produce its sweetness. They asked if they could come to help more often. They also wanted to take a stevia leaf home to share with their parents. I don't even know who these kids are, but I do know that they were willing to come back to help in the garden and they were willing to share what they learned with others. It's just nice to see that the garden is slowly inspiring other students. I'm beginning to realize that being a teacher goes beyond the textbook - it goes beyond what we know as teachers - teaching is being able to observe what kids observe and allowing them to explore and understand and see. Maybe only then is it possible for us to make learning much more meaningful. What an experience I'm gaining as a teacher by doing a garden. This is a good day.

May 31, 2013

... as much as I didn't want to because it meant I would be busy, I invited others to help me in the garden such as students who were just hanging around in the morning. I guess I felt that these weren't my students at first and I didn't want others to do something that my kids could do or had a right to do. The more I put myself out of myself (selfish motivation) and thought like a caring person rather than a selfish person I realized that teaching others means reaching out to those that I don't have the opportunity to reach. It’s amazing how a small garden can instill so much togetherness and helping and cooperation in others. This is something I really think our students lack. The idea to work together and help each other.
**Relationships between students and me.** The interactions I had with various students went beyond my classroom. Building and cultivating relationships had extended to students outside of my classroom and I realized that my beliefs and practices should not be limited to the class that I am teaching at the time, the value in teaching is being able to create an environment of learning with anyone at any time. The relationships that were cultivated were also meaningful to me. As the school years drew to an end, I was left with emptiness; since the relationships I built with students became a powerful source in motivating me to want to teach. So, it was also hard to start out the new school year because the relationships that I built in the classroom the school year before were often very important to me.

*June 4, 2013*

*I don’t have a relationship with them (4th graders/upcoming 5th graders) and no connection to them so I didn’t really feel like I’d look forward to teaching them. I don’t know who they (upcoming 5th graders) are and where they came from. Neither do they understand my rules and my routines. There is little connection in the beginning and it takes so long when you begin to build a relationship with them. This year seemed extra special with the garden. All of us (the class) went through so much together and we had a great deal of experience trying to support each other. I know they (students) will continue to build their relationships with one another because they have that special bond. In the past many of my kids (former students) have come and visited me throughout the year. Relationships – what a wonderful thing to have with these students. Seeing them grow into individuals*

With PBL, creating an environment that nurtured relationships became a key part of my practice. In fact, strengthening the connection with students was an important and valuable tool that helped me to discover the hidden talents in students and motivated me to develop my skills as a teacher. One of the reasons it was difficult for me feel excited about the new school year was that I did not have any relationship with the new students and I missed the relationships that were fostered between us.

**Student centered teaching.** Similar to the community project in Phase 1, changing the learning environment during the second Phase of this study affected
student learning as well as my teaching practice. Students and I were both learners in our new environment and we actively engaged in the learning and growing process as we became much more involved in the garden. Unlike our classroom, the physical boundaries of the garden did not seem to stifle the students' curiosity in learning; rather, students became much more aware of their surrounding environment and I became much more aware of what students were actively engaged in.

March 2013

Students discovered mushrooms and bugs all over the garden. They were thrilled to see mushrooms growing on our bales of hay and used their magnifying glass to figure out why they were growing on hay. Since they were so excited, I decided that we could learn about mushrooms as decomposers. I loved doing this because it felt like we were bringing the learning from outside the class to inside the class - then whatever we learned inside the class, we could take that information and do something with it outdoors.

April 1, 2013

The students were able to research about mushrooms and learned why they were growing in our garden. They are learning so much about fungus and actually love it that I decided that they were becoming experts and could write their own books about mushrooms. Students are working on their own book called, ‘Diary of a Mushroom’ - we adapted it from the book, "Diary of a Worm". I love how excited the students are to write their books. They are so cute – the stories so far are so clever and I never saw them so excited to write something. I'm impressed.

Soil testing. The garden became the students’ textbook and what they didn’t understand, they searched for ways to find their answers. I became less teacher and more facilitator since students were beginning to turn more to each other for ways to find an answer and minimized their dependence on me. One particular example was found in our attempt to prepare the soil for the planter beds. Students tried to dig and loosen the soil found in the schoolyard, but the soil was too hard and impossible to loosen. I expressed my concern, “um, I think we won’t be able to loosen the soil this way. It’s too hard. Do you guys think it would be an ideal soil to use in our garden
beds if we were able to loosen it?” Students all began to talk at one time, “What will we do if we don’t have soil to put in the box?”, “I think if we can loosen the soil, it will be okay”, “I dunno – the soil seems like its rocks more than dirt, how are the plants going to grow in that?”.

I lacked knowledge in planting and had no idea what type of soil would be best or how to condition the soil we had in the school yard so rather than answering them, I asked the students to conduct research whether we could use the soil and if so, how would we loosen it. I also asked if they decided not to use the soil, then find out what would be the best type of soil to use. A few days later students discovered that we could test the soil in order to determine the best way to condition the soil or determine what type of soil was best to use. Students were able to test a variety of soils and discovered ways to find their own solution to their soil problem. Both students and I learned alongside one another and I began look at different ways to assess students’ understanding. Rather than creating pencil and paper tests, I began to design performance tasks for students to demonstrate their knowledge.

Worms. Lessons were designed according to students’ interest and what they were discovering in the garden. Students discovered worms and insects in certain places of the schoolyard and created investigations about the earthworms and insects. As I allowed students to explore and question, they began to seek ways to find answers, were excited to teach one another and equally eager to learn from other students. In doing so, they discovered that these creatures helped to create aeration in the soil and provide nutrients to their plants.

In the wormhunting station today, I had to hunt like one of the the best consumers ever, the hawk! Well, I had to keep an eye out for these worms because they don’t want me to find them. . . I found my earthworm by using what I learned from Summer and knew that they like to burrow themselves in the moisturied (moist) spots of the dirt. I noticed that they kept trying to hide from me, Mitch sayd (said) they hate the light so that’s why they always stay in the soil. But, Mrs. George do they have eyes? I liked going hunting because we had to transform ourselves to a consumer that wasn’t human and actually hunt for
these cute critters in the garden. GAAAAWK, I’m a hawk. (Student Journal, Cami, 2012).

As students were becoming much more aware of their environment, they also were beginning to take an active role in their own learning. In turn I became much more motivated in developing lessons and teaching them things that were meaningful and relevant to them. In the beginning of this study, standards had initially engulfed my teaching and manifested into what I believed to be teacher burnout. However, I began to realize that I could use standards as a guidelines and tool for me to develop curriculum that was student-centered. Although at times, I still felt pressure from inconsistent and revolving educational initiatives, "actively pursuing ways to improve my teaching and the students' engagement in learning using PBL helps(ed) me keep things in perspective" (Journal, June 1, 2013).

Renegotiating the distribution of power. Phase II became a turning point in my understanding that classroom management was not confined to keeping the class under control nor did it mean having a disciplined class, rather I realized how managing a class was actually a process that created an environment for academic learning and social-emotional learning.

When the school year began, I took a closer look at how I was managing the classroom. And although I still struggled with the need to control the classroom, I also looked at different ways of classroom management and found that there was great value in empowering students. Rather than living by my rules, I also began to incorporate routines that provided all students with opportunities to become leaders in our daily routines.

August 15, 2012

The routines seems to give students a sense of consistency and a chance to be a leader in class. Another thought on routines is that students also seem to see the importance of who they are in class. When they lead the class in the pledge or a song, they seem to be a little apprehensive at first, but as the week roles along, they seem to become a little more confident. In order to make sure that routines are followed, there also needs to be consistent feedback and consistent acknowledgement on the routines so I’m trying to commend them for
their efforts. Students need to know that they are being recognized for following the specific tasks and they seem to like that.

October 18, 2012

One thing I need to work on is to truly take myself out of the teacher role and into a reflective role. I have in the back of my head a lot of rules such as what students should and shouldn’t do – management things. But really I need to take a step back and engage them in things, then management will fall into place.

Even before the 2012-2013 school year started, I had been struggling with the best way to maintain structure in my classroom. I knew that I would be teaching an inclusion classroom and I had some concerns about how place-based lessons could fit into an inclusion setting. I also questioned whether place-based learning would be ideal for all students. The following is an excerpt from my journal that reflects my concerns about maintaining control in class based on the student demographic.

July 30, 2012

I am still struggling with the idea of control in my classroom. It seems that I will be challenged with some behavioral problems. Not to be stereotypical, but the overload of boys (on my class list) seems to make things more difficult when it comes to management. I guess I will have to maintain a certain amount of control in the classroom, the boys are a little more active.

Prior to the start of Phase II, I still had misconceptions of what classroom management entailed and teacher “control” was still a part of my practice. I had convinced myself to believe that when students were behaved and listening, then it is a well maintained classroom. Consequently, I had judged students based on misconceptions and stereotypes before I had met them such as my reference to boys as having "behavior problems". In this sense focusing on power and control as the means for classroom management, lead me to decisions that were based on an incomplete and inaccurate view of students.

Underestimating the power of empathy. However, as PBL progressed in the classroom, students were empowered and began to take charge of their own learning and my need for control in the classroom had naturally dissipated. Students were fascinated and curious about what was found outdoors and the lessons that transpired in the garden
became great learning experience for me. The following is a self-reflective journal I wrote about Damian, a student who was often disruptive when he was unsupervised and at various times required behavior support while on the playground.

March 2013

Damian beheaded a pill bug in the garden. Another student reported this incident to me and was angry about the atrocity that Damian exhibited. Damian and I both sat down to talk about his actions and when I asked him why he did it, he could not tell me. I asked him if he thought it would be cool to do and he said, “no”. I also asked if he was curious about what would happen if he cut the head off, he said, “I dunno why I did it”. So I explained the value of the bugs he killed and the value of caring for things that are living. . . I don’t get it, why do kids do stuff like that?

May 2013

Today I overheard Damian scolding a student from another class about smashing a bug for no reason. He was so angry at the student, “these are Mother Nature’s gifts, you’re not supposed to smash them. They are important to our garden.” I was surprised and proud. I had always been challenged with Damian and often thought of him as “disruptive”, but after today, I realized that he is not disruptive at all, I think he is just was simply “misguided”. How could I have been so insensitive and judgmental? He really listened to our talk a couple months ago and changed his behavior. I had used the garden to redirect a student - How powerful the garden was.

During Phase I, Manuel shared his adventure with me about blowing up a frog and I was at a loss for words. I was disgusted at his behavior and could not find a way to quell that feeling, instead I kept a tighter leash on Manuel believing that, the tighter his boundaries, the less opportunity he would have to harm anything else. I had equated Manuel’s behaviors to the lifestyle he lived or the environment he grew up in and in a way placed judgement on him for his actions. However, one year later when a similar incident occurred and Damian beheaded the insect, I reacted differently and was able to place my personal feelings about Damian’s actions aside and address his behavior with
patience and understanding. I realized that I had the ability not only to guide students, but I also had the ability to change their beliefs about things and how students made sense of their world and the actions they chose to exhibit. I gained a deeper understanding of who I was as a teacher the day I overheard Damian teaching someone else how to care for living things. I also realized how control in the classroom has nothing to do with classroom management and could not influence positive behaviors in students.

**Empowering students.** Students took learning into their own hands and advocated for the garden that they built (Figure 4.35). Students were becoming leaders and making their own decisions about what was best for the garden. I began to see students discuss and collaborate amongst themselves before coming to me with their ideas. They were also spokespeople for the garden and began harnessing their energy from the vandalism and transformed their anger and revenge to their rebuilding work. As students advocated for efforts to restore their garden I was once again motivated to provide them with as much opportunities as possible to showcase their growth as students.

![Figure 4.35. Students are empowered. Students created their own signs that they hoped to invite others to their garden and deter vandalism from occurring.](image)

**Contradictions in Phase II.** When I first began this study, I had been teaching through a guided textbook curriculum for many years, therefore teaching place-based lessons was new and finding ways to teach in a way that was not structured through a
textbook made me feel that I was losing control over curriculum. At first, I was unfamiliar with PBL, but the more I worked through place-based lessons, the more accustomed I became with the nature of the curriculum. I no longer saw that it was necessary to have control over a curriculum; instead I saw that it was much more meaningful when students were the ones that drove the curriculum. “Students are so capable of solving problems, they are actually pretty good at it . . . addressing real life situations made me think more carefully about the way I can use PBL to help students solve problems” (Journal, November 13, 2012).

For the most part, during Phase II, I was able to address the conflicts that I had with a place-based curriculum. I no longer felt the tensions in implementing a curriculum that was fluid and student driven. However, during Phase II, an unanticipated conflict emerged as I sought to incorporate culturally significant lessons into the curriculum. “. . . so I’m wondering how much is place-based learning a part of the Hawaiian culture?. I’m a little confused, have I been teaching place-based lessons the wrong way if I didn’t teach about the Hawaiian culture?” (Journal, April 8, 2013)

April 8, 2013

. . . I love Hawaiian culture. . . But, how would I teach this – I just feel too insecure about teaching my students something that I’m not so sure about. I mean I could do little things like read them stories or legends about Hawai‘i, but I can’t expand their understanding of the culture because I don’t know it. I think I just feel insecure because I’m not Hawaiian and I’m afraid of teaching students something wrong – there’s all these values within the culture that I don’t know or understand I guess I don’t feel worthy of teaching something I don’t truly understand.

Although I understood that culture was a part of PBL, I interpreted it as contributing to PBL in two separate ways: 1) as an ethnic culture; using ethnicity as a way to learn about place; such as the poetry of place lessons 2) as a group who used PBL as a means to share the same goals and beliefs; such as using the garden as a means to learn. In doing so, I saw PBL as a curriculum and way of teaching that helped me understand the individual history and ideologies of students and how they were learning, but at the same time I neglected to use PBL as a way to understand the cultural patterns
and beliefs of the local culture. I began to see PBL differently than when I first began this study in Phase I; I recognized the diverse cultures in my classroom and realized that the way that I incorporated place-based lessons did not address the local context and demographics of my classroom. At the same time, I wanted to teach my students in a way that was culturally relevant to them, yet I was conflicted with my own insecurities and lack of skills and knowledge to do so.

During the third phase of this study, I attempted to find opportunities to sustain PBL in my classroom and find resolutions for a more culturally relevant curriculum that addressed the needs and demographics of my students. The following section provides the findings from the third and final year for this study.

**PHASE III**

**SUSTAINING AND DIFFUSING (Year 3- 2013-2014)**

My intention for the third year of this study was to understand how to adopt PBL as a philosophy that could be sustained in a classroom and find opportunities to build capacity within my school for using PBL as a tool for learning. Consequently, during the 2013-2014 school year, Hawaiʻi Department of Education (HIDOE) created a strategic plan to raise student achievement. Thus, schools were required to implement various reforms and programs and make key changes and improvements in addressing students’ needs. But despite the multiple educational changes, findings from Phase I and II provided enough evidence for me to continue this study and focus on sustaining and diffusing PBL as curriculum that could be integrated in a classroom.

**Phase III setting**

I was once again assigned to teach in an inclusion classroom and had the opportunity to work with the same special education teacher that I worked with in Phase 2. The co-teaching relationship we had both formed was a collaborative one and since we shared the same philosophy about teaching and learning, we both found it important to determine ways to nurture a culture in the classroom. During Phase III, I was also taking on additional responsibilities as a mentor teacher for student teachers.

The first two phases of the study had focused on exploring PBL and find ways to build meaningful lessons that surrounded place. Phase I focused on the community and we found ways to develop an understanding of the sugar plantation community through
an oral history project. Phase II followed and began with an experimentation in planting sugar cane which evolved into an edible learning garden. During Phase III, I decided to use the garden as a way to build a community outside of my classroom. “...I think it is important that students understand that the garden should be shared. After all, students last year started the garden but they also knew that they would need to share it with others – it wasn’t just their garden” (Journal July 17,2013).

**Phase III activity systems.** Phase III was a bit different than the first two phases of the study because of the changes incurred to curricular programs and initiatives. Although I faced different challenges during the last year of this study, findings in this section of the study demonstrates how I used what I gained through PBL in the two prior years of the study to address challenges in my teaching and in how I continued to develop as a teacher.

After trying different place-based lessons over the course of two years, I experienced a variety of emotional and intellectual exchanges with students and this allowed me to appreciate the value of using PBL in the classroom. The contradictions that occurred throughout the two years forced me to search for solutions to the conflicts and in essence created new activity systems with opportunities to learn, grow, and make changes in my teaching. For example, by Phase III, I knew that building relationship with students was a vital facet for improving management in the classroom so I was determined to make connections to students earlier in the year and began to look for opportunities to learn about students. One of the lessons I decided to incorporate was sharing individual cultural artifacts.

**Cultural artifacts.** During the first week of school I usually incorporate icebreaker activities so students can get to know one another. However, in all my years of teaching, I had always felt it was important for students to get to know one another and never found it necessary for them to get to know me. This year was different; rather than doing my usual icebreaker activities, I decided that students should also get to know me and the other two teachers (special education teacher and student teacher) I was co-teaching with. We brought in cultural artifacts to share with students and as a team; groups identified whom the cultural artifact belonged to. One of the things I started to enjoy was finding ways to integrate lessons that would build a community in
the classroom and still address the state standards. The following dialogue is from the artifact lesson.

[Me] you are going to look in the bag at the artifacts but we are not going to tell you what the artifacts are or what they mean. You will need to do something called, ‘make an inference’ to figure out what the artifacts have to do with each of the teachers. Do you know what an inference is?

[Boy student 1] something based on what you already know

[Me] YES – excellent. So this may be hard because you may not know too much about any of the teachers, but you will have to use whatever evidence you have or whatever you have observed so far this morning to figure out a little bit more about your teachers this year.

(students take the items out of the bags and are talking to each other excitedly about what they are finding in the bags)

Although it was the first day of school, as students learned about me and the other teachers, they felt more comfortable conversing with the others in their group. Prior to each teacher sharing the significance of their artifacts, the groups looked at the artifacts and decided whom their artifacts belonged to by completing the group worksheet (example of worksheet in Figure 4.36). Students seemed to enjoy learning about their teachers. In fact, students also began to use the teacher’s artifacts to make connections to their own lives. Eric studied my marathon running chip and told his group, “I think we got Mrs. George’s artifacts... do you know I like to go running with my mom? She’s (Eric’s mom) training for the marathon”.

The following day I asked students to bring in their own artifacts to share. Learning about students before teaching them about place gave me a better perspective of who they were. Students began to realize that they had common interests not only with their teachers, but also their peers in the classroom. One student asked another, “I got Pokemon cards, too. How did you get this one?” Other conversations also emerged, “I like to do all kinds of crafts. I can teach you guys at recess how to make this bracelet if you want”. Students were slowly forging their own friendships and the conversations simply evolved as they shared things about themselves. However, there were times when I sat in the groups to listen and conversations would stop, then continue when I...
walked away. I tried to inquire why students stopped talking and the answers were always, “I dunno”. When I asked what they were talking about before I arrived at the table, students still hesitated in telling me what they were conversing about.

![Image of Artifact and Student Sample](image)

**Figure 4.36 Teacher artifact student sample**

Using artifacts, as a tool to build relationships from the first day of school helped me to build a community and culture within our classroom. The activity system in Figure 4.37 illustrates a merged system between the students and teachers. Although students had a separate system than the teachers, we both shared the same goal of learning about one another and establishing relationships. The differences between the
two systems transpired in the way students understood the teacher and student hierarchy within the classroom. For example, from the first day of school, the behaviors exhibited by students when I visited their groups, demonstrated their belief that the teacher was the authority in the classroom.

Although classroom rituals, rules and routines were still things that would have to be addressed, allowing students to share and learn about one another helped them engage in community building lessons. By building a community within the classroom first, rituals, rules and routines could easily be established. Nonetheless, contradictions still existed within the different activity systems and contributed to various outcomes. For example, the tensions between Tools-Rules-Object occurred because cultural artifacts (tools) did not fit into a standardize routine or curriculum (rules). Nonetheless, my drive to establish a classroom culture was intense enough to harness the tensions within the system and make changes necessary in my attitude and practice. As a result, building a classroom community made it easier to address rules and routines. Likewise, students also were conflicted with the different hierarchy in the classroom where teachers served as facilitators. During the small group discussion of the teacher artifacts, students were uncomfortable with having teachers sit in on conversations and were unsure of what to say (See Figure 4.37).
Figure 4.37 Artifacts activity system

A missing piece in my practice. In Phase II, when the UH student from Ka Papa Loʻi o Kanewai shared with my students the significance of kalo, she also made me realize that something was missing in my teaching. The cultural values and stories she shared with my students had inspired me, but it also made me question how I was approaching PBL. Before she left my class, the UH student and I had a very thoughtful conversation about PBL in the schools and she left me with a question that gnawed at me throughout my study. She asked, “Did you ever teach the history of your community beginning with the Hawaiians that first lived here?” I sheepishly told her, “no” but, that question remained an unsettling reminder that I was missing something in my teaching.

This was the first time I realized that my attempts to use PBL as a tool in my practice, I neglected to address the culture, history and relevance of many of my students. I began to feel guilty since more than half of the students at my school were at least Part-Hawaiian.

August 12, 2013

. . . I’m looking at a picture of the Hōkūleʻa sailing in the open sea. So peaceful – sailing the ocean. I’m so amazed at how one little canoe can make such an
impact and change the world. What a beautiful masterpiece – it reminds me how powerful nature can be and how it (nature) can help determine a path. I wonder how the Hawaiians felt – what did it feel like to be so close to nature and actually relying on it to guide their path in life. Sometimes I yearn to understand this. Sometimes I wish my students felt this way – I really want them to learn about the history of Hawai‘i and the people of Hawai‘i. But it’s a 4th grade curriculum. Besides I don’t know too much about the history of Hawai‘i – I would probably teach it wrong, anyway – so shame. The students probably know more than me. I think I just need to be immersed in the culture somehow – I really don’t think I can just read about a culture.

You know, like how do you teach someone to be Japanese? You really can’t just read about it – like when I am introduced to someone from Japan – it sounds silly but by habit I end up bowing to the person I meet. That’s what I learned as a kid – I grew up that way-my mom taught me that – and if I read in a book that Japanese people bow out of respect and courtesy – I probably wouldn’t truly understand the meaning behind it even if I read about it. Anyway, I’m just thinking that I love Hawaiian culture – it’s so beautiful, but I don’t understand it enough to teach place-based learning in this way.

**Building a community.** My insecurities about teaching the history and culture of Hawai‘i had actually made me vulnerable, but it also made me determined to find ways to address this conflict. After teaching PBL for two years without a comprehensive Hawaiian culture-based curriculum, I adopted the philosophy that PBL was a means to establish relationships and encourage teacher agency while building a community of learners. I was still unsure of my skills and knowledge to teach culturally significant place-based lessons to my students, but I was also still aware of the cultural influences that guided my beliefs. So rather than harboring on my lack of culture-based knowledge, I resorted to focusing my attention on encouraging others to see the value in learning through the garden and used the garden to form a community, that embraced a culturally centered learning environment of all cultures.
August 7, 2013

How can I convince teachers to help me in the garden? This is something I want to focus on next year. There should be a bigger purpose of the garden than just having it for one classroom. I want the garden to inspire and give others the opportunity to share. Maybe if the garden becomes stories of people and cultures?

As I became much more involved in improving myself as a teacher and PBL served as the bridge between the growth of students and the growth in myself as a teacher, I felt a need to encourage others to look at different ways of teaching. The garden was something that I had always felt should be shared with the school and began to seek ways that I could promote place-based learning through the garden and encourage other teachers to use the garden as a means for teaching and learning. My principal was supportive in my efforts to teach students through place and helped to build capacity by asking me to share something with our faculty. Both the special education teacher and I prepared a short presentation of our journey in the garden transformation during Phase II. And slowly we began to see a following of teachers and staff that supported our efforts to teach students through the garden.

Rather than my seeking out experts, place-based garden lessons brought people to our classroom to share their knowledge. It opened a door for teachers, parents and community members to share their expertise with students and provided a wider network of people that touched students’ lives. I had many supportive parents who frequently donated plants and materials in hopes that their child would continue to use the garden as a tool for learning. One parent became a pro-active member of our classroom garden. She would stop by and offer her assistance in the garden and share with students some of the things she learned as a child. She also brought in a Ma‘o (Hawaiian Cotton Plant) seedling for us to plant in our garden. She shared with students’ information about the plant and how the Native Hawaiians used the leaves and flowers for a dye.

Teachers also stopped by the class to donate plants and seedlings to our class garden. One particular teacher continuously volunteered and took home seeds from our seed library to help our class sprout the seeds for our garden. An English Language Learner (ELL) teacher brought in a Filipino Marungay branch for us to plant in our
garden. Many students recognized the plant, but had not known the name of the plant. This teacher shared how to plant it in the ground and how she would cook the leaves in her meals. Students were thrilled, “I ate that before”, “and my mom puts it in soup”. On another occasion, a sixth grade student and his parents came by and donated banana trees, papaya trees and a dragon fruit plant. I was often overwhelmed by the amount of support from the school community and realized that the garden became a hub of active individuals who cared about the learning that was taking place in the garden.

I was also surprised at how valuable building relationships outside of the classroom helped me to instill the importance of also building relationships within my classroom. One teacher in particular donated an envelope of red leaf lettuce seeds that belonged to her late father. She explained that her father was a farmer and upon cleaning out his garden shed, she had found and kept the lettuce seeds he used to grow. She also shared that the lettuce seeds were old and may not grow, but she wanted to share it with my students in hopes that they could possibly get them to sprout. I was touched that she had enough faith in my students to grow something that was dear to her.

Another teacher also had donated some old tools that belonged to her late father. I had remembered seeing these types of tools while I was young girl, but they no longer made these tools. Her father had passed away a while ago but she didn’t have the heart to throw the tools away and asked if we would give it a good home.

In Phase III, I began to use the garden as a tool to help me develop relationship with others outside of the classroom and compensated for my lack of culturally rich place-based curriculum by embracing all types of cultures in the garden. Figure 4.38 illustrates the activity system generated as I began to form ways to build a community that expanded beyond the classroom. Although the garden took a great deal of time and at times overwhelmed me, I was able to see how using the garden as a tool also transformed the relationships I had with students, parents and teachers.
Expansive learning in Phase III – sustaining and diffusing. The expansive learning cycle illustrated in Figure 4.39 demonstrates how I internalized what I learned in the first two phases of this study and expanded my beliefs of PBL. During Phase III, I also continued to expand my understanding of PBL and found that with the combination of my own reflective practices and desires to build a community beyond the classroom helped me to forge a deeper understanding of myself and as a teacher build a stronger relationship with others.
Cultivating relationships. When I began Phase III of this study, I was fully aware of capacity that PBL could provide in cultivating relationships in the classrooms. However, valuing and forming relationships between students and myself was a priority in Phase III and attempts to cultivate relationships began from the first day of school. Changes in the way I valued relationships and how it manifested in my classroom can be seen through my lesson plans. Figure 4.40(a) shows my lesson plan book on the first two days of school in 2012. In 2012, the first day of school was reserved for lessons that included rules, procedures, and routines. Although there was a block of time reserved for “team building” on August 4, 2012, I noted that the activity was pushed back to the following day. Clearly, my priority during the early part of Phase II shows that I was still focused on routines and procedures as opposed to building relationships. However, Figure 4.40(b) illustrates my lesson plan book on the first two days of school in 2013.
In 2013 (Phase III), it is clear that cultivating and developing relationships in my classroom were a priority. And although, I still incorporated procedures, rules, rituals and routines during the first two days of school, there was much more attention that surrounding the lesson on artifacts and building relationships.

Figure 4.40(a) 2012 Lesson plan book for the first two days of school.
Effects from cultivating relationships. Developing an understanding of my students and finding different ways to meet their needs through place proved to be meaningful in developing relationships with students. One particular example of how understanding the social context of my teaching had led to cultivating relationships was during a reading lesson from *Wonders*, which was a state initiated textbook. One particular student responded to a question from the text, “What impact did someone’s
actions have on our world?” While all the students chose to answer the question with someone famous such as Abraham Lincoln, Ruby Bridges, Rosa Parks, etc. One student turned in a graphic organizer with the following response illustrated in Figure 4.41. What the student wrote in #3 and #4 was what moved me. As I began to understand my role in the classroom, my passion for teaching had evolved and was recognized by a student even in the midst of being held accountable by state initiated programs.

Figure 4.41. Student work sample of a Wonders reading lesson showing student effect of teacher social awareness.

It was clear that the experiences I had throughout the three years had created a bond between my students and myself and the relationships formed through the place-based lessons seemed to be the driving force of what made the experiences even more special. In both the second and third phase of this study, about one-third of my class
were special needs students, but I began to see gifts rather than disabilities in each one of my students. Through place-based lessons, the relationships I forged with students helped me to understand the value of teaching. As a class . . .

May 2013

As a class we learned how to work together, how to cry together, but most of all we learned how to form an interdependent relationship with one another. Working not independently, but realizing that each one of us is responsible to the other. The Learning Garden was not a project about gardening. It was a project that used the garden as a tool for building strong relationships and thoughtful individuals.

For me teaching became a profession that taught me to care and listen. The humanistic side of teaching took precedence over driving content knowledge into students, and this gradually helped me to see the individual talents that each student possessed. There were times that I felt helpless in protecting my students from being hurt, yet at the same time I found that the trust and relationship that we began to build in the classroom fueled my passion for teaching.

April 15, 2013

Today Summer came into my classroom an hour before school started. She was distraught and asked me if I thought she was "handicapped". Her mother told her that she was “wasn’t smart” and that she was “handicapped”. I don’t understand – I’m so angry – how can parents hurt their children this way? Anyway, Summer and I had a long talk and I told her that everyone had weaknesses, but it is the strengths that drive us to do great things. I told her the strengths and talents I saw in her and explained that she will continue to grow – as long as she believes in herself. I’m glad Summer came to see me because it was a wake up call for me and what I can do as a teacher . . . If students don’t have an adult at home to teach them or show them their own strengths and talents, then my role is even more important.

**Student centered teaching.** As I became more aware of the environmental factors that contributed to student learning and began to foster strong connection with students, I also began to create lessons that were guided by students’ interests. Lessons
shifted from regimented curriculum driven by a standards-based curriculum to an evolving curriculum that were still driven by standards, but now encapsulated what was both meaningful and important to students. Learning basic human characteristics such as responsibility, resiliency and respect became an active part of place-based lessons and also became skill sets that helped students thrive in other areas of learning. The following excerpts are student work samples from journals and assignments that reflect students’ point of view as they continued

*The purpose in our garden is to learn about responsibility of taking care of something and inspire people. I learned that if we work together our garden will turn out to be good (Assignment by Craig, 2013).*

*I liked planting plants and making holes. I like making holes because it increases your strength, I like planting plants because you can see how fast the fruit or vegetables grow, how long they can survive and that pumpkin grows on vines. Learning in the garden was helpful because what I learned I can teach others (Assignment by Timothy, 2014).*

*I like planting, digging and just learning in the garden. It teach me how to respect every living things and have fun. We all work as a class in the garden and it help me have skills for the future because in the future you work together. It teach me to be a better person, last year I was so shy this year I’m an open person (Student Journal, Elden, 2014).*

*Being in this class and garden made me happier (happier) and more hard working (Assignment by Kim, 2014).*

Simple lessons that evolved into multiple projects and opportunities slowly began to shift my practice from a teacher-centered approach to a student-centered teaching. The way that I engaged with students and developed new curriculum became a focal point of my teaching and teacher preparation. In a student-centered learning
environment, the needs of the students became the primary focus as opposed to a subject-centered approach.

Figure 4.42 demonstrate how much a parent had valued the fact that her child was learning through place. This particular parent often shared her background about her Hawaiian culture and at times I felt uncomfortable at my lack of expertise. There were times that I wondered if this parent felt that I neglected to incorporate culture into my lessons. But after reading her feedback, I realized that although I never truly incorporated the history of Hawai‘i in the lessons, I was able to instill the importance of responsibility and value of not just their school garden, but also cultivate and adopt the idea of caring for the land and what it provides. The parent had written, “it is a very important part of our lives to learn and understand about nature and how important taking care of the environment ensures our survival” and I realized that by the third year of this study, I did not focus too much on my teaching, rather I focused on ways to build student learning. And in essence, doing so had affected my teaching.
Recognizing the true value of the place-based lessons I incorporated into the classroom became clear as parents and students shared how learning through the garden was a meaningful experience. Students would share with their parents what they learned in school and in response I was able to find value in what I was teaching the students. At the end of Phase III, I was aware that students and parents had a positive experience learning through the garden, but I wanted to find ways that I could expand my skills as a teacher and was already thinking of how I could build capacity as a teacher the following year. I decided to ask parents to provide me with feedback so that I would be able to improve my role as a teacher and find ways to develop awareness towards learning that took place beyond the classroom.

I realized that parents had the same ideals as I did for their child. One parent wrote, "It is one thing to watch a video clip or read and then discuss a garden. But it is a lesson for life to get your hands dirty and feel the earth as you plant the seeds and watch the miracle unfold . . . (child’s name) talked about every aspect of the garden . . ."
it was fantastic to see him want to go to school and get working in the garden.”
Another parent shared, “(child’s name) learned to be responsible, cooperative citizen in the community and everything is hands-on. That’s how my child learned best”. Parents recognized that students enjoyed working in the garden and many of them requested to stay after school to work in the garden. Another parent wrote, “my son came home every day and shared what he had done. He became an engaged student. In fact, he didn’t rush home after school, but instead stayed to work in the garden and helped you.”

The initial purpose of seeking parental feedback was to gain insight on what else I could do as a teacher to provide students with place-based experiences. During the first two years of the study, parental involvement was kept to a minimum, however during the third year of this study, I found that by including the thoughts of parents I was able to determine how much value students were able to get out of the lessons. Parents are able to see what their child had valued in school by the conversations their child had brought home.

Renegotiating the distribution of power. Studies have shown that power and relationships in the classroom are actually structured around what the teacher thinks a classroom should be and how they behave (Brantlinger, Morton & Washburn, 2000; Corneelius & Hrrenkhol, 2004, Elias & Mace, 2005). During the first phase of the study, I felt a need to instill an incentive system to maintain classroom management. Data shows that my thinking was distorted by self-deception and skewed the way that I taught. The easiest way to cope with frustrations of teaching and make sense of what was incongruous was to succumb to pressures from external elements. As I increased my understanding of PBL, place-based lessons forced me to think about things differently and begin to acknowledge the value of reflective practices and the importance of self-awareness. With PBL, I began to understand how a classroom should be and how students behaved are not predictable outcomes nor are they precursors to learning effectiveness.

Contradictions in Phase III. During the third phase of this study, different state initiatives were implemented in schools and changes incurred were challenges that continuously tested my role as a teacher. Statewide textbooks and curricula for language arts and math were introduced as a means to help teachers build students’ capacity in
reading, writing and math. Teachers were also introduced to an effective educator evaluation, where their abilities and skills as a teacher were observed and rated. These types of changes created tensions in my teaching and contradicted what I had come to believe about teaching.

October 27, 2013

I'm wondering why the state has so many initiatives? What's the purpose in them anyway? Funny how things often come from the top down and the ones on the bottom, which are the schools and the teachers - we are the ones that need to implement the initiatives. The top guys tell the bottom guys what to do – but the top guys don't really have a plan for things. They keep changing how they want teachers to do things and it seems like they make decision that are not based on students. Okay, maybe decisions are based on research. But was it a teacher practitioner that did the research? And if it was, what kind of students was the research based on? I bet the subjects in the research had an entirely different demographic than mine. So I feel like the decisions and initiatives that are placed on me have nothing to do with who I am as a teacher, what I believe as a teacher or the type of students I work with. And that’s why I think that you have so many teachers disgruntled about their teaching...there’s got to be a way to carry out all these initiatives.

December 8, 2013

I'm disillusioned by all the initiatives that I am required to abide by. For example, writing student learner objectives seems to take me away from my teaching. Some of the things I have to do seem more like busy work than truly trying to improve my teaching... (name of principal) came to observe my teaching on Friday as part of the educator effectiveness system. This made me recall my visit to a school in the Bay Area and really took notice of the kids more than the teacher teaching. Just by watching the students, I was able to understand and see the how great their teachers were. I just looked around the room and noticed all the great thing students and teachers had that showed learning taking place.
So it got me thinking, that in order to improve my teaching, I need to take a closer look at how my students are learning. If I observe students much more carefully, then I may be able to figure out a better way to deal with all these initiatives and tests – I might be able to find a way to use place-based concepts and integrate it so that I can still do what I’m supposed to.

**Hawai‘i State Assessment scores and place-based learning**

Each year of the study, students were assessed in English Language Arts (ELA) and Math through a statewide assessment known as, the Hawai‘i State Assessments (HSA); these assessments were designed to measure students’ proficiency in ELA and Math standards. During the first two years of this study (2011-2013), students took the Hawai‘i State Assessment, which tested levels of proficiency in Reading and Math based upon the Hawai‘i Content and Performance Standards III (HCPS). However, in the third year of this study (2013-2014), with the roll out of the newly adopted Common Core State Standards (CCSS), a bridge assessment was administered to students in order to transition students to the Standards Based Assessment (SBA) that they would take the following year.

Students often have little to no vested interest in the assessment. Regardless of their abilities, students cannot see the value in taking it. Varying thoughts of how students feel about the test are illustrated in their journals. Figure 4.43(a) is a high achieving student whose parents provide an incentive to improve her scores. Figure 4.43 (b) is a reflection from a student who was approaching proficiency in the HSA. The student expresses disappointment in her scores and shares her thoughts, “it is very sad when you try your best . . .” about taking the test. Figure 4.43(c) illustrates an approaching student who also had no vested interest in the HSA; however, the student shared that HSA was good for them because they were able to go to the library where it was air conditioned.
Figure 4.43(a) High achieving student reflective journal regarding Hawai‘i State assessments.

Figure 4.43 (b) Approaching student’s response to the HSA
Measurement experts agree that there is no one test that is good enough to serve as the primary basis in making educational decisions (National Research Council, 2011). Yet, standardized exam results have become the single most important indicator of school performance. As a result, teachers feel pressure to ensure that scores rise by conforming to curriculum that teach to the test. Critical experiences and subjects have been eliminated in the classroom in order to improve test scores and in a 2011 national survey, 81 percent of teachers reported that extra time devoted to math and language arts meant less time for other subject areas (Walker, 2014). Having taught in Title I schools throughout my teaching career, I have often felt the pressures from the impact of policies on students that are disadvantaged or in low income communities. We marginalize students when we don’t allow them to bring their own lived experiences to the classroom. By integrating place-based lessons over the course of this study, I took a risk. Although I realized that you cannot educate students by hammering reading and math all day long, I also was unsure of how PBL could affect students’ progress in their assessments.

With assistance from professor, Ron Heck, at the University of Hawai‘i, I was able to examine the proficiency status of students’ Hawai‘i State Assessment scores for each year of the study in grade 4 compared to grade 5. Several analyses were run using
the data I submitted for reading. The first set of analysis compared the results of scores when students were in 4th grade versus 5th grade with respect to students’ proficiency status. Tables 4.3(a), 4.3(b) and 4.3(c) illustrates the distributions of scores looking at grade 4 (year 1) versus grade 5 (year 2) for each year of the study. The distribution of scores across proficiency status are the same each year. According to Professor Heck, “If the chi-square test was statistically significant, we would have evidence that the distribution of scores are not the same” in grade 4 versus grade 5. The crosstabulation tables suggests that scores were basically the same from year to year.
Table 4.3(a).
Grade 4 versus Grade 5 Proficiency Scores (2011 – 2012)

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Table 4.3(b).
Grade 4 versus Grade 5 Proficiency Scores (2012 – 2013)

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Table 4.3(c).
Grade 4 versus Grade 5 Proficiency Scores (2013 – 2014)

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Analysis for the HSA scores for each of these three years implied that students tend to perform in grade 5 about like they did in grade 4, despite implementation of place-based curricula. Although, implementing PBL into the classroom did not significantly raise test scores, it also did not lower them. Therefore, policymakers cannot continue to believe that curriculum that is not standardized or test driven affects students performance on tests. If students are provided with innovative lessons such as PBL and still are able to consistently maintain their proficiency status relative to where they were the year before, then incorporating innovative ideas that engage students in learning will not lower students test scores, rather it increases their engagement in learning.

**Summary and overview of chapter.**

Findings from this study indicate that within the three years of this study, I was able to discover several key transformations within my teaching. Through various place-based activities, I developed a sense of self awareness and social awareness that encompassed my ability to reflect and understand how my behaviors and actions affected others. I also developed an awareness towards my environment and began to understand and control the factors that affected my teaching. I became much more aware of specific components within my practice and found that through place-based practices, transformation took place as these components merged into three specific themes: cultivating relationships, student-centered teaching, and renegotiating the distribution of power. Renegotiating the distribution of power was also relative to teacher agency and professionalism that went beyond the classroom, especially within the current climate of teacher accountability and the era of teacher surveillance and compliance in the classroom. These themes indicate that a place-based model had provided a practical method for me to investigate changes within teaching practice in a time of intense accountability and reform.

PBL model provided me with a practical method for continuous improvement in my teaching and learning. After the third year of this study, feelings of teacher burnout dissipated as I became more aware of my flaws and abilities and chose to utilize these qualities as ways I could develop myself as a teacher. Being the center of the change
process required me to be reflective about my surroundings and about my teaching. For example, in Phase III, I took on the role as a mentor teacher and although I had many years of experience, I still felt there were improvements that I could make in my teaching and times I still “question(ed) my abilities as a teacher”. As I incorporated more place based curriculum, I became much more critical about my teaching; in the same sense, I had higher expectations for myself as a teacher and rather than blaming situations on external tensions, I sought ways to address external pressures in my teaching. Changes incurred through the study compelled me to be a reflective practitioner and put myself at the center of the lessons. I was able to improve my effectiveness as a teacher through these reflective practices and by becoming aware of what motivated me.

PBL was able to foster changes in my teaching practice and enable me to develop a passion for teaching despite the contradictions that occurred throughout the three years of the study. One of the most difficult issues in Phase III that I faced was the intense requirement to monitor the progress of students through ongoing testing. Similar to issues that I faced at the start of this study, I was also now required to prove that I was an effective teacher in the eyes of an educational system. As a teacher, I still struggled “to balance my beliefs about teaching and what I was required to do.” But despite my frustrations with new state initiatives and the amount of work and testing I was required to do, there was a difference in the way I addressed these tensions.

I was much more passionate in finding resolutions to these conflicts that I felt. I was also well aware through place-based efforts that there were solutions in finding ways “to make things more connected for the students.” It became a goal to search much more aggressively for “ways to become a better teacher” and “to find as much tools as possible for my students to learn.” I was willing to face these challenges by looking for different opportunities to merge what I believed and what I was required to do. I also began to take a closer look at how students were learning and “what motivated my students to learn.” Figure 4.44 indicate that through place-based efforts, I was able to find opportunities to align my teaching beliefs with my practice and foster changes in my teaching practice as well as develop a passion for teaching. The following
chapter will provide a discussion of the results, the implications for this study, and further recommendations of research based on the findings from this study.

Figure 4.44. Activity system in Year 3 that combines two activity systems generated from contradictions
CHAPTER 5
DISCUSSION

This self-study explored how place-based learning (PBL) transformed my teaching practice and enabled me to develop a passion for teaching in a time of intense accountability and reform. Chapter five is divided into six sections and begins with a review of the research questions that guided this study. Section two is a summary of the research beginning with a brief review of the content of chapters one through four, followed by the summary of the findings in section three. Section three includes a discussion of the findings and the implications of this study. Section four provides recommendations for future research, followed by section five, which illustrates the limitations of the study. The chapter ends with a discussion of PBL and a reflection of my three-year journey.

The overarching research questions explored how place-based learning might foster a passion for teaching, and align teacher beliefs with practice in a time of intense accountability and educational reform. This research was explored via the two following sub-questions.

1. In what ways will using a place-based learning model provide a practical method for continuous improvement of teaching and learning, placing teachers at the center of the change process?

2. How do place-based learning curriculum foster changes in teaching practice and enable a passion for teaching?

Summary of Study

This self-study was a three-year teaching journey that explored the use of PBL in my fifth grade classroom. The purpose of this study was to help fill a gap in the literature; specifically, the influences of PBL in aligning teaching beliefs with practice and in developing a professional and personal satisfaction in teaching. Data was gathered through action research methods from the students, parents and myself as place-based lessons were implemented in the classroom over the course of three years.

In chapter one, the purpose of the study was made explicit – this study was to use PBL as a curriculum to explore my teaching practice and develop a greater passion for teaching. This study aimed to explore the influences that place-based curriculum had on
my professional and personal satisfaction in teaching within the current educational climate, and the changes that were fostered on my beliefs and teaching practice over a period of time. Currently, there is a growing body of literature base indicating the benefits of implementing PBL, including increased student engagement. However, the effects on teachers engaging students in this approach have not been given significant attention. The theoretical lens, research questions, definition of terms and limitations were addressed in Chapter 1 as a way to illuminate the factors affecting my teaching and in essence the basis that set the foundation for this study.

The literature base behind PBL, as well as, the relevant components of sociocultural learning theory and the relevance of teacher beliefs were presented in Chapter two. Chapter two began with a description of teacher beliefs and its connection to teaching practices. Aspects that affect these beliefs such as educational reform and teacher accountability were also discussed. Next, Chapter two elaborated on PBL as a framework for this study and detailed using it as a tool to examine the social construction of my classroom-learning environment. The relevant aspects of CHAT as a useful analysis of change were also shared in Chapter two. Although sociocultural theory was the overarching framework that informed this research, I explained how CHAT provided a structure to examine the changes and expansive learning that occurred in my teaching over a period of time. Throughout the discussion of CHAT, I shared the fundamental assumption that knowledge emerged through the practices of a community of learners and that knowledge is dialogically constructed through the interaction with others (Shokouhi, Moghimi, Hosseinzadeh, 2015). Throughout the discussion of CHAT, I applied and connected the salient components of PBL.

Chapter three focused on the methodology I chose to use for this study. The chapter began with an explanation of why I selected qualitative self-study using action research methods as an approach for this study. This was followed by a restating the purpose of the research and how self-study uncovered approaches for me to align my beliefs with my practice in the implementation of PBL. I also explored my role as a researcher and the criteria that surrounded the trustworthiness of a self-study. Finally, in chapter three, I explained the data collection method and the multiple processes I chose to use to analyze my data.
The organization, analysis and synthesis of the data that I collected were explained in chapter four. Data collection methods for this study included video recording, journal reflections, student work samples, photos, teacher notes and observations. In chapter four, I shared the themes and patterns that were prevalent through multiple coding processes. One in which was conducted using longitudinal analysis using the self-study data and the other analysis through a cultural-historical activity theory analysis. Three major themes emerged through a CHAT analysis, which were self-awareness, social-awareness, and environmental awareness. Three additional themes that emerged through an analysis of the self-study data and overlapped the themes found in the CHAT analysis were cultivating relationships as a result of self and social-awareness, student-centered teaching through social and environmental awareness, and finally, renegotiating the distribution of power by environmental and self-awareness. The findings are summarized in the next section.

**Summary of the Results**

The findings indicated that PBL transformed my teaching and fostered a collaborative atmosphere in my classroom. Through PBL, I was able to actively cultivate connections and relationships with individuals that related directly to my teaching such as students, parents, and teachers. Place-based curriculum also enabled me to foster a passion for teaching and cultivate a culture in the classroom that embodied the whole child. Using PBL empowered my teaching and gave me the autonomy to teach in a way that helped me align my beliefs with my practice. As I provided students with the needed opportunities to support their learning through place-based curriculum, PBL became a natural way to approach teaching and learning and the need I felt for teacher control and structure diminished.

After analyzing video recordings, student work samples, observational notes and self-study data such as reflective journals using multiple formats, results indicate that PBL manifested itself in two ways in my teaching practice. First, transformation occurred in my beliefs as a teacher and how I conceptualized teaching. Then a second transformation occurred in my instructional practice and how I approached teaching. These transformations impacted my teaching in that I am now eager to find innovative opportunities that not only can improve my teaching, but also nurture student learning. I
now look at the prescribed lessons and mandated curriculum as professional rather than barriers and am constantly looking for new ways to integrate what is required of me yet still keep to my beliefs and what I value as a teacher. It is important to note that place-based lessons were not integrated into my entire curriculum, however findings demonstrated that changes in my practice were evident as a result of PBL. This was regardless of the type of lessons taught, including non-place-based lessons. This was an important finding because it allowed me to understand that although my instruction did not consistently involve place-based pedagogy, the meaningful experiences and teaching practices from place-based lessons existed in praxis and not in the curriculum. In my final reflection, written in June 2014, I shared:

*I learned after 21 years of teaching, the power of caring. I feel so fortunate to have been given the gift of seeing teaching with new eyes. These past years have been by far the most rewarding journey in my teaching career.*

Through PBL, my attitude had changed and teaching became a process for development and growth. Caring about others and how I was teaching were embodied in my lessons, regardless of it being place-based or not. Place-based curriculum gave me an opportunity to practice place-based ideas, but it also gave me an opportunity to apply and exercise these ideas on non-placed based curriculum such as when I used artifacts as a way to help students get to know me, and a way for students to get to know one another.

**Conceptual and behavioral transformation.** During the first year of the study, I believed that my goal to align my beliefs with my practice was a concrete end marker. I felt that once I achieved my goal and could align my beliefs with my practice, I would be happier as a teacher and be able to set new goals. However, as the study continued into the second and third year, I realized that the goals I set in this study were never concrete; rather, they were shaped and reshaped and continued to evolve as I became invested in creating lessons that were place-based. The transition from one year to the next became a continuous growth and improvement from the year before regardless of how much my beliefs had aligned with my practice.
By the third year of teaching various place-based lessons, my conceptual understanding of teaching had transformed and I was much more aware of: who I was as a teacher (self-aware), others who affected my teaching (socially aware), and the impact that the learning environment (environmentally aware) had on students. Socially aware also meant that I began to embrace and empathize without judging who students were. I learned from the culture, background and diversity that students brought to the classroom. These conceptual transformations had slowly informed my practice and had affected the way that I began to think and teach in the classroom. Although I am a veteran teacher and had always felt it was important to build a community within my classroom, the key difference in this study was that I allowed myself to become an equal part of the community by opening myself up and becoming vulnerable alongside my students. Rather than finding ways for students to develop a community through instruction and lessons directed through a top/down hierarchy, I began to see that my own insecurities and misconceptions were necessary factors to address first and foremost. Allowing myself to become vulnerable as a teacher helped me to develop relationships with students, actively involved students in their own learning, and nurtured a learning environment where students and I found the need to build a classroom community together.

Understanding, accepting and even appreciating individuals, especially the students, had all been necessary changes made in order to grow as a community of diverse learners. As a result, I realized control and power in the classroom were no longer necessary to maintain classroom management. And rather than teaching scripted programs through a pre-set standardized curriculum and process, I implemented a more “student-centered teaching” approach and began to modify curriculum, inviting student input so that students became the main focus in my teaching. Doing so also created an environment that “cultivated relationships” and even lead the class to develop skills that made them social activists in their own learning. Developing curriculum that was co-constructed was much more meaningful for both the students and myself because it deepened the understanding for all learning partners. Students and I were able to work collaboratively in learning that went beyond just projects or how learning was delivered. By the end of the study I felt empowered to make informed decisions about how to best
instruct my students and was motivated to find ways to continue improving my abilities as a teacher.

**Synthesis of CHAT themes.** In this section, I compare the themes and patterns that emerged while analyzing the data and literature such as the intersection between themes from CHAT and the self-study findings highlighted and illustrated in Figure 5.1. In addition, connections made from the literature review and the findings from this study are presented.

Themes that emerged through a CHAT analysis demonstrates how place-based activities placed me at the center of the change process and led me to embrace the personal beliefs I held such as the value in learning from the environment. In order to address external conflicts that had initially affected my passion for teaching. The three themes that emerged through this analysis were unique in that they were conceptual transformations that took place internally, yet evidence of changes were visibly portrayed within my teaching practices.

**Self-awareness - Head.** Throughout the three-year study, “self-awareness” emerged during the CHAT data analysis. Building reflective practices was key to being self-aware and transforming my practice. Reflective practices, as described in chapter two is also a characteristic of developing place-based curriculum. Reflective practices helped me gain insight on my teaching and helped me to develop strategies and a new perspective in my teaching (Cochran-Smith & Lytle, 2009; Loughran, Hamilton, LaBoskey, & Russell, 2004; Smith & Irby, 1997; Mundy & Russell, 1990). Reflecting on my own practice and students’ progress forced me to take a closer look at the curriculum I was teaching, how I presented the material, and changes that needed to take place in my teaching. I realized the need to continuously use these reflective practices in my teaching and find value in occasionally videotaping my teaching. I would like to continue to videotape my teaching beyond this study as it allowed me to critically reflect on my lessons and my practice. As the study progressed, my reflective practices evolved and I began to look deeper at how my teaching developed the academic, social, behavioral and cultural skill in my students. My reflections became more deliberate as I analyzed and evaluated my approach to learning and teaching. By the third phase of the study, I was aware of the quality in the interactions I had with students and began
searching for changes I should make in my practice such as strategic interventions and substantive conversations in order to maximize the educational outcomes of my class.

**Social awareness - Heart.** “Social- awareness” was a theme that emerged through the CHAT analysis. This approach to teaching was elaborated through the social cultural influences on learning that was elaborated on in chapter two. Learning, as stated in chapter two is an internalized process that is socially and culturally situated (Vygotsky, 1978). Therefore, understanding students and proactively seeking to understand the social aspects of the others became key elements in developing interdependent relationships between teacher/students and students/students. The culture that was established within the classroom over the course of the study had demonstrated the way individuals were able to construct the world was socially dependent (Bruner, 1986; Dewey, 1916; Orr, 1992). I was aware that participation for each year of the study involved different students and began to tailor lessons to the needs of the students at the time. By the last phase of the study, I recognized the important of develop lessons that helped to build a community in the classroom and develop the social and emotional learning in the students.

**Environmental awareness - hands.** “Environmental awareness” emerged as a theme, and although was considered in the literature review, it was not an independent topic. Rather, it was embedded in the literature surrounding the cultural setting of place-based learning and the idea that human activity is culturally mediated and learning is always contextual. Theobald & Siskar (2008) articulated that individuals are able to develop a symbiotic relationship to their environment. And throughout the study, the students and I were able to nurture a relationship to our community and environment through place-based lessons. I reference this relationship to the psychomotor domain of “hands” because PBL engaged both students and me in actively learning and expanding our skills through the environment. Learning was first understood in the environment of the classroom and as students ventured beyond the classroom into the community and outdoors, the interaction and needs of the students evolved. Dewey (1916) suggested that students are able to connect to society through the connections they have with their environment. When learning took place outside the classroom, students became proactive in their own learning and lessons were meaningful to them as they sought
solutions to issues they identified within their own community. Similarly, my connection to the school and community when I first moved to the new school evolved and as I became vested in place-based curriculum, teaching became increasingly meaningful and satisfying for me.

**Synthesis of themes from self-reflection.** Themes also emerged through reflective journals and observational notes, which provided an additional perspective to changes within my practice through the course of the study. Aside from the conceptual themes that emerged through a CHAT analysis, themes that emerged through my reflective journals demonstrated that the conceptual changes from CHAT often intertwined with the behavioral changes found in my reflective journals. Each of the following themes that emerged through the reflective journals is a migration of themes generated from the CHAT analysis.

**Cultivating relationships – heart and head.** Cultivating relationships was a theme that emerged during data analysis of my self-reflective journals. In my literature review, it was suggested that by embracing PBL, teachers are able to transform their practice by developing a connection between one’s place and role as a teacher. However, the data collected demonstrated that the connection I began to form with students (social awareness) and the ability to reflect on my interactions (self-awareness) with them allowed me to cultivate deeper relationship with students.

By the end of each school year, we had cultivated a community in the classroom and I grew very fond of the students, thus, it became difficult to adjust to the idea that these students would move on to another grade level and I would have a new class. The relationships that I formed with students not only allowed me to understand the students I was teaching, it also helped me to understand my own abilities as a teacher. I found that the deeper the relationships formed in the classroom, the more protective we became for one another and the welfare of others. Forming relationships within the classroom helped me recognize the value it had in students learning and my growth as a teacher. It also prompted me to cultivate these relationships beyond the classroom and within the school and community in order to continue developing my skills as a teacher.
**Student-centered teaching- heart and hands.** “Student-centered teaching” was another theme that emerged through self-study data. Providing meaningful learning experience for students became key as I began to adopt an understanding in place-based philosophies. As the study evolved, I began to put students at the heart of learning and the instructional strategies I used organically developed as I found ways to address the different modalities of students. Teaching through place allowed students to participate in activities that were real world experiences that affected them in their homes, community, and school environment (environmental awareness). Students were empowered in finding opportunities in learning that were also meaningful for them. Likewise, I became empowered and motivated to create authentic experiences in an effort to make learning attainable for all the students. I noticed that the more involved I became in what students were learning, the better it enabled me to co-construct lessons with students. In fact, actively finding ways to teach students with them at the heart of the lessons meant that I was embedding student-centered teaching in my beliefs and my instructional approach. It was necessary to teach with not just my hands, but also with my heart.

**Renegotiating the distribution of power-hands and head.** “Renegotiating the distribution of power” in the classroom surfaced throughout the study. However, each phase of the study required different ways that renegotiations took place. While I understood and was open to learning in Phase I, I maintained that the hierarchy in the classroom was structured in a top-down approach and often struggled with maintaining control of certain students. Although in this first phase, I was able to acknowledge the possibilities for re-organizing my classroom to create a vibrant teaching and learning experience, the centrality of power in the teaching and learning process still focused on the teacher and shifted my attention away from progressive teaching.

However, by the end of Phase I, the environment became an important part of my transformation process. PBL took students outdoors, allowed them to dig deeper into their culture, and provided opportunities to ask questions, gave students voice and empowered them to see value in themselves. Students were empowered to take an active role in their own learning and I felt empowered to resist the pressure to conform to accountability issues and created lessons where students valued learning. I positioned
myself as a co-learner with students and as a result, the asymmetrical power relationships that were once built in the classroom evolved into a more genuine culture and community of practice (Lave & Wenger, 1991). As a result, I was able to understand that power is something that is mutually constructed and negotiated between all of us in the classroom. Hence, I was able to demonstrate that critical and reflective examination of my use of power and control had reshaped the classroom dynamics and the relationships between the students and me. The joy I found from teaching was rekindled as I saw students working together and taking ownership in their learning.

The role between the students and myself had changed from dispensers and receptacles of information to individuals who sought knowledge, thus managing students’ behaviors were no longer a major concern. Although students continued to test boundaries and at times required reminders about their actions, their behaviors were no longer challenges in my teaching.

**Embracing the whole child – head, heart and hands.** In chapter two, head, hands and heart represented a multi-faceted model of PBL and how the integration of cognitive functions (head), affective functions (heart) and practice or physical effects (hands) worked both simultaneously and collaboratively to transform my teaching. Teachers, students and the community work in unison and are grounded within this model to develop curriculum that embraces the whole child. For instance, findings from CHAT indicated a sequence of actions between individuals (teacher or students), how awareness towards others was developed, and the actions taken to embrace PBL in the classroom. Descriptive analysis further indicated how these patterns were integrated and helped me form an understanding of PBL and how it aligned my beliefs and practice (Figure 5.1).

The model in figure 5.1 illustrates my understanding of how using PBL in this study had formed and reconstructed my practice and passion for teaching. According to Hutchinson (2004), place is invested with meaning and shape our consciousness, social identities, attitudes and behavior. Although beliefs and practice are at the heart of this model, my expansion of learning had not originated from my heart. In addition to serving as an authentic context for transformative experiences, place provided me with a context where internal and external landscapes evolved and entwined to frame, organize
and anchor my experiences. And when these landscapes overlapped (Area A, B, C in Figure 5.1), I was able to negotiate my beliefs, philosophies, and teaching practice within my current educational climate. When teachers are able to teach to the whole child by integrating intellect (head), emotion (heart), and action (hands), then it goes beyond content or formal knowledge to include application and disposition of how to create meaning and value (Orr, 1992).

Figure 5.1 Transformational model of teaching through PBL
The work of Anderson, Herr, and Nihlen (2007) who posit “practitioners must make their peace with how much of a challenger of the status quo they wish to be” (p.35) influenced this study. Their work is a reminder that courage is necessary in addressing problems for the benefit of students. Thus, in my reflection of this study, the strong academic traditions of our state’s educational goals, such as structured test-driven curriculum had me challenge my own thinking. Doing so allowed me to stretch my thinking and teaching in ways that related specifically to the students and their needs. Consequently, the practices undertaken during this study had an impact on the learning communities within my school. Parents, teachers and various school staff all became involved in supporting place-based learning through the garden. It was clear that PBL had brought a community together for the sake of a common goal. In the first phase of this study, the community outside of the school shared in educating students about the history of their community. During the second phase of the study, the classroom formed a community where students and I forged deep relationships through the garden. In the last phase of this study, community extended to parents and teachers. Under a traditional structure of a classroom, teachers are the main source for students to receive knowledge and skills. Place-based learning challenges this dominant structure reinforced through the current educational reform in the United States by allowing teachers to feel empowered and have agency in their profession while also encouraging students to become agents of change.

**Implications**

Findings demonstrated that the relationships cultivated through place, provided me with a sense of belonging and connectedness. Students also gained a sense of competence as they began to co-construct various curriculum with me. These fundamental needs shape human motivation and have major implications for learning. Individuals work hard to preserve their sense of belonging (Deci & Ryan, 1985). We also bond with people and institutions that help us satisfy our needs, which makes inclusive, participatory communities for our students important (Schaps, 2003). When schools are able to meet students’ needs, students become increasingly committed to the goal. Therefore, by enlisting students in maintaining a sense of community, teachers
and schools can provide opportunities for students to learn and develop skills that can benefit them throughout their lives.

Another implication of this study was the potential for PBL to develop a passion in teachers as beliefs aligned to practices. Teachers are not just gateways to knowledge because they themselves embody the curriculum, teachers convey not just what they know, but also their position towards it and what they find is personally meaningful. Thus passion in teaching develops as their beliefs and practices align. When confronted with new challenges, teachers strive to resolve them in a way that commensurate with the understanding that they bring to the problem (Louden, 1991). So providing opportunities for teachers to explore their beliefs through place-based experiences can be a meaningful solution to develop teachers who are passionate about their profession.

Influences of PBL on teaching practice can be fostered at the pre-service level. If teachers are guided to align their beliefs to their practices prior to entering the profession, they have a solid basis and the tools for addressing structured and mandated policies that they face rather than conforming to them. Providing opportunities for teachers that bridge place-based and mainstream education by encouraging local contextualization of standards based lessons can help to align beliefs and practices for pre-service teachers. For example, structuring courses for pre-service teachers that exposes and immerses them in learning environments that fosters place-based ideologies helps teachers to see for themselves how place can be used as a form for learning. Integrating teacher candidates sense of place by providing the knowledge, skills and even the dispositions to connect standardized curricula to local history, culture, geography and environment can help these teachers facilitate their role as decision makers in the classroom. In the current educational climate in Hawai’i, increased pressure on teacher preparation programs to train teacher candidates to engage in standard-based lesson planning means that it is even more necessary to provide programs that fosters the development of self. Developing a locally contextualized self is critical for teachers to embrace their own professional goals. Therefore, pre-service teacher programs that focuses on developing one’s self and identify, which PBL naturally does, may help pre-service teachers maintain their passion in teaching as they continue into their profession.
Self-awareness became a theme that emerged early in the analysis and repeated throughout the study. This dominant theme represented the essence of why I may have been pre-disposed to engage in place-based practices. At some level, this predisposition reflected who I was, what I believed, and how I taught. Day (2005) explained that there exists an “unavoidable interrelationship between professional and personal identities... because the overwhelming evidence is that teaching demands significant personal investment” (p.603).

As I became involved with place-based practices and began to teach by enlisting my head, hands and heart, I also began to develop a complex and meaningful “place-based” learning situation for my students. Findings also support the notion that engaging in PBL provided a pathway supported by the interconnection of self, social and environmental identities to align my beliefs with my practice. As my beliefs aligned to my practice, I felt empowered and looked for effective strategies that helped to meet the needs of students. When teachers feel empowered they are able to filter information against their beliefs and hold fast to their beliefs. PBL was a means for me to align my beliefs with my practice, reinvigorate and empower me as a teacher. As such, I was able to filter mandates, scripted curriculum, and programs with my own vision and beliefs about teaching and learning, to address teacher burnout. Thus, empowered educators who are able to address mandates and pressures are able to overcome feelings of burnout.

The third implication of this study was the effect of PBL on students and the effect of students on my teaching. I shared many stories growing up in the islands in Chapter 1 and how these experiences formed my beliefs as child. I also shared how my beliefs as a teacher had evolved and somehow had come full circle within my place-based practice. Embracing place-based lessons reminded me how place was nurtured in me as a child and could permeate in my practice and help me to critically reflect on my teaching and harness my beliefs in my practice. When I first began this study, I didn’t realize how much depth PBL could bring to my classroom and practice. Based on my pilot study, I had my own assumptions that PBL would engage students but I was unsure of the implication it would have on teachers. I found reflective practices developing
naturally within a place-based curriculum making it easier to recognize the effect it had on my teaching.

Subjecting my professional practice to ongoing critical reflection helped me to make my own particular worldview clear. By fostering critical reflection in this study, I was forced me to recognize my assumptions, value and beliefs that transpired throughout my teaching. Creating opportunities for teacher or teaching teachers to become reflective in their practice helps them to be cognizant of their own belief system and helps them to monitor their own actions and reflect on their own beliefs. Teaching teachers to become reflective practitioners forces them to look both inwards and outwards and become aware of others’ point of view, as well as one’s own beliefs.

Through reflective practices, I found that place was able to shape learning and identity – and likewise, identity and learning also shaped place. PBL created a symbiotic environment and recursive process; where the more I learned about myself as a teacher through PBL, the more I learned about the place I was teaching in. Through PBL and reflective practices, communities became an important part of my teaching. Tuan (1977) posits that places are endowed with deep cultural meaning (Tuan, 1977). Without connection to a community, cultural meaning is difficult to understand, and without cultural meaning, a place is just space. We live and learn to live in a culturally meaningful and relevant physical world through stories and rules. We are also shaped by the stories that make the spaces in which we teach culturally rich places. As teachers, we retell and modify the stories to include our own interpretations of the significance of those places. In doing this, we incorporate them into our own identity as a teacher and the identity of the students. In Phase I of the study, learning about the community with students bridged the feelings of disconnect I had when I had first moved to a new school. As a result, that year I formed a deeper relationship with students and it became much clearer why I am teaching. In essence, I was reflectively aware of myself, reflective about the students, and reflective about learning.

For students who struggled academically, place-based lessons brought out the hidden talents from them. Addressing the diverse needs of students through PBL, helped me to see the potential of students who struggled in a traditional learning environment. By taking the time to consider the needs of all the students and then creating equitable
ways to tailor the experiences of students, I was able to see the impact I could have on students learning. Students felt empowered and more engaged in their learning and were able to bring out their talents through the lessons. If teachers are able to make an impact on students through place-based curriculum, we would be able to see improvements not only in the attitudes of students, but also in how they perform academically. Figure 5.2 shows a student work sample at the start of our place-based lessons on the garden. Although this student struggled academically and did not enjoy writing, he enjoyed working in the garden. By the end of the school year, his love for the garden clearly affected his motivation to share and write and improvements in his ability to express himself in his writing are illustrated in Figure 5.3. For many students, place-based lessons were effortless strategies that motivated them to willingly persevere through lessons that would otherwise be and struggle and often times these were little stepping stones in helping them to improve on their own abilities.

Figure 5.2. Student’s writing at the start of place-based lessons.
I also was amazed that teaching students through place had also fostered learning that went beyond the school year. Learning had been long-term for students and it also became an avenue that fostered pride in the community they lived in. I was equally surprised that the oral history project that was incorporated in Phase I had made an impact on students as they moved on to intermediate and high school. In 2015, about four years after the community lesson, I received an email from a parent of one of my former students:

[Handwritten text]

...Michelle is entering a history day competition and she would like to do her project on the history of her community...Michelle remembers that she did these lessons on the community when she was in 5th grade and that they donated a book to the library...she is trying to gather information and was wondering if she could borrow the book or if you could help her get information...
My observations of students and how they connected to their environment had always been during the period of the study or the time they spent in my class; it was surprising to see the impact it made on students’ years after they left the school. After meeting Michelle and providing her with the lessons we did while she was in 5th grade, I was equally surprised at how a former student had identified with the community she lived in and chose to extend a project that we had worked on several years prior.

**General Learner Outcomes.** In addition to monitoring and grading students’ academic progress, teachers in HIDOE schools also evaluate students’ behaviors that are based on daily classroom activities and evidenced through the General Learner Outcomes (GLO). In fact, the Hawai‘i Board of Education enacted a focus on students through what was known as Policy 4000. This policy states that “the educational enviornment provided in each school shall be geared toward meeting the GLO of the Hawai‘i Content and Performance Standards” (Hawai‘i BOE, January, 1999). The GLOs are the state’s over-arching goals of standards-based learning for student in all grade levels and measure observable behaviors that students’ demonstrate which are separate from academic performance in content areas. The GLOs are measured according to the following behaviors: self-directed learners, community contributors, complex thinkers, quality producers, effective communicators, and effective ethical users of technology (http://reportcard.k12.hi.us/teachers_admin/glo.htm).

In order to develop students’ well-being and engage them in life-long learning, these goals go beyond academic achievement. In each phase of the study, students were able to develop their skills in working together and created a shared responsibility to one another. PBL helped students to be aware of and understand cultural identity and therefore was able to enhance components that the GLOs currently do not address. Hawai‘i has a broader community of students that come from culturally rich backgrounds. Therefore, PBL was able to address the current learner outcomes and acknowledge the core values and beliefs tied to the cultural identity and place-based experiences that are essential for students’ personal development.

The tendency to focus on improving the technical aspects of schooling, while ignoring the beliefs and cultural knowledge of teachers and students limits school improvement efforts (Henze & Arriaza, 2006; Nelson & Guerra, 2014). So in this sense,
education is a cultural process (Kana’iaupuni et. al., 2010) and learning should nurture and protect the values and mindfulness that are unique to Hawai‘i schools and communities. Our islands are rich in culture and history, and by including the resources of place-based knowledge; learning would become more relevant and meaningful for both teachers and students.

The absence of cultural relevance invoked the formation of the BOE Policy 4000 Advisory Committee. Thus, in 2015, the Office of Hawaiian Education (OHE), established under the Office of the Superintendent, worked with the BOE Policy Advisory committee to draft a new language for the BOE Policy 4000 (Matayoshi, 2016). However, recommendations were made to leave Policy 4000 intact, and instead create a new policy, E-3 (Ends Policy 3), also known as Nā Hopena A‘o (Hawai‘i public schools, 2016). Nā Hopena A‘o represents the people and the process of Hawai‘i and supports the Hawaiian educational values and learning outcomes in students. The following section illustrates how Nā Hopena A‘o differs from the General Learner Outcomes and also demonstrates the policy’s intent to broaden the focus of the current standards and curriculum in order to address the whole child.

**Teaching the whole child – Nā Hopena A‘o.** The external constraints I addressed in this study included teaching to the standards, teacher evaluations, standardized testing, and state initiated curriculum. And with the continual push for higher academic achievement, these variables may diminish student engagement and may continue to have a negative impact on teaching. The Nā Hopena A‘o is a framework grounded in the culture of Hawai‘i that encourages growth in students beyond just content knowledge. It reflects the core values and beliefs that develop and strengthen a sense of Belonging, Responsibility, Excellence, Aloha, Total Well-Being, Hawai‘i (“BREATH”) in us, students and others. These provide a foundation for learning and are incorporated in the culture, history, language and values that support educational efforts in places and subjects.

Embedded in middle of the framework (Figure 5.4) is HĀ – Breath, which consists of six outcomes that work interdependently to include a broader community of individuals and organizations that can develop their social and emotional skills (HIDOE, November 2015). The following are descriptions of the six outcomes and how through
place-based learning my teaching was transformed. Although Nā Hopena Aʻo is a framework for student outcomes, the outcomes reflected in Nā Hopena Aʻo had also been outcomes that were reflected in my professional and personal journey through the course of this study. Even prior to the introduction of the framework into our educational system, I recognized these outcomes forming naturally in my students and me as our classroom environment transformed through place-based lessons:

1) Strengthened sense of **Belonging** - where one understands the “lineage, place and connection to past, present, and future . . . to interact respectfully for the betterment of self and others” (Hawaiʻi Department of Education – HIDOE, 2015). Self-reflective practices helped me to understand who I am and where I’m from and helped me to form a sense of belonging in my profession. Findings had indicated changes in the way that I perceived the physical, geographical, historical, and cultural environment that I was teaching in. As the study progressed, I formed a deep sense of pride in the community I was teaching in and the culture that developed in my classroom. Teaching became relevant and meaningful for my students and me as we began to form a “sense of belonging” towards our community (Phase I), the land (Phase II), and the community of individuals that we worked with (Phase III).

2) Strengthened sense of **Responsibility** – where there is a “commitment and concern for others including the values, needs and welfare of others” (Hawaiʻi Department of Education – HIDOE, 2015). Through the course of this study, a heightened sense of responsibility in how I formed and executed instruction in my classroom began to take place. I began to see teaching as an arena that involved not just myself, but other individuals who were active participants in the learning process. I began to understand and empathize with students and feel a “sense of responsibility” to find ways to create a classroom environment that reflected the quality and relevance in learning such that students were also willing to give back to others. For example, instilling responsibility in students to share what they learn with others such as the oral history project (Phase I), Laulima Garden Palooza – garden tour/celebration for teachers (Phase II), or providing activities in the garden with students in the younger grades (Phase III).
3) Strengthened sense of **Excellence** - where there is a “love for learning, and pursuit of skills, knowledge, behaviors . . . take intellectual risks to and strive beyond what is expected” (Hawaiʻi Department of Education – HIDOE, 2015). As I began to teach through place, I was able to critically examine my practice and reflect on ways to improve my teaching. I became aware of my own strengths and needs as a teacher and sought opportunities that would better myself personally and professionally. After each phase of this study, I was inspired by what students were capable of doing and felt a “strengthened sense of excellence” to explore ways that improved my knowledge and skills as a teacher. The place-based lessons that I designed for each phase of the study had been initiated by students and were never within my area of expertise. It was this level of discomfort and insecurity that made me vulnerable as a teacher and forced me to improve my skills and knowledge as a teacher.

4) Strengthened sense of **Aloha**, - “a sense of Aloha is demonstrated through empathy and appreciation for the symbiotic relationship between all . . . build[ing] trust and lead[ing], for the good of the whole” (Hawaiʻi Department of Education – HIDOE, 2015). Embodying “Aloha” in my teaching was a gift nurtured through place. Perhaps the most significant transformation that occurred in my teaching was this sense of caring and respect that I formed with myself, students, families, school, communities that I worked with. I had once saw success in teaching as the ability to maintain control of my classroom environment; but throughout the study a repetitive pattern of Aloha was demonstrated through empathy, appreciation and care in others. Such a sense of aloha, compelled changes in my teaching and encouraged me to “renegotiate the distribution of power” within my classroom. Through PBL, the environment within the classroom collectively embodied the essence of Aloha. Through each phase of the study, the students and I felt empowered and we often shared in the responsibility of collectively working together to co-construct curriculum.

5) Strengthened sense of **Total Well-being** - where individuals are able to “demonstrate . . . choices that improve the mind, body, heart and spirit . . . to
meet the demands of school and life while contributing to the well-being of the family, ‘āina, community and world” (Hawai‘i Department of Education – HIDOE, 2015). One of the findings from this study was that PBL had nurtured and cultivated an environment that centered on positive and supportive relationships between not just students and myself, but others within the learning environment (parents, teachers, administration, community). The social interactions that evolved within the classroom promoted wellness in others and encouraged a learning environment that centered upon physical, social, and emotional well-being. As one student put it, “Working in the garden made me happy because everyone get to help out and all of us put so much effort in it. I learned that working together is a privilege, because not everybody can do it. We did it (work together) because we care about one another”. The “Total well-being” of both students and myself evolved as we understood how important cultivating relationships affected our teaching and learning environment.

6) Strengthened sense of Hawai‘i - a sense of Hawai‘i “is demonstrated through an appreciation for its rich history, diversity and indigenous language and culture . . . individuals are able to navigate effectively across cultures and communities and be stewards of the homeland” (Hawai‘i Department of Education – HIDOE, 2015). When I first began this study, I had not fully grasped the multiple viewpoints of PBL. Although students understood the necessity to love and care for nature and I encouraged environmentally conscious habits, I found that I was not addressing the cultural diversity of students. In fact, I was missing a key element in forming an understanding for the rich cultural heritage of the local students I was teaching. My own lack of knowledge and skills about culturally relevant place-based practices forced me to find and utilize opportunities to learn and grow. Participating in culturally rich place-based practices through professional development opportunities and inviting community members to share with students their knowledge and skills boosted my confidence to take intellectual risks in order to make teaching much more meaningful for me and the students. Encouraging a “sense of Hawai‘i” slowly began to occur as I began
to encourage a student centered approach to teaching and search for ways to apply Hawaiian traditional world views and knowledge within the contemporary setting of my classroom.

The Nā Hopena Aʻo framework has the potential to create and continue to encourage a place-based teaching and learning environment in schools that can lead to pedagogical practices that nurtures and fosters teacher development and promotes positive attitudes in teaching. It is a valuable tool to help frame our current General Learner outcomes and readily provides a framework that will help teachers develop a different approach to teaching curriculum.
Figure 5.4. Nā Hopena Aʻo statements (Hawaiʻi Department of Education, 2015).
In my discussion, I referred to PBL as a means to teach the whole child by teaching with the heart, head, and hands. Nā Hopena A‘o is embedded within this model in that a teacher’s ability to instill Life in study and strengthen a sense of “BREATH” in the students requires them to develop: self-awareness and the ability to think and reflect (head), social awareness and the ability to build an understanding of others, especially students (heart), and having the ability to be aware of how the environment affects learning and having the skills to construct meaningful learning environments (hands). PBL widens content to be more inclusive of cultures and creates a symbiotic relationship between students’ academic learning and their behaviors and social emotional growth. Although Nā Hopena A‘o were created as student outcomes, I found it had at first transferred into my teaching. Figure 5.5 illustrates how the outcomes of Nā Hopena A‘o reshaped my PBL model and was adopted into pedagogical practices during the study.

Through PBL, teachers can become agents of change as they empower students and give them the opportunity to co-construct curriculum and critically reflect on their own culture and learning. Superintendent Kathryn Matayoshi (2016) shared in a memo to teachers, “The mindfulness that is evident in HĀ is practiced in a number of Hawai‘i schools. Many of our recent State Teachers of the Year share a common thread — emphasizing the importance of character development alongside rigorous learning”. Hence, the state’s superintendent had acknowledged the value of sustaining a practice that emphasizes place-based philosophies and pedagogical practices.
Place-based learning Model with integration of Nā Hopena Aʻo

Figure 5.5. Place-based learning model with integration of Nā Hopena Aʻo
Recommendations for Future Research

This study supports the call by many authors, who cite the importance of educators modeling approaches that engage students in interdisciplinary exploration, collaborative activity, and field-based opportunities for experiential learning (Dewey, 1938). But this study also only begins to touch upon the possibilities for teacher transformation through place-based pedagogical practices. The discovery of my own teacher empowerment and process of change lead me to believe that there may be other teachers searching for ways to align their beliefs to their practice or teachers who may have transformed their teaching through PBL. Based on the results reported by this study, the following are recommendations for future studies in this field:

• **Widening the study to other teachers**

  This study only looked at my own teacher transformation in the classroom and further studies with other teachers are needed to establish a baseline for ways in which PBL can transform teaching practices. Teacher workload demands and pressures have continued to increase due to federal and state legislations (Kohn, 2005) and each teacher responds to the external pressures at different intensities. Therefore, carrying out additional studies using PBL in a variety of educational settings provides a wider perspective of how PBL can transform teaching practices.

• **Place and culture-based learning**

  My intent to learn more about PBL from a Hawaiian perspective occurred at the end of my research. Although I tried incorporating various culturally relevant practices within my place-based lessons, it only touched the surface and I feel that further studies which use culture-based lessons as a basis to inform PBL is necessary so that teachers are able to address the local demographics and ethnic culture of our students in Hawai‘i.

• **Administrator and place-based learning**

  During the three years of this study I was fortunate enough to work under a supportive administrator who had a deep sense of place and was an individual who valued his community. On the other hand, my pilot study
was done at a different school where I worked under a different administrative direction. Both administrators extended a difference in their support for my study and I wonder if their sense of place and leadership style had somehow influenced the changes I incurred on my practice? I think it would be prudent to look further at how administrators’ sense of place and leadership can influence teachers’ place-based practices and affect how teachers place themselves at the center of the change process. If administrative sense of place and leadership affect teachers personal and professional life, then proposed solutions for teacher burnout and satisfaction in the schools may help to keep teachers at schools longer.

Reflections

“Mrs. George, am I handicapped?” These words echoed in my ears as a teary-eyed special education student came into my classroom very early one morning. I get up from my desk and sit next to her at the table and gently ask, “Why are you asking me this question?” She starts to bawl, “My mom said that I couldn’t do things because I am handicapped. And she said that I’m not smart.” I was fuming inside and could not help feeling so much animosity towards someone who would hurt his or her own child this way.

I gently hugged the student, “You know that my son can hit a baseball with a bat? It’s a bummer, because I have a really hard time – I’m afraid of the ball and really can’t hit the ball. Did you know that my husband can do these handstands and is really good at it? I can’t get my legs off the ground and my butt is really heavy. I guess that means that I am handicapped, too. I think that everyone has special talents and everyone is smart at something, but you can’t be good or smart at everything.” Our conversation led to all the smart and wonderful things we saw in one another and we even tried to find something special about
ourselves. Quite frankly, all I needed in this conversation was that this student could believe in herself and that I would support her even though someone she loved may have had his or her doubts. (Based upon my reflective field notes recorded on April 15, 2013).

When I first began this practitioner research journey, I had not realized how profoundly I would be impacted professionally and personally from this study. I think that those of us in the field of education who genuinely care about our students and our colleagues, conducting research into ourselves and our schools moves our emotions and intellect throughout a full spectrum. This study had begun as a search for answers to address my feelings of teacher burnout, but it also led to how I identified myself as a teacher, and it struck at the heart of what I believe was important about schools – the teachers and students. It reminded me that being wholeheartedly present for the students in all aspects (physically, emotionally, and behaviorally) is probably the most important part about teaching. Admittedly, it was something that I had been missing and why I often felt disconnected with students when external pressures such as standards and accountability heightened.

Although I spoke specifically to my experience as an elementary school teacher in a public school system in Hawai‘i, I know that it also mirrors the experiences of many other teachers in other educational contexts. In some form or another, we all yearn for more time to be “present” in our work; more time to be “present” to look around and pay attention to the people and place that mean so much to us, more time to be “present” to build trusting relationships that are essential to our work; more time to be “present” to build up what we do as teachers – teaching, learning, facilitating together.

I believe that in the three years of this study, I had accomplished an understanding of what being “present” meant and what it takes to be a teacher – only then was I able to become much more passionate about teaching. Change is eternal so as students, curriculum, rules, and other factors change in education, I know that I am on a continuous journey in negotiating my practice to reflect my beliefs. I understand that I will continue to face external pressures, but as long as I continue to examine my beliefs,
I am able to determine the best pedagogical practices that places students at the center of my decisions. The year after this study, there was a tremendous amount of educational changes that took place in the state and this affected the amount of time I could do place-based lessons in my classroom. I was allotted 25 minutes a day to conduct place-based lessons rather than the two hours I had previously. However, rather than feeling burnt out, I took these changes as challenges and felt empowered to find opportunities to teach in a way that I felt passionate about and in a way that students learned the best from.

I may have transformed my teaching by incorporating other types of interventions in my classroom, but what I understand after the three years of this study was that PBL had reached the core of who I am and want to be as a teacher. Teaching and learning about place allowed me to dig deep within myself and reflect on my insecurities as not just a teacher, but also a human. It was not just about acknowledging my insecurities; teaching and learning through place compelled me to find ways to address my insecurities and grow as a teacher in order to benefit my students. Therefore, developing my knowledge and skills also became a continuous journey.

When I embarked on this journey, I was naive about PBL and had only seen it through the eyes of a westerner, leaving out the culturally relevant aspects of place. I had not realized that place-based learning had multiple perspectives and in fact, touched the surface of local cultures because of my own insecurities and lack of knowledge and skills of the Hawaiian culture. Although I acknowledged these feelings in the study, I continued throughout the study to work out solutions to address my insecurities about developing a culturally relevant perspective understanding of place. Seeking knowledge and skills to build my confidence and foster a local and culturally relevant curriculum with my students became an important part of my development. I began to look for opportunities that would allow me learn and teach through a culturally relevant place-based lens. A year after the study, I took part in a yearlong Ethnomathematics institute, a culture-based professional development program through the University of Hawai‘i that intersected culture and historical traditions through local place-based learning experiences. This research project was more than just an intimate look at my own teaching practice, it opened up opportunities for me to look at teaching through diverse
cultural systems and discover different pathways that could foster student engagement and learning. I want to continue in my quest to learn and develop my teaching through a place-based model. I want to continue to help students find relevance in the real-world through the physical, environmental and cultural capacities while at the same time continue to cultivate my love for teaching and building relationships.
Appendix A: Student Assent Forms

Please fill out and return this page to Mrs. George by _____

University of Hawai‘i
Child Assent to Take Part in a Research Project:
Place-Based Learning and a Teachers Attitude Towards Teaching

I would like to ask you to take part in a project to help me learn more about how kids learn and how I can become a better teacher. Before you decide if you would like to take part in this project, it is important for you to know that:

• You have a choice whether you want to be a part of this project or not;
• If you decide to take part in this project, you can stop at any time; and
• Your parent or the adult responsible for you must also agree for you to take part in the project.

What will you be asked to do if you join this study?

Recording Lessons – 2 or 3 times a week we will do lessons in class that may be recorded. The lessons we do may be for about an hour or an hour half.

Assignments – During the school year, I will be making copies of the assignments you do in class such as your journals and projects. I will make sure that I return the assignment to you after I copy them.

Who will be given information about you? Personal information about you will be kept private. We will come up with a fake name for you to use in the report.

Do you have to be in this study? You do not have to be in this study if you do not want to. It is up to you. Even if you start, you can stop later if you want and no one will be mad at you.

What if I have questions about this study?

If you have any questions about the study, you can ask me (Mrs. George) at any time or you can call me at 681-8202. You may also call Dr. Pauline Chinn at 956-4411.

Agreement to take part in this study:

Signing your name at the bottom of this form means that you agree to be in this project. I will make a copy of this form for you after you have signed it.

_________________________  ____________________________  _____________
Your name (print)  Your Signature  Date

_________________________  ____________________________  _____________
Researcher’s Name  Researcher’s Signature  Date

_________________________  ____________________________  ____________________________
Name of Parent or Guardian (print)
Appendix B: Parental Consent Forms

**University of Hawai‘i**

**Parental or Guardian’s Consent for Child to Participate in Research Project:**

*Place-Based Learning and a Teachers Attitude Towards Teaching*

In addition to being your child’s 5th grade teacher at ____ Elementary School, I am also a graduate student at the University of Hawai‘i at Mānoa. I am currently working towards my PhD in Education with an emphasis on Curriculum Studies. As part of my research, I would like to implement a known and practiced instructional strategy called Place-based learning. Place-based learning involves curriculum that seeks to build a students’ relationship towards the environment, culture, and the community. With your permission, this research will continue to help our understanding of place-based learning in schools.

**Project Description:** Unit lessons will be taught during science period and will focus on the Hawai‘i Content and Performance Standards. Group work, hands on activities, and field trips may be a part of the lessons, which will be videotaped, and/or voice recorded. Video and audio tapeings will record the interactions and discussions between student and teacher or student to student. Lessons will occur between 2 to 3 times a week for one academic year.

During the course of the day students will be journaling their thoughts and discoveries as each lesson is conducted. In addition, lessons along with assignments will emphasize hands-on real world learning experiences in order to help students develop stronger ties to their community, enhance the student’s appreciation for the natural world, and build their commitment to serving as active and contributing citizens. Student assignments and journals will be used as work samples to help me build a better understanding of how students are engaging with place-based learning. Throughout the unit, I will also be observing the lessons taught and the student’s attitudes towards the lessons and their engagement within the lesson. I will also be evaluating my skills as a teacher as I teach the various lessons.

**Video and audio Recordings:** Video and audio recordings will be used for this research only to identify and understand engagement between students and/or the teacher. For example, I may record lessons, which allow students to test the quality of water from samples they collected around the school and community. Recordings allow me to review the interactions between individuals (through conversations and body language) and any engagement students have with the lesson, which in the moment my human eye may have missed. Both video and audio recordings will not be used beyond this research for any means. As a researcher, only myself, and my advisor (Dr. Pauline Chinn) will have access to reviewing the video or audiotape. Transcriptions for the video and audiotape will be used as data however participants in the research will be anonymous and will not be personally identified. Video and audio recordings will be stored in a secured and locked area. I will be the primary source of access to the recordings and all video and audio recordings will be destroyed once the project is completed.
Benefits and Risks: Based on 20 years of teaching, I believe this research may enhance the learning environment in our 5th grade class. Students will be able to engage in curriculum based on our Hawai‘i environment as well as interact and learn from professionals in our community. As a doctoral student, the results of this research could influence more schools to adopt widespread use of a place-based curriculum. There is little risk in this study, but I want parents to understand that precautions have been taken into account in the event that a student reacts adversely. I will prepare students with expectations and monitor student’s interaction to alleviate any stress, if any. If your child feels any discomfort with being part of the study, he/she will be withdrawn from the research (videotaping, audio-taping, etc.); however, your child will continue to remain in the learning community since lessons for this research will not delineate from the prescribed “normal” curriculum. I would like to stress that the modified curriculum will integrate place-based foundations to normal educational practices (which include Hawai‘i Content and Performance Standards lessons) in order to evaluate the effectiveness of place based approach in the learning process.

Confidentiality and Privacy: During this project, only my University of Hawai‘i advisor (Dr. Pauline Chinn) and I will have access to the data. As with the majority of University of Hawai‘i research projects, legally authorized agencies such as the Dept. of Education have the right to review research records. Before data is submitted to these agencies, your child's name or any other identifier will be removed. In place of names or descriptions, pseudonym (such as a fake name) for your child will be used. If you would like a summary of my final report, please contact me at the number listed near the end of this consent form.

Voluntary Participation: Your child’s participation in this project is voluntary along with your decision to allow or not allow his/her participation. You and your child’s decision to participate will in no way negatively affect his/her grades. Likewise, participating in this research will not positively affect chances for a better grade or preferential treatment. Both participants and non-participants will have an equal share of assignments and work. At any time, your child can stop participating in this project and you can withdraw your consent without any loss of benefits or rights.

I realize that I am both the researcher, and at the same time, your child’s teacher. Thus, I want to assure you that the choice to participate or not participate in this project will have no impact on your child’s report card or on my relationship with him/her.

If you have any questions about this project, please contact me at school (808) 681-8202 ext. 287 or stacey@hawaii.edu. You can also contact my University of Hawai‘i advisor, Dr. Pauline Chinn at (808) 956-4411 or chinn@hawaii.edu.

If you have any questions about your rights or the rights of your child in this research project, you can contact the University of Hawai‘i, Committee on Human Studies (CHS) by phone at (808) 956-5007 or by e-mail at uhirb@hawaii.edu

Please keep the top portion of this consent form for your records. At your request I can also make you a copy of the consent form. If you agree for your child to participate in this study, please sign the consent form and return it to me by Friday, August 3rd.
Please fill out and return this page to Mrs. George by Friday, August 3rd

University of Hawai‘i
Parental or Guardian's Consent for Child to Participate in Research Project:
Place-Based Learning and a Teachers Attitude Towards Teaching

I understand that, in order to participate in this project, my child must also agree to participate. I understand that my child and/or I can change our minds about participating, at any time, by notifying the researcher (Mrs. George) to end participation in this project.

I give permission for my child to participate in the research project entitled, Place-Based Learning and a Teachers Attitude Towards Teaching.

____ Yes, my child may be videotaped and/or recorded for the period of the research.

____ No, my child MAY NOT be videotaped and/or recorded for the period of the research.

Name of Child (Print): ___________________________________________________
Name of Parent/Guardian (Print): _________________________________________

Parent's/Guardian's Signature: __________________________________ Date: __________________

The following is a script that I will read to your child that explains his/her participation in the project. In order to participate in the project, your child will need to agree to participate and I will also need to obtain his/her consent regarding the project.

Just like you I am also going to school. One of my assignments is to work on a research project that will help me become a better teacher and hopefully teach you something new at the same time. My project is on something called, “place-based learning” which involve lessons that may take us out into the environment and the community. My purpose is to find out if “place-based learning” is an effective method for elementary school children to take part in. I plan to do different activities that I hope you will enjoy. For example, we may test the quality of water that you are drinking at school. We may also have experts from the community come to our classroom to share with us their knowledge about some of the issues that we would like as a class to investigate. I would like to video tape or audio tape the lessons and may want to use your assignments, journals and work samples to help me in my research however I will never use your real name and all your work will be strictly confidential. Your participation in the project is voluntary and in no way will your grade be affected by participating. Thank you for listening. Any questions? Based on your choice to participate or not, can you select/mark one of the choices below. Please date and sign your name in the appropriate spaces once you mark your choice.

_______ Yes, I would like to participate in the project and understand that I may be video/audiotape during the project and that my assignments may be used as part of the research.

_______ No, I do not want to participate in the project and understand that I will not be video/audiotape during the project and that my assignments will not be used as part of the research.

Student’s Name ___________________________________________________________
Student’s Signature __________________________________ Date __________________

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Appendix C: IRB Approval

November 7, 2011

TO: Stacy George
Principal Investigator
College of Education, Curriculum Studies

FROM: Nancy R. King
Director

Re: CHS #19664- “The Effect of Place-Based Learning on Student’s Attitudes Towards School”

This letter is your record of CHS approval of this study as exempt.

On November 7, 2011, the University of Hawai‘i (UH) Committee on Human Studies (CHS) approved this study as exempt from federal regulations pertaining to the protection of human research participants. The authority for the exemption applicable to your study is documented in the Code of Federal Regulations at 45 CRF 46 (1).

Exempt studies are subject to the ethical principles articulated in The Belmont Report, found at http://www.hawaii.edu/irb/html/manual/appendices/A/belmont.html

Exempt studies do not require regular continuing review by the Committee on Human Studies. However, if you propose to modify your study, you must receive approval from CHS prior to implementing any changes. You can submit your proposed changes via email at uhirb@hawaii.edu. (The subject line should read: Exempt Study Modification.) CHS may review the exempt status at that time and request an application for approval as non-exempt research.

In order to protect the confidentiality of research participants, we encourage you to destroy private information which can be linked to the identities of individuals as soon as it is reasonable to do so. Signed consent forms, as applicable to your study, should be maintained for at least the duration of your project.

This approval does not expire. However, please notify CHS when your study is complete. Upon notification, we will close our files pertaining to your study.

If you have any questions relating to the protection of human research participants, please contact CHS at 956-5007 or uhirb@hawaii.edu. We wish you success in carrying out your research project.
November 29, 2011

Ms. Stacy George

Dear Ms. George:

As the Department’s Systems Accountability Office, in compliance with Policy 2500 (see attachment), reviews all research study requests, we have reviewed the following required information and determined that you do not need to submit an Application to Conduct Research in Hawaii Public School packet for your study.

Committee on Human Studies: #19664

Title of Study: “The Effect of Place-Based Learning on Students’ Attitude Towards School”

General description of the study: To gain an understanding of students’ views for values, culture, knowledge and environmental issues of their local community and investigate the effects this has on the way they feel about school.

School: Elementary School

In accordance with the Family Educational Rights and Privacy Act (FERPA), your study is approved with the following conditions:

- Participation by the school and students will be voluntary. Your activities will be conducted with the understanding and approval of your school principal. All volunteers may withdraw from the study at anytime if it is found to be too intrusive.

- Data collected from your student’s participation is contingent on obtaining written parental approval. Please submit the signed parental consent and student assent forms to your school for their records prior to study implementation.

- The study must not contain any person- or school-identifiable information.

- Data and results collected will be used to fulfill your University of Hawaii at Manoa class assignment.

AN AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY EMPLOYER
Access to data will be subject to federal and state privacy laws and regulations.

As the scope of the study is limited to one classroom, results should be interpreted with caution.

Findings and recommendations of your study will be presented to the administrator of your school at the completion of your study and prior to any printing or publishing.

Should your study expand beyond the approved classroom implementation, an Application to Conduct Research packet is to be submitted to the Systems Accountability Office for review and processing.

Should your study extend beyond one calendar year of approval, please submit an application for renewal prior to the expiration date accompanied by a current IRB approval letter.

Approval for future research studies is conditional upon submission of a completed report to the Systems Accountability Office.

Principal has given his approval for you to conduct your study within your classroom.

The Department appreciates your interest in conducting research within our public schools and we wish you success in this endeavor. Should you have any further questions, I may be reached at 735-8250. Thank you.

Sincerely,

Lori Nagakura
System Planning and Improvement Section (SPIS)

LN:dw

Attachment

c: Principal, Elementary School
Appendix E: Hawai‘i Department of Education Consent to Conduct Research
Data Governance Office (2013-2014)

OFFICE OF THE SUPERINTENDENT
August 22, 2013

Ms. Stacy George
[Address redacted]

Dear Ms. George:

I am pleased to approve your application for the research project “The Effect of Place Based Learning on Students and a Teachers’ Attitude towards School (Year 3)” (Study #201253209787), which seeks to:

* gain an understanding of the student’s views for the values, culture, content knowledge and environmental issues of their local community and
* investigate the effect that place-based learning has on the characteristics and attitudes of the learner and on teaching practices.

As described in your application, your study will be conducted in your fifth-grade classroom at [Redacted] Elementary School and will focus on the analysis of student data that you will collect in the course of implementing place-based learning lessons/curriculum as a part of regular classroom instruction. These lessons will be 60- to 90-minutes in length and will occur two to three times each week for a period of one academic year (school year 2013-2014).

I understand that all students enrolled in your class during school year 2013-2014 will receive the same instruction, curriculum, and lessons — including place-based learning — regardless of whether they participate in your study; however, for your study, you will use the data and student work produced by participating students (those whose parents have consented to their participation and who themselves have assented to participating in the study) as a result of their engagement in the following types of regular classroom activities:

* Place-based learning lessons/curriculum, which will be integrated within science, social studies, language arts, mathematics, art, and technology instruction.
* Observations of students’ attitudes toward the place-based learning lessons and their engagement in these lessons, which you will conduct in your role as the classroom teacher.
* Group work.
* Hands-on activities.

AN AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY EMPLOYER
Appendix F: Cultural Historical Activity Theory Analysis (Video 1 – 2011)
Appendix F: Cultural Historical Activity Theory Analysis (continued)
Teacher - objective
not accomplished  students listen
teacher talks not interactive
despite teach tools of enouraging
team work - actual
not team.
Student

- Learner not engaged. "yawn" lecture despite anticipation. Want to do

- not allowed to start
- until teacher gives out
- lesson cannot
- have time frame - too long
- students disengaged.

Teacher Outcome: learner in the classroom set up talk together raped in groups but lecture doesn't

- Students in class allow it not listening, talking to others

Student Outcome: had complete the assignment during some lessons did not make sense.
## Appendix G: Coding Matrix

<table>
<thead>
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<th>Y1</th>
<th>Y2</th>
<th>Y3</th>
<th>Total</th>
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<td>6</td>
<td></td>
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<tr>
<td>tries to make connections of lesson</td>
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<td>1</td>
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<tr>
<td>focus in teaching as opposed to learning</td>
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<td></td>
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<tr>
<td>commitment to class</td>
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<td>1</td>
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</tr>
<tr>
<td>teacher validates students responses</td>
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<td>teacher uses a book to teach</td>
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<td>recognizes value in students voice</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>expectations are unclear</td>
<td></td>
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</tr>
<tr>
<td>self centered teaching</td>
<td></td>
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</tr>
<tr>
<td>lack of preparation</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>purpose unclear of lesson</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>teacher roams room interactive</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>classroom management maintains itself</td>
<td>11</td>
<td>11</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>
Appendix H: Descriptive Coding

2013-2014 Teacher reflective journal - Descriptive coding

red: description
blue: notes/thoughts

Source 1 (3/6/14)
1. Teacher transference – reteaching the lesson again
2. If people find it valuable, they will do it the following year

Source 2 (No Time) 3.2.14
1. Where do I find the time to do lessons that plan around the students’ place?
2. Where do I find the time to do this because I know it is important?
   Conflict in what needs to be taught and what is felt as important. Curriculum and beliefs conflict
3. I’m at wits end finding how to balance my beliefs and what I need to teach and what I want to teach. This needs to be thought through a bit more. Frustrating
   Time constraints

Source 3 (DOE Frustration) 1.20.14
1. why do teachers have to be evaluated?
2. Baffles me is when our scores are down it is the teachers that are at fault
3. I don’t mind being observed and rated for my teaching. If it is going to improve my teaching, then that would be great
   Does not understand the purpose of evaluation
4. We have to prepare so many other things to show how effective we are.
5. Doesn’t make me a better teacher.
   Not vested in evaluation system
6. Taking teachers away from their planning and their normal routine of teaching to input data that proves we are great teachers - time
7. Takes away time spent on planning to do other things. So really we become ineffective teachers because we have other responsibilities to tend to.
   Evaluation does not prove effective teaching
8. Baffles me is cc is embraced by so many teachers however, there is very little workshop in which we can help teacher become better at understanding the CCSS when all the focus of workshops in other things such as Danielson training or SLO’s or tripod surveys.
9. Band aid effect
## Appendix I: Second Iteration - Code Mapping

<table>
<thead>
<tr>
<th>Source</th>
<th>Date</th>
<th>Teacher Beliefs</th>
<th>teacher transformation</th>
<th>Clarity in Teacher Practice</th>
<th>Seeking to improve practice/how students learn</th>
<th>Teacher expectations</th>
<th>confidence in practice</th>
<th>Personal Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.1</td>
<td>2.15.12</td>
<td>the community walk was interesting. For starters the kids were really excited about it. They anticipated the field trip. (student excited - outcome) Community</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>15.2</td>
<td></td>
<td>I also wanted to allow them some time to walk around the managers mansion one particular goal from this first walk was to inspire (encouraging exploration on own - providing independence)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.3</td>
<td></td>
<td>In truth, I really didn't know where this was headed. I didn't quite know what to expect from the field trip and I was hoping that the experience would open up the students to question and look at their community differently. (lessons evolve flexible expectations change) rules change</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>15.4</td>
<td></td>
<td>I also wanted there to be able to want to find out more. Will this drive the students to be curious? Would it be a field trip that will lead to something more? (Looking for feedback from students to drive lesson) Teacher - student centered</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>15.5</td>
<td></td>
<td>This was really my first place band activity. It was based in their community and I felt that many of them were so unaware of where they came from. （recognize student’s gap: observable outcome）</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>15.6</td>
<td></td>
<td>What could walking this town do? Questions what lesson is doing reflective practices （Outcome）</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
Appendix J Second Coding – Longitudinal Coding

### 2011-2012 Longitudinal Qualitative Data Summary Matrix

2011-2012 1B  
From 2/12 – 4/12  
4/12/12 community walk  4/13/12 community walk  4/19/12 after walk

<table>
<thead>
<tr>
<th>Descriptive categories</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Increase and Emerge</strong></td>
<td></td>
</tr>
<tr>
<td>Summary observations that answer</td>
<td></td>
</tr>
<tr>
<td><em>What increases or emerges through time?</em></td>
<td></td>
</tr>
<tr>
<td>Documents change that occurs in smooth and average trajectories</td>
<td></td>
</tr>
<tr>
<td>Teacher expectation of student behavior is to listen</td>
<td></td>
</tr>
<tr>
<td>Inconsistencies in expectations,</td>
<td></td>
</tr>
<tr>
<td>Hierarchy between students and teachers are top down</td>
<td></td>
</tr>
<tr>
<td>Teacher expectations on behavior</td>
<td></td>
</tr>
<tr>
<td>Rules for behavior</td>
<td></td>
</tr>
<tr>
<td>Student engagement</td>
<td></td>
</tr>
<tr>
<td>Students initiate lessons in learning wanting to learn more about the mansion to fix community</td>
<td></td>
</tr>
<tr>
<td>Students helping others</td>
<td></td>
</tr>
<tr>
<td>Teacher allowing students to be active part of the discussion – writing on board ideas.</td>
<td></td>
</tr>
<tr>
<td><strong>Cumulative</strong></td>
<td></td>
</tr>
<tr>
<td><em>What is cumulative through time?</em></td>
<td></td>
</tr>
<tr>
<td>Cumulative affects result from successive experiences across a span of time.</td>
<td></td>
</tr>
<tr>
<td>Students are curious and engage in their own curiosity. Want to know more</td>
<td></td>
</tr>
<tr>
<td>Mystery of the mansion wants students to learn more.</td>
<td></td>
</tr>
<tr>
<td><strong>Surges, Epiphanies, and turning points</strong></td>
<td></td>
</tr>
<tr>
<td><em>What kind of surges, epiphanies, or turning points occur through time?</em></td>
<td></td>
</tr>
<tr>
<td>From experiences of sufficient magnitude alters the perceptions and life course of participant</td>
<td></td>
</tr>
<tr>
<td>Teacher is self-absorbed in her own lessons</td>
<td></td>
</tr>
<tr>
<td>Management</td>
<td></td>
</tr>
<tr>
<td>Management for safety of the students “the mansion is old and I don’t trust the structure”</td>
<td></td>
</tr>
<tr>
<td>Purpose in rules change</td>
<td></td>
</tr>
<tr>
<td>Meaningful understanding of situation allows students to want to make change happen</td>
<td></td>
</tr>
<tr>
<td>Teacher doesn’t know the answer so allows students to take active role in guiding lesson</td>
<td></td>
</tr>
<tr>
<td><strong>Decrease and Cease</strong></td>
<td></td>
</tr>
<tr>
<td>What decreases or ceases over time? e.g. Decline in workplace morale when a new administrator is hired.</td>
<td></td>
</tr>
<tr>
<td>Students attention to teachers</td>
<td></td>
</tr>
<tr>
<td>Teacher less uptight about behaviors, less scolding – allows students to explore more</td>
<td></td>
</tr>
<tr>
<td>Teacher focuses less on classroom management, but on lesson</td>
<td></td>
</tr>
<tr>
<td><strong>Constant and consistent</strong></td>
<td></td>
</tr>
<tr>
<td>What remains constant or consistent through time?</td>
<td></td>
</tr>
<tr>
<td>Recurring and regulated features of everyday life. e.g. Daily operations in a restaurant.</td>
<td></td>
</tr>
<tr>
<td>Teacher teaching while students listening – lecture style</td>
<td></td>
</tr>
<tr>
<td>Teacher teaching students listening lecture style teaching</td>
<td></td>
</tr>
<tr>
<td>Attention getter routine</td>
<td></td>
</tr>
<tr>
<td><strong>Idiosyncratic</strong></td>
<td></td>
</tr>
<tr>
<td>What is idiosyncratic through time?</td>
<td></td>
</tr>
<tr>
<td>Inconsistent shifting and multidirectional actions unpredictable. e.g. Alternative wardrobe</td>
<td></td>
</tr>
<tr>
<td>Students engaged when interactively doing</td>
<td></td>
</tr>
<tr>
<td>Students initiate attention getter. Students empowered to take charge</td>
<td></td>
</tr>
<tr>
<td>Mystery of not knowing students are engaged</td>
<td></td>
</tr>
<tr>
<td>Outside learning rather than lecture style</td>
<td></td>
</tr>
</tbody>
</table>
What is missing through time? What is missing or absent that would influence and affect participants. e.g. Lack of knowledge

Lack of direction for students. No instruction so students “talk story” at lag time

Teacher and students vested interest in what they are teaching or learning

Lack of interest and boredom in content

Learning outside of the classroom

Teacher scolding or lecturing students about behavior

Missing

Differences from previous data summaries (differences inferred and interpreted):

• students are initiating learning and teacher allows it.
• Less discipline problems, teacher less focused on behaviors

Contextual/Intervening conditions influencing affecting changes (think how much, how, in what ways, and why the descriptive observations and noted differences may be present. Contextual conditions –social life’s routine activities and daily matters such as attending school, work, etc. also refers to the “givens” of one’s social identity or personal matters such as gender, ethnicity and habits. Intervening conditions refer to the events, or matters that can play more substantive and significant role in activating change such as hostile work environment, the enactment of new laws, etc. What can be contextual for some may be intervening for others. e.g. Hostile work environment may be a given for some, or may be a deteriorating self-esteem for others:

• Rules of the school – teacher believing quiet means control of classroom
• Rules are still there – teacher believes rules are now for safety rather than control.
• Rules exist, yet how the teacher understands the rules are different. Control is not a part of the subset of rules within the classroom for the activity.

Interrelationships (observations and interpretations of direct connection or influences and affect between matrix items – cause and effect. e.g. Increase may correlate to decrease. It is a testimony that social life is interconnected but evidence need to support any assertions of interrelationship:

• lack of clear directions and increase in good student behavior
• Teachers self-absorbed in lessons affect students’ engagement in activity.
• Change in place of lessons changes the dynamics of the classroom. Students are interested in lesson and teacher is interested in students learning. Excitement of the students provide teacher with different strategies to teach

Changes that oppose harmonize with human development (the particulars of the case compared to previous studies and lit reviews in related areas. e.g. Does the case life course seem to follow what might be generalized developmental trends or does it suggest alternative pathways?

• teacher expectations and student engagement. What teachers expect from the students carried out
• alternative pathways in which rules are for guiding students’ safety rather than control. Field trips are broad and seem to be a bigger place for control, but less control is exerted.

Participant conceptual rhythms (patterns periodicities of action, such as phases, stages, cycles and other time based constructs.:

• stages? Stage 1 control of the classroom using classroom management
• Stage 2 classroom management is not control but for safety and clarity

Preliminary assertions as data analysis (statements that bullet point the various observations about the participants or phenomenon based on the analysis. Large critical space in the matrix for the researcher to reflect on the data and their synthesis. Analytic memos written elsewhere are necessary but the matrix it where salient observations are summarized and listed.):

• Teacher discipline a focus
• Classroom management focus of lesson, not much thought to learning goals of the lesson. What are students a supposed to accomplish?
• Classroom management not consistent in an outdoor experience. Focus of management viewed as student centered as opposed to teacher centered. Why?
• When teachers are unsure of the outcome, students guide the lessons. e.g. Teacher asks students what problems they saw – management comes in the form of how teacher allows students to explore the problems.

The through-line: (key assertion. Central or core category though it is not necessarily the ultimate analytic goal. Generally, a thematic statement that captures the totality of the change process in the participant.)

• Classroom management and expectations a big part of classroom.
• Outdoor environment less need for control in behavior. Classroom is enclosed and is safe, but more control issued.
• An unscripted lesson allows teacher not to be the expert, but getting students to guide the lesson.
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