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Teacher Experiences With Credit-Related Finance Education

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COLLEGE OF EDUCATION

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MAEd, University of Phoenix, 2005

BA, University of Hawaii, 1987

Doctoral Study Submitted in Partial Fulfillment

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Abstract

Recent financial problems have highlighted the portion of financial literacy classes related to credit and spending. The recent bursting of the real estate asset bubble and the ongoing economic crisis framed the research question for this study regarding the experiences of social studies and business teachers in teaching coursework in credit-related finance management. The purpose of this study was to understand teacher experiences in the classroom that involved teaching financial information related to consumer credit. The study was based on the theoretical foundations of constructivism and a synthesis of related economic and educational thought. A qualitative, constructivist, and interpretive case study was conducted using interviews with and observations of 6 business and 3 economics teachers. The results were horizontalized and then inductively grouped by phenomenological reduction into domains. Analysis showed that business and economics teachers were faithful in incorporating topics related to consumer credit-related finance education at, or greater than, the level outlined by state standards. The best methods recommended by research were prevalent in the instructional strategies. Teachers stressed the importance of literacy and numeracy. The infusion of economics in early grade levels had little effect on student performance. Participants felt that more finance education in high school was needed, either as a stand-alone course or integrated more efficiently into the curriculum. Implications for positive social change include evaluating financial curriculum components to improve instructional practices by being a part of the curriculum review process and helping administrators and teachers address poverty by improving students' financial skills.

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Section 1: Introduction to the Study

Wealth and property ownership in Hawaii, as elsewhere in the nation, are associated with social status and success. Both have always been at the heart of the American Dream. Key to achieving that dream in contemporary society is a mastery of finance and credit skills. However, on a broad scale, public financial education has not fully supported the development of such skills (Lucey & Giannangelo, 2006). The recent financial crisis has underscored the importance of understanding finance education as it relates to credit. More than a third of Americans demonstrate little or no literacy concerning finances, and the average American has no savings and overspends on a monthly basis (Jennings, 2009). Most training in this area is currently done by parents, and it is inadequate (Jennings, 2009). Any factors related to the current financial crisis are of great interest to society (Nickols et al., 2009), including financial education. There are many urgent reasons to examine the credit education issue. Financial literacy may be linked to the financial crisis but financial literacy was often ill defined and difficult to measure (Huston, 2010). Targeting the credit or borrowing parts of financial education addresses the source of the problem suggested by the financial crisis. When the housing bubble burst, the real estate purchases that drove it had drawn in great numbers of people. The subprime mortgages—which pushed the system over the brink—had been resorted to because of imperfect credit scores (Lewis, 2009). Ethics were also involved in the crisis and could have been addressed by social studies curriculum if covered in finance classes (Fox & Grams, 2007; Niederjohn, Nygard, & Wood, 2009). Hawaii suffered greatly during the initial housing crisis, as Hawaii has the highest median costs for buying or renting homes of any state (U.S. Census, 2009).

There is little information about credit-related finance education in secondary school classes on the island of Maui. By examining the experiences of teachers on Maui with that aspect of finance education as well as related archival materials, I considered all relevant data in this case study.

Understanding the nature of teacher experiences with finance education related to credit provided insight into how the skills needed to build wealth and assets through spending are addressed. The experiences of social studies teachers in economics were relevant, as economics is the core discipline within social studies that includes relevant benchmarks in the state standards (Hawaii, 2006). Business teacher experiences were also relevant, as business elective courses address credit issues. Teacher interviews were used in the study to triangulate teacher experiences in combination with the standards and observations. Pacing guides, originally intended for inclusion as data, were not used.

Evaluating and understanding the issues involved considering the school culture as well as teacher experiences related to leadership and professional interaction. In this study, I aimed to investigate a vision of the essence of teacher experiences in credit-related finance education through examining teacher perceptions and school practices. Detailed discussions of the issues introduced here are included in the literature review in Section 2.

Problem Statement

There has been a lack of understanding about the experiences of social studies (economics) and business teachers regarding teaching financial education in Maui's secondary schools. Finance education related to credit in Hawaii's public schools has not been looked at from the teachers' perspectives. The Hawaii state standards for economics and business address credit-related finance education at the secondary level (Hawaii, 2006, 2009). With a large emphasis on high-stakes testing performance in schools, credit-related finance education may have had limited priority in practice. The earning and maintaining of credit on which the purchase of a home or business depends—as well as the potential pitfalls and dangers of such binding transactions—is one of the most important financial concerns most citizens encounter. Inadequate finance education is a national problem (Lucey & Giannangelo, 2006; Jump$tart Coalition, 2008).

Nature of the Study

The research paradigm for this study was as follows: Graduates of high schools are expected to understand the fundamentals of finance related to credit, which are based on an understanding of economics. Finance related to credit may not be an educational priority at present, partly due to high-stakes testing and its focus on the most basic employee skills that employers want: reading and mathematics. Achievement in reading and math coincides with the desires of American businesses, which desire a pool of available labor with the requisite skills for economic competitiveness. Human resource departments have a great need for workers who know reading and math (Torraco, 2007).

The No Child Left Behind (2002) initiatives that seek to promote the emphasis on reading and math are market-driven (Hursh, 2007). The expectation that graduates of high schools should understand the fundamentals of personal finance within an economic framework is also market-driven. A justification for teaching credit skills that reconciles these two objectives potentially stems from financial literacy's perceived direct relevance to students, which can boost mathematics achievement (Brookhart, Walsh, & Zientarski, 2006). From the standpoint of social justice and empowerment, inclusion of credit skills may help offset the trends of social wealth polarization that have recently become more pronounced in this economic era (the rich have gotten richer while the poor and middle classes have lost overall equity; Kotz, 2008). Other countries have seen similar trends from market-driven policies (Massey, Sanchez, & Behrman, 2006). One intervention that the Hawaii teaching community may implement is an increased investment in finance education. I sought to understand the essence of finance education in the life-world of teachers. The understanding of the essence of finance education in the life-world of teachers included evaluating the teachers' experiences in professional learning communities and the professional development of those teachers. The data collection questions were based on that frame of inquiry. Each initial question was explored with extensive follow-up questioning. Archival data—including pacing guides and the Hawaii Content and Performance Standards—were also intended for analysis, but pacing guides were unavailable. These data, through triangulation, clarified the essence of finance education in economics and business as it is currently experienced by teachers in the state of Hawaii.

Research Objectives

Understanding social studies and business teacher experiences regarding financial education was the objective of this study. That objective is of interest because graduates of high schools are expected to understand the fundamentals of finance related to credit, which are based on economics. The research objective was explored in depth and emergent themes pursued through a series of data collection questions, open forum conversations, and a review of standards and observations reflecting experiences in finance education. The major themes were curriculum focus and instruction. The research objectives were as follows:

- How much credit-related finance education is there?
- What forms does instruction take?
- Is there an ethics component?
- What do null results signify when there is no credit-related finance education occurring?
- What should be done differently, if anything?

The responses of the participating social studies teachers and business teachers were compared for any emergent patterns. Other important data were drawn from the standards and observations, but not pacing guides. Data aspects such as information about pressure from standardized testing, weaknesses concerning finance education, and other aspects of interest emerged from the data and helped create additional questions and approach the essence of teacher experiences. More detailed discussions of the nature of the study, research paradigm, and research objectives are presented in Section 3.

Purpose

The purpose of this case study research was to gain an understanding of social studies and business teacher experiences regarding credit-related financial education. Credit-related finance education is defined as a secondary school curriculum that includes credit, land ownership, and spending skills, as defined by Huston (2010) and as outlined by Wilhelm and Chao (2005). Credit-related finance education was selected to be analyzed because it has a definition that is clear and is the area of finance education in which errors by the consumer result in lingering negative effects. Other finance education studies have been clouded by the hazy nature of the term *financial literacy* (Huston, 2010; Yates & Ward, 2011).

Instruction in credit, and when to use it, is currently done in economics and business classes; this practice called for an analysis of those teachers' experiences. Teacher interviews provided a basis for exploring emergent themes and types of experience. This study concerned a local bounded system within a defined area of a subject, and therefore met the criteria for a case study as outlined by Creswell (2007). I used phenomenological and grounded theory elements to qualitatively analyze teacher experiences in an inductive, constructivist design. That design allowed for emergent considerations to develop in response to the feedback from participants. The guiding theoretical perspective was to glean the essence of how teachers experienced the teaching of credit-related finance education skills. The study was undertaken in the context of the current economic reality. Archival materials including standards and pacing guides were to be analyzed to understand the state and school focus upon credit-related finance education, but pacing guides were not used because they were unreliable. Relevant and practical understanding was attained about teacher experiences as I identified themes of study from archived data and simultaneously identified themes of study from present day curriculum.

Conceptual Framework

The need for credit and finance education is acknowledged for college students (Jennings, 2007), but there may be a weak emphasis on it in secondary schools. By looking at teacher perceptions of the importance of credit and finance in the secondary school curriculum in Hawaii, improvement can occur through reflection-in-action among professional educators as described by Schön (1983). This study is a blueprint for understanding teacher experiences with finance education and potentially meeting a curriculum need. The study results may clarify concerns about age-appropriate finance education covering credit, spending, and property skills in secondary schools. Similar patterns of secondary school curriculum development are recommended for developing work ethics (Fox & Grams, 2007; Niederjohn et al., 2009) and career counseling curricula, which may also be integrated or infused into the school curriculum beginning in middle school (Rivera & Schaefer, 2009), for similar developmental reasons. Seminal works in psychology and education provide the foundations for modern theories of teaching and shape curriculum design along these developmental guidelines. This study was based on the theories of constructivism and a synthesis of related economic and educational thought, as there is a large gap in the literature concerning credit-related finance education in Hawaii. The conceptual framework was that secondary students can acquire competence in the economics of credit and property ownership and its related challenges as preparation for life if instruction in this area is understood. Understanding instruction was enabled through the synthesis of teacher experiences.

Operational Definitions

Credit-related finance education is defined as a secondary school curriculum that includes credit, borrowing, land purchase, and spending skills. That is one of the major areas of finance education outlined by Huston (2010) and is reflected in economics instruction through choice, scarcity, and cost standards (Black, 2009; Hawaii, 2006).

Fee simple is a form of property title where the purchaser owns the deed permanently, compared to a lease hold in which ownership expires over time.

Horizontalization of data means that the many separate facts and data are given equal weight at the outset of a study in order to reduce researcher bias and enhance emergent design (Moustakas, 1994).

Life-world is the surrounding world of life. It is a phenomenology term coined by Husserl (1970), meaning the total sum of subjective phenomena that is real.

Native disenfranchisement is evident in Hawaii, as the Hawaiians who once controlled all the land and resources of the islands have been economically reduced. There is a significant socioeconomic achievement gap between Hawaii-born Whites and Hawaiians (Rothwell, 2010).

Pacing guides are tools that are produced on the school level. They are used to plan the pacing of instruction so that all grade-level standards are covered in the course of a school year.

Professional learning communities are groups of teachers who collaborate to improve instruction and curriculum by meeting to discuss important issues, as defined by Hord (2004). In Hawaii, pacing guides and other cooperative norms are sometimes established in these groups.

Standards are documents that guide what is taught in a state. The Hawaii Content and Performance Standards III (Hawaii, 2006) are the standards referred to in this document.

The Great Mahele is the historical division of lands under King Kamehameha III that permitted fee simple land ownership in Hawaii while simultaneously disenfranchising many native Hawaiians (Chinen, 2002). It is a land issue.

Assumptions

The interview data were assumed to be related through a lens of personal and professional experience, and taken as a whole the research aimed for a meaningful synthesis of teacher thought on their experiences. It was assumed that by approaching the essence of how teachers have taught and perceived finance education through their thoughts and recommendations, finance education could be understood.

Limitations

I teach social studies and have taught a property skills curriculum for 5 years. I believe in social empowerment and change, and I also have doubts concerning excessive focus on reading and mathematics to the exclusion of other subjects, and so I acknowledged the bias that these experiences and beliefs brought to the study. The study used data collection and observations from Maui high schools in the State of Hawaii.

That limited area of sampling reduced the applicability of the study to all other contexts. The teachers who were interviewed had many different professional experiences, which limited the predictability of the study's results.

Scope and Delimitations

The study encompassed the participants' professional experiences with finance education and their impressions and interpretations of it. It included only Maui high schools. Evidence also included standards, but not pacing guides, as archival materials that were used in data analysis, along with observations. As written in the standards, a finance curriculum is already in place as elements imbedded in the present social studies and business standards (Hawaii, 2006).

Significance of the Study

This research study provides important information about finance education. Hawaii high school students share a deficit of knowledge about credit-related financial literacy issues with other states. A 2004 survey jointly conducted by the Department of Education and the Hawaii Council for Economic Education found that 90% of high school students could not solve a basic borrowing problem (Black, 2006). The costs for buying or renting homes in Hawaii are the highest of all American states (U.S. Census, 2009), while homeownership rates are below any other state except California and the District of Columbia (U.S. Census, 2009). Hawaii has historical issues of land inequality and native disenfranchisement that also play a role in reducing economic equity, as explained in greater detail within the literature review section.

Credit knowledge deficits impact everyone in the population and play a role in marginalizing minorities and other disadvantaged consumers due to high median home costs. Finance education in the classroom can be boosted through performance assessments and the use of realistic classroom curricula that address math and economics issues. Current inattention to those concerns perpetuates generational poverty and limits the production of capital. This study ascertained the essence of credit-related finance education on Maui. There are multiple professional applications for this study. Findings from the study must be reported to the leadership of Maui school districts, I am required to attempt to publish findings in a scholarly journal, and I have to prepare and present a summary of the findings if possible at a professional conference that social studies and business teachers might attend. Responsible leadership demands that sense be made of the definition and role of curriculum standards, while nurturing authentic learning and cultural diversity by staying true to constructivist principles as suggested by Lambert et al. (2002). An understanding of the general state of finance and economics education today and the philosophies that are directing it is essential for understanding teacher experiences in order to provide for the aspirations of students.

Summary

Students may be graduating from public schools without enough training in credit, spending, and property skills. There was a lack of understanding about the experiences of teachers who teach credit-related financial education in Maui's secondary schools. This study asked the following question: What are the experiences of social studies and business teachers regarding teaching financial education? The purpose of this study was to gain an understanding of those experiences. To accomplish that, a qualitative, interpretive, and constructivist case study using interviews and archival data was conducted among teachers on Maui. The essence of the issue was explored through the constructivist paradigm. The qualitative case study included phenomenological and grounded theory study methods to encompass the subjectivity of economics within the life-world of teacher experience and generate recommendations. There were cultural reasons to conduct this study in Hawaii due to native disenfranchisement. Understanding finance education may contribute to positive social change.

In the literature review (Section 2) material relevant to finance education involving credit in Hawaii's curriculum is explored as broadly as possible to attempt to horizontalize and provide a basis for analysis. The research design is detailed and the choice of a case study explained. In the methodology section (Section 3), the research methods are outlined. The research framework is summarized, accounting for limitations and other factors. In the results section (Section 4), the data collection and analysis are described and the findings are explained and justified. In the conclusions section (Section 5), overall findings are interpreted along with overall recommendations, reflections, and conclusions.

Section 2: Literature Review

Introduction

Credit illiteracy is a problem in the United States. The finance and credit skills of high school students are unsatisfactory (Jumpstart, 2008). Poor credit scores contributed to the eventual bursting of the housing bubble and the subprime loan crisis (Lewis, 2009). Finance education deserves attention and ideally develops in a spiraling matrix that builds on prior knowledge and stimulates skill growth, as recommended by Bruner (1971). Research has shown that finance education courses should be offered in high school and even earlier at the middle school and elementary levels (Black, 2009; Castellani & DeVaney, 2001; Yates & Ward, 2011). On the other hand, these studies show little correlation between specific finance education courses and significant improvements in high school students' knowledge of financial literacy. This disconnect may be due to variations of definition and structure (Huston, 2010; Yates & Ward, 2011). In this study, teacher experiences and archival data provided significant insights in understanding credit-related finance education in Hawaii.

The purpose of this study was to gain an understanding of social studies and business teacher experiences regarding financial education. This section surveys literature relevant to credit-related finance education in the curriculum of the State of Hawaii, covering the subject itself, and extending into other subject areas that assist in the inquiry. Thoughts on the importance of studying credit issues are summarized. Reviews are included on credit issues, social equity and self-actualization, developmental stages and curriculum, instructional strategies, finance education in Hawaii, and methodology.

All related material is horizontalized (given equal credence and consideration) in the interests of accuracy, as recommended by Moustakas (1994).

There is a gap in the literature regarding credit literacy in secondary schools, thus the literature review approaches the topic of credit-related finance education in education and other relevant disciplines such as political science, economics, adult education, family and consumer sciences, and social work. The objective was to analyze essential aspects of credit education with educational best practices taken into consideration. Material was drawn from peer-reviewed journals in the Education Research Complete, Business Source Complete, ERIC, and SAGE databases, as well as from books. The keywords for the search were *finance*, *financial*, *education*, *economics*, *business*, *credit*, and *literacy*, which were used in many combinations. All relevant articles were included to the point of saturation.

The review was meant to set the issue of credit-related finance education within the local context of the curriculum as experienced by teachers. No aspect of the issue is given primacy over any other. Credit issues in the present are summarized because they frame the study and suggest the direct study of credit as an aspect within economics. Social equity and self-actualization are discussed. Developmental stages and curriculum concerns are presented followed by instructional strategies and credit-related finance education in Hawaii. Methodology is also summarized. The review covers the most relevant aspects in each of these areas as they are applicable to credit-related finance education. The specific research objectives for this study involve the following:

- How much credit-related finance education is there?

- What forms does instruction take?
- Is there an ethics component?
- What do null results signify when there is no credit-related finance education occurring?
- What should be done differently, if anything?

Pedagogy and practice in general are in abundance in the research literature and helped set general parameters for finance education. Previous research allowed for some consideration of ideal credit-related finance education. This review, when considered with the experiences of the study participants and archival data, helps explain and contextualize the essence of teacher experiences.

Credit issues

Hawaii has unique challenges for homeowners and renters. The median costs for buying or renting homes in Hawaii are extremely high, the highest of any state in the United States (U.S. Census, 2009). In 2009, a single family detached home had a median price of $569,000 in Hawaii (Honolulu Board of Realtors, 2009). The next most expensive state, California, had a median value of $304,520 in that same year (California Association of Realtors, 2009). Hawaii has a low homeownership rate of 59.5%, below any other state except California (57.0%) and the District of Columbia (44.9%) in the year 2009 (U.S. Census). Space is at a premium; in the year 2000 Hawaii had 188.6 persons per square mile, compared to the national average of 79.6 persons (Federal Statistics, 2009). Hawaii has a relatively high median household income of $64,193 (U.S. Census, 2009), but this income is offset by the costs of living such as gasoline, which are also the highest in the nation. Hawaii's ethnic makeup is markedly different than all other states because there is no ethnic majority (Hawaii, 2008), but economic inequity between ethnic groups is still an issue (Mayeda, Okamoto, & Mark, 2005). A study that calls for more ethics education cited the subprime mortgage crisis as primary evidence for that need (Niederjohn et al., 2009), while others cited the need for finance education due to the subprime crisis (Huston, 2010; Yates & Ward, 2011). The subprime crisis is important because the mortgage industry's subprime sector grew from $150 billion in 2000 to $650 billion in 2007 (Tashman, 2007). Subprime mortgages were a response to the orthodox financial procedures that had maintained financial inequality by denying credit to those with low credit ratings (Ashton, 2008), but these subprime loans set off a financial crisis. The financial crisis continues. An estimated 2 million children were directly impacted by the mortgage crisis as their families lost their homes due to foreclosures (Davis & Shin, 2009). Public recognition of the problem is growing.

Social Equity and Self-Actualization

Constructivism seeks to promote social equality through education. The achievement gap between Whites and minorities is a continuing concern (Lambert et al., 2002; Mayeda et al., 2005). Recurrent themes exist among the complex reasons for racial disparity in the educational system. National patterns of unfavorable outcomes for minority populations repeat themselves in Hawaii, where native born Hawaiians achieve outcomes below parity (Rothwell, 2010). There is a socioeconomic achievement gap between Hawaii-born Whites and Hawaiians in the islands (Rothwell, 2010). If an ethnic group does not sustain a culture of learning at home after children enter school, life opportunities may be delimited over generations. This problem is evident in the continental United States, where Black citizens encounter much greater difficulty in translating income, wealth, and education into residential quality than Hispanic or White populations (Woldoff & Ovadia, 2009). Discrimination exists that cannot be explained away through individualistic bias, the idea that individuals' actions completely shape their fate and therefore wealth is attained by the virtuous (Squires, 2007; Wilson, 2007).

Issues of self-determination, sovereignty, and racism are intertwined with property ownership, which makes an examination of the issue relevant and culturally responsive to the needs of indigenous youth (Castagno & Brayboy, 2008). In Hawaii, an indigenous disconnect with Western values has resulted in a social stratification along ethnic lines, with Hawaiians at the bottom in terms of financial equity (Mayeda et al., 2005). Over 40% of all homeowners will receive no education beyond high school (Ruffins, 2006), which suggests that students may need exposure to financial literacy skills in high school (Black, 2009; Yates & Ward, 2011). A large component of social studies in Hawaii deals with the experiences of Hawaiians and other groups with land issues, a topic that needed to be addressed sensitively.

Economic inequity has dramatic consequences. Children learn at an optimal rate when they are consistently challenged within the zone of proximal development (Vygotsky, 1978). Experiences and environment shape these opportunities. When a consistent exploitation of the zone of proximal development is not maintained, there is an increasing accumulation of knowledge deficits (Vygotsky, 1978). Current research confirms that there is a much greater return per dollar invested in early childhood education than in later education (Heckman, 2006). Culture and socioeconomic status contribute to an achievement gap for minorities that increases with time. Some environments retard growth, while others promote it during critical periods of a child's development (Bruner, 1983). The continental United States has significant segregation issues in both employment and housing based on race (Wilson, 2007). The greater the parents' wealth, the more opportunity they have to provide for their progeny during the early formative years; thus it is possible that if wealth is attained through finance skills the cycle of poverty can be broken through public education.

At present, there is significant inequity due to social class stratification in educational outcomes between rich and poor. Expectations of parents and self-concepts of students are linked to family socioeconomic status and influence student achievement (Eccles, Garrett, Neuenschwander, & Vida, 2007). Educational inequity is partially the result of differing levels of parental social capital, but the discrepancy can be corrected by activism (Ream & Palardy, 2008). Highly educated middle to high income citizens currently enjoy a massive advantage in dealing with the pitfalls of the "risk society" (Cooper, 2008), not to mention the additional difficulties experienced by minorities as described by Lucey and Giannangelo (2006). Schools' present focus on high stakes testing in reading and math is indicative of the current governmental interpretation of what is relevant, but may run counter to student actualization. The individualistic bias posits that that all citizens succeed or fail based on their own individual, voluntary decisions. In this schema, poor minorities are responsible for their own inequitable living conditions because they failed to self-actualize, but the underlying conditions of unequal opportunity are glossed over (Squires, 2007). If all citizens are not provided with finance skills, unequal opportunity exists for self-actualization.

Credit and homeownership may be linked to family-related long-term societal benefits, instead of the immediate fulfillment of desire or seeking of status. Banking research has identified the need to produce confident, informed consumers rather than uneducated adults due to the financial tensions between these two types of purchasers (Nayak & Beckett, 2008). The strength of a person's materialism is negatively associated with product satisfaction if that product (such as a home) has a strong status signaling effect (Wang & Wallendorf, 2006). In other words, satisfaction with owning a home is more likely when done for pragmatic rather than materialistic or status reasons. Visualization of homeownership is a critical factor for realizing it (Anderson, 1997). Academic optimism is also a critical factor in student achievement (Hoy, Tarter, & Hoy, 2006). Building finance literacy builds assets, and financial knowledge gained in high school and elsewhere results in greater rates of savings over a career (Bell & Lerman, 2005), but finance education can be difficult to measure or evaluate (Bell & Lerman, 2005; Lyons, Palmer, Jayaratne, & Scherpf, 2006). At present, marketing of credit to young citizens is a very sophisticated socialization pressure (Hayta, 2008; Pinto, Parente, & Mansfield, 2005). There may be limited commensurate response in curriculum to offset that trend.

Once students graduate from high school and begin college or their careers they are exposed to the dangers of compulsive buying and irrational credit card use (Norum, 2008). The accessibility of credit cards also has positive potential for earning credit and financially allowing the completion of a higher education program (Anderson, 2009). Inequitable credit contributes to inequitable housing opportunities. The information asymmetry between realtors and property buyers currently works against the average citizen (Levitt & Dubner, 2005; Mascarenhas, Kesavan, & Bernacchi, 2008). Inequitable housing has a role in marginalizing minorities and the poor (Squires, 2007), groups associated with high rates of mortgage default (Pederson & Delgadillo 2007). Inequitable housing creates deficient environments and causes chronic mobility (Auh, Cook, Crull, & Fletcher, 2006).

The mortgage relationship is integral to society. "Real estate involvement by ordinary citizens is predicated by the improvement of creditor-debtor relations and government intervention into freedom of contract, allowing mortgages and other instruments to emerge without the social stigma once attached to debtors" (Anderson, 2004, p. 351). Market-contracting has a deep influence on reducing repression in governments; a 49-61% reduction in state repression was found in nations that applied the practice between 1970 and 2000 (Mousseau & Mousseau, 2008, p. 340). Because contracts cannot be arranged unless all parties implicitly assert their self-interest in marketplace societies, in these societies individuals develop habits of respecting the choices of individuals and the equal rights of strangers. That restrains their governments from violating citizens' freedoms (Mousseau & Mousseau, 2008, p. 340).

Parents are currently the main credit trainers of young college-age students, being much more engaged and effective at present than schools or the media combined. More training from parents was associated with lower outstanding balances on credit cards

(Pinto, Parente, & Mansfield, 2005), which suggests a positive correlation between information given to students and their ability to maintain healthy credit, and also illustrates how society leaves most credit training up to the parents. There are many contributing factors that explain why schools may not cover finance education in depth. There is a diffuse focus in schools on relevant life skills beyond careers and basic purchasing. There are also many choices to be made when selecting teaching topics even within a clearly defined curriculum. A lack of educational focus on this issue results in an inadequate basic financial literacy in students, and helps sustain an economic disparity for minorities (Lucey & Giannangelo, 2006).

A new credit card law now in effect seeks to protect young consumers by requiring students under the age of 21 to prove payment of monthly bills on time, have a cosigner, or complete a financial literacy course (Anderson, 2009). Despite the hope of better corporate social responsibility and the dividends of stakeholder theory (Gonzalez-Padron & Nason, 2009; Laczniak & Murphy, 2006), credit marketers have demonstrated an inability to resist the lure of profit. Many students wind up leaving college with significant loads of revolving debt (Jennings, 2009), which sabotages their credit ratings.

Finance education skills are useful to consumers in a variety of settings, from homeownership to credit maintenance and housing issues. Providing these skills at a basic level is not an involved process as is the case with finance professionals or real estate brokers. Unskilled persons are regularly exploited by unscrupulous landlords and lenders (Lucey & Giannangelo, 2006) who can easily exploit buyer–seller information asymmetry unless the public becomes more educated (Mascarenhas, Kesavan, &

Bernacchi, 2008). Most citizens will encounter tenant issues, liens, and taxes, and many may be presented with the lure of adjustable rate loans, reverse mortgages, and other financial instruments that may lead to bankruptcy or foreclosures. Realtors master these issues in order to be licensed (Walls, 2001).

Considering these existing imbalances in opportunities, an understanding of teacher experiences with finance education may help educators meet the needs of Hawaii's racially diverse population. A finance education curriculum at the secondary level can treat these and related issues in an introductory form, just as Bruner (1983) suggested that any complex idea can be introduced early in a simplified format, empowering citizens to avoid being victimized.

Developmental Stages and Curriculum

In education, students should ideally learn skills at a time that is developmentally appropriate and supported by research theory. For a finance education curriculum, Piaget's ideas are evident in Hawaii's standards. Those classic ideas on development shaped progressive and constructivist views on education. Piaget theorized that students must first master concrete operations and procedures before progressing into the abstract (Piaget & Inhelder, 1969). Basic financial literacy should begin in elementary school (Lucey & Giannangelo, 2006). When students develop to the point of grasping absolutes and complex relationships in the abstract, then instruction can go beyond the concrete concepts and skills into more formal applications. The developmental stage that occurs around 12 years of age is one of turbulence and opportunity for learners. It is at this time that the learner is able to move beyond concrete operations and find reality and its situations transformable (Piaget & Inhelder, 1969). At the same time, this is when critical affective transformations begin as the individual is introduced into adult society. This is the commencement of a moral individualism that can express itself in values and relationships to things greater than oneself (Piaget & Inhelder 1969), where concepts become transferable from one context into another and propositions can be analyzed in hierarchical settings (Bruner, 1983).

Developmental teaching theory provides a rationale for selecting the appropriate age for finance and credit skill acquisition. It is not necessary to wait until high school for credit training to begin because any given curriculum can be taught at a more simplified level based on its complexity (Bruner, 1983). The earlier a concept is introduced in adolescence, the greater the opportunity for its development in a spiraling curriculum. This pacing is validated by similar finance development initiatives to implement career education (Rivera & Schaefer, 2008) and work ethics (Fox & Grams, 2007) during adolescence. It is too late to teach ethics in college, so ethics should be taught in social studies classrooms (Niiederjohn, Nygard, & Wood, 2009).

Psychological pacing for finance education follows similar lines. Middle school, where secondary education begins, is poised between the following two of Erikson's (1968) life phases: industry versus inferiority and identity versus role confusion. Finance skills are psychologically appropriate for children in either phase. The Industry phase deals with the development of the child into a functional, productive member of society. The Identity phase grapples with self-definition, as the child develops an idea how real success derives from excellence (Erikson, 1968). A business education model interprets students' self-concepts as indicative of their success. When students see themselves as customers of education, they have a greater tendency toward poor performance, while students who see themselves as *co-creators* with the instructor have a tendency towards better performance and empowerment (Halbesleben & Wheeler, 2009).

Adolescents who possess finance skills are empowered, as that knowledge is practical and therefore relevant (Bruner, 1971). Piaget (1977) saw operations as the coordination of actions, much like Bruner. Bruner modified Piaget's schema to decrease its rigidity, producing a slight change in developmental theory (Perkins, 1992), but overall the classic developmental sequence Piaget introduced still stands. Educators will ideally meet the finance education needs of their students by following age-appropriate pacing.

Teens are less and less dependent on their parents for economic socialization in the age of mass media and instant communication. Finance education can address important consumer issues such as compulsive buying and how to identify secure internet sites (Norum, 2008). Financial needs vary across socioeconomic groups. A case study in Canada showed that for lower income brackets, expenditures could usually be kept under control, but there was a lack of knowledge about institutional procedures and important financial and life goals (Buckland, 2010). Much effort been expended on marketing to children, which means that other socialization agents such as training from formal institutions are necessary to help children manage their consumption (Hayta, 2008). Marketing research underscores the hazards of buyer- seller information asymmetry, and concludes that it must be reduced by information being made available to consumers so that they can make informed decisions (Mascarenhas, Kesavan, & Bernacchi, 2008).

Instructional Strategies

How do teachers implement finance education? A mixture of instructional strategies and optimized procedures in the classroom is the best way to reach all learners (Volkema, 2009). Direct instruction can be combined with group work and constructive feedback to ensure mastery of material. Group work is currently touted as highly effective and engaging (Stevens & Slavin, 1995), but it has its share of pitfalls. Group dynamics of work avoidance manifest themselves in two major ways: in free riders, who produce less when the work of others will permit them to succeed, and in group members who are normally productive, but shut down when they see free rider effects in order to avoid being the student that does all the work. Emphasis on the protestant work ethic can counter this effect to a degree, but has little effect on free riders (Abele & Diehl, 2008). Lecture is useful as a tool when the students have enough background knowledge to make the direct instruction relevant (Schwartz & Bransford, 1998). Diversity in the delivery and development of concepts aids in keeping students interested and able to learn through the different strengths of Gardner's (1983) multiple intelligences.

Finance can be taught as a dynamic, unpredictable, and context-driven phenomenon that relies on wisdom. Wisdom can be more useful than intelligence, and is developed through aligning interpersonal relationships with others with the intrapersonal self-concept (Sternberg, Reznitskaya, & Jarvin, 2007). Group experiences and interactions develop values and assist knowledge retention (Marzano, 2003). Research has shown that humans have a strong, hardwired sense of moral grammar and sociability to their group (Monroe, Martin, & Ghosh, 2009), which can be used as a cornerstone for teaching financial ethics.

Finance is a social and cooperative venture, and group work can contribute to learning its concepts. The modern teacher is largely a facilitator according to the constructivist model. This encourages cooperative learning, which improves peer relations, self-esteem, and ultimately achievement. It contributes to the successful mainstreaming of students with disabilities to the benefit of all, and is particularly effective when administrators, students, and parents also work together (Stevens & Slavin, 1995). Peer mentor and teacher coaching assist students with making more elaborate explanations and achieving higher levels of cognition (Veenman, Denessen, van den Akker, & van der Rijt, 2005).

One of the key factors which can increase relevance in the classroom is the connection of curriculum to the outside world, as recommended by the National Council for Social Studies (Social Education, 2004). Making school learning connected to reality yields motivational dividends for students. Reality based learning in the form of early consumer education and exposure to real commercial artifacts and interests builds community connections by involving students in the financial milieu around their school. This pattern has proven to be a viable policy tool (Koliba, Campbell, & Shapiro, 2006). Students try harder and apply themselves more to learn practical skills due to the connection between motivation and perceptions of importance (Brookhart, Walsh, & Zientarski, 2006). Performance assessments and projects are another way to enhance verisimilitude and skill transferability from the classroom to the real world. By linking mastery and goal orientations, these teaching tools tap into several motivational sources at once (Durkin, 2003). Service learning is also an excellent pedagogical model for business, especially when paired with an institution of higher learning that creates a partnership with a high school (Litzky, Godshalk, & Walton-Bongers, 2009). In lesson plans, teachers may try to adapt standards to include more personal relevance for students. Performance assessments or projects are used to enhance verisimilitude, as where students are assigned a role as a journalist doing a report on a particular issue. Many performance assessments in economics involve students taking a reasoned stand on a controversial issue (Moon, 2002, p. 53).

Business instruction benefits from verisimilitude. Project-based learning is a highly recommended instructional technique for business and management courses. Within projects, the focus and scope can be tightly controlled and managed by the students in a realistic exercise that prepares them for organizational life (Volkema, 2009). A key feature of business is information literacy (Leigh & Gibbon, 2008). This dovetails with the extreme need for students to learn information discrimination in the face of sophisticated advertising and marketing (Hayta, 2008). In the state business standards language arts themes are included that highlight literacy and language use (Hawaii, 2009). Principals perceive business courses as primarily important for computer literacy, including keyboarding and word processing. They also valued it for critical thinking and human relations skill development (Railsback & Hite, 2008). Multiple technological literacies can be articulated in urban settings to promote the success of students after graduation. Computer literacies in particular can work around cultural barriers in low-income communities (Voithofer & Winterwood, 2009). Informational interviews used within business courses develop a form of literacy and are a rich way to promote soft skills such as interpersonal communication and the management of risk (Decarie, 2010). Education itself which has changed in the last decade significantly due to the blending of constructivism and new teacher research with the demands of high stakes testing. Stevens and Slavin's (1995) cooperative learning models have been largely adopted by mainstream educators in all areas, as well as the sum of current best practices.

Because mortgages are financial in nature and ability to purchase is determined by credit rating, one avenue of research is the determination of best practices for building lifelong credit. Economics standards exist that are indirectly credit-related in Grades 9, 10, 11. Direct credit related standards exist in Grade 12, as well as business pathway elective standards in finance in all high school grade levels (Hawaii, 2006, 2009). Real estate practicum outside the schools is a balance between economics and realty. The nuts and bolts of practical credit, finance, property, and basic human relations skills are recommended by realtors for those wishing to join their profession. When real estate brokers look at preparatory curriculum for real estate school, architecture and engineering knowledge is downplayed, while knowledge of business and psychology is strongly recommended (Wells & Williams, 1993). Recommendations also emphasize knowledge of environmental law, human relations, surveying and legal descriptions, taxes, civil rights law, market research, mortgages, sales techniques, ethics, selling and appraising, planning, and logic (Wells & Williams, 1993).

There are classes about property skills for adults who are not realtors (Ruffins, 2006), which can be used to help design instructional benchmark plans. Hawaii has many hot button real estate controversies that can be used in directly relevant lessons to link classic property rights concepts with a constructivist approach. In such reality-based lessons students first identify their own stance on contemporary issues and then examine community versus individual rights issues and related topics that have direct local relevance to them (L.A.N.D. Curriculum, 2002). Relevance has two important areas: relevance to society, where education addresses a vital need for our survival, and personal relevance, where a subject becomes meaningful, significant and real to the individual. Relevance is the primary criterion for a subject taught in school; if the subject does not have it, it ought not to be taught (Bruner, 1971). Credit and property skills are highly relevant in both areas. Based on developmental psychology and the rationale for modern socially responsive schools, these skills could be effectively brought forth and emphasized from the standards in which they are imbedded. It is possible that the standards may change in several years as Hawaii seeks to align with the practices of other states. Standards are adjusted as a matter of course to reflect high quality practices, as recommended by Pascopella (2004). Education is constantly revamped and reconsidered to improve student achievement. Priorities shift depending on the current theoretical outlook. As an initiative develops, issues are addressed within the existing frameworks until too many anomalies develop and the general plan needs to be changed into a new framework (Kuhn, 1970). Finance education is only one initiative out of many that schools are expected to provide.

Credit-Related Finance Education in Hawaii

The term *finance education* is somewhat vague (Huston, 2010; Yates & Ward, 2011), as most studies do not define it. Most studies break financial literacy down into categories, of which spending, borrowing, and credit skills tend to get placed together. Huston (2010) found that out of 71 studies, 72.0% did not define financial literacy and only 52% included borrowing concepts. There is some artificiality in these definitions because categories such as risk judgment have to do with credit decisions as well, but are placed into a different grouping. A holistic definition of credit and spending finance education is outlined by Wilhelm and Chiao (2005) that includes credit cards and credit rating, risk assessment, and mortgage issues in descending order of importance. There is strong evidence that most studies cannot draw a correlation between financial literacy courses in high school and financial literacy (Black, 2009; Huston, 2010; Yates & Ward, 2011). These same studies call for more finance education in high school. To more directly focus relevant inquiry, this study only addresses credit-related financial literacy, as that is the area of financial literacy closest to the heart of the current financial crisis.

In social studies there are few standards directly related to credit-related financial literacy, and these are in the economics strands (Hawaii, 2006). In business, the state standards reflect a focus on entrepreneurship and practical business-starting benchmarks. Only a limited percentage of high school students choose the business pathway, as other pathways exist (Hawaii, 2009). The focus for business standards is for the student to achieve success in business, rather than achieve personal financial literacy. Credit issues are in the curriculum, as an adjunct to understanding the status of a business regarding financial solvency through mortgages or credit (Hawaii 2009). The degree to which this oblique contribution to personal financial literacy extends is uncertain and will be ascertained by this study. The major practical skills emphasized at present are reading and mathematics. Practical curriculum has been predominant at times in the twentieth century, notably the 1940s and 1970s (Perkins, 1992). Finance education in Hawaii is a substitute rather than a complementary curriculum to reading and math (Burnett & Lacroix, 2003); however, linking the powerful motivational strengths of relevancy in economics (Brookhart, Walsh, & Zietarski, 2006) to math skills may boost achievement in math as well as economics.

Teacher preparation has not significantly changed in the last decade for economics, judging from the requirements for incoming teachers in the State of Hawaii. Social studies and business teachers undergo licensing by having passed the Praxis tests in their subject areas to prove qualifications. For both disciplines, economics issues are not highly emphasized, representing only 15% of the test questions for social studies (Praxis Social Studies, 2011) and 10% of business test questions (Praxis Business, 2011). Praxis preparation for economics was also weak in 2003 according to Burnett and LaCroix, who recommended that the curriculum requirements for economics be upgraded in anticipation of the expectations of the new No Child Left Behind law which at that time had an economics component. When the legislation was adopted by the state of Hawaii, the targets became reading and math, and no economics requirement remained in the tested equation for measuring adequate yearly progress (Hawaii, 2010). The most exposure students in Hawaii public schools had with economics was through an infusion curriculum where economics were imbedded within social studies classes. Elective courses in business finance were available but are not mandated (Burnett & LaCroix, 2003).

The availability of economics within the curriculum remains the same today (Hawaii, 2006, 2009), with the exception of a reduction in the number of competing standards in social studies. When the standards were revised in 2006, the number of concept strands was reduced, resulting in more educational time becoming available for individual strands (Hawaii, 2006). The main focus in the standards for social studies is invariably history (Hawaii, 2006), but this can have an economic components, blurring some boundaries, depending upon the standard. Business and social studies teacher requirements have likewise not changed significantly in the last decade, except for the new stringent requirements for Highly Qualified Teachers for each subject area as put forward in the NCLB law.

Property issues have significantly affected Hawaii in the past. In social studies classes, students are required to learn about important land ownership issues from the past. Only a century and a half ago, all land in Hawaii was owned by the king and administered through chiefs. All commoners had land rights and could move about the country at will as long as they worked productively and gave their share to their local chieftain. It was a feudal system (Chinen, 2002). Hawaiian social studies courses teach the transformation of this system to the current system which is similar but not identical to the one used in the rest of the United States. Under pressure from foreign governments and American missionaries eager to own land to their advantage, King Kamehameha III acceded and declared the Great *Mahele* (a Hawaiian word, meaning to divide or portion out). He doled out the land to himself, the chiefs, and the commoners, but many of the commoners did not receive land at all or lost their claims through legal ignorance (Kamakau, 1992). The *Mahele* act enabled private individuals to own land fee simple, meaning that the buyers owned the land in perpetuity and could transfer title, rather than lease the land for a limited time and then forfeit ownership (Chinen, 2002). The seventh and ninth grade Mahele standards in Hawaiian history include these concepts. To truly master the benchmarks for this standard, students need to know about the difference between lease hold and fee-simple titles, and conceptualize property rights. Without the protection of private property that came with the Mahele, real estate supply and demand, and markets, could not have been established (Chech & Marks, 1998).

Knowledge has little value unless connected to relevant reality, as noted by Perkins (1992). Tying the Mahele to functional finance concepts changes this. The issue is culturally responsive because Hawaiians are becoming more and more disenfranchised and displaced by the influx of immigration; the resistance to this "spiritual exile" is chronicled through primary sources of stories and oral tradition in the local community (Aikau, 2008). Hawaiian disenfranchisement began in the 1850s through a program of land sales that capitalized on ignorance of ignorance of property law (Chinen, 2002), and these problems continue in modified forms into the present day. Most economics standards in Hawaii concentrate on the economy in general and large trade issues such as supply and demand and markets. It is unclear how much credit-related finance instruction goes on outside of the 12th grade, which has two direct standards addressing it

(Hawaii, 2006). It is clear that financial socialization can be enhanced in school (Hayta, 2008). Lucey and Giannangelo (2006) recommend teaching cooperative finance and financial ethics. There is little concrete information at this time on the degree to which this is realized aside from Jump$tart surveys, which are themselves flawed (Yates & Ward, 2011). Constructivism allows for adjustment and adaptation within the educational system. Leadership as critical social and intellectual transformation is achieved through reciprocal, purposeful learning in community (Lambert et al., 2002). Teacher leadership plays an important role in the eventual form that instruction takes because individual teachers influence other teachers. Thus, the role that teacher leadership plays in departmental curriculum and other school events outside the classroom is relevant to understanding teacher experiences.

Relevant Qualitative Traditions

The qualitative tradition of inquiry upon which qualitative case studies are based began with phenomenology, and phenomenology has influenced other qualitative traditions as well (Sokolowski, 2000). Phenomenology is an inquiry style that began in its present form in the early 20th century with Edmund Husserl's *Logical Investigations* and was expanded upon by others (Sokolowski, 2000). In that concept, two Greek words *phainomenon* and *logos* are brought together to give an account of the way things appear. Hermeneutic phenomenologies, the most common type, are interpretive and descriptive (Hatch, 2002), dependent on language for validity and meaning. Faith-based assumptions of meaning that are not explained through language are unacceptable, even in religious phenomenologies (Barnes, 2001). The description, interpretation, and reflective or critical analysis of a phenomenology fit well within the preferred methods of human science research because they help the researcher understand the lived structure of meanings (Van Manen, 1990). Postpositivism is an influential perspective for research, comprising 46% of all educational studies (Alise & Teddlie, 2010), and while postpositivist approaches often suit case studies (Merriam, 1998; Yin 2009), the postpositivist paradigm does not provide for the acceptance of subjectivity that explorations of experiences and thought require. The Cartesian tradition contributes in education to a separation of the academic self from relationships with others, a separation between fact and value in higher education that is linked to neoliberalism (Lynch, 2010). The Cartesian, Lockean, and Hobbesian traditions that still dominate our culture (Sokolowski, 2000) suggest that all thought is individually relevant and is only internal in effect, essentially making it difficult to show that our connection to the world is not wholly subjective (Sokolowski, 2000). In a phenomenology or constructivist case study by contrast, the mind is seen as a relevant reflection of the public reality where everything that exists is an experience or consciousness of something. The philosophical foundations of qualitative case studies have subsumed the accepted philosophical underpinnings of Husserl's phenomenology, establishing it within the framework of accepted modern qualitative research. Hatch (2002) notes that there is no reason why a case study cannot be constructivist. This gives a constructivist case study validity and credibility.

In a pedagogical phenomenology, the research objectives themselves form the important starting points rather than a single established method, and are guided by pedagogical standards (Van Manen, 1990). This takes into account the crucial importance of context, as the study itself and its methods should be evaluated against these questions rather than a pre-existing, formulaic model. This still means that validity and reliability are crucial, so rather than developing a single phenomenological approach to cover all inquiries, each study should be considered in its unique context (Armour, Rivaux, & Bell, 2009; Van Manen 1990). Evidence for this variability of approach is seen in the slightly different descriptions and models of procedural approaches seen in the guidelines of influential methodologists such as Hatch (2002) and Creswell (2007) which are both valid and reasonable, but dissimilar.

To control researcher bias and the production of material tainted by preconceptions, Husserl (1970) originally introduced the concept of bracketing or epoché, which is Greek for abstain; a concept where the researcher strips away preconceived ideas to fully enter the life-world of the participants. The goal of phenomenologies to approach the essence of an issue through the process of phenomenological reduction to find what exists in reality through the mind’s eye of the participants. The recurring themes of the testimony are identified and grouped as they are found. Essentially the researcher interviews participants, collates their experiences, and creates a synthesis (Moustakas, 1994). In the course of a phenomenology, new perspectives and horizons continually appear which can add to the layers of complexity and the richness of the data (Conklin, 2007). Thick, rich data are a hallmark of good qualitative research (Creswell, 2003). The horizons are the culled or adjusted to remove excess aspects beyond the invariant basic themes that are at the heart of the experience as the sequence of the phenomenological inquiry progresses (Moustakas, 1994).

At the heart of phenomenologies are the interviews, which are the primary instruments of data in phenomenologies (Creswell, 2007) and interviews based on their unbiased methodology are of great benefit in other qualitative studies, such as this case study. Interviewers need to hear data and respond intuitively with follow up questions within the gist of the interview's focus to get better results, and there are many variables such as power relationships and the comfort level of the interview that contribute to the outcome (Kvale, 2006; Rubin & Rubin, 2005). Interviews are highly revealing for qualitative consumer research, which has been used extensively by marketers—90% of all qualitative research is devoted to understanding consumers (Kvale, 2006). The structure and content of a case study that uses interviews to explore finance education is supported by this cultural and academic precedent. There is ample data to support using case studies to gain quality data in many practical applications throughout the workplace and elsewhere (Conklin, 2007).

Qualitative case studies aim to understand about meaning in context through interviewing, observing, and analyzing data (Merriam, 1998). They are desirable when "why" or "how" questions are the object of analysis, when the investigator is not in a position to control events, and when the inquiry a contemporary real-life occurrence in context (Yin, 2009). The case study researcher takes on many roles, including biographer, advocate, teacher, and evaluator, in order to use constructivism for revealing reality in its context (Stake, 1995). As it is counterproductive to remove the personal experiences of interviewees from their evidence, the case study researcher must be prepared to take on these varied roles.

A methodological approach answers addresses how the inquirer should proceed to find out knowledge (Guba, 1990). Researchers should clearly outline the paradigm of their study and how it shaped their research, whether it is postpositivist, constructivist, pragmatist, or something else, rather than assume that the reader recognizes the paradigm from context. Postpositivist and constructivist articles are more likely to neglect this than other approaches because familiarity is assumed (Alise & Teddlie, 2010). Much of the finance literacy data comes from quantitative data such as tests and surveys such as those from the Jumpstart Coalition (2008), which shows the overall weakness of finance education among high school students nationally (Lucey & Giannangelo, 2006) and in Hawaii (Black, 2006).

The gap in the literature concerning credit-related finance education includes connections to teacher views, educational culture in general, and school work practices. There is similarity between reflection-in-action for professionals as described by Schön (1983) and the constructivist method of meeting the child's needs based on whatever method works for that child. Modern constructivism has a social empowerment agenda that dovetails appropriately with a financial literacy because of its emphasis on culture and equity (Walker, in Lambert et al., 2002). Qualitative consumer research is an industry standard for marketers because of its results (Kvale, 2009), making a qualitative approach within the constructivist paradigm a valid choice for a social research study addressing consumer education. Constructivists celebrate subjectivity and question reality as relativists (Guba, 1990), a requirement when dealing holistically with economic thought, where ideas vary from one individual to the next. Constructivism is a common paradigm in education, accounting for of 30% of studies, second only to postpositivism which accounts for 46% of studies (Alise & Teddlie, 2010).

The problem for this study has readily recognizable boundaries and unique local characteristics that set it apart from other inquiries, so a case study was appropriate (Hatch, 2002; Yin, 2009; Merriam, 1998; Creswell, 2007). Keeping the context limited within a small case strengthened the economic accuracy of the study (Massey, Sanchez, & Behrman, 2006), but limited somewhat any broad applicability of its findings. This was acceptable because the objective of a case study is to find the nature of the problem at hand rather than anything else (Stake, 1995). There was sufficient hard data to prove that the problem existed; what was needed was a methodology that addressed the sum of all the parts as a holistic analysis of the entire case as described by Yin (2009). This study needed to find out the essence of credit-related finance education and how far it extends, pressures that are acting upon its instruction, connections with ethics, and any school-related evidence that exists outside the classroom. Only two percent of educational studies are phenomenologies (Alise & Teddlie, 2010), again strengthening the choice of a case study approach over a phenomenological one. For teachers to perform optimally, a culturally responsive pedagogy that connects with the pupils is ideal. Developing cultural competence in one's own culture is a prerequisite for functioning in the mainstream culture of America (Ladson-Billings, 2009). Improving the financial abilities of Native Hawaiians and others serves the cause of social justice.

Addressing the unique economic cultural and historical situation here in Hawaii became more valid using the methodology of a constructivist case study.

Much of the uncertainty in previous studies on financial literacy hinged on the vagueness of the term and the general tests that measured it without adequate precision (Yates & Ward, 2011). To make the study as clear as possible, the main tenets of the paradigm were met by answering the lines of inquiry suggested by research. The research paradigm was as follows: graduates of high schools are expected to understand the fundamentals of finance related to credit, which are based on economics and are presented in social studies and business courses. The main axes of inquiry were as follows:

- Experiences with applications of credit-related finance education, and the extent that the teacher has experienced it.
- Perceptions of finance education in professional learning communities, professional development events, and other school experiences outside the classroom.
- Experiences with the instructional application of credit-related finance curriculum, and with teaching ethics.
- Null results, where credit-related finance education is not evident within the teacher's experience.

Conclusions

Public education is the only training that many students will receive for financial decisions that will commence early in their adult lives. These critical decisions include credit cards, student loans and other challenges. The educational system may or may not expend an appropriate amount of attention on these skills. In economics, major principles and aspects of macroeconomics are usually emphasized more than skills for individual financial use (Lucey & Giannangelo, 2006), while business courses focus on building a successful enterprise and only obliquely address credit (Hawaii, 2009).

Teacher experiences with credit-related finance education in social studies and business classes were not understood. The degree to which it is emphasized was of interest. If credit-related finance education is judged to be inadequately emphasized due to various issues, teacher experiences may have provided evidence for ways to reallocate school efforts. Significant finance education change may follow the classic pattern of paradigm change in scientific revolutions (Kuhn, 1970): if the orthodox model cannot deal with the realities of the market optimally, a new schema develops. Financial literacy helps American citizens build assets (Bell & Lerman, 2005). If it is situated in the proper context, holistic finance education may have the potential to introduce profound change. The tasks and roles of teachers added relevant data to the inquiry. Experiences with teacher leadership, professional learning communities, and professional development were of interest, as they reveal the culture of the schools.

In the methodology section that follows, the parameters and rationale for the case study are given. The protocols for protecting participants and achieving validity are also presented, along with data collection and analysis procedures.

Section 3: Methodology

Introduction

This chapter outlines the methodology that addressed teacher experience within the case study, allowing for the complexity of an issue that is varied, subjective, and bound by context and personal perception. The purpose of this study was to understand teacher experiences with credit-related finance education. The research question was: What are the experiences of social studies and business teachers regarding teaching financial education? The topic required a broad, multifaceted approach. Addressing this question meant learning about teachers' perceptions of finance education as lived experience, related archival evidence, the social context, and the teachers' views on school culture. Given the number of varied personal perspectives at work, open-ended questions and an emergent design were appropriate for a valid interpretation of the problem. For these reasons, a qualitative analysis was the proper avenue for this study (Creswell, 2003). There was no way to reduce the problem to an achievable design within the quantitative tradition and still attain broadly meaningful results.

The participants for the qualitative interviews were a total of nine teachers of social studies and business in Maui's high schools. Research was done through qualitative, open-ended questions asked through the medium of taped interviews administered by the researcher. Qualitative analyses were used to triangulate conclusions. Data were member checked and peer debriefed to promote validity as recommended by Creswell (2003), and the data were kept as evidence. Doing the study in Hawaii meant that the data are pertinent and valid for local use. A summary of this case study must be presented to educators and the Hawaii Department of Education as a conversation regarding the inclusion of finance, credit, and property skills, both in individual classes as an interpretation of existing standards and also as grist for revision, as indicated. Small group research was an appropriate avenue for qualitative inquiry because small groups are of increasing importance to economic sociology as new information technologies permit an ever-growing range of transactions to be conducted in the absence of face-to-face interaction (Harrington & Fine, 2006). Such action research allows participants to examine their thinking, expressing what they take for granted, and airing deeply held feelings and beliefs in a safe environment (Koliba & Lathrop, 2007). Context is critical for social change education work (Choules, 2007), and this research study addresses Hawaii's unique needs. Where applicable, the study can also assist young people elsewhere. The study's local applicability and its timeliness mean that it may produce real benefits for society.

Research Design

Of the major accepted qualitative traditions, only a case study or a phenomenological approach fit the characteristics and dynamic of the problem. A phenomenology was less appropriate for this study because phenomenologies only seek to capture the essence of a phenomenon and are limited to doing only that without formulating a response or correlating with other data to improve validity. The bounded nature of this case study, which is the summation of finance education as experienced by teachers on Maui, is limited, although the size and scope of the problem being examined is immense on a national scale. There are clearly identifiable unique instances or local boundaries to the problem, which is ideal for a case study (Creswell, 2003). Limiting boundaries strengthens the economic accuracy of a contextually limited study (Massey, Sanchez, & Behrman, 2006). The problem is of great interest beyond immediate local consumption, and even a case study has the potential to be useful for supporting broader social change. In this case study, the qualitative roots of interview analysis rely on methods established for phenomenology. Phenomenology seeks to capture the essence or structure of a phenomenon, including important human experiences and social events and how they interact (Merriam, 2002). A phenomenology asks about the nature of a phenomenon (Hatch, 2002). The 19th-century philosopher Hegel used phenomenology in an earlier form to bridge the gap between what is objective and what is subjective (Hegel, 2003). The modern phenomenological tradition began with Husserl (1970) when he devised functional methodologies by building on the shoulders intellectual giants, including Galileo, Kant, Descartes, and Locke, to study the life-world by allowing for duality and ensuring impartiality. Analysis depends on the use of words to construct meaning (Lambert et al., 2002). Assumptions that knowing can be above language are inadmissible, even in a religious phenomenology (Barnes, 2001). Ideas about economy, experiences, and education vary widely from one person to the next. Some accepted beliefs in the power of markets or other faith-based ideas about economics border on the magical or religious (Massey, Sanchez, & Behrman, 2006). In a constructivist study individual perceptions and world views are of interest (Hatch, 2002). Only by learning participants' personal schema and reflecting on the context of their experiences can shared inquiry be meaningful. Leadership for purposes and goals that are identified cooperatively can then be used to resolve those issues. Constructivist principles focus on the role of culture and the push for equity (Lambert et al., 2002). The objective was to use guided phenomenological reflection to understand teacher experiences with teaching finance education. The study suggests data for reflection in action as described by Schön (1983) along the lines of Baird's (1999) phenomenological study of science teachers, but instead in a case study context. To adequately enter each participant's unique mind set and look for input called for phenomenological epoché (bracketing) to avoid researcher bias (Husserl, 1970). Not everything was bracketed; instead bracketing was done in the areas that allowed the researcher to effectively enter the participant's life-world, as outlined by Ashworth (1999).

> "Two main categories of presuppositions should be bracketed: those to do with the temptation to impose on the investigation of the life-world claims emanating from objective science or other authoritative sources, and those to do with the imposition of criteria of validity arising outside the life-world itself" (Ashworth, 1999, p. 709).

The following three related processes in a phenomenology were directly appropriate for this study: phenomenological reduction, horizontalization, and imaginative variation.

Phenomenological reduction redirected the inquiry constantly to the problem at hand to explore its essence as recommended by Merriam (2002). Horizontalization, where the many disparate and eclectic facts and data are laid out at the beginning of the study as having equal weight, both offset researcher bias and strengthened the emergent design. Imaginative variation then synthesized disparate data, as outlined by Moustakas (1994).

Case studies are concerned with programs and people of interest due to both their uniqueness and sameness. The case must be an integrated system (Stake, 1995). For interpretive research, education is a process and school is an experience that is lived. Case studies seek to understand the participant perspective rather than the researcher perspective (Merriam, 1998). Case studies are iterative and linear, following a cycle of preparation, collection, analysis, and sharing (Yin, 2009). That criteria dovetails with the member checking protocols recommended by Creswell (2003). There must be multiple sources of data that are used in a case study to triangulate the answer to the inquiry (Yin, 2009). Experiences outside of the classroom, such as those in professional learning communities and in professional development, were taken into consideration. Because observation of financial education is difficult to achieve as it may not occur with great frequency, observation during interviews supplemented the data. The frequencies of credit-related finance lessons as well as other hard data were sought through archival materials. Pacing guides were requested from all participating teachers. Available data were compared and analyzed to find out the amount of credit-related finance education that is planned for on the school level. The Hawaii Content and Performance Standards III were also be used to chart the Department of Education's expectations for the topic and to see any related patterns or correlations with the interviews and pacing guides. Nine interviews were conducted to insure saturation. Each interview was 30-45 minutes long. The interviews were based on the following research question: What are the experiences of social studies and business teachers regarding teaching credit-related financial education? The data collection questions that were designed to answer that question were each explored by a free-form set of subsequent questions guided by the responses rather than a set agenda. Basic phenomenological methodology was used to generate synthesis. The responses of the business and social studies teachers were also compared for any emergent patterns. The question was predicated on the participants' experiences with teaching finance education.

Research Objectives

The research question was: What are the experiences of social studies and business teachers regarding teaching credit-related financial education? To answer this query, teachers' experiences were used along with archival data to complete a case study. The research objectives were as follows:

- How much credit-related finance education is there?
- What forms does instruction take?
- Is there an ethics component?
- What do null results signify when there is no credit-related finance education occurring?
- What should be done differently, if anything?

Finding out how much credit-related finance education exists was the initial objective. To avoid grappling with the ambiguous and often ill-defined nature of finance education as outlined by Huston (2010), experiences with credit-related finance education were the subject of this study using the parameters of spending and credit card (including land purchase) skills categorized by Wilhelm and Chiao (2005). Economics education exists at lower grade levels as an infusion curriculum imbedded in social studies (Burnett & LaCroix, 2003; Hawaii, 2006). It is directly addressed only in high school business and economics elective classes (Hawaii, 2006, 2009). The first order of analysis was to determine how much of it actually exists. The amount that exists was not expected to be extensive, as it appears in only a few select points of the business standards (Hawaii, 2009) and in 12th grade economics standards following the lower grades' infusion curriculum (Hawaii, 2006, 2009). Due to factors of teacher or school choices the actual amount of credit-related education was not known or understood. For the study, the following three guiding interview questions were linked to this objective:

- What are your experiences with teaching credit or spending skills?
- How much credit-related finance education do you get the chance to go over in a school year?
- To what extent does finance education or related concepts come up in your professional learning communities or other events?

The first question relates to experiences because they are at the heart of this study. This question was expected to provide data for other research objectives as well. It was front loaded to get the most information from the outset that was integral to understanding the essence of experiences with credit-related finance education. This question was expanded upon depending on the responses of the teacher in a free-form emergent pattern. The next two questions then ensured that the amount of credit-related finance education that exists was revealed, both in the classroom and in the school culture.

The form that instruction takes was of great interest because it defined the real experiences of the teacher. In addition to the amount of time that is spent, the method of approach used in the classroom revealed the actual form and character of the instructional experience. There are many recommendations from research on best practices for teaching finance, including projects (Volkema, 2010), interviews with businesspeople (Decarie, 2010), service learning (Litzky, Godshalk, & Walton-Bongers, 2010), and more. The actual current practices were not known, and when revealed they helped approach the essence of how credit-related finance education is being delivered in Hawaii. The research question tied directly to this objective was as follows: what instructional strategies have you found effective for teaching financial literacy? The question was meant to reveal the teacher's summation of best practices, which are of interest.

Research has identified a connection between ethics and credit education in considering the last financial crisis (Niederjohn, Scott, Nygard, & Wood, 2011). There is no evidence of ethics being emphasized in the Hawaii standards (2006), rather it is assumed as an underlying learning objective that cuts across all disciplines. The amount of ethics being taught as an adjunct to finance education was not known, and was directly pertinent to understanding the nature of teaching experiences. The research question tied directly to this objective was: is there any ethics component associated with the curriculum?

Null results, where credit-related finance education is not evident in the teacher's experience, were of interest. Because of the marginal nature of the credit-related subset of the business standards (Hawaii, 2009), it was possible that little to no coverage of the topic is occurring in some business classes, while coverage is much more likely in 12th grade economics classes (Hawaii, 2006). The teacher experiences that reveal a subordination of credit-related finance to other items in the curriculum were expanded upon to draw as much information as possible about the causes and rationale for what actually was taught. The research question tied to this objective was: what are your thoughts on the role of your subject area in teaching credit-related finance education? The question was presented in this manner because teachers are professionals and they teach what they are expected to. If there was no evidence or little evidence of credit in the curriculum this question analyzed the reasons and cause of that on an organizational and professional level as well as a personal level.

Understanding teacher recommendations and yearnings is vital to seeing the essence of teacher experiences in Hawaii's schools. Many pressures are placed on teachers from the institutional level, and teachers respond with varying degrees of acceptance (Detert & Pollock, 2008; Perkins, 1992). In addition to the possible benefits that may result from understanding the recommendations of these professionals, the teacher recommendations offered a revealing facet of their life-world: a reflection of their perception of the ideal. In a teacher's life, as with other professionals, there is a reflective cycle of reflection in action that is used to improve practice as described by Schon (1983). The open ended research question tied to this objective was as follows: what should be done differently, if anything?

The guiding interview questions followed the research objectives fairly closely. In summation, the interview questions were as follows:

- What are your experiences with teaching credit or spending skills?
- How much credit-related finance education do you get the chance to go over in a school year?
- To what extent does finance education or related concepts come up in your professional learning communities or other events?
- What instructional strategies have you found effective for teaching financial literacy?
- Is there any ethics component associated with the curriculum?
- What are your thoughts on the role of your subject area in teaching credit-related finance education?
- What should be done differently, if anything?

As the interviews progressed, emergent themes were explored based on these questions. Archival data that was judged critical to revealing the actual state of finance education along with the interviews and attendant observation guides included (a) pacing guides, and (b) the state standards. That data, without the pacing guides, was triangulated with the interviews to provide a valid summation of the experiences of teachers in context.

Context for the Study

The context for this study was the life-world of teachers who teach social studies and business classes in public secondary schools on Maui. The following larger context framed this study: the ongoing financial crisis in Hawaii and the nation. A technical context also existed, on the level of teaching practice and practical concerns about what is taught. The study was contextually defined by being in the Hawaiian Islands and by concerning the educational institutions and teachers in place to educate public school students about financial literacy. For any pedagogy that addresses social change, context must be considered (Choules, 2007). The views and responses of these teachers illuminated their experiences with finance education within the study's context.

Measures for the Ethical Protection of Participants

Potential harm to the participants of the study was avoided by taking all appropriate Walden IRB precautions. The voluntary nature of participation was made clear at the outset. Participants were informed that their responses would be recorded on tape. Participants were selected from within the Department of Education with permission, and they were free to leave the study at any time without any negative effects. The study only dealt with adult teachers, so the main risk was a professional one from repercussions at work. That was avoided by protecting confidentiality. Identity was protected by the removal of all identifiers from each piece of collected testimony before it was included. Identifiers were only kept in case of participant withdrawal. The materials will be kept secure in a locked cabinet in my home for five years after the study's acceptance and then destroyed. The study will be presented as a synthesis without personal identifiers in case there is a negative reaction to the study from the Department of Education or other regulatory body that might possibly impact the participants. That risk, however small, was disclosed to the participants, along with the parameters and purpose of the study. Participants chose whether to participate based on informed consent and signed a consent form that is included in Appendix C. The risk to participants from this study was be practically negligible, as all participants were adults, and their anonymity was preserved. Benefits from the study will be directly applicable and available to the population of the study after it is completed.

Role of the Researcher

I am a tenured social studies teacher who has taught seventh grade social studies for 6 years. I collected the data. I contacted the participants and assured them of their rights and the voluntary nature of participation. The study took place after school hours. As a researcher, I brought some bias to the study. I did not let these biases interfere with the study by bracketing my perspective, as the study was concerned with participant input rather than that of the researcher. One bias I held was the belief that social change, social mobility, and equity could occur through activism and pedagogy. I also held a bias against the extreme focus on high-stakes testing. Husserl (1970) commented on this perennial issue and its attendant bias in explaining the educational imbalances produced by excessive positivism:

> The exclusiveness with which the total world view of modern man let itself be determined by the positive sciences and be blinded by the "prosperity" they produced, meant an indifferent turning-away from the questions which are decisive for a genuine humanity (pp. 5-6).

My own biases needed bracketing so that they did not influence the interview and observation phase of my data collection and unduly color my interpretations of the data. Another threat to validity was potential teacher bias due to my own involvement in the study. Negative effects from these personal traits were be avoided by concentrating on the data and using epoché (bracketing).

Criteria for Selecting Participants

All appropriate high school teachers of social studies and business on Maui composed the population of teachers from which the sample of nine teachers was drawn. Credit-related concepts are found in 12th grade social studies/economics classes (Hawaii, 2006), and also in business pathway elective classes (Hawaii, 2009). Three 12th grade social studies teachers and six business teachers from the business pathway elective classes were selected. As there are more business teachers than economics teachers, that ratio provided validity. That distribution of participants ensured saturation of data. The teachers were randomly selected (depending upon consent), making a total of nine participants. Nine participants falls within Creswell's (2007) guidelines of between five to 25 people for a phenomenology and other available data provided the remaining evidence needed to create a complete case study. The participants were selected by seeking out tenured teachers. Interviewing tenured teachers had the following two effects: It involved teachers who were full time educators and it ensured knowledgeable participants. If teachers declined to participate, other participants with these characteristics were sought out.

Data Collection

Data was collected from secondary teachers on Maui. The boundaries of the study were local because of the highly variable property values and economic situations on different islands. Maui was an ideal sample area because it has a distinct economic identity and set of property values.

The data was in the form of (a) extensive interviews, which were conducted in person and recorded on tape; and (b) all available archival documents, such as pacing guides, benchmarks, and the Hawaii Content and Performance Standards III. I made observation notes during the course of the interviews in order to assist with gathering rich information and to keep interpretation separate from the raw data. The notes followed Janesick's (2004) pattern where observations and notes to self are kept separate from attendant description. Interviews are the primary mode of data collection for phenomenologies and are also appropriate for grounded theory or case study approaches (Hatch, 2002; Creswell, 2007; Merriam, 2002). The recorded interviews were kept and stored in a locked cabinet at my home, along with the attendant handwritten notes. Once the study is accepted, all data will be destroyed after one year. Each interview took between 30 and 45 minutes.

After obtaining clearance from the Hawaii Department of Education, the interviews were conducted face-to-face. No remuneration was provided to the participants beyond sharing the completed study summary with them. This kept the monetary cost of the study low beyond the initial cost of the recording technology and printing costs for the copies of the summaries. I already had access as a Department of Education employee to the relevant archival materials needed to complete the case study. The study was feasible because it was delimited to examining a limited but observable and interpretable phenomenon within the common experience, which made it a case study according to the definitions of Yin (1994) and Merriam (1998). The completed study has the potential to make the voices of its participants heard, synthesized, and acted upon, which makes it worth the time the participants spent on it. The subject is directly relevant to the pragmatic concerns of educators, schools, and the Hawaii Department of Education and was therefore appropriate. The study was not intended to serve any purpose beyond finding out about teacher experiences with finance education.

Data Analysis

The interviews were mined for data and coded by response for interpretation. They were placed into domains and themes for analysis and synthesis as outlined by Hatch (2002). The three areas of interest as identified by the research were: how much financial education is occurring and what teaching experiences with pedagogy and instructional practices are articulated by the participants (including ethics), and null evidence where credit-related finance education is not evident in the teacher's experience. Coding was emergent, but the initial schema of inquiry had more axes of interest than data points, as is proper for a case study (Yin, 2009). Research objectives that the data collection questions were designed to reveal are as follows:

- How much credit-related finance education is there?
- What forms does instruction take?
- Is there an ethics component?
- What do null results signify when there is no credit-related finance education occurring?
- Reflection upon action—what should be done differently, if anything?

One item of interest was the comparison of responses between the social studies teachers and the business teachers. Social studies are more concerned with basic economic schema up until the 12^{th} grade, and business is heavily geared to starting a successful business; so differing responses from the two disciplines were expected. I expected emergent strands to surface, as well as widely varying responses stemming from differences in the philosophy, life experiences, and political views of the participants. I expected views on economics to vary, as well as views on the current state of education; and these variables provided a rich opportunity for comparison and synthesis. Archival materials were analyzed for the frequency and characteristics of finance education information, using benchmarks from the standards, but not pacing guides because they proved unavailable. The study also inquired about what actions or steps schools should take, which was expected to provide a counterpoint to research on school level teacher leadership and collaboration issues.

The recorded data was coded and sorted into domains and emergent patterns. A basic rubric for the questions attempted to ascertain amounts of finance education results from the peripheral nature of the standards themselves. At one extreme, I expected it to be possible that no significant amount of credit-related finance education would be evident in some classes. There was expected to be a small amount, which comprised the middle of the spectrum, or a significant amount. A significant amount was considered to be 10% or more of the economics or business curriculum, or a credit-related unit of instruction included during the instructional year. Either case would approximately meet or exceed the amount of relevant standards by content percentage that is related to credit

(Hawaii, 2006). Even null results were of great interest, as they revealed explanatory patterns. In addition to the amount of credit-related finance education, its nature was also of interest and was be summarized and characterized by best practices that were revealed by rich narrative evidence, as recommended by Creswell (2003).

Validity

To assure accuracy and credibility the study used Creswell's (2003) strategies for checking validity. The information was gathered through extensive formal interviews of between 30 and 45 minutes to produce the rich, thick description that is the hallmark of qualitative research. The main points of the interview were member checked at the end with a quick summary of noted points to assure that the meaning of the participant's statements was not misconstrued or misquoted. That procedure helped check outlier opinions or discrepant information. Unusual opinions or responses were explored with emergent questions in the interviews to understand their meaning. Researcher bias was avoided by the process of *bracketing*, or keeping researcher bias separate and suspended from observations. That practice was developed for use in phenomenological studies (Hatch, 2002), and was thus appropriate for this qualitative, interpretive study. It helped keep researcher bias in check and contributed to an inductive research pattern rather than one anchored in presupposition. The study required a prolonged amount of time to obtain the interviews and analyze their meaning, as well as a thorough analysis of all available relevant archival documents to triangulate the characteristics of the case at hand. The case study targeted the essence of its own intrinsic content rather than anything else, and inputs were sampled to understand the situation on Maui with a range of data, as recommended by Stake (1995). The researcher and participants were familiar with the issue and its context, which contributed to rigor, along with a research plan designed and situated for this specific study as recommended by Armour, Rivaux, and Bell (2009). The data was submitted for external checking and quality control to a third party, Vanessa Cannon, an impartial scientist and colleague. Participants will be given a summary of the study for their own information and potential professional use.

Summary

Understanding the local context of experience with finance education and teacher recommendations was best approached though a qualitative, constructivist case study that used phenomenological elements in its methodology. Nine high school teachers on Maui, three who teach 12th grade economics and six that teach the business pathway elective, were selected to participate in the study. Data was in the form of detailed interviews, observations, and the collation and analysis of all available relevant archival materials. The researcher bracketed to avoid bias. The collected interviews were coded and placed into domains and themes for an emergent analysis. Information was triangulated with the data from the archival materials, and kept on file for an impartial outside observer to reference. This study was feasible because of its limited cost and negligible risks to the participants. The teachers in the study were protected by being informed about what they were giving consent to, by being free to leave the study at any time, and by their identity being kept out of the finished document. A synthesis of teachers’ experiences with credit-related finance education with data from relevant documents can allow schools to proceed intelligently in this critical area of education.

Section 4: Research

Collection of Data

In order to conduct the research, the regulations of the Hawaii Department of Education had to be navigated, following research procedures that maintained validity and reliability, while protecting the participants under the guidelines of the Institutional Review Board (IRB). My school principal, who approved my postgraduate credits, served as nominal supervisor in this endeavor. Initially, the Maui superintendent was approached and he agreed to the study. All studies that take place in Hawaii schools also require the approval of the state superintendent of education. I petitioned the state superintendent through the Systems Accountability Office and was approved, with the proviso that the established regulations are followed and a complete copy of the final report be submitted to the director of the office no later than 6 months from the date of the study's completion. Next, the approval of principals at each of Maui's four major high schools was obtained through personal meetings. The participant pool was then constructed.

To build the participant pool, all 14 teachers of economics or business at those high schools were listed as potential candidates on paper and made into small slips of paper. Under the supervision of my peer reviewer, Vanessa Cannon, the chits were randomly selected to form two sequentially numbered groups: one consisting of the economics teachers and the other consisting of the business teachers. That group sequence formed an order of solicitation for participant recruitment, where participants at the top of the list would be approached first, maintaining a random selection process as recommended by Creswell (2003). Invitations to participate in research, along with consent forms, were then mailed to each of the initial nine potential participants who were selected. After one week there were no responses.

Because there were no positive responses, the peer reviewer advised me to mail invitations to the remaining five candidates on the list and begin follow-up calls to those who were already contacted. The follow-up calls followed the script approved by the Walden IRB, and each candidate was only spoken to once for that purpose. In the event, two potential participants were unreachable, three refused, and nine agreed to do the study. The nine who agreed were three economics teachers and six business teachers, which fulfilled the parameters of the participant sample precisely. There was no methodology of exclusion within the researcher's control; all willing candidates were accessed.

The interview appointments were scheduled at the times and places that were convenient to the interviewees, and I suggested that the interviews take place in their classrooms after school. The rationale for this was to make the participants more confident and relaxed by being in their familiar locales where they hold authority. This off set the risk of an asymmetric power relationship between a dominant interviewer and the participant that might distort results and increase the likelihood of objective and ethical data as recommended by Kvale (2006). All the interviews save one occurred in the teachers' classrooms, with the exception taking place in a coffee shop, a venue that was a dominance-neutral setting. The classroom interviews allowed descriptive observation of the physical classroom settings as an additional source of ancillary data.

At each interview the participants were given the consent form to read and sign, and any questions they had about the purpose of the study and how it would be used were answered before the interviews began. The recording of each interview was openly done on audiotape, and anything that the participants requested be struck from the record was deleted by rewinding and recording over the requested parts. During the interviews, notes were taken on the observation guide to inform follow-up questioning and note the thoughts I had. The standards and the literature review served as the basis for generating follow-up questioning. A physical description of the room was recorded onsite as an additional source of data for teacher environment in order to enrich the findings.

Pacing guides were also inquired about, but these proved to be unavailable or not congruent, and could not be included in the archival documents for the study. Impacts on the study from the unavailability of these documents were minimal, as the study examines outputs, how the teachers are actually doing, rather than theoretical inputs with little relevance, as recommended by Grandin and Johnson (2005) for experiential audits. One reason for the lack of departmental pacing guides being developed was the differing nature of the courses taught at each school by each instructor, which precluded their use as archival documents, as will be shown in the findings. The amount of time spent on credit-related education in teacher experiences was obtained through the transcriptions and their correlation to standards, and the teachers were trusting and open about their curriculum.

Analysis of Data

Shortly after each interview, the recordings were transcribed to minimize distance from the event and potentially inform further interviews along the lines suggested by Hatch (2002). The prolonged period of interview appointments assisted this. The two following major axes emerged from the first interview that informed the subsequent interviews: technology use and perceived areas of weakness. These two facets are included in all interviews and enrich the applicability of the study for useful reflection-in-action as defined by Schön (1983).

Once transcribed, the interviews were repeatedly read and re-read to identify major categories of meaning. Though derived from the interview questions, some categories matched the interview questions, and some categories fit more accurately through inductive reasoning into new categories. Originally the interview guide had been as follows:

- What are your experiences with teaching credit or spending skills?
- How much credit-related finance education do you get the chance to go over in a school year?
- To what extent does finance education or related concepts come up in your professional learning communities or other events?
- What instructional strategies have you found effective for teaching financial literacy?
- Is there any ethics component associated with the curriculum?

- What are your thoughts on the role of your subject area in teaching credit-related finance education?
- What should be done differently, if anything?

Data from all transcripts were arranged into major categories through color-coding. The goal of reporting findings through an effective narrative was paramount. The following categories, based on teacher experiences with credit-related finance education, were inductively arranged into a slightly different arrangement that answered the research questions and also more closely matched the gathered data:

- Instructional experiences; how much is taught, and what form instruction takes
- Technology
- Ethics
- Professional learning communities
- Weaknesses
- Recommendations

Once relevant categories were arranged, each category was analyzed and compared again for the most accurate fit, and connections drawn between categories. All data were horizontalized (given equal standing at the outset) per Moustakas's (1994) guidelines. The basic category with the most connections was instructional experiences, which is the focus of the study in general. From this basic category others were generated based on the interview responses. Next, domains of meaning were ascertained through inductive analysis within each category while not jettisoning outliers, as is proper for an inductive study (Hatch, 2002), and then phenomenological reduction was used to get at the essence of these domains of experience as recommended by Moustakas (1994). State standards were the major archival documents that informed the study and helped triangulate teacher experiences, and the standards were echoed strongly in the interviews. During the writing process, further refinements occurred, echoing Hatch's (2002) statement that qualitative analysis can never be completed, but rather ends at a point of saturation.

Findings

Credit-related finance education is occurring at a significant level in both economics and business classes on Maui. Approximately ten percent of the economics standards relate to credit and spending, and these issues also appear in the business standards to a lesser degree (Hawaii, 2009). Teachers maintained the standards-based ratio of these skills at minimum, and a significant number exercised their option to modify curriculum and increase it to higher levels because "we focus a lot on personal finance so we go through credit."

Economics teachers "explain the importance of credit, what happens when the people file bankruptcy, what happens to the credit score, and then how they can borrow based off of their credit score and what they can do with it as well." Most business teachers did address economic theory in business because "economics, they're kind of imbedded in that standard, whether it's the external variables that influence the small business owner, and how there are political changes involved, and so it's always imbedded somehow in business class." Some business teachers tended to be credit "focused because I want them to have that" with the main variable being the type of business class they taught. For example, "when you're doing that travel industry side of things. . . it doesn't have much to do with credit or spending skills."

Within the sample, economics teachers spent between 7.0% and 33.0% of their curriculum on credit issues. As a comparison, business core teachers spent between 6.0% and 20%, marketing teachers between 6.0% and 10.0% percent, entrepreneurship teachers between 6.0% and 30.0%, business technology 10.0%, and travel and hospitality management up to 10.0%. Most of the teachers interviewed expressed that credit-related finance education had significant value and made varying decisions on its inclusion that were guided by their specific content area standards, with the most common amount being "10% or so" of the curriculum.

Departmental pacing guides were intended to supplement the study and provide triangulation on how much credit education was occurring, but they were unavailable. This was due to the low numbers of teachers in business and economics at each school, who taught different classes; "it's a mix, it's a mesh, of our courses, of our department," and not collaborating together on pacing. Some teachers used personally developed pacing guides, but most did not have one that reflected reality "because as a business teacher, there are so many other challenges that I need to face. The kids, the differentiated instruction, that you cannot follow a pacing guide." "It depends on the makeup of the class; it depends on what they want to cover, and what they come in with." Making personal pacing guides was perceived as an ideal, as one teacher had a "daily log that I keep that is then going to be a pacing guide." Pacing guides were changing also due to new common “core standards that we are dealing with as well, but we haven’t seen the social studies aspect of that quite yet. . . so we’re kind of in limbo with the pacing guide.” One teacher allowed students to modify pacing because although “there’s stuff that we have to do, we have enough time to cover things that you want.” Another teacher had a pacing guide that was used regularly stating “it’s good for me to have a pacing guide to reflect on each year.” Due to unavailability and reliability problems, actual pacing guides were not used in the data analysis.

The classroom operations for both economics and business teachers had strong components of real-life hands-on financial basics and budgeting. All classes had some relationship to credit and spending. Often, “the students work with checkbook registers, and the deposits, credits, trying to reconcile bank statements... a lot of the kids actually benefited from it. It’s basic.”

> “We have exercises to balance a checkbook. There’s comparison shopping, we have exercises in investing, in savings, investing, trading, you know, trying to get them to get a picture of any of their financial goals that need to be set.”

Financial goals were linked to “check writing, budgeting,” and “the consumer decision process.” Instruction “moves from a practical budget today and then into a future budget,” and “how to think about things instead of just buying.” “Most of it is about making a budget. You know, getting a credit card. If you borrow $400,000 for a house, what are you going to end up paying?” “We go over credit cards, interest, traps of credit.” Methods to build credit were often emphasized “so that later on they have a nice rating and can get what they want" because "any time you have that so-called bad credit, you're going to pay higher for any transaction."

To teach credit-related finance, the classes often rely on "real life experiences" or simulations. In the business classes, these often are academies or student-run businesses. One teacher stated the following: "in my entrepreneurship class I have right now 12 different businesses some are sole proprietorships, some are doing partnerships." Another had her students set up "a t-shirt business. So, kids come up with a design, we design the shirts, and then we go to the ball games, and we sell our product." The businesses have the benefits of verisimilitude "because I taught them how to do it book-wise; the concepts through an accounting book, and I'm sure they learned valuable things there; but the more value was when they could actually collect the money from customers." Another example is a "project, where they get a fake job or get a job, how much money they're making, and they create a budget, pay bills, you know, all that kind of stuff, and based on credit." A stock market computer simulation is also frequently used. The role of governments is part of economics courses, where instructors "talk about the big picture, we talk about our country and its credit issues, world credit issues."

Business classes cultivated connections to the community, as did some economics classes. These are often run through academies as "part of this national organization called the national academy foundation, so they have different courses that they provide," for example "a hospitality and tourism academy. We work hand in hand with the Maui hotel association, Maui College-they offer a college course called orientation to employment." Teachers have cultivated "connections with various hotels around the island, where we work, and they give a discount rate to experience" amenities such as hotels and airfare. There is a university outreach "program where they give out fake money, and then they say "okay, you have a college education, then you make this much money, here's how much rent is, then they have to, like, budget it." In another partnership "someone comes in, and explains to the kids about how to purchase stock. And how they would they would need to finance their business." Students can elect to "complete a 120 hour internship and a college level course" so they can "qualify for a scholarship with the Maui Hotel and Lodging Association. A lot of people try for it." Economics classes partner with the community also, and for the senior project can "require those who aren't in a capstone class to do 20 hours of work, and use a mentor. We help them find outside organizations to take them on a daily routine or daily task for the business." In the current economic downturn "a lot of the internships have tended to be more nonpaid."

Societal reality and inequity influenced the educational experience. There is a large majority of Asian and Pacific Islander students on Maui, and the recent economic downturn was reflected in more students receiving a free or reduced lunch—an indicator of low parental income. Teachers shared the perception that students hardly ever received credit education at home, with possible exceptions among wealthier families. Some teachers expressed concern about the financial crisis and the "government's money", because the "government is spending money it doesn't have, and, I always tell the students that it's all going to fall back on either you or your kids." "If there's money to be made, people are going to make money on it. But then again, the rest of us then have to pay for this process; the banks, and then our tax dollars" bail it out. Students "can't depend on the government to look after them when they're older" as had previously been the case. As expressed by one teacher, the "nobles and the aristocracy" will "have their way, and the peasants are going to get taxed more to take care of those nobles and that aristocracy, so we haven't really got too far away from that process, unfortunately."

Students were affectively motivated to succeed, and this contributed to interest in finances. Teachers perceived that many of the students in business and economics courses intended to attend college, one noting that the recession means "families cut back and be realistic about the money available." Teachers thought that credit-related finance education was critical for students before they went away to college, and some shared that students had contacted them after graduation to express appreciation for helping them learn financial literacy.

Teachers varied instructional arrangements between individual and group assignments for students. Teachers use "the minimum amount of direct instruction as possible for this...a lot of the kids use group work, presentations." Direct instruction was for "pretty much just a little bit of background and instructions." In coordinating group projects "the roles work, you know, timekeeper, taskmaster, they work, but... it's hard to do." "Sometimes the group dynamic doesn't really work as well, so I would say that 80% of the time it works." Group sizes never are larger than four since "if you get more than four, three to four, you're going to have a lot less accountability."

The participants used computers frequently for instructional purposes. Observations of the physical classrooms revealed large numbers of desktop computers and ancillary equipment, and interview data shows that all classes have access to computer carts or the library computers. One respondent noted that "most of the computers are in the library, and now with HSA (Hawaii State Assessment) testing online, and Edison (Hawaii's restructuring provider) testing, the library's rarely available" so sessions needed to be scheduled in advance. The participant added that "as a result, a lot of kids have their smartphones. We're not supposed to let them have those out, but for educational purposes you can use your discretion." Personal technological use for internet access was a strong theme among participant experiences.

Most teachers allowed the use of personal technology for instructional purposes because "kids don't use the telephones to call their friends in my classroom, they're actually gathering information." The vast majority of students had advanced cell phones. As long as students are not using the "phone as not a texting mechanism, it can be a good thing as well, the technology, while it can cause a lot of concern, there's a lot of information and resources out there." Teachers noticed that "internet research skills improve heavily by the time they're seniors." Students "don't have to memorize anything anymore. It's very different; you can find the information right away." Teachers facilitated technology use because "the more skills and programs you know how to use, the better off" students would be. Internet skills were important for the safety of students, because with the ever-expanding web "there's more possibility that they're going to get taken, if they're not aware." Teachers stressed how students needed to analyze the quality of information from the internet: “I think they are constantly doing it too, with the technology available to them trying to get information themselves, kind of weigh the action to get legitimate information.”

Teachers taught using standard Excel, PowerPoint, Photoshop, and Word programs. Many teachers used the stock market simulator at the “how the market works” website. “It’s an online competition, which requires a background knowledge of what the stock exchange is, how it basically operates...they get $100,000 in play money, and they’re supposed to allocate $100,000.” Teachers liked it because “it’s a really good simulation” on how the stock market works. Software and websites that educators found useful included the Economics Alive curriculum, Knowledge Matters, the virtual business, Edmund’s, Discovery.com, and resources from the Federal Reserve. The Internet was heavily used for research.

There was an ethics component interwoven into the curriculum because “if you’re teaching free market capitalism, its success is based on integrity.” Teachers incorporated ethics in varying ways. “The AMA (American Marketing Association) has a code of ethics they publish, and I always try to focus on educating them on...our economy and how employees aren’t that honest, either.” For investment purposes, one teacher asked students “are you going to invest in companies that are/might be doing things that hurt people or the landscape? Are you going to invest in BP (British Petroleum), are you going to invest in cigarette companies?” Another used “case studies; we look at Bernie Madoff, for example. Now, we look at Occupy Wall Street, the response to what they see as unethical.” Where teachers did not teach an ethics component in a class, it was addressed elsewhere in the sequence of courses that business or economics students attended.

With one notable exception, finance education was not a focus at the school level. It did not usually surface as a topic addressed in Professional Learning Communities. The focus in those groups was on state-mandated requirements such as "getting these math scores up, and the comprehension reading scores; the core topic here, there's an absolute focus on that." Another common focus was "budget needs," so that the one teacher that reported finance education discussion in her PLC encountered it as the group considered opening up a finance academy. Other areas of focus were "common core standards," "accreditation," and how "our intervention strategy" was helping "common students."

Teachers identified major areas of student weakness as writing, mathematics, a lack of content area knowledge, insufficient understanding of the material, and to a lesser extent, reading ability. Most, but not all, teachers saw writing as a major problem. Writing weaknesses were evident in "putting a sentence together. You know, a lot of them are writing in phrases, and a lot of them write in text English." Writing issues were connected to standards based learning, where content had been valued over basic skills in classes outside of Language Arts, to the detriment of skills needed for college. Writing deficits were tentatively linked to a testing focus on reading and math by one teacher. Incoming common core standards for social studies were anticipated to require more writing once implemented. Computer corrections did not compensate adequately for writing deficits.

Computer-based plagiarism was a major issue for all teachers that had to be addressed frequently. As one teacher stated with a laugh, “I assign them a research paper, how to effectively advertise, and like, 90.0% of them copy and paste it.” Teachers reported that the problem was abated with training about how to cite sources and frequent intervention, so that it was not a major issue by the time students became seniors.

Participants were divided on whether math was a problem. The deciding factor was the way math was applied in class. Where addition or subtraction and answering formula problems were concerned, students had adequate skills. Students could effectively do “graphing, measurement, maps.” Problems arose with basic applications of multiplication, division, percentages, and fractions. Students struggled with understanding word problems that could be broken down to ask, for example, “if something’s 96 ounces, something is 16 ounces, how much of the 16 ounces is it going to take to equal the 96.” “A lot of them can’t do word problems.”

All teachers, except for one, reported seeing little if any student exposure to content area vocabulary and concepts from the infusion curriculum in the lower grades. Those students who remembered finance concepts could not usually apply them. That was because social studies classes in the lower grades tended to focus on history rather than economics. As one teacher explained, “we’ve all got our standards to teach, and it’s really hard to get all those standards. Usually that economics standard is... kind of the last one, it’s: I’ve got a week, so let’s just cover it.” One teacher commented that he wished social studies teachers in the lower grades would focus more on basic writing and reading so the he could concentrate on teaching his content.

Getting most of the students to understand the material was a weakness. There's "a divide between teaching them the book stuff, and teaching them the actual application." Teachers were concerned about "not actually teaching 100% of the students." When business teachers set up businesses for students the students tended to specialize their functions and not master all aspects of the business. English language learners had challenges with comprehension and vocabulary that had to be addressed. Many students could pass the courses without internalizing and fully comprehending the material. "You've got in the most bell curve, you know you're looking at 60.0% of the kids that get it, one way or the other;" "I have to be honest with you; about half of them understand it."

Teachers perceived that reading ability was adequate for the most part, although vocabulary could always be improved. The major issue was that "they don't like to read." Students "don't even want to take home their textbooks." That problem left teachers "trying to explain to them what's in the book."

At the school level, teachers perceived that success in finance programs often rested with the dedication of teachers to exert significant efforts beyond the classroom. Personal commitment to doing this was understandably varied. One teacher commented that "they're asking the teachers to do two jobs." Monies to implement programs remained scarce at many schools. Another teacher reported that tenured, older teachers were not reviewed for competence with enough frequency. Multiple teachers expressed concern about constant changes in protocols or procedures from one year to the next, which meant "new initiatives, new agendas, new things that we have to do." Effective integration of finance courses was problematic because "the sequencing of the courses, and preparing the kids, are not all working together."

Recommendations for school-level improvement were about integrating curriculum effectively, and boosting mathematics, writing, and reading abilities among students. Teachers thought that "finance education should be covered more in high school, because that's what the kids will be dealing with for the rest of their lives." "If it was a year course, then we could cover all the macro stuff *and* the personal side of it." One teacher suggested that personal finance be "mandatory" within social studies. Doubts were expressed about the chances of implementing more finance education as follows: "I don't see where it's going to happen, because everything is so test-based in Language Arts and Math." Another teacher recommended vertical alignment through the grades and horizontal alignment across grade levels because "if it works for our district, then it should be for the whole state," so that students who transferred from one school to another would benefit.

School focus "comes down to the direction of the school and how strong these programs are." There was a need to "look at and evaluate the effectiveness of what we're teaching. Look at: are these courses important? Will the kids actually benefit from taking this? Does it tie it in to a community college, a university?" "The process of getting scholarships, and grants; that's really where the big tie in is right now for us." It was suggested that finance be incorporated more in math and social studies so it "became more of a real-world experience maybe through the grades." Teachers found that it's "hard to teach it early," so personal finance education should remain in the final year of high school just before students go out into the world.

Teachers related that math skills and writing skills needed improvement. Consumer math was proposed by one teacher as an alternative for students who flunk the state-mandated algebra courses resulting from compliance with the No Child Left Behind (2002) law and consequently cannot matriculate. The teachers saw a need for better comprehension of arithmetic processes. Writing and reading needed improvement. "We need more literacy, way more literacy" because it was important to be "able to read and understand the material, actually knowing how the writing process works. I don't like getting rough drafts all the time." Participants noted that not all students were being exposed to personal finance skills, only those who chose to attend economics or business classes.

Evidence of Quality

The study was approved with commendation by the Department of Education and all involved administrators, who judged it to be valuable and worthwhile. Only tenured, experienced teachers were approached for the study. The interview guide and all follow-up questions were based on relevant literature and the cultural milieu. The state standards were used as a major triangulation source, as they were the basis for the curriculum. Observation notes of the interviews and the physical classrooms were also analyzed and assisted in triangulation. The interview guide was the main basis for all interviews, as was expanded in the areas of technology and weaknesses, which were areas of interest that surfaced in early interviews. Major salient points were member-checked for accuracy.

Asymmetrical power relationships between interviewer and participant were avoided by holding the interviews on the participants' home turf where they would feel more empowered, and my nonverbal communication emphasized respect. This was done to protect the data from interviewer dominance (Kvale, 2006). Care was taken to bracket assumptions and presuppositions on the part of the researcher per Husserl (1970), including possible contamination of the data by researcher suggestion. Data was horizontalized at the outset, and the relative strength of each domain was based primarily on the commonality of its message within the transcriptions as well as the strength of its relation to the research question.

Reviewing the observation forms and my own experiences with the interviews helped gauge inadvertent bias. The major bias that I hold against the Hawaii State Assessment high-stakes testing was an issue when analyzing related issues. I essayed to leave no data point unreported, and let the evidence speak for itself. Frankly, the HSA testing is making schools look at their data, and participating teachers see value in good reading and mathematics skills; although the test neglects writing. I tried to be fair and objective in my analysis by separating out my influence through bracketing. Bracketing was also assisted by checking my own documented voice within the transcripts.

My peer reviewer served as a second set of eyes and checked my analyses for goodness of fit, making several suggestions. All salient data points were included in the findings, and arranged to answer the research questions. Teachers from each major school on Maui contributed to the study, which strengthens its validity as a case study for the island, a bounded integrated system as described by Stake (1995). The study required a great deal of trust and mutual professional respect between me and the participants, and the tape recordings were accurately transcribed to include pauses, affirmations, and other details to assist validity per Creswell (2005). All interviews exceeded the minimum period of 30 minutes. All interview audiotapes, consent forms, observation notes, administrative approvals, and peer reviewer approvals have been kept inside a locked cabinet in my home.

Section 5: Results

Overview

The study examined economics and business teacher experiences with credit-related finance education in Maui schools. It asked those teachers the following questions:

- What are your experiences with teaching credit or spending skills?
- How much credit-related finance education do you get the chance to go over in a school year?
- To what extent does finance education or related concepts come up in your professional learning communities or other events?
- What instructional strategies have you found effective for teaching financial literacy?
- Is there any ethics component associated with the curriculum?
- What are your thoughts on the role of your subject area in teaching credit-related finance education?
- What should be done differently, if anything?

Based on the resultant data, finance education related to credit and spending is occurring at significant levels in economics and business classes on Maui. Teachers taught the standards-mandated amount of these skills at minimum, and often teachers spent even more time on them. Economics teachers spent between 7.0% and 33.0% of their curriculum on credit-related education, while business teachers spent up to 20.0%. Due to availability and reliability problems, pacing guides were not used in the study.

Classes taught financial basics, budgeting, and financial decision-making, often using hands-on techniques. All classes had some relation to credit and spending, often emphasizing methods to build credit. Traditional lessons and textbooks were used less than simulations and reality-based activities or performance assessments, and business classes often ran academies or actual businesses. Classes cultivated connections to the community, including colleges, hotels, and businesses, and those relationships were often affected by the economic downturn.

Teachers saw little credit-based education occurring in the home. Ongoing government financial issues were addressed in classes. Students responded with affective interest to learning about finances, and most students in economics and business classes were college-bound.

Teachers used varied individual and group assignments to instruct students. Minimal direct instruction was used, with group work and projects leading up to presentations being frequent. Group sizes were never larger than four. Computers were frequently used for instruction and research, including personal technology such as smartphones. Teachers noticed significant gains over time in student internet skills. Those skills were seen as important for evaluating the quality of data and maintaining student safety.

Teachers used a variety of standard programs such as Excel, Word, PowerPoint, and Photoshop. Many teachers used a stock market simulator, and software or sites that teachers recommended included Economics Alive, Knowledge Matters, Edmunds, Discovery.com, and resources from the Federal Reserve. Most classes included an ethics component, and when they did not, it was addressed in another class within the sequence of courses. Finance education was not addressed as a topic in professional learning communities; instead those groups were concerned with state-mandated requirements, school budgeting, or ongoing collaborative programs.

Teachers saw significant student weaknesses in writing, comprehension of arithmetic, content area knowledge from earlier grades, understanding the material, and some saw weaknesses in reading. Computer plagiarism was an issue that all teachers dealt with. Success in finance programs relied heavily on the dedication of teachers. Several teachers expressed concern about constant changes in procedures and protocols.

Recommendations for improvement centered on integrating finance education more effectively and improving writing, arithmetic, and reading abilities. Not enough personal finance education was going on in high schools, considering how it was a survival skill. Teachers recommended that schools look at programs and procedures and evaluate them for effectiveness.

Interpretation of Findings

The study's conceptual framework was that secondary students could perform better in the economics of credit-related personal finance if teachers reflected on practice and shared their voices. That framework was a form of reflection-in-action, as described by Schön (1983). The research questions delineated in quotations below generated findings and resultant research-related interpretations for that purpose. Some responses were placed into different categories within the findings, depending on topic and where they logically belonged.

The responses to “How much credit-related finance education do you get the chance to go over in a school year?” showed a clear grounding in the standards, which outlined similar amounts of credit and spending instruction (Hawaii, 2006, 2009). Teachers met the amounts of credit-related finance curriculum contained in the standards, and often exceeded those amounts on their own initiative. As mirrored in those standards, different areas of business such as travel industry had few credit or spending elements, while entrepreneurship and economics classes had more. The standards drove teacher instruction, as credit-related economic theory was evident in business classes where appropriate as defined by the standards. Pacing guides sometimes existed, but in varying degrees of accuracy, as a translation of the standards into an idealized reality. Students also influenced curriculum content, as recommended for student achievement in business courses (Halbesleben & Wheeler, 2009).

Finance education had an open or vague definition (Huston, 2010; Yates & Ward 2011), and courses broadly covered every aspect of finance. Studies downplayed the payoff of finance education courses in high school, showing that taking a finance class had little result on a financial knowledge test (Black, 2006; Lucey & Giannagelo, 2006). It was interesting that the poor results given to support that claim often centered on responses to credit and spending problems in tests. Those critiques reflected a tacit assumption of the intrinsic value of credit and spending skills, yet only 10.0% of the standards were credit-related. The levels of credit-related finance education as identified do not adequately address society’s needs because they are only in electives, and not enough time is spent on them to ensure mastery. That should be addressed, ideally by a stand-alone finance course that is required for all students (Yates & Ward, 2011).

All interviews began with: “what are your experiences with teaching credit or spending skills”? in hopes of capturing spontaneity and understanding what was important to teachers. Combining the answers from that question and the question “What instructional strategies have you found effective for teaching financial literacy?” resulted in a general overview of what occurred in classes. Teachers implemented many research-based approaches to boost finance education. Instruction used a mix of strategies, as recommended for business classes by Volkema (2009). Lectures were used sparingly for organization and maximum effect (Scwartz & Bransford, 1998), and individual assignments were common. Group work was often used, a method that had motivational benefits (Slavin, 1995) and assisted with ethical development and knowledge retention (Marzano, 2003). Group work had potential problems related to the free-rider effect of students who don’t do their fair share of the work (Abele & Diehl, 2008), but this effect was minimized by supervision and keeping group sizes at four or smaller.

Instruction was heavily based on reality, using many hands-on performance assessments, simulations, and actual business operations to improve motivation and comprehension, as recommended by Brookhart, Walsh, and Zientarski (2006). Project-based instruction was frequent and designed for realism as recommended by Volkema (2009), also contributing to motivation (Durkin, 2003). Budgeting, setting finance goals, and performing a variety of operations within courses involved metacognition and the activation of multiple intelligences as outlined by Gardner (1983). Constructivism was emphasized, casting the teacher as a facilitator and students in the optimal role of knowledge co-creators (Halbesleben & Wheeler, 2009).

Many connections to the Maui community were nurtured, with positive effects from service learning, college outreach and visits by mentors, and internships. Interconnectedness between school and society had many benefits (Litzky, Godshalk, & Walton-Bongers, 2009; National Council for Social Studies, 2004). Due to the economic downturn, internships became unpaid positions, and money for college was affected for many students, but business-to-college partnerships still existed. The role of government policy surfaced frequently in curriculum, as did connections to college. Parents were reportedly the greatest providers of credit-related finance education (Jennings, 2009), but such training was not evident, except in some cases of wealthier students as predicted by literature (Cooper, 2008; Rothwell, 2010;).

Computers were used frequently for research and simulation purposes. Computer skills were developed to effectively socialize consumers to internet pressures (Hayta, 2008), and students became savvy with the challenges of identifying good, secure sources and weighing information; a requisite for internet purchasing (Norum, 2008), and an antidote to information asymmetry (Mascarenhas, Kesavan, & Bernacchi, 2008). Information literacies through technology was appropriately emphasized (Leigh & Gibbon, 2008; Voithofer & Winterwood, 2010), even to the point of enabling smartphone and personal technology usage. Stock market and other simulations, as well as software and recommended websites played a role. Information technology inclusion was strongly in evidence from both observation notes and interview data. One weakness of computer use was a recurrent lack of student ethics in retrieving material for personal use, which was addressed consistently along with other ethical concerns.

Ethics elements in courses were understood through responses to the question “Is there any ethics component associated with the curriculum?” Ethical issues are an appropriate adjunct to high school economics courses (Niederjohn, Nygard, & Wood, 2009). There was a significant ethics component in the curriculum, and where it did not exist in a given teacher’s course, it surfaced in another class within the elective or pathway sequence of courses. Marketing ethics had a place in the business and economics curriculum, mirroring findings from research that marketing has a vested interest in promoting benefits to society (Gonzalez- Padron, & Nason, 2009; Laczniak, & Murphy, 2006). The use of group instruction and discussion enhanced the development of ethics comprehension (Marzano, 2003), and further developed the students’ innate moral sense as described by Monroe, Martin, and Ghosh (2009). The ethics of stock purchases were looked at in class. Case studies were also used, which develop student thinking processes from the learner’s perspective (Weil, Oyelere, Yeoh, & Firer, 2001). Ethics are imbedded in the Hawaii general learner objectives in regards to technology use, but are not directly addressed in the standards (Hawaii, 2006). Teachers used their own professional discretion to introduce ethics as a significant component.

What teachers covered in their classes was developed by the teachers independently of their colleagues. In answering “to what extent does finance education or related concepts come up in your professional learning communities or other events?” teachers responded overwhelmingly that it did not come up. In the one instance that it did occur, it did so as a new finance academy was discussed: a budgeting rather than curricular issue. Meetings were more concerned with budget needs and meeting state-mandated requirements. The curricular focus of the communities did not include credit-related finance, which did not imply an organized abandonment as outlined by Dufour and Eaker (1998), but was evidence of the disparate curriculum that each teacher taught. The lack of common curriculum development with colleagues made sense, as the low numbers of economics and business teachers at each school meant that teachers all taught different classes. Despite these differences, teachers agreed on many of the problems they encountered, and how best to solve them.

The weaknesses and recommendations of teachers were drawn from the research questions “what are your thoughts on the role of your subject area in teaching credit-related finance education?” and “what should be done differently, if anything?” in order to find areas of need. Writing ability was often a problem in economics and business classes. Some teachers connected that to standards-based instruction that valued content over skills, and the inability to effectively write was seen as an impediment to college. Teachers related that the new common core standards would require more writing instruction, an institutional response to that concern. Writing was not used in the current testing regimen, a factor that may have negatively influenced writing instruction; and caused teachers to include it only on their own initiative (McCarthey, 2008). Reading was much less of a problem, despite the tendency of students to avoid reading. Vocabulary deficits were part of that problem, along with the motivational challenge of getting the students to actually read. Fortunately that was somewhat offset, because the applicability of the content to real life increased motivation, as predicted by research (Brookhart, Walsh, & Zientarski, 2006).

Teachers were split on whether math was a problem. The defining factor was usage; if simple measurement, graphing, or formulaic operations were all that was required, they did well. Word problems, fractions, and problems involving real-life mental number-sense baffled many students. These problems were very similar to the content skills for seventh grade math standards (Hawaii, 2006), and yet the students were in high school. Algebra was seen as playing a make or break role in students' high school careers: either they passed it, or they dropped out. That implied tremendous teacher focus on algebra, both due to testing pressures and concern for students. Research has shown that algebra acts as a gatekeeper course to higher education (Calhoon, 2008). It was unknown whether that had a negative effect on the maintenance and of arithmetic skills covered in previous grades.

There was little evidence of content knowledge earned by students in earlier grades from economics. Students knew some terms occasionally, but few had the ability to apply or use them. One factor was the preponderance of history strands over economics in the social studies curriculum (Hawaii, 2006), which influenced teachers on where to place their focus. Economics were reportedly tacked on at the end of social studies courses, or brushed over. Exposure to finance skills and knowledge at earlier grade levels is recommended in literature (Lucey & Giannangelo, 2006; Hayta, 2008), and is developmentally appropriate along the guidelines set by Bruner (1983), Piaget, and

Inhelder (1969), but the infusion curriculum in its current form did not produce significant understanding of content.

Content comprehension was a challenge for teachers. It was difficult to cover the course and get students to the highest level of applicable knowledge. Opportunity to learn, Marzano's (2003) most significant factor in student achievement, was hard to provide in the limited time available. This problem echoed back across the grade levels, reflecting the eternal dilemma faced by schools: they couldn't teach everything (Perkins, 1992). Excellence in teaching helped to ameliorate this, but could only go so far. At the school level, teachers related that there was great variability in teacher commitment and skills, and that success often rested on teachers pouring on extra efforts. Procedures and protocols shifted from year to year, baffling them and causing cynicism. NCLB has a provision requiring financial competency by the time of graduation (Burnett & LaCroix, 2003), but it has not been implemented. The school system did not emphasize financial education for all students in an integrated pattern before high school or at the high school level.

Recommendations for improvement centered on boosting basic skills and ensuring that finance instruction be integrated effectively across grade levels and among schools to promote skill transfer. Basic skills appeared to be imminently addressed for writing by the inclusion of common core standards, and reading or math skills were already high priorities. The main math weakness for finance was in arithmetic, and a possible solution was consumer math. That was, however, incompatible with the present test-based sequencing. Teachers needed more instructional time to cover finance education adequately. That tied in directly to the critique of finance education that showed little increase in finance skills after one finance course (Black, 2009: Lucey & Giannangelo, 2006). Participants noted that finance education could be effectively worked in to the curriculum at lower grade levels in math and social studies. Instructors believed that it was important that complete coverage of credit-related finance education take place in the last year of high school, to increase motivation and relevance, and assist with connections to college as shown by Yates and Ward (2011), in direct opposition to calls for such education to occur only in college (Jennings, 2009).

Implications for Social Change

Through society's contracting norms credit and its availability are important engines for wealth accumulation and social mobility (Mousseau & Mousseau, 2008). Significant social inequality exists in Hawaii, especially between indigenous people and whites (Mayeda & Okamoto, 2005; Rothwell, 2010). On Maui, these patterns are evident and exacerbated by property costs that are among the highest in America, creating low homeownership rates (Census, 2009). If all students receive critical training in budgeting and functional credit building strategies, this inequity can be reduced. Asset increases from financial literacy as described by Bell and Lerman (2005) would benefit the economy and government, and could sustain wise consumer choices such as the avoidance of credit traps (Castellani & DeVaney, 2001). Investment in credit education would make sound economic sense, and be a step towards equity.

Recommendations for Action

Unless they were enrolled in an economics or business elective, Hawaii's students received no significant formal education on credit and spending at all. Credit-related consumer skills for all students should be strongly considered, while continuing to strive for literacy and numeracy through all available means. A stand-alone personal finance course as recommended by Yates and Ward (2011) would be ideal. Without such restructuring, at minimum the credit-related section of a finance curriculum should have more weight than ten percent where appropriate. Economics exposure at lower grade levels should also be increased. The greatest influence on student learning is the opportunity to adequately cover the material (Marzano, 2003). Given the teachers' faithfulness to their mandated standards, if more credit-related finance education is desired by stakeholders, the standards and structure of course offerings need adjustment.

The Systems Accountability Office and standards committees are the decision-making bodies with the best ability to incorporate these steps. When there is a sufficient directive from the central office, schools would be able to modify their operations and optimize instruction for their particular setting. A summary of this research study will be made available to the Systems Accountability Office and participating schools. I will also offer to host an informational meeting at the next scheduled Maui professional development event.

Recommendations for Further Study

Based on the results, several areas of potential further study emerged. Teacher responses outlined minimal evidence of student prior knowledge from the infusion curriculum, and understanding those weaknesses would be valuable. It would be useful to know how much economics and social studies standards are being addressed in elementary schools, where each child has one main teacher, and how much of the economics infusion standards are covered in middle school. It would be of use to know how math teachers incorporate finance education as well. Another area of some urgency was the effect on high school dropout rate from the gatekeeper effect of algebra (Calhoon, 2008), and whether an alternate track or consumer math would serve all stakeholders better.

Reflections on Research

The research process led to some aspects of the study changing to meet reality. In those cases, reality trumped preconceptions. One preconception I had was that the infusion curriculum at the lower grade levels would have more impact on students than was actually the case. I assumed this because in my own classes I devoted a significant effort on teaching my economics strands such as the *Mahele* land ownership issues and supply and demand. It turned out that this was not true; although the one outlier that noted effective previous exposure to economics terms turned out to receive many of my own students. That connection is not corroborated by evidence or reliable; it merely comforted me and gave me hope that each teacher possibly can make a difference by what they do, and heightened my resolve to look closely at all data points.

I had a related bias against the No Child Left Behind partially because I felt that its focus on reading and math in elementary schools meant that I was receiving students with no real background in history or economics, even though relevant standards appeared in the elementary curriculum (Hawaii, 2006). I also had a preconceived idea that the No Child Left Behind law was an outside mandate that had mostly negative effects. In actuality the letter of the law itself promoted financial education (Burnett & LaCroix, 2003); it was its implementation that proved somewhat troublesome and has perhaps led to curriculum distortion from the letter of the standards. The law's high-stakes tests were actually trying to improve student reading and math ability, skills desired by the participants. The testing results have provided data so that teachers could examine their own practices, track students, and improve instruction.

Every influence has an impact, and every effort was made to avoid influencing the interviewees, avoiding interviewer dominance as recommended by (Kvale, 2006). My own preconceptions and ideas were bracketed as defined by Husserl (1970). Even so, according to the Heisenberg uncertainty principle, the researcher affected the subject of research. The study was co-created, and due to its open nature and follow-up questions drawn from research and mental reflex, it unavoidably bore the stamp of my own thoughts within its matrix.

Conclusion

Teachers on Maui were doing all they could within their bounded constraints to facilitate student competency in credit-related finance. They were meeting the needs of learners; facing problems of illiteracy and innumeracy encountered by other educators, as well as challenges related to pressures beyond their control and insufficient content integration. They were overwhelmingly using the best methods identified by research.

Steps to reduce illiteracy and innumeracy were ongoing, but aside from elective courses, financial education was not being provided to all students before they graduated.

The stakes for financial literacy are high and our future as a solvent society hangs in the balance, so the Department of Education should consider acting accordingly to give financial literacy adequate attention. Given the richness of teacher experiences, administrators and school officials could consult with their impressive cadre of teachers to improve academic and finance skills through course integration, offering credit-related finance education within and outside the pathway and elective system. That would empower Hawaii's children to graduate from high school with adequate tools for economic survival and prosperity.

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Appendix A: Interview Guide

Interview Guide

Note: these are general questions, each of which will be followed up with subsequent questions based on the participant's responses. They are framed by the research question: What are the experiences of social studies and business teachers regarding teaching financial education? Interview questions include:

- What are your experiences with teaching credit or spending skills?
- How much credit-related finance education do you get the chance to go over in a school year?
- To what extent does finance education or related concepts come up in your professional learning communities or other events?
- What instructional strategies have you found effective for teaching financial literacy?
- Is there any ethics component associated with the curriculum?
- What are your thoughts on the role of your subject area in teaching credit-related finance education?
- What should be done differently, if anything?

Appendix B: Observation Guide

Observation Guide

As suggested by Janesick (2004), field observation notes that are performed as the interviews progress will be divided into two areas: notes to self or observations on the left, and descriptions on the right. These notes are included to provide reference to nonverbal cues and any other pertinent information that is relevant to the inquiry but is not recorded on the transcript.

Notes to self and observations	Description

Appendix C: Consent Form

Consent Form

You are invited to take part in a research study of social studies and business teacher experiences regarding credit-related financial education. You were chosen for the study because you are a tenured social studies or business teacher on Maui. This form is part of a process called “informed consent” to allow you to understand this study before deciding whether to take part.

This study is being conducted by a researcher named Nikan Arapoff, who is a doctoral student at Walden University. The researcher teaches social studies at Maui Waena Intermediate School.

Background Information:

The purpose of this study is to gain an understanding of social studies and business teacher experiences regarding credit-related financial education. Credit-related finance education is defined as any secondary school curriculum that includes issues related to credit, spending skills or skills relating to land ownership. This aspect of finance education appears in only a few small areas of the standards. The researcher understands that many curriculum demands are placed on teachers, and that credit-related finance education may actually not be a significant part of your curriculum, or you may not actually teach it at all. If this is the case, the study will not reflect negatively on you, and you will still have valuable information to contribute to the study if you choose to participate.

Procedures:

If you agree to be in this study, you will be asked to:

- Participate in an interview about your experiences that will be recorded for purposes of analysis and veracity, and will last from 30-45 minutes.
- Share any pacing guides that are used by your department.

Voluntary Nature of the Study:

Your participation in this study is voluntary. This means that everyone will respect your decision of whether or not you want to be in the study. No one in the Department of Education will treat you differently if you decide not to be in the study. If you decide to join the study now, you can still change your mind during the study. If you feel stressed during the study you may stop at any time. You may skip any questions that you feel are too personal.

Risks and Benefits of Being in the Study:

The main risk for participants, which is very small, is a professional one from repercussions at work. That will be avoided by protecting participants' identity and keeping it confidential. The researcher understands that there are many pressures on and expectations for teachers and that this one aspect of finance education may or may not be emphasized, which will not reflect poorly on teachers regardless of the study's outcome. The benefits of being in the study include an opportunity to contribute towards a better understanding of finance education, and receiving a summary of the study when it is completed.

Compensation:

There is none.

Confidentiality:

Any information you provide will be kept confidential. The researcher will not use your information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you in any reports of the study.

Contacts and Questions:

You may ask any questions you have now. Or if you have questions later, you may contact the researcher via (808) 242-7149 or nikan.arapoff@waldenu.edu If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you. Her phone number is 1-800-925-3368, extension 1210. Walden University's approval number for this study is **IRB will enter approval number here** and it expires on **IRB will enter expiration date.**

The researcher will give you a copy of this form to keep.

Statement of Consent:

I have read the above information and I feel I understand the study well enough to make a decision about my involvement. By signing below, I am agreeing to the terms described above.

Printed Name of Participant ______________________

Date of consent ______________________

Participant's Written or Electronic* Signature

Researcher's Written or Electronic* Signature Nikan Arapoff

Electronic signatures are regulated by the Uniform Electronic Transactions Act. Legally, an "electronic signature" can be the person's typed name, their email address, or any other identifying marker. An electronic signature is just as valid as a written signature as long as both parties have agreed to conduct the transaction electronically.

Appendix D: IRB Approval

IRB Approval

07-19-11-0077275

Appendix E: Invitation to participate in research

Invitation to participate in research

My name is Nikan Arapoff, and I am a fellow teacher doing a research. You are invited to take part in my research study of social studies and business teacher experiences regarding credit-related financial education. Participation in this study is totally voluntary. Credit-related finance education is defined in this case as any secondary school curriculum that includes issues related to credit, spending skills or skills relating to land ownership.

A consent form is included that gives greater detail and is designed to protect your rights and privacy, should you choose to participate.

You were chosen for the study because you are a tenured social studies or business teacher on Maui. I teach social studies at Maui Waena Intermediate School. My contact number at home is (808) 242-7149, and at school is (808) 873-3070 extension 275. Please call me if you wish to participate. I hope you will take part!

Appendix F: Follow-up phone script

Follow-up phone script

“Hello, name is Nikan Arapoff, and I am a teacher doing research on credit education. I recently placed an invitation letter in your mailbox to see if you were interested in participating in my study.

I am calling to check if you were interested.

I would be glad to answer any questions that you might have about the study.”

(potential participant responds)

(researcher answers questions, if any)

If the potential participant wants to be in the study, a meeting or further communication is arranged.

If the potential participant declines, the researcher ends the call with: “Thank you again for your time. Have a nice day.”

Appendix G: Sample Transcription: Economics Teacher

Sample Transcription: Economics Teacher

N: I'd like to begin by asking about your experiences with teaching credit or spending skills.

X: I've taught economics the past two years. What we do (with) things here is see if ...here they have choices of social studies to take. First semester is usually American Problems, second semester they have a choice between psychology and economics. And as far as economics I do that.

N: OK. Do you teach any business classes, or just economics?

X: Just economics.

N: And that's part of the social studies department?

X: Yeah.

N: In the course of a school year, how much credit-related finance education do you get the chance to go over, when you're doing your economics?

X: Well, I tend not to focus on the real terms of economics, I mean I might spend the first unit on those kind of terms, but then most of it is about making a budget. You know, getting a credit card. If you borrow $400,000 for a house, what are you going to end up paying? I mean, that is one of those days where the kids really... have a shocked look on their face, you know, when they finally realize even buying a $25,000 dollar car, how much they actually have to pay back. You know, those are the types of things I try to focus on. How to make a budget, that kind of stuff.

N: OK, if you were to guess... all of those things that you mentioned, getting a car, getting a house, that's all credit related, if you were to put a guesstimate on the percentage of time, in the course of a term, how much do you spend on that?

X: I would say two quarters...to about a quarter. Because the last quarter, basically the fourth quarter is a quarter-long project, where they get a fake job or get a job, how much money they're making, and they create a budget, pay bills, you know, all that kind of stuff, and based on credit. If they do run a little bit... if they don't have enough money for that month, they can use a credit card. And that creates another bill for them later on, but it saves them, you now what I mean?

N: Right.

X: If they're short that month, for whatever reason. Because I throw a curveball every once in a while... like the car breaks down they have to pay so much money, something goes wrong with their house they've got to fix it, that kind of stuff.

N: OK, when you're going in to this stuff, how do you simulate that... the things going wrong?

X: Every day of class represents a week in real life. So, basically we do a month in a week, so they come up here and actually roll dice, that they would roll, and whatever numbers they get, that's the scenario. So, they've got to go to a birthday party, or whatever, you know. Whatever it is that might cost them a little bit extra. But, sometimes they get a bonus. But most of the time it's a (chuckles) negative.

N: Ok. So this random... as an example, when you use the randomizers, the dice or whatnot, is that something that you developed?

X: Yeah, that's something that...well, actually I had a student teacher one year and we both came up with, that I still use.

N: OK, that's neat, basically using luck, basically a die roll.

X: Yeah.

N: To what extent does finance education or any related concepts come up in your professional learning communities or other events here... if at all?

X: Well, in our PLC... our PLC is the senior project. So, there are some things that come up because the kids either have to spend money or not spend money on their projects. But other than that, it doesn't come up very often.

N: OK, All right. Do you folks plan together any kind of units or anything like that in your PLCs related to this?

X: No, because our PLC is pretty mixed, yeah. Our PLC was created, basically, whoever sits on the senior project committee. So, we talk about that kind of stuff. Not really curriculum in our class: it *is* all curriculum in our classrooms, but it's not necessarily... I mean it is a big integrated project, It's just not... it's individualized, or whatever teachers are doing. When the kids choose a senior project, it can be anything practically anything. Anything that's not illegal.

N: Yeah.

X: Or doesn't wreck them or our community in any way.

N: And that senior project that comes out, it's done through social studies?

X: Social studies and English.

N: Social studies and English. All right, when you're teaching them, you mentioned using randomizers and other stuff. What instructional strategies have you found effective for teaching?

X: I try to do the minimum amount of direct instruction as possible for this... I mean, of course, yes, I have to do this to do the lesson, but a lot of the kids use group work, presentations, test for key concepts, you know, and they bring their own words, and a picture or something, for presentation. I do a lot of pair-up. So, this table is doing something, and they'll share it with the rest of the class, otherwise the group members would have to go around, get information from other groups, come back, and then share it with the rest of their members, you know what I mean?

N: OK. When you're doing... when you set up groups like that, what do you find to be optimal size for that?

X: Four. Four at the most. Two is probably the best, actually. Two, then maybe three, four.

N: And what's your rationale for that? Not that I disagree, but...

X: Oh, it's just that the more people there is, the more chance to me there is of somebody just sitting back, you know, taking the work from everybody else. There's only two of them, they... it's half-half. They need each other, and so if they want help from one person, they have to put up their side.

N: Is that why you say three, or four tends toward that slacking?

X: Yeah.

N: You say, minimal direct instruction often, but usually to get the lesson started you've got to do that.

X: Yeah.

N: For doing stuff in their groups, have you found any particular activities work better in doing groups? For example, projects, or ... in what circumstances do you usually use the group?

X: Introducing new terms, usually. Projects, definitely, yeah. But, like even our fourth quarter project, it's an individual project, but I let them go in to speak... where one person has an issue, you know, "how did you do this", you know, so they have a group to rely on. And to go "how did you figure this part out" and "what did you get from here"? So where they're asking each other...I mean they could always come to me, but they're more asking each other, and getting help from each other, you know, they're used to rely on their peers instead of just, you know, the teacher.

N: OK. When they come to you, they have supposedly been exposed to an infusion curriculum for economics and social studies; like if you look in the standards kindergarten has some standards here and there, but when you get them, do you see too much evidence of prior exposure?

X: Well...you know what, I know what you're saying (laughs)... not really. I mean, because I teach World History as well, and the economics part of the curriculum is not really what we do in economics. I mean, they might understand: "OK, economics, OK that's money, you know, that's my GDP" and all that stuff, but they can't put it to them individualized, okay, how does this you know, kind of make it work for me, how does it affect me. I don't see a lot of that.

N: OK, so to paraphrase maybe, the exposure to terms, they've had, but they haven't been able to internalize it and make it applicable.

X: Yeah.

N: OK. So do you see in the high school level, up here, do you see any parallel instruction going on in economics besides what you're doing?

X: Well, you know, I've never actually sat down with a business teacher and asked him what he does. Or she does. And I've never really did that ... and maybe it would be a good idea to.

N: OK.

X: We just don't have the time (laughter).

N: OK. When you teach them about, say, mortgage rates or credit cards, are they affected by that? Do you detect interest?

X: Oh, yeah! I mean, I can see their eyes open, you know, you borrow $350,000 you're going to pay back almost a million dollars, and they can't fathom, you know, why am I paying back so much money? Unfortunately it has an effect where I can see some of them going "I'm never going to be able to do this". You know? But, then again, It's hard to see them maybe realize that, some of them, but I think it is important that they *do* know it. They don't have a good idea of how it's going to be. See, after senior year there's no more, like safety belts, and they're out there. It's college and working, you know.

N: Speaking of that, when you're teaching, is there a lot of computer or technological things that you found useful in teaching this curriculum?

X: Well, I use the economics alive curriculum a lot, and, see, I have a mobile lab in the back of my room there that has computers and almost everything.

N: Yeah. Any particular programs other than economics alive?

X: No, but I use almost like, at least Edmund's for the car thing I forget the name of the website that they give in the curriculum, but it's got mortgage calculators and stuff like that.

N: Ok, so you're showing them how to use various evaluative programs?

X: How to look at jobs and stuff like that.

N: Ok, so the job aspect... when they're looking at jobs, what are you looking at there for them, what are they researching?

X: What is... their goals? What is... they going four-year, are they going to extended college, two-tear college, no college, and what types of jobs they could probably get, are interested in. We do something called the personal transition plan at this school, , yeah so they've done a lot of that stuff already they know how to do it, it's just now kind of refining it a little bit more. Than what they've been seeing in the sophomore and junior year.

N: OK. And have you noticed, is there any kind of a balance do you notice, between , say, how much money the career might produce versus how much interest they have in it?

X: Uh, well, yeah, a lot of them, I think...for the project, they want to get the highest-paying job. But it's not necessarily what their interest is. They just want to pick... what's going to make me the most money. But, as far as a connection to their interest, they tend not to go with their interest at that point; for the personal project, anyway.

N: Is there any ethics component associated with this curriculum?

X: You know, I spend a lot, so much time with the stuff, I don't really talk about it...well I mention stuff like the stock market a little bit...is that kind of what we're/you're talking about?

N: Well, sort of, okay, basically we've had this big housing meltdown, and we've had ...

X: Right, right, right, right...

N: the crisis, and there are various things that people have blamed it on. One of the allegations that came out was; well, it's unethical, there's a lot of unethical behavior, and are we teaching our kids about ethics, about making ethical choices, etcetera.

X: Well, actually I do a lot of that in the first semester of American Problems, We talk about racism, discrimination, same-sex marriages, all that type of issues like that, and that's where those kind of ethics, just because we can, doesn't mean we should kind of thing comes in. But as far as economics go I'm mostly focus on budgeting and stuff.

N: Budgeting, the nuts and bolts.

X: Yeah.

N: OK. Have you noticed, and time progresses, and the internet is always there, do you see more opportunities or possibly more threats to these students in terms of processing the information, not getting swindled, making good choices... all the things that are out there to choose from ,and see instantly...

X: I actually think it's more of a possibility that they'll get swindled. I mean, even *I* when I go on stuff I *really* have to pay attention about what's going on. I mean, I think if you're not prepared for it, you are going to get taken. A lot of these websites are like that. I mean, I don't know. I think there's more possibility that they're going to get taken, if they're not aware.

N: Do you sense that, over time as they get more literate with devices in ways that I never was, do you see them become more educated consumers, or is that not keeping pace with the amount of information out there?

X: I think they'll be a little bit more educated. Well, they'll at least have access. To the information that they need. Whether they're going to access it or not, I think that's the question. You know, they will definitely have access to the information. You know, whether they access it or not, that is the question... and for the most part, they will, especially if it's about a product that they want. Like a certain type of TV or something. I think they'll research which is the best one they should get I think it'll be better, actually.

N: More information readily available, OK. Our GLO (General Learner Objective) number six is "effective and ethical user of technology" do you see any trends in their use of information, like for example, to do your projects, when they get stuff off the internet, do you see any ethics changes in that, I mean, are they doing it ethically, or do you see any plagiarism?

X: Well, the senior project that they go through they use the computer just like anything. And a result of that when they're doing other stuff, the first question is: do I have to cite this? Yes. And they get it done. They want to do it, they've done it before, and they're a lot better at it in, say, February or March, than they are in September.

N: So do you think in high school, before they get to the senior project, they've been exposed to citing?

X: Yeah, they've done it, but with the paper it's really hammered into them, how important it is.

N: OK. In terms of getting ready for college...I'm asking this because some of the research is saying that the children need to be trained in credit-related finance education before they hit college, what are your thoughts on that?

X: Well, I definitely think so. In fact, I was just talking to one of my former students, about two weeks ago. And he was saying that he was glad that the went through the whole... he went through the credit card unit, because now that he's up there, he found out, you know, he finds that sometimes they run short, they run a lot short, sometimes, have too much fun a couple weeks, whatever, and you start to use a credit card and the bills finally started coming in, and so he started realizing, well, I got to call mom and dad for this... you know what I mean? Kids don't always have mom and dad to help, but to realize that some of it is going to catch up with you. At least he realized it and said "oh, I've got to slow down", and they know what that kind of stuff is.

N: It's interesting to me because you're putting a lot of emphasis... from what I'm gathering that you're giving them a lot of training in really critical, functional areas like credit, credit card purchasing, etc. There have been studies done that have shown that taking an economics course does not really, statistically change their behavior in terms of credit cards and so forth. If you look at the curriculum, only about 10% of the standards, say, have to do with that. What are your thoughts on the role of your subject area in teaching credit-related finance education? What do you think?

X: Well, I think it's very important. And that's why... that's the curriculum that I kind of pull out of the economics alive stuff. You know, I guess I tend not to do the economic-ey you know, micro versus macro, thing, you know... I touch on the stock market, you know, but not really. I'll leave that... if they want to further that college, you know, go look at that, but it's mostly basic life skills, is what I'm trying to focus on. How do you balance a checkbook, you know. How do you apply for a credit card. How do you evaluate credit cards. You know, and what is the best offer. That's the kind of stuff that I tend to do. And, and if they don't have a business class, or business as an elective, at least they'll have it here, in an economics/social studies class they have to take. You know, and that was why I was so big in making sure we keep that fourth year of social studies (a recent legislative initiative aimed to cut one year of social studies).

N: Oh, yeah...

X: ‘Cause, I mean it’s important. If they don’t get it, I don’t know when they would learn it. They would learn things the hard way, like I had to. Yeah and it is, literally, the hard way. It doesn’t have to be.

N: So, in your opinion, is the economics curriculum is it a little bit too focused on things like macroeconomics?

X: I think so.

N: And not too much on basic survival.

X: No. Yeah. I think the focus should be a little bit more on that. And they do get a lot of it their freshman course, but it’s just one part. And the course developed around that is very important.

N: Ok. The kids that come through your classes, are they mostly college-bound, do you think? They have to choose, right? This is a path...

X: So... out of all my... that’s a good question. I think around 70% tend to be college bound kids.

N: High, then. Ok. What should be done differently, if anything, just looking at the entire, overall picture.

X: In economics?

N: Of economics, yeah.

X: Maybe do a year course. So I can cover all the stuff.

N: More time.

X: Yeah. I mean, if it was a year course, then we could cover all the macro stuff *and* the personal side of it. Budgeting and all that stuff. And then we could spend the first semester on what are the reasons... economics itself. You know? But, because we only have a semester, I tend to focus on that part, because I feel, it's a personal thing, that it's more important.

N: Ok. What about their basic skills, like reading, writing, math. Is there anything that we really need to improve on in the lower levels, in the lower grade levels to get them more prepared before they come to you?

X: The math.

N; The math?

X: The math. I mean, I give them a worksheet. You know, how things are on sale, but the bigger one is not on sale, but the smaller ones might be on sale, how much of the small ones equal a big one, that kind of... I mean, just to be able to calculate that in the store, in your head, really quick, that's... they have a hard time.

N: Why do you think that might be?

X: I have no idea...there's this thing called CPBM...

N: What's that?

T: College prep math, that we did a couple years ago, but we've gotten rid of now. It taught the basic algebra I, geometry... but I don't know... if something's 96 ounces, something is 16 ounces how much of the sixteen ounces is it going to take to equal the 96, I don't know how the calcu...I mean I... I don't know, they have a hard time with that.

N: If I'm correct though, that's just arithmetic.

X: That is! Basic kind of math without the calculator, in...(pauses)

N: The calculator, okay, you mentioned the calculator, do you think that might have something to do with it, too much reliance on calculators?

X: I don't know... yeah definitely. I think so.

N: More training with, like multiplication tables. More of a number sense, relationships between this number and that number in your head, versus... not being able to process that. Okay. So if it's arithmetic that they're lacking, at the algebra, the pre-algebra level, that's not really going to help them with these questions.

X: Not really.

N; It's just basically arithmetic

X: And that's it. Balancing a checkbook. You know, and figuring out: am I being charged the right amount of interest here? Is the credit card company messing with me a little bit? You know, just figuring that kind of stuff out, I mean, you know, how to multiply percentages. You know, get a percentage of something, okay if something's 40% off, how much am I actually saving?

N: That's in the *seventh grade* math standards...

X: I agree with you! (general laughter) I mean, that's the stuff that gives them the hardest time. In the little activities that we do, that's the stuff that's the hardest for them.

N: Do you find, like okay for example, if you were to give them a word... like a problem that's just a formula versus a problem that's... word, word, word, all your stuff is word problems...

X: Oh yeah, the word problem messes them up.

N: Yeah okay, because it's not reduced to something you can just plug in. Okay. Anything else that you notice...writing, reading, anything else?

X: The writing for the most part is okay, reading... I mean we could all build their vocabularies a little better, but for the most part it's adequate.

N: Okay. When they do their group presentations, have you found any useful strategies for that?

X: Well, definitely. I give them roles every person has to say a certain amount, it's assigned, it's not just one person up there in order to, you know. And it's again, to build the skills for the senior project. They make a petition in front of a panel of adults, you know they have 10 minutes, and then it's five minutes of question and answer, so it's all those small little things that build up their confidence and get up. And there are some kids who are still nervous, it's kind of funny, you know, but they need to be able to overcome that. Yeah, so it's assigning them... you need to say this part. Your part, you research it you put it up on whatever you're doing; PowerPoint, or whatever, and you do this.

N: OK. So you build that into their jobs when they're doing...

X: Yeah.

N: ... the group thing, maybe assign them maybe you're going to be responsible for this.

X: Yeah.

N: So you've only got one semester to prepare them for that, to get them ready to present...

X: Oh, present? Oh no, they do it in American problems the first semester.

N: OK, so they have a chance to get ready for that. And the final presentation takes place in the last part of school then?

X: March

N: Credit cards... when the kids come to you, do you get any evidence at all that they are getting education at home, one of things I have found in a lot of the research is they say, well, the only people who are training the kids to day to use credit cards are parents. Do you see, like any of that?

X: I do see, but it's few and far between. Most of the kids' question is: how many credit cards do I need? Well, you don't need any. (Laughs). But you are going to get one. I tell them to get two. You know. One you do not use. It's for emergencies only. Because something comes up. The other one, if you want to build credit when you're younger, you use it to buy gas, you know, you pay that off. Every month. You don't keep a balance on it at all. If you don't have the cash for it, don't use it. At all. You know, that's what I basically tell them.

N: So you're building a... you're trying to train them how to build a credit rating.

X: Right. So that later on they have a nice rating and can get what they want.

N: So they're not stuck with a subprime mortgage (general laughter).

X: Or be like me and have four cards maxed out at the age of 27. And thinking... yeah, yeah.

N: Well, you know what, you've pretty much answered all my questions. It's been really very interesting. I'm going to go ahead and stop the recorder.

Appendix H: Sample Transcription: Business Teacher

Sample Transcription: Business Teacher

N: Okay, well this is an interview about credit and spending skills: anything having to do with how people spend the money that they budget, anything about purchasing, developing credit rating, anything along those lines at all. So I'm going to start the interview out with asking you: What are your experiences with teaching credit or spending skills in general?

Y: In my core class, I teach, like check writing, budgeting. One year I taught transitions to high school and I did budgeting, and they had to research how much a house costs, and how much food costs, but as far as business classes go, I teach more like how to balance a checkbook, that type of thing.

N: When you said transitions to high school, you meant transitions to college?

Y: No, that freshman year they're required to take a course called transitions to high school.

N: OK. And that contains elements of mortgages, houses...

Y: A little bit, yeah, it's more of; got to take notes and what kind of path, career path they should go into, and then after that, it's more like life skills.

N: Ok, so right now you're teaching a core business class.

Y: Yes.

N: In that core business class, how much of that... in that class do you get the chance in the course of a year... do you teach a year or do you teach a term?

Y: A year.

N: In the course of a year how much of a chance in that class do you have to go over anything related to credit or spending? Just roughly.

Y: (pauses, considering). ... no not even that...two to three weeks.

N: So in terms of a percent, is that like, what... ten percent?

Y: Yeah.

N: Something like that.

Y: Not that much.

N: The business core that you teach, what does it focus more on?

Y: The reason why I don't really go in to that is because we're more into the academy of hospitality and tourism.

N: OK.

Y: So, like my co-worker she's more of like the finance, marketing entrepreneurship type. We're the more hospitality, so...

N: OK.

Y: I try to teach a bunch of different fields in business, but, towards the end we focus more on, like, customer service ...

N: So this is something that's connected to travel and industry management at a higher level, that kind of thing?

Y: Yes.

N: OK. When you get together with other colleagues in your professional learning communities, to what extent does anything having to do with finance education come up?... or does it come up at all?

Y: Not really.

N: OK.

Y: I mean, like talking to them about how we teach it, that kind of thing?

N: I don't know, like for example, yeah, it *could* be...you know, planning with your peers, how you do stuff, or discussing it at all, or anything.

Y: No, not really...well like, I know our counselor recommends the UHMC (University of Hawaii Maui Campus) people to come and so they usually come in to my classroom and teach, like, budgeting.

N: OK.

Y: But as far as my co-worker at the school, we don't, really.

N: So when you say there's people coming in from UHMC, what are those...who are those?

Y: I think that what the program is called *Alaka'i* (guide) maybe, I forget exactly.

N: OK.

Y: But they are trying to, like, recruit students to come to their school, and then a part of that is teaching them how to save money for college. And so they have this whole program where they give out fake money, and then they say "Okay, you have a college education, then you make this much money, here's how much rent is, then they have to, like, budget it that way and then they have different people who are high school graduates, master's degree, that kind of...(pauses)

N: So the people who come in are faculty from UHMC?

Y: No, they're hired by UHMC, but they're students.

N: OK, so it's a program that they are doing for credit themselves.

Y: I think so.

N: I see, okay. Going over...is there anybody else that comes in from the outside to connect with your curriculum? Any other outside providers, like, say, working with the bank, with private companies, any other private outreach like that?

Y: Not yet, I know they're trying to work out a plan with my co-worker... a credit union, they want to come in organize a credit union and once a week... but we haven't started that.

N: OK. What instructional strategies you found effective for teaching financial literacy in the classroom in general?

Y: Hands on. I print them out blank check and check registers, my dad used to work at a bank, so I got some deposit slips from him, and I gave them real ones, like real life. Textbooks, not really work too well, so try to make it more like "here's a real check, sign it like that".

N: OK. So checks and registers, keeping your checkbook balanced, and all that.

Y: Yeah.

N: How about, say, when you have the kids working on these kinds of units, what about groups versus direct instruction, what do you generally tend to make them do?

Y: Financial, during the financial portion?

N: Sure.

Y: We... mostly individual.

N: OK.

Y: Because I.... for me, I don't know if they'll end up copying, so I like to keep that individual, just so that they actually go and learn it.

N: OK, so when they're doing it individually can they help each other?

Y: Yeah.

N: OK, but they're still responsible for their own product.

Y: Yeah (laughs).

N: Do you do any group work at all in any of your business stuff?

Y: Yeah.

N: When do you do more of the group work, what aspect?

Y: I guess I ... right now they're making commercials, they need collaboration, I guess it's more where they need to come up with a final product that is a more long-term project.

N: So, okay, so project-based learning, a presentation, something like that.

Y: Yeah.

N: When you get into groups, what do you find to be like a good number that functions and works for you?

Y: Depending on the project, sometimes two, but mostly three to four.

N: Never more than four.

Y: No, never! (laughs).

N: OK, so you run an academy, kind of?

Y: I'm an advisor, like there's a director right above me, but yeah, I do a lot of the...

N: Could you describe to me kind of how the academy works?

Y: Sure. We are an academy that is mostly sophomore students and they are required to take business, travel industry management, English. It's a cohort, so they take English together, business together, there's juniors and seniors who take social studies. And part of graduating from the program if they want to be a completer, they have to complete a 120 hour internship and a college level course. If they do all of that, they qualify for a scholarship with the Maui Hotel and Lodging Association. A lot of people try for it.

N: I see. The internship, typically where would that be?

Y: It's usually over the summer, they get... I try to get hotels to do something. They've gone to... Royal Lahaina has always helped us. Kaanapali Beach Hotel. But it can also be any type of customer service. So, if they already have a job, like a lot of my students, part-time jobs already, then they just use that.

N: And the college level course that they have to take, can they pick whatever that...

Y: Technically, they can, but we provide them the opportunity to take one every year, so it's called IS 105C it's intro to career skills or something like that, so résumé writing, they do mock interviews, they do that kind of thing.

N: Ok. Speaking of writing, and interviews and things like that, have you found much opportunity to integrate technology into this curriculum?

Y: I have in computer lab, so yeah; we do a lot of technology.

N: Ok. Have you found any programs that that are particularly useful?

Y: For...

N: For anything that you're doing? Besides like, Word, any kind of typical application kind of thing.

Y: Well, I teach keyboarding, keyboarding there's this website called edutyping.com. That one's really good, I like that.

N: OK. Anything else that you can think of?

Y: We don't have a lot of funds, so no, we don't really purchase that much software. In the past, we did, like, you know, business simulation software. I don't remember what it's called. I used to do it. You had to, like, have your own supermarket, and purchase the products, and see how much you're going to sell it for.

N: It was prohibitively costly?

: Yeah.

N: You had to keep renewing it?

Y: That one you have to keep renewing, but it didn't really work for my hospitality classes, it's more of an entrepreneurship side, but I couldn't really find any hospitality ones. But yeah, like I want to teach, Photoshop , and stuff like that those are expensive,.

N: I'm just guessing, those are for the marketing aspect of that?

Y: Hospitality. Like, there's a whole... we're part of this national organization called the national academy foundation, so they have different courses that they provide to you if you want to teach those, so one's hospitality marketing.

N: Ok. While they're using computers and producing things, do you sense that they're getting more and more proficient with computer use as you go on? Do you see any trend in their skills with using technology?

Y: The same students or different students?

N: I'm saying, like, over the years, have you seen any trends of their abilities with technology?

Y: Well, I've only been teaching for, well, this is my fifth year, but they really are into technology, like a lot of the older teachers notice that they use... well, I notice, even from the time I started teaching that they're always on their phone. All of them have smart phones now, even like when I first started teaching, not all of them did, so yeah, I guess they're more into it now. But it's hard, skills, though, the internet...it's hard because I have my students for sometimes four years, so I do notice from the very beginning when they first start to the end, like the internet research skills improve heavily by the time they're seniors.

N: OK.

Y: As far as trends...

N: Ok, but within the course of your instruction, you can tell that they pick up a lot.

Y: Yeah.

N: How about their ethics, in terms of using the computers and not plagiarizing?

Y: They need to be taught that (laughter). My sophomores, I assign them a research paper, how to effectively advertise, and like, 90% of them copy and paste it. But I told them if you copy and paste, you have to use citations, and they got it and they wrote their own, so yeah.

N: OK. I guess I'm going to branch out from that a little bit. Is there any ethics component associated with the curriculum that you teach? The reason that I'm asking this is recently of course, we had this big housing meltdown, and lot of people blamed "oh, people were unethical, they were too greedy, they weren't taught somehow how to be ethical about business, etcetera". Is there any real ethics component in the curriculum that you've got?

Y: Not.. not in... no. We teach a business law class, I don't teach it. But, yeah.

N: So it's there in what the school's offering, but not really in the courses that you're teaching. OK. I'm going to go back a little bit. When you get the kids from wherever they come, when they come to you, do you notice any deficiencies in terms of anything basic that they have to kind of catch up with, reading, math, writing, anything like that that you have to deal with?

Y: Well. Their grammar's not really always that great, yeah. Sometimes I have to edit their papers a lot, and then they get their papers back and they're like "all that's purple?!" because I don't like to grade in red (Laughs).

N: Grammar. So, that's like their writing, a little bit?

Y: Yeah. Actually spelling's really terrible because they spell how they text.

N: When they are using programs and whatever, are they able to overcome that using spellcheck? Does that work at all, or...

Y: Yeah, they'll correct it but under...they don't,... I mean, when you're googling something and they're using Microsoft word, it just comes up in red, the squiggle, so you don't really learn how to spell it, you just press rewind on the computer.

N: Depending upon which is going to be the proper term...

Y: So if they have to run with it their spelling is all over the place.

N: How about their math? Is it adequate for your purposes?

Y: Well, yeah. For what I teach anyways. I don't really go into math that much, maybe the check writing portion, but then they can use the calculator.

N: So it's not even... do they have to figure out percents or anything, or is it just addition?

Y: Yeah. It's just addition and subtraction.

N: You mentioned that the textbooks don't really help you all that much. To get them to do more hands-on, in addition to writing checks, and using artifacts from banking, is there anything else that you found useful... anything like a prop that you could use in class besides just the bank artifacts?

Y: For the finance one?

N: For anything.

Y: Besides technology?

N: Yes, besides what you could look up on the computer.

Y: Me particularly, I haven't got a chance to try it yet, but my old coworker used to use monopoly to kind of tech them accounting, I haven't...

N: OK.

Y: As far as we, prop-wise, not really. It's hard because we do a lot of hand-on stuff. So they have to pretend that they're travel agents, or a renter, or business entrepreneur, so I don't know...

N: So it’s kind of like, if I can paraphrase this, you’re doing a role-playing kind of thing.

Y: Yeah.

N: Where they have to perform.

Y: Yes.

N: Let’s see. How about interest? Have you noticed, like, affectively, does this grab the kids’ attention, this kind of approach and this subject, does it interest them, are they into it?

Y: My subject? Yeah. I guess it’s an elective, they have to choose to be in it, so it seems like I have a pretty good number of students signing up.

N: OK. What’s the demographics of the kids that choose to take this elective if you look at it? Is it across the board everybody, or what’s it tend to be?

Y: Heavily Asian.

N: OK.

Y: And Polynesian.

N: Asian and Pacific Islander.

Y: Super.

N: If you were going to kind of guess, are a lot of these kids maybe headed for college?

Y: It seems like a lot more of them than before, yeah. Like, my first year here, I might of started at ...70% went to college, maybe 60-70, something like that, now it's really high, something like 90's. At least, you know, we have community college.

N: OK.

Y: Yeah.

N: In the research that I've done I've seen colleges that say, OK we have to do finance education because it hasn't been done in the high schools. What's your opinion on where finance education should take place? Where do you think it ought to happen?

Y: When do you mean, finance education?

N: I mean anything having to do with spending, or credit, in other words, when should we be receiving this instruction, in your opinion?

Y: *When* should they be teaching?

N: Yeah, what grade level would you say it to be appropriate?

Y: Definitely high school.

N: High school?

Y: They would be ready for it maybe their senior year. Credit?

N: Yeah.

Y: Credit, yeah, senior.

N: OK. Towards the end of high school would be appropriate.

Y: Yeah, I think so, it seems like they would be ready, because then they are like getting ready for adult life. Do they all get it? Only the ones that sign up for business. That's only 30 for me. Out of many in our class, like 200.

N: Wow. OK. Do you see much evidence of any of the training that they are getting from their parents at home?

Y: No. Very rarely. The ones that are probably wealthier.

N: OK. There's a socioeconomic kind of thing going on, too.

Y: I think so. Yeah.

N: As far as transitioning into... let's see... in the social studies curriculum they're supposed to have been exposed to economic principles like those in business all the way through. They're supposed to be getting in kindergarten, first grade, you know, supply and demand, things like that. Do you see much evidence of prior knowledge by the time that they get to you?

Y: When I'm in... when they're in the program, they're senior year they're required to take economics. Their sophomore year, they learn a little bit about supply and demand; when I talk about it, they've kind of heard the words supply and demand, they don't really get it.

N: So they know the term, but they don't have the applicability to apply it?

Y: Yeah. They're like "I think I've heard of that word before..." you know.

N: But it's not connected.

Y: But by the time they're seniors and they take economics, then they get it. We had a little... we talked about that.

N: OK. So prior exposure, but they're mostly getting the prior exposure from high school.

Y: Maybe, right. I'm not sure. Yeah.

N: Ok, Ok. Let's see. We've recently had financial difficulties, the economy has kind of tanked a little bit, do you see any impact of that in your classes, or the curriculum you're going over? Is there any change that you've noticed due to these economic hard times?

Y: Of the students or what I'm teaching?

N: Of the students *and* of what you're teaching.

Y: Well, two things. The first, I know, like hospitality and tourism, the jobs got a lot more scarce. So, that I have to teach them, and I tell them about that. It's more that my students, we have to turn in data for the national academy foundation that I was telling you about, my director told me that, after inputting all the data, that 85% of the students were below the... I don't know the proper term... the one where they get the free or reduced lunch?

N: OK, so it's an economic indicator.

Y: Yes.

N: So, 85% free or reduced lunch. Wow.

Y: And she was shocked she has been teaching for 30 years, and I don't think it was always like that.

N: So it's probably being reflected in the composition of the students, the hard times.

Y: Yes.

N: Do you think it's affecting any of the partnerships, the other stuff that you've got going on, like, say, royal Lahaina, Kaanapali Beach hotel?

Y: Yes. I know, like KBH (Kaanapali Beach Hotel) used to provide us aid internships, they can't anymore, so they provide us unpaid, a lot of the internships have tended to be more nonpaid.

N; Ok, and you said JVH?

Y: KBH. Kaanapali Beach hotel.

N: Oh, okay, I'm sorry. They used to pay for the internships, now the internships are free.

Y: Because the HR manager, she told me basically, like "we're not hiring, how can we pay to have these students come in for three months? Sometimes they have to lay off... not now, this was, like, two years ago, they can't just lay off people and pay for the student.

N: OK, what are your thoughts on the role of your subject area in teaching anything related to credit or spending education?

Y: I think it's important that I do teach it, but it's hard to teach it early, I have to teach it senior year, and I would try to tell them , like, my experiences with credit, how important it is to keep track of your spending, and talk about my friends who filed bankruptcies, things like that, but it's hard because they don't actually get it until they have to go experience it after high school, so it doesn't connect for them, it's really hard. They don't feel like they have to worry about it until later, so they don't really accept it; it's kind of hard.

N: This is kind of connecting, if I may paraphrase, it's connecting with what you were talking about earlier, about taking it later, just before they are about to leave because they are going to be in the frame of mind to pay attention.

Y: Yeah.

N: Ok, let's see... what should be done differently by our public school system, if anything, regarding this? Just off the top of your head, if you have any recommendations?

Y: You know, I don't think they have a set curriculum for it, maybe they might try to make sure that every student learns that , about mortgages and about how to buy a house, I just purchased a home in January, and before that I didn't know anything about that. I kept good credit, but that was just luck. I wish that they would teach it. Like, you know, I majored in business too, and even in college we didn't really have... teach that.

N: So it's... really it's a choice, you have to choose that path...

Y: Yeah.

N: And in that pathway, you get exposed. If you chose a different pathway, you wouldn't get exposure.

Y: Right.

N: OK, that's something we could do differently. Anything else you can think of?

Y: To improve?

N: Yeah.

Y: I don't know.

N: Let's see... in economics there's kind of a balance. If you look at economics standards, and they're imbedded in social studies, and later they come out all on their own in economics courses, there's a huge amount of stuff, and only about 10% of it is credit and those personal kinds of things. There's a whole lot of things like macroeconomics, the flow of commodities, these big patterns. What do you think the balance should be between, say, all that theory, and personal survival skills?

Y: Definitely to me, I think it should be more personal, because they need to be able to apply it to real life. But then I was thinking about it too, and economics is a social studies elective. They don't have to take it necessarily. So even then, they're taking it because they want to learn about business. So maybe it should be a balance between theories and personal. So I'm wondering maybe, back to your question about how to improve, maybe they could fit that personal level somewhere else where everybody is mandatory to take social studies, maybe?

N: And then so the ones that are really into taking the elective for economics, they get exposed to...

Y: Theory.

N: Advanced stuff, and everybody has to take some kind of personal survival.

Y: Yeah.

N: OK, well, you've answered all my questions and thank you very, very much.

Appendix I: Sample Observation Notes

Sample Observation Notes

Reproduction of Left Side (notes to self and observations)

Has been teaching this for two years (is tenured).

Terms are not all focused on making a budget.

Mortgage rates and credit cards seem important.

Up to 50% of curriculum is related to credit or spending (maybe an outlier!).

Fake jobs utilized for roleplaying, a randomizer as well...gaming theory?

The PLC focuses on the senior project.

There's minimal direct instruction; group instruction in pairs.

Likes Economics alive, Edmunds' (look it up later to see what it is!).

Needs more time; less time on macroeconomics.

Reproduction of Right Side (description)

The room is upstairs on the second floor of a long (200') building, accessible by a stairwell. The climate here is (deleted to protect identity of participant). The louvered windows are open, and no air conditioning is engaged. This is the teacher's study/preparation period. The teacher is seated at a desk with three students working independently at the other end of the room on computers. The students appear relaxed and comfortable. The teacher asks me if I want the students out of the room, and I reply that I'm okay with them being there if he is. The room has many (about twenty five) desktop computers on top of desks in serried ranks, and appears to have a setup to be a computer lab and classroom. The teacher desk faces the classroom on the left side, against a sideboard table that runs the length of the room. Outside, the campus is quiet and school is in session.