

**IDENTIFYING THE CONNECTIONS BETWEEN FINANCIAL LITERACY  
AND CATHOLIC SOCIAL TEACHING**

**A SURVEY CONDUCTED IN COOPERATION WITH BANKING ON OUR FUTURE**

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## TABLE OF CONTENTS

I.	ABSTRACT	iv
II.	INTRODUCTION	1
III.	INTRODUCTION TO CATHOLIC SOCIAL TEACHING AND THE CONNECTIONS TO FINANCIAL LITERACY	11
IV.	METHODOLOGY	26
V.	RESULTS AND ANALYSIS	36
VI.	FINAL REFLECTIONS AND CONCLUSIONS	54
VII.	BIBLIOGRAPHY	62
VIII.	APPENDIX	65

## Abstract

Despite recent financial endeavors and investments in Detroit, the city and its citizens are still suffering. This study involves a University of Detroit Mercy (UDM) student service learning experience with the “Banking on Our Future” (BOOF) financial literacy program organized through the worldwide organization, Operation HOPE. In this paper, I examine the impact of the BOOF program. Not only can financial literacy programs improve our society economically by educating the underprivileged about basic financial concepts, but there is a clear and unique connection between the promotion of financial literacy, through programs such as BOOF, and the principles of Catholic Social Teaching. These principles include “dignity of the human person”, “participation”, “commitment to the common good”, and “option for the poor and vulnerable”. BOOF promotes financial literacy *and* financial dignity in an effort to break the cycle of poverty and provide young people with the tools they need to participate more fully in an increasingly complex financial world. For this study, a sample of fifty-two female students comprised of sixth and eighth graders attending the Detroit International Academy completed a survey before and after they participated in the BOOF program. Using the results from these surveys, I examined the effectiveness of BOOF and the impact it has on students’ basic financial knowledge as well as students’ feelings, attitudes, and confidence levels. The results indicated that there were improvements in both students’ financial literacy and feelings and attitudes regarding confidence, self-respect, and participation. This service learning model is a new and promising approach to breaking the cycle of poverty, and this study shows the connections between financial literacy and Catholic Social Teaching and the impact financial literacy can have on the students and hopefully the city of Detroit.

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## **CHAPTER ONE**

### **INTRODUCTION**

This paper will provide a brief introduction into the current state of the City of Detroit in regards to poverty, unemployment, and financial literacy. Through a study of the impacts of the financial literacy program, Banking on Our Future (BOOF), this study will attempt to connect the promotion of financial literacy in the City of Detroit to some of the fundamental principles of Catholic Social Teaching (CST): primarily, option for the poor and vulnerable, commitment to the common good, participation, and dignity of the human person. This paper identifies the connections between CST and financial literacy, and therefore, describes the promotion of financial literacy as a method of pursuing social justice for the economically underprivileged. With the City of Detroit and many of its citizens suffering financially, the promotion of financial literacy could be a promising approach to the beginning of an overall economic change at an individual and community level, rather than governmental level. This study examines the implications of financial literacy, based on the operations of the BOOF financial literacy program, and the connections between the work of BOOF and the principles of CST mentioned above. This is an interesting way to analyze the effects of financial literacy, and BOOF represents a unique way to serve and promote social justice.

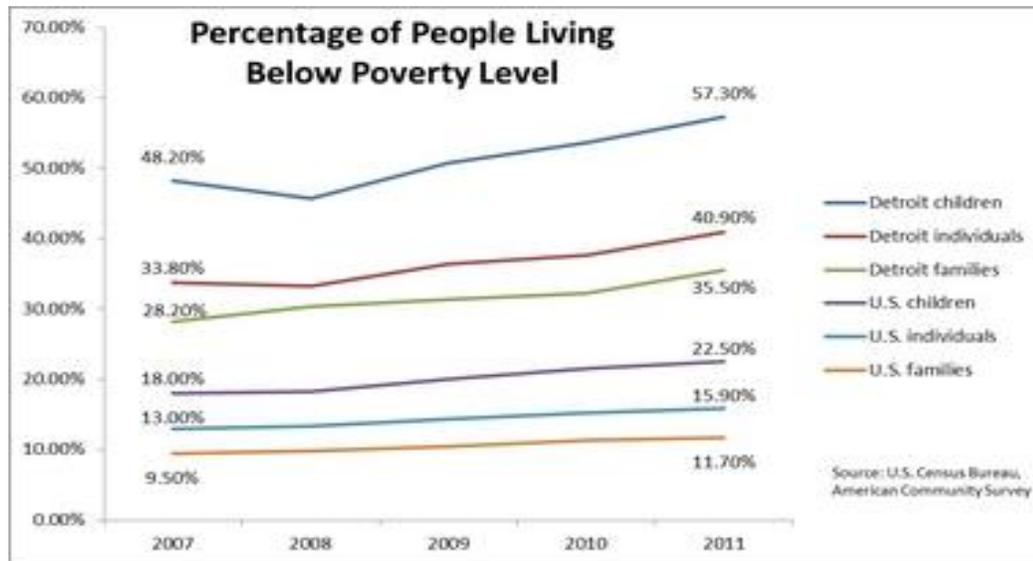
I was inspired by the work of Operation HOPE, primarily the BOOF program, when volunteering with the organization for a service-learning requirement for a Fundamentals of Investments class. The work of BOOF opened my eyes to the critical issue of financial illiteracy and programs that are attempting to eliminate it. I believe this program is doing wonderful things in the City of Detroit and around the world, and I was excited that the program allowed me use the knowledge I had been acquiring in the

classroom and apply it in the real world in a way that not only built upon that understanding but also allowed me to give back to my community in an important way. As a business student pursuing a certificate in Catholic Studies, this unique connection between financial literacy and CST was very interesting to me and provided a unique foundation for further research in this area. I am very passionate about the mission of CST, and through my personal experience with BOOF and this entire study, I have found that I am also very passionate about the promotion of financial literacy as a means of fulfilling that mission.

There is no question that poverty exists around the entire world, some places affected much more than others. It is also clear that the City of Detroit experiences more poverty than many other cities throughout the United States. According to the latest study from United States Census Bureau, the percentage of citizens in Detroit living below the poverty line from 2007-2011 was 36.2% (State and County Quickfacts: Detroit, MI), nearly 20% higher than the most recent reported nationwide percentage of 15% (Poverty: Highlights). Similarly, the 2011 percentage of children living below the poverty level in Detroit is a shocking 57.3% (State and County Quickfacts: Detroit, MI) compared to the 2011 national percentage of 21.9% (Poverty: Highlights). A recent article in the *Detroit News* actually reported that nearly 60% of children in Detroit are living in poverty which is a 65% increase over the past ten years based on findings published in the 2012 State of Detroit's Child report. The study found that children in single-parent households were most likely to be living in poverty. These statistics regarding the prevalent poverty in Detroit is staggering, but these become even more

disturbing when it is noted that the poverty level is an annual income of \$23,050 for a family of four, according to the US Department of Health and Human Services (Daniels).

**Figure 1.1**



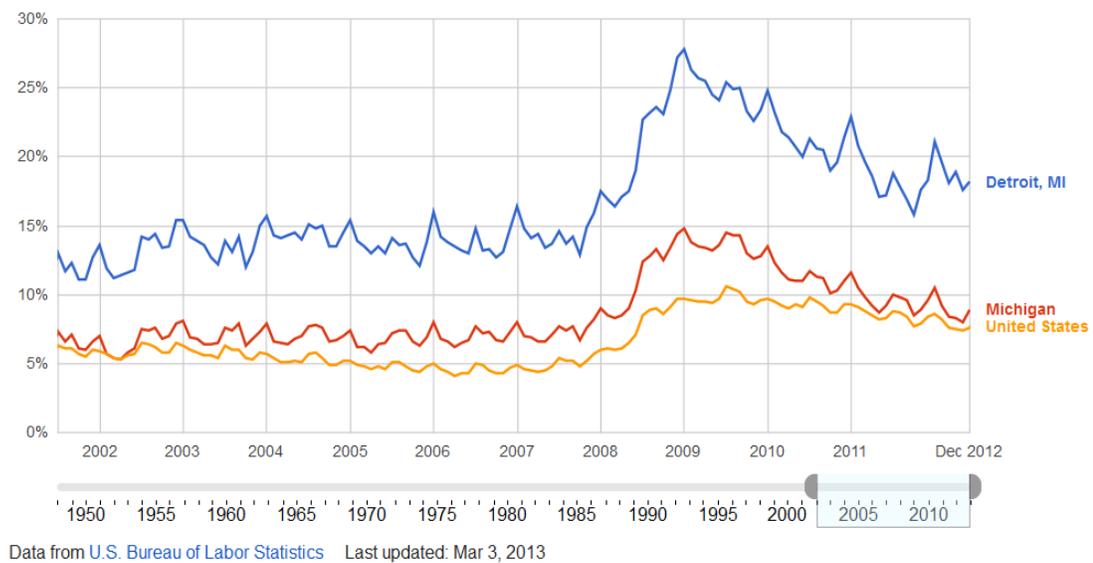
Source: AlHajal

According to the U.S. Census Bureau, the median household income in Detroit in 2011 was \$25,193, which was less than half the national median household income of \$50,502. This number has dropped consistently since 2007, when the Detroit median household income was \$30,412, a higher overall income but still an extremely discouraging statistic (AlHajal). Similarly, Figure 1.1 above showing the percentage of people living below the poverty level is equally troubling. As of 2011, the percentage of families living below the poverty level in the city of Detroit was 33.5%, almost three times the national average of 11.7%. Additionally, the graph shows that the percentage of Detroit children living below the poverty level, 57.3%, was more than double the percentage of children living below the poverty level nationwide (AlHajal). This statistic

alone suggests a widespread epidemic not only of increasing poverty throughout the United States, but specifically childhood poverty, in the City of Detroit.

In addition to high poverty rates, Detroit has experienced an extremely high unemployment rate over the past several years. The most recent unemployment data from the U.S. Bureau of Labor Statistics shown below in Figure 1.2 indicates that the unemployment rate in Detroit was and has been significantly higher than the Michigan and national averages as of the end of 2012.

**Figure 1.2**



**Source: Unemployment Rate, Google Public Data**

During the economic recession, Detroit unemployment increased tremendously to 27.8% in July 2009, and the current unemployment rate in the City of Detroit is 18.2% (Detroit, Michigan Unemployment). Additionally, although Wayne County's unemployment rate has decreased from 12.3% in May of 2011, it still has the second

highest unemployment rate in the country as of June 2012 at 11%. The Los Angeles, Glendale, Long Beach California area has the highest rate of 11.1% (Shepardson).

In addition to the consistently high unemployment rate in Detroit, business models that prey on the needs of the financially and economically underprivileged are prevalent in the city of Detroit. As of 2009, 25.6% of Americans households used alternatives sources of credit such as pawn shops, pay-day loans, and rent-to-own services according to a survey conducted by the FDIC. Additionally, the number of households using these services in Michigan was 23.4% (O'Connor). Nearly \$900 billion of credit disappeared from the economy in three years as a result of the recession which led many to search for sources of credit elsewhere (O'Connor). The pawn shop and check cashing businesses are very popular. One may argue that this is just another type of business in which willing customers utilize the services, but what is interesting about these businesses is that they succeed when people are in desperate need of money. Pawn shops allow customers to "pawn" their personal items, essentially turn in their items for cash, which they will retrieve at a later date upon payment of the initial principal and additional interest payment. Pawn shops, check cashing services, and other alternative credit sources such as payday loans, however, typically charge very high interest rates. For example, an 8-day, \$100 loan from Advance America in the State of Michigan would require a loan fee, of \$15.45. For this same loan, the annual percentage rate (APR) is 704.91% (Rates & Terms for Michigan). Therefore, in a way, this type of business very well could be fueling the epidemic of financial irresponsibility in the city.

The argument for personal responsibility on the part of the customers is valid, but as long as these businesses exist, people will continue to utilize their services. These types of businesses do not necessarily cause poverty or financial irresponsibility, but they may reinforce these problems. Even though these businesses are present in urban settings, the pawn shop business is moving online and out to the suburbs as well, attracting new clients (O'Connor). Pawn brokers no longer are catering only to the unemployed, uneducated, and underprivileged but now to small-business owners, entrepreneurs, and homeowners as well (Barth).

These businesses, just like any other type of business, need customers in order to survive and succeed. Perhaps it is a stretch to say that these businesses exist solely to take advantage of the underprivileged, but it is difficult to reject the possibility that these types of businesses thrive on the misfortune of others, and thus fuel the cycle of financial irresponsibility. In regards to this topic, Ms. Michele Hurst Burton, Senior Program Manager of BOOF Detroit and National Program Manager of HOPE Business in a Box, explained the dangers of the popularity of check cashing centers and payday loans. Even though these services are offering check cashing for five dollars a check, up to a certain amount, such as \$1,000, she pointed out that those small fees add up. It is not just five dollars, but individuals are paying five dollars, twenty-six times a year. She also explained that the unbanked and the underbanked are spending money on banking services that most of us are able to do for free. Most importantly, these are the people who cannot afford to spend that extra money (Burton).

### **Introduction to Operation HOPE and BOOF**

This research was conducted in cooperation with Operation HOPE's Banking on Our Future (BOOF) financial literacy program. Operation HOPE considers itself to be the "private banker for the working poor, the underclass, and the struggling middle class." Its mission is to promote "silver rights", in other words, making capitalism work for all people. It believes that "financial literacy is the tool, financial dignity is the goal, and financial inclusion is the way" (History and Mission). Through its many programs such as BOOF, HOPE Business in a Box, HOPE Financial Dignity Centers, and other initiatives, Operation HOPE teaches financial literacy, promotes entrepreneurship, improves credit scores through counseling, and implements financial dignity programs (History and Mission).

John Hope Bryant, founder of Operation HOPE, started Operation HOPE in 1992 to promote financial literacy for children and adults in every country where money exists (Bryant). According to Bryant, "HOPE is an international non-profit financial literacy education and empowerment organization that believes in giving people a 'hand up not a handout'" (Bryant). BOOF, one of Operation HOPE's programs, uses financial literacy to increase the economic self-sufficiency, dignity, and hope of people in low income communities. BOOF classes are taught by volunteers and are free of charge to communities and schools. The BOOF program gives students the tools and skills they need to take control of their futures along with a feeling hope, responsibility, and empowerment (Banking on Our Future). These messages of dignity, hope, empowerment, and self-sufficiency introduce the connection between the goals of BOOF and the message of CST, which will be further explored in the subsequent chapter.

BOOF is designed for youth and was added to Operation HOPE in 1996. It added the youth component to its programs because it recognized that if people do not start on the right track when they are young, they will become the consumers for the adult financial literacy programs (Burton). Burton explained the importance of educating children about financial literacy. She indicated that children are “like this board that just needs to be brushed off a little bit” compared to adults who need to make a conscious effort to break bad habits. The children are on a path where they not only can bring themselves to financial health but encourage others around them as well (Burton). According to BOOF Detroit, “financial literacy isn’t just about understanding math, it’s understanding the difference between wants and needs and the emotional connections we all have to money” (Banking on Our Future Detroit). Additionally, BOOF’s goal is to break the cycle of poverty, give youth a feeling of hope, and empower them with skills that will help them manage their futures (Banking on Our Future Detroit). Since the program’s inception, BOOF has reached 687,291 students as of the end of 2012 (Banking on Our Future).

The BOOF curriculum modules cover different important topics of basic finance; basics of banking, checking and savings, credit, and investments. The curriculum also dedicates an entire module to dignity. The module, entitled “A Course On Dignity”, introduces students to the basics concepts of dignity and helps them understand better what dignity actually is and how it will relate to the remainder of the BOOF modules (HOPE Corps Volunteer Guide). The “Course on Dignity” was a result of the efforts of John Hope Bryant, founder of Operation HOPE, the Prince of Sweden,

and a University of Sweden professor to create the global dignity movement. The global dignity movement was based on the idea that we have basic rights as human beings such as the right to clean water, education, and housing (Burton).

The full description of the five module objectives can be found in the BOOF curriculum summary found in Appendix A. Note that these are the general objectives of each module. Time restrictions, students' level of knowledge, and other variables may result in some variations, alterations, or omissions of some of the information in the curriculum per the discretion of the program or the volunteers. For example, the students who were surveyed in this study did not receive the course in dignity prior to receiving the training of the other modules. The students received only a brief overview of the dignity course at the end of the program. The inclusion of this dignity module in general though, indicates that the practices and mission of Operation HOPE are very closely aligned with the principles of CST.

## **CHAPTER 2**

### **INTRODUCTION TO CATHOLIC SOCIAL TEACHING AND THE CONNECTIONS TO FINANCIAL LITERACY**

### **A Brief Introduction to Catholic Social Teaching**

Catholic Social Teaching (CST) has developed over hundreds of years as the Catholic Church evolved and developed better ways to articulate the Church's relationship with society. The Church's social teaching in modern time began with Pope Leo XIII's encyclical letter "*Rerum Novarum*" (On the Condition of Labor) which was a response to the inhumane labor conditions that workers faced in industrial societies. Many years later, in 1931, Pope Pius XI wrote the next major social encyclical "*Quadragesimo Anno*" (The Reconstruction of Social Order) during a worldwide economic depression (Henriot, DeBerri, and Schultheis 7). In this encyclical, Pope Pius XI emphasized the rights of working individuals to a job, a fair wage, and to organize and asserted that justice and charity should govern social life. Thirty years later, Pope John XXIII issued two important social encyclicals, "*In Christianity and Social Progress*" and "*Peace on Earth*" which established a set of principles to address the gap between the rich and poor. Pope John XXIII emphasized the social and economic rights of the right to work and a right to a just wage, as did Pope Pius XI (Henriot, DeBerri, and Schultheis 8).

The Second Vatican Council, called by Pope John XXIII in 1962, was a turning point for the Catholic Church in terms of its relationship with the modern world. Cardinals and bishops from around the world met on several occasions over a period of three years to discuss the state of the Catholic Church and its mission in the world. In a world that had been experiencing war, an increasing disparity between the rich and the poor, and the growing popularity of rationalism, a sharp division between religion and

secular society resulted, in which religion became a “private affair” and played a very small role in society. Vatican II rejected this view and believed it was a contradiction to the unique religious mission of the Church to provide structure for the human community in congruence with divine law (Henriot, DeBerri, and Schultheis 9).

In addition to the documents of Vatican II, the statements, encyclicals, and documents issued since the council have continued to shape the role of the Church in modern society. In the years following the Second Vatican Council, Pope Paul VI wrote *The Development of Peoples* and *A Call to Action* which addressed global injustice related to the world’s poor and hungry and the role of Christian communities in developing a just society, respectively. In 1971, bishops gathered in Rome and wrote *Justice in the World* which identified people’s hopes for a better world and the teachings of the Gospel and helped reinforce the social mission of the Church (Henriot, DeBerri, Schultheis 10-11). In addition to these documents, several more have been issued since, addressing many other social issues and injustices including human rights, family life, peace and justice, the dignity of work, poverty, global interdependence, option for the poor, and Third World development (Henriot, DeBerri, and Schultheis 12-15).

“Social justice” is a phrase often associated with CST, and while this term can be interpreted in many different ways, all understandings of social justice essentially stem from the ultimate goal of achieving the a right ordering of society, one that ensures all people have fair opportunities and are free from deprivation and unwarranted burdens (Massaro 2). Thomas Massaro S.J., author of *Living Justice*, suggests that any “compassionate and morally serious” person would recognize inequalities and injustices

in society and be compelled to do something about them; however, beyond this general consensus exist disagreements regarding justice, the causes of injustice, and the appropriate social responses to these problems (Massaro 2-3). Massaro describes the motivation to work for justice and explains that many people naturally feel compelled to participate in social justice efforts. He says, “to be human is to have a heart that is moved by stories of desperate need and crying injustices” (Massaro 4-5). Other than the natural human instinct to respond to injustices, many are also compelled to work for justice through religious motivation and a desire to do the will of God (Massaro 5).

In order to understand the purposes of this paper, it is important to make a critical distinction between charity and justice. When it comes to “service” or “charity”, one often thinks of homeless shelters, soup kitchens, or any other similar types of organizations. Obviously these are necessary services in our society for those who have fallen victim to unfortunate circumstances and suffering, but there is an additional component to these acts of charity that is important to understand.

Massaro makes this critical distinction between charity and justice in his book *Living Justice*, which is worth noting to further explain the overall mission of CST and the purposes of this study. In order to do this, Massaro categorizes actions into either category. For example, in regards to poverty, the Church in the nineteenth century emphasized the role of charitable efforts as the means to living out the Church’s social mission. During this time, the Church felt it could only appeal to individuals and nothing more. The Church today continues to support and promote these charitable works but also encourages acts that promote justice. To further clarify, the social mission model of

“charity alone” meant that the Church assisted those in need through direct assistance of money, goods, services, etc. Today, however, the Church emphasizes “justice in addition to charity” where more efforts within the Church are aimed toward indirectly changing social structures to give all people a better chance of living a fulfilled life (Massaro 11-12). While charity tends to involve individuals and small groups, justice involves a more communal awareness and addresses potential long-term solutions. This commitment to structural change is a new interpretation of the Church’s social mission (Massaro 13).

To explain further how this distinction and balance between charity and social justice apply specifically to this study and the work of Operation HOPE, the two UDM Banking on Our Future (BOOF) volunteers that were interviewed for this project were asked two questions indirectly related to this topic. These questions asked the students whether or not they think the work of Operation HOPE is different from other types of service like soup kitchens or homeless shelters and if they think one of those types of service is more important. While these questions do not directly address the distinction between charity and social justice, their responses indicated perfectly the balance between both. Kourtney Davis, an undergraduate UDM business student, said that they were equally important but two different types of importance. Davis believes homeless shelters are different because the root cause is not being addressed; the need is what is being aided. Additionally, she explained that soup kitchens are not fixing anything in terms of eliminating the need but just provide what is needed, whereas BOOF seeks to address the cause. She explained that, “you need to take care of the poor and needy, but you also need to stop the cause,” (Davis); a statement characteristic of the newer social

mission of the Catholic Church and the mission of CST. Similarly, Charlie Palms, a graduate UDM business student, also believes that the two types of service are different since BOOF gives people tools that they can use and that will be useful for them in the future; tools that they can share with others as well. He believes that services like soup kitchens are important, but if a well-educated person can avoid even being in that situation or help others avoid being in that situation, then he would lean toward services like BOOF as being more important, if he had to choose (Palms).

The relatively new understanding of the Church's social mission is precisely the area in which this study seeks to explore. Using Massaro's comparison of the older and newer models of the Church's social mission, addressing the problem of financial literacy would be more properly categorized by the newer model of the pursuit of social justice, considering financial illiteracy is larger problem that requires some type of large scale effort. Rather than an act of "charity alone", addressing the issue of financial illiteracy is that type of indirect approach to a social justice issue that reflects the Church's understanding of its mission in the world. Financial illiteracy perhaps is not as obvious or recognizable of an injustice as is poverty, homelessness, and hunger, but it exists and could be playing an important role in causing these problems.

The principles of CST can be categorized, organized, and counted in several different ways for there is no clear and definitive organization. Regardless, the four CST principles that are most applicable to this study and the promotion of financial literacy through the BOOF program are: "dignity of the human person", "participation", "option for the poor and vulnerable", and "commitment to the common good".

### **Dignity of the Human Person**

“Dignity of the human person” is the foundational principle of CST. As humans, we have dignity because we are made in the image and likeness of God and therefore, are entitled to be treated with dignity and respect (Massaro 81). Equality is another key idea supporting human dignity, and whenever inequalities exist that prevent people from obtaining what they need and developing their full potential, these are injustices that must be addressed (Massaro 82). William Byron articulates the importance and universality of this principle when he states:

Every person regardless of race, sex, age, national origin, sexual orientation, employment or economic status, health, intelligence, achievement, or any other differentiating characteristic is worthy of respect. It is not what you do or what you have that gives you a claim on respect; it is simply being human that establishes your dignity. Given that dignity, the human person is, in the Catholic view, never a means, always an end (Byron).

Additionally, Massaro explains that the dignity of human life has led the Church to take a stance against serious injustices such as abortion, capital punishment, and euthanasia (Massaro 81). This study, however, attempts to demonstrate financial illiteracy as one of the lesser-known matters of injustice. Additionally, most people probably would agree that poverty is a matter of injustice and violation of human dignity, but how often do we look behind that poverty to understand what the root causes are? What are the reasons for this violation of human dignity, and are there ways to prevent

them? Michele Burton provided additional insight into the connection between financial literacy and dignity:

When there's a feeling of despair, and depression, lack of hope, usually there's no confidence. And so you make kind of desperate decisions based on just today. You can't have a far-reaching vision when you don't have the hope that there is going to be a tomorrow. So by helping to infuse a level of dignity and getting people to start respecting themselves, develop that level of self-respect and self-esteem, now you help them realize that there is a hope for tomorrow, and if there's a tomorrow, I can't use all my resources up today (Burton).

In this study, the “dignity of the human person” CST principle is explored primarily in relationship to the young students who receive the BOOF training. Financial literacy allows people to live a dignified life, and BOOF recognizes and promotes this message. If we can determine that financially illiterate individuals are unable to live a fully dignified life, then it is safe to say that financial illiteracy is a matter of injustice. For the purposes of this paper, if we approach financial literacy as a basic need of human life and recognize financial illiteracy as an injustice, then we can examine this injustice and the necessity of financial literacy in terms of this CST principle and understand it as a fundamental right.

### **Participation**

“Participation” is the second CST principle that is relevant for the purposes of this study and is sometimes combined with solidarity and the common good to form one

“solidarity, common good, and participation” principle (Massaro 84). For the purposes of this paper, however, participation will be treated as its own principle with the same significance as the other three principles. Massaro offers an explanation of the importance of equal participation as a key CST principle:

Every person has at once a right and a duty to participate in the full range of activities and institutions of social life. To be excluded from playing a significant role in the life of society is a serious injustice, for it frustrates the legitimate aspirations of all people to express their human freedom (Massaro 86)

In addition, anything that prevents one from participating in society, either politically or economically, is a violation of human rights (Massaro 86). The benefits available through social institutions cannot be realized by an individual without participation, and a human being has the right to participate in the social institutions that are necessary for fulfillment (Byron). In terms of financial literacy, banks, the housing market, etc., could be considered some of the social institutions in which every person has a right to participate.

Like human dignity, the participation principle also pertains primarily to the students receiving the BOOF program in this study because they are the ones who hopefully are able to participate in society more fully and *believe* that they can participate in society more fully after the completion of the program. The right of all human beings to be able to fully participate in society, specifically through economic participation, is critical to understanding the idea that financial illiteracy, an inability to participate

financially in society, is an injustice. Put simply, financial literacy gives people the tools they need to participate in society. Additionally, any efforts to eliminate financial illiteracy and help people reach their full potential in terms of societal participation is an act of social justice, further strengthening the claim that the promotion of financial literacy is also a promotion of justice.

To further support this connection between financial literacy and the principles of participation and human dignity, John Hope Bryant, founder of Operation HOPE explains that:

Financial literacy is more than understanding the mathematics behind money, and it's more than understanding credit card interest rates and credit scores. To me, getting the underserved and the underprivileged up to speed in regards to their finances is about empowerment: empowering them to take charge of their current situation, empowering them to take charge of their own lives and empowering them to aspire to a better future (Bryant).

Additionally, Bryant believes that if one does not understand the language of money or does not have a bank account, then he or she is nothing more than an economic slave (Bryant). He acknowledges that financial literacy will not help people outsmart traders, financial professionals, or predict the next downturn, but it will help people understand the “language of money” so that they can manage their own finances (Bryant). These explanations of the purposes of Operation HOPE and financial literacy perfectly exemplify the principles of dignity and participation.

### **Commitment to the Common Good**

Michele Burton explained that as long as we're self-focused, our community will continue to decay (Burton). This is a powerful statement that introduces the third CST principle examined in this study. "Commitment to the common good" and "participation" are often linked in CST. Understanding the fundamental necessity for all to be committed to promoting the common good asserts that there are many other goals in life beyond those that merely benefit the individual, and responsible individuals look for opportunities to better society even if the individual does not receive any direct benefits (Massaro 85). Massaro gives an example of education and explains that human thriving depends on the growth and development of the world's youth along with education. Therefore, every member of society has the responsibility to support education and make sacrifices that will benefit society and future generations (Massaro 86).

The volunteers of the BOOF program demonstrate this call for a universal commitment to the common good. Even though the UDM students who volunteer with this program are required to do so for service-learning course requirements, the experience helps them fulfill this commitment to the betterment of society and hopefully instill in them a desire to continue to make sacrifices and to serve in order to promote the common good.

### **Option for the Poor and Vulnerable**

The "option for the poor and vulnerable" principle applies most appropriately to both parties, the participants and volunteers, along with the program as a whole. This does not assume that the young students receiving the BOOF training necessarily are

poor, but it is safe to say that they are especially vulnerable. Children in general are some of the most vulnerable members of society. BOOF is providing an option for those children who are arguably much more vulnerable to entering into poverty than many other children, considering the already high poverty rate in Detroit. Burton explained the importance of educating and taking care of the children in our society, and said that if communities are not taking care of their children, then they are not taking care of anything else (Burton). Additionally, the program provides an option for students to *avoid* falling victim to poverty, and thus, gives them an option to avoid further vulnerability throughout the rest of their lives. Therefore, this training provides a unique option for them. Additionally, the volunteers and the BOOF program are committed to continuing to provide this option for them.

Often, the option for the poor and vulnerable is associated with those people who are already poor, not necessarily an option for those who could very well be poor if some type of intervention does not take place. This is where BOOF and similar financial literacy programs come into play. These programs recognize the vulnerability of students and seek to help those students avoid poverty altogether by giving them the tools or the “option” that they need.

Some studies, though not seeking to connect financial literacy and CST specifically, have examined similar relationships. The AICPA has a 360 Degrees of Financial Literacy program which identifies financial issues at eleven different life stages from childhood, to career, marriage and family, and retirement. A series of five studies were conducted to examine whether or not the financially literate are happier than the

financially illiterate. Additionally, it looks at whether or not people with more positive attitudes about financial knowledge and money are happier than others.

The first two studies developed and tested three measures of “positive” financial attitudes: financial efficacy, financial autonomy, and financial community and relatedness, and the second study also tested participants’ financial knowledge.

Studies two through five used different psychological health measures to measure participants’ level of happiness which included vitality, depression, financial stress, anxiety, life stress, and satisfaction with life. The results show that of both the professional and student participants, those with more positive attitudes have higher levels of financial literacy. Additionally, the link between financial attitudes and happiness seemed to be stronger than the link between financial literacy and happiness. The study found that people who are more financially literate are more likely to believe that they can manage their own finances, that their financial decisions represent their own personal choices and values, and that financial resources are important because they can build and maintain community and personal relationships (Bryant, Stone, Weir)

Although the previous study was not seeking to draw any connections between financial literacy and the mission of CST, the results of the study further indicate that there is some type of relationship between financial literacy levels and one’s attitudes toward finance and overall happiness. Additionally, an article written by Vince Sharb of the National Educators Council examines another interesting connection, which although not related to CST specifically, identifies a connection that is supportive of the goal of this research. In his article, he examines the connection between financial literacy and

the American Dream and argues that the key to reviving the American Dream is financial education (Sharb). Again, although this does not explicitly identify a CST principle, one could argue that an individual's ability to pursue the "American Dream" is very much related to one's ability to participate in the economy and society as a whole.

This paper does not attempt to prove that financial literacy is the solution to poverty, nor does it provide any solutions to the poverty and financial issues in the City of Detroit. A study of this scope and time frame does not provide enough data to indicate that financial literacy or the BOOF program can eradicate poverty. Any long term improvements that will result from this program as far as financial stability and responsibility may take fifteen years or more to come to fruition and would require a much more comprehensive study. A generational study would be required to prove that financial literacy is a preventative measure to poverty. Additionally, it does not suggest that financial illiteracy is the primary cause of poverty. Similarly, this study will not draw conclusions that apply to all citizens of Detroit nor does it attempt to apply this model to all people in poverty.

Although this study does not seek to prove that financial literacy will eradicate poverty, it provides an introductory study into the impacts of financial literacy in young students in the city of Detroit. This study analyzes the impact of the BOOF program in terms of financial knowledge and students' attitudes about themselves and their own capabilities. Additionally, the relevant CST principles serve as a framework for understanding the effects of BOOF that extend beyond financial knowledge. This study approaches financial illiteracy as an injustice rather than simply a misfortune. Therefore,

the CST principles provide an additional method of analyzing the data that helps one draw conclusions not just about students' financial knowledge, but whether or not that financial knowledge affects students' self-respect, self-confidence, and perceptions about their ability to participate in society.

## **CHAPTER THREE**

### **METHODOLOGY**

For this study, surveys were conducted for Detroit Public School students who participated in the Banking in Our Future (BOOF) financial literacy program. This study conducted surveys for fifty-two female students who are attending the Detroit International Academy for Girls in Detroit, Michigan. The sample consisted of forty eighth grade students and twelve sixth-grade students. The survey was distributed to the students on February 1, 2013 and February 6, 2013, the first days of the BOOF program, prior to any of the sessions being taught. Thus, this pre-program survey assessed the current knowledge of the students in terms of financial literacy and their feelings, attitudes, and confidence levels relating to themselves and their financial knowledge. This allowed for a baseline understanding of students' knowledge and attitudes from which initial conclusions could be drawn. Additionally, the data collected from the pre-program surveys provides a benchmark for comparing any changes or improvements in students' responses after completion of the program.

### **Survey Design**

The pre-program survey consisted of fifteen multiple choice questions designed to assess students' financial knowledge and gain an understanding of their attitudes which sheds some light on the various Catholic Social Teaching (CST) principles involved in this study. Some questions and responses were slightly adapted or modified from evaluations that BOOF uses to assess students. Principles addressed in the survey itself were "dignity of the human person" and "participation". The other two principles addressed in this study, "commitment to the common good" and "option for the poor and vulnerable" pertain to the volunteers and the overall BOOF program itself, and therefore,

there are no questions in the survey that directly address either of these principles. The overall responses and some of the participation questions, however, also could shed some light on the “option for the poor and vulnerable” principle. Technically, the CST portion of the survey consisted of statements that students rated. For the purposes of this paper and the upcoming analysis, however, these CST “statements” will be referred to as “questions” to simplify the explanations and analysis of the results. It is important to note that the CST questions do not include any terminology regarding CST nor are these questions testing students’ knowledge about Catholicism. The responses to the questions, rather, indirectly provide insight into these various principles.

The pre-program survey consisted of seven finance-related questions and eight opinion or attitude-based questions (CST). The seven finance-related questions can be broken down further into factual questions and behavioral questions. For example, the “What is a budget?” question on the survey would be factual. While, on the other hand, the question asking students, “You just received \$100 for your birthday. What is the best thing to do with this money?” is a finance-related *behavioral* question. For the purposes of this paper and the forthcoming analysis, all seven of the finance-related survey questions will be referred to as the “finance” questions. Additionally, the questions regarding the various CST principles will be referred to as the “CST” questions.

All of the questions included in the pre-program survey were included in the post-program survey as well. The post-program surveys consisted of different styles of questions; multiple choice, scale, and short answer. The table below outlines the questions that were included in the survey. The pre-program survey consisted of

questions 1-15 which were either multiple choice or scale questions. Questions 16-18, which were scale and short answer, were added for the post-program survey. Rather than asking students about financial concepts or their attitudes, confidence levels, etc, these last three questions were designed to understand how students felt about their pursuit of financial knowledge in the future. Additionally, the last question included in the post-program survey was a short answer question which provided students the opportunity to reflect on the most important thing they had learned from the program. Please refer to Table 3.1 below for a summary of the concepts addressed in each question and to Appendix B for the complete post-program survey.

**Table 3.1**

	Question #	Question Style	Concept Covered
Financial Literacy	2	Multiple Choice	Budget: Conceptual
	3	Multiple Choice	Money: Conceptual
	4	Multiple Choice	Financially Responsible Behavior
	5	Multiple Choice	Financially Responsible Behavior
	6	Multiple Choice	Interest Rate: Calculation
	7	Multiple Choice	Capital Gains: Calculation
	8	Multiple Choice	Investment: Conceptual
CST	1	Scale	Participation
	9	Scale	Confidence
	10	Scale	Self-Respect
	11	Scale	Confidence
	12	Scale	Confidence
	13	Scale	Self-Respect
	14	Scale	Participation
	15	Scale	Self-Respect
Future	16	Scale	Motivation
	17	Scale	Motivation
	18	Short Answer	Key Learning from Program

### **Survey Distribution**

On the first day of the BOOF program, prior to any teaching, the survey was distributed in paper format, and sixty-two 6<sup>th</sup> and 8<sup>th</sup> grade students at Detroit International Academy completed the pre-program survey. Students were reminded that their scores would not be graded and were asked to answer the questions honestly and to the best of their ability.

Over the course of two months, the students at Detroit International Academy received the BOOF training. After the completion of the BOOF sessions, the students were given a post-program survey to determine what they had learned and how, if at all, their knowledge about finance and attitudes regarding the three primary CST areas in this study (dignity, participation, and confidence) had changed. Before the post-program survey was distributed, students were told that they would be completing another survey to see what they had learned from the BOOF program. In order to prevent students from attempting to answer the exact the same way as the pre-test, they were told that it was okay if their answers had changed from the first survey and were asked again to answer the questions honestly. Of the sixty-two students who completed the pre-program survey, only fifty-two of those students were either in attendance for the post-program survey or fully completed the post-program survey. Therefore, the net sample for this study is fifty-two students.

### **Survey Interpretation**

The seven finance questions were scored just as a normal quiz or test would be, and each student was given a score based on their answers. The factual questions clearly

have a correct answer; while on the other hand, the financial behavioral questions may not necessarily have a definitively correct answer. Therefore, the “correct” answer for these questions, are those answers that demonstrate the most financially responsible behavior. For example, consider the following behavioral question: “You just received \$100 for your birthday. What is the best thing to do with this money?”. One could argue that any of the answers are okay; however, the correct answer in this case is “Put it in a savings account at the bank.” The students’ scores were recorded in terms of a percentage based on their number of correct answers divided by the seven total possible correct answers.

The CST questions were analyzed in a different way due to their non-factual nature. Therefore, they could not be scored. Each of the CST questions asked students to rate a statement in terms of how much they agreed or disagreed with the statement. For example, the first question on the pre-program survey asked students to rate the following statement: “I understand how to save and spend my money.” Students could choose from one of five possible answers: “Strongly Agree”, “Agree”, “I don’t know”, “Disagree”, “Strongly Disagree”. Each of these answers was accompanied by a letter answer, which was converted to a corresponding number based on a 1-5 scale. “5” corresponded to “strongly agree”, while “1” corresponded to “strongly disagree”. Additionally, all of the CST statements were written in a positive way. For example, some questions began with phrases such as, “I have a right to...” or “I feel confident in...” Because each of the CST questions was designed in this way, responses could be interpreted in a similar manner. For example, an answer of “4” or “Agree” for any of the

CST questions represented a response more aligned with CST principles than a “2” or “Disagree” would for any of these statements. When these scores were being compared directly to the finance scores, CST student averages were divided by five, the maximum score on the CST scale, to calculate a CST percentage for consistency. When analysis involved comparison of just the CST responses, the actual number responses were used to analyze improvements and relationships.

### **Brief Analysis of Student Reflection Forms**

Each semester, undergraduate and graduate business students at the University of Detroit Mercy volunteer with BOOF in order to fulfill their service-learning requirement for various finance and investments classes taught by Omid Sabbaghi, PhD, assistant professor of finance at University of Detroit Mercy. Additionally, each of these students completes a brief reflection form after the completion of their service-learning in which they provide responses to questions such as, “What in your experience was most troubling?” or “What in your experience was most inspiring or empowering?” There were a total of only seven students from the University of Detroit Mercy who taught the BOOF sessions during the time of this study. Since students participate in this service-learning opportunity every semester, however, a brief analysis of the student BOOF service-learning reflection forms from previous semesters will provide insight into the attitudes and reflections of the student volunteers of the program. The key question on this reflection form that provides the greatest insight into students’ understanding of “commitment to the common good” is, “Has this service experience increased your awareness of responsible leadership in your community?”

## **Interviews**

As mentioned previously in this paper, the BOOF program is successful through the work of its many volunteers, the ones who actually teach the BOOF curriculum. What is unique about this study is that these sessions were taught by University of Detroit Mercy undergraduate and graduate business students who are completing their service learning requirements for advanced investments classes. This provides an interesting perspective for this paper because the experiences of the Detroit Public School students and the Detroit Mercy student volunteers (the seven who volunteered this semester) are based on the same BOOF experience.

Face-to-face personal interviews are a key component of this study. For this research, I conducted an interview with Ms. Michele Hurst Burton, Senior Program Manager of BOOF Detroit and National Program Manager of HOPE Business in a Box. This interview provided additional information regarding her involvement with BOOF, the development and current status of the BOOF program/curriculum, Operation HOPE's and BOOF's overall mission, as well as where she hopes to see the program in the future. Her close contact with the program, the volunteers, the schools, and the city of Detroit allowed her to share an immense amount of knowledge and insight regarding the problems in Detroit and BOOF's unique role in addressing financial illiteracy and poverty.

Additionally, I spoke with two UDM students, one graduate and one undergraduate student in order to gain some insight into how their attitudes have changed after participating in the program. Charlie Palms is a graduate student enrolled in the

MBA program at University of Detroit Mercy and has volunteered with BOOF on several occasions for three different courses. Kourtney Davis, an undergraduate business student, has completed the BOOF service-learning requirements for two investments course at UDM. Some of the questions for the students inquired about whether or not they enjoy volunteering with BOOF, what they feel could be changed about the program in order to improve the overall impact of the program, their level of commitment to the City of Detroit, and whether or not this program has increased their awareness of the needs of those in their community and overall commitment to the common good. Comments from the student interviews are integrated throughout the various chapters of this paper further supporting many components of this study.

## **CHAPTER FOUR**

### **ANALYSIS AND INTERPRETATION OF THE RESULTS**

The sample for this study consisted of fifty-two female students, both 6<sup>th</sup> and 8<sup>th</sup> graders, attending Detroit International Academy for Girls in Detroit Michigan. Out of this sample, forty students or 76.9% of the sample were 8<sup>th</sup> graders, while the remaining twelve students accounted for the remaining 23.1%. As a starting point, two different types of averages were calculated to understand students' performance on both sections of the survey. First, an average was calculated for each individual student across *questions* to understand individual student performance as well as overall student performance. Additionally, averages were calculated across *students* for each particular question to understand performance for each type of question. Both averages will be used throughout this analysis based on the appropriateness of the calculations.

After the completion of the pre-program surveys on the first day of the Banking on Our Future (BOOF) program, the overall scores revealed that the average student score was a 46.15% with a standard deviation of 18.9%. Additionally, the pre-program survey revealed that the average Catholic Social Teaching (CST) score for the entire sample was 4.04 with a standard deviation of 0.61, or 12.2%. Based on this initial data alone, it is clear that there was greater variation among the finance scores than for the CST scores on the pre-program survey.

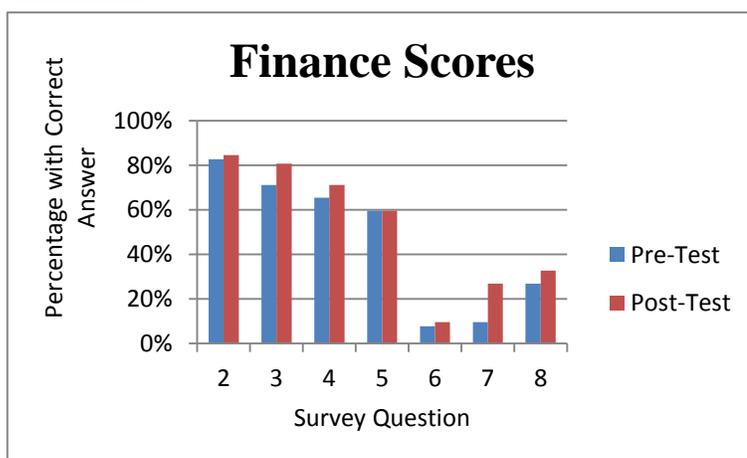
Upon completion of the BOOF program, the results from the post-program surveys indicated that there was some improvement in both the finance and CST areas. The average finance score increased from 45.61% to an overall 52.2% with a standard deviation of 22.43%. Additionally, the overall CST score increased from 4.04 to 4.25 with a standard deviation of 8.59%. As mentioned in the previous chapter, students were

asked to rate the CST statements on a scale from strongly disagree to strongly agree (1-5), and each student's responses were averaged across questions to determine individual student CST scores. Those scores were then averaged to determine the overall CST average. The overall finance and CST scores from the both the pre-program and post-program surveys can be understood and interpreted more easily when the seven finance and the eight CST questions are separated and the average response is calculated on a per question basis. The pre and post-program results for the finance portion of the survey are depicted in the table and graph below:

**Table 4.1**

Panel A: Pre-program	Q2	Q3	Q4	Q5	Q6	Q7	Q8
# of Correct Reponses	43	37	34	31	4	5	14
% Correct	82.69%	71.15%	65.38%	59.62%	7.69%	9.62%	26.92%
Panel B: Post-program	Q2	Q3	Q4	Q5	Q6	Q7	Q8
# of Correct Responses	44	42	37	31	5	14	17
% Correct	84.62%	80.77%	71.15%	59.62%	9.62%	26.92%	32.69%

**Figure 4.1**

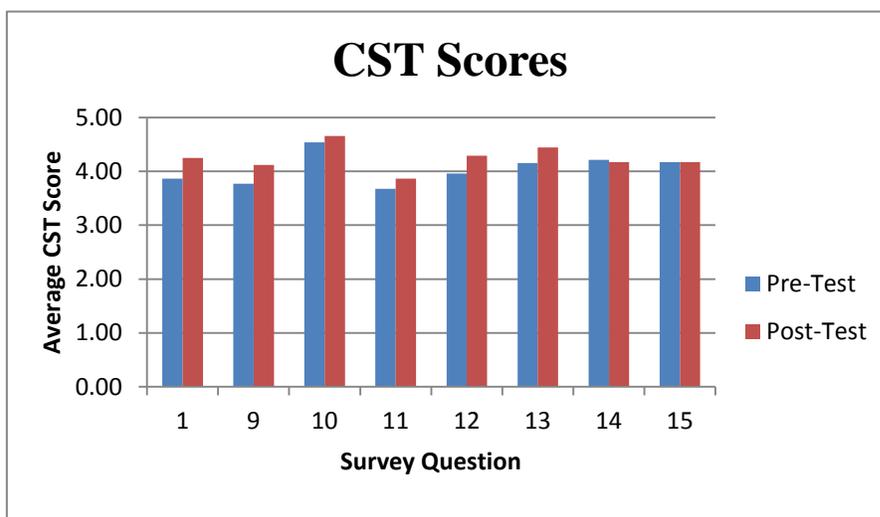


The visual representation of the pre and post-program finance scores to the right shows more clearly the significant differences in the correct response rates across the various questions for

both surveys based on the difficulty of the topics addressed.

The summary of averages across students for each question from the pre and post-program surveys indicates that for every single question, with the exception of question #5 in which the average did not change, there was an improvement in the total percentage of students who answered the question correctly. Additionally, the visual representation of the pre and post finance scores shows there was a significant amount of variance in averages across the various questions. This was not unexpected considering the questions varied in terms of difficulty level. For example, question #2 asked students “What is a budget?” and yielded the highest response rate on both surveys. Similarly, question #6 involved a calculation using an interest rate which consequently yielded the lowest correct response rate out of all of the questions on both surveys. It is worth noting that the two questions that required students to calculate an answer resulted in the lowest correct response rate on both surveys.

In addition to the analysis of the results based on the individual correct response rate for each finance question, a similar analysis can be done for the CST questions. Because the CST questions asked students to indicate to what extent they agree or disagree with a particular statement, a “correct response rate” is not applicable to this particular analysis. Instead the average of CST scores across *students* is calculated for each CST question to understand how students felt as a whole about each of the questions. Figure 4.2 depicts a comparison of pre and post average responses for each CST question.

**Figure 4.2**

Additional analysis can be conducted for the changes in overall finance scores and individual CST responses to determine whether or not the improvements in students' overall finance score and CST scores were statistically significant. The first step in conducting this analysis involves calculating the statistical thresholds of significance at the 10%, 5%, and 1% levels using the =TINV(probability, degrees of freedom) function in Microsoft Excel. A summary of these thresholds for analysis of the full sample, the 8<sup>th</sup> graders, and the 6<sup>th</sup> graders is depicted in the Table 4.2 below:

**Table 4.2**

	Full Sample	8th Graders	6th Graders
N	52	40	12
10%	1.6753	1.6849	1.7959
5%	2.0076	2.0227	2.2010
1%	2.6757	2.7079	3.1058

In order to determine statistical significance, the difference was calculated between each student's pre and post finance score and the differences were averaged across students in order to calculate the  $\bar{z}$ , standard deviation, and standard error for these differences. By calculating the  $\bar{z}$ , standard deviation, and the sample average  $\bar{z}$ , the t-ratio can then be calculated to determine statistical significance. The  $z_i$ ,  $\bar{z}$ , and t-ratio can be calculated using the following equations respectively where  $r_{2,i}$  represents a student's post-program finance score,  $r_{1,i}$  represents a student's pre-program finance score, and  $\sigma$  represents the standard deviation of the sample average  $\bar{z}$ .

$$z_i = r_{2,i} - r_{1,i}$$

$$\bar{z} = \frac{1}{N} \sum_{i=1}^N z_i$$

Therefore, we reject the null hypothesis  $H_0: \bar{z} = 0$  if:

$$t(\bar{z}) = \frac{\bar{z} - 0}{\sigma_z \sqrt{N}} > t_{N-1, \alpha}$$

In other words, if the t-ratio of the sample average falls within one of the statistically significant thresholds presented in Table 4.2, then it can be determined that  $\bar{z}$  is not equal to zero and is thus statistically significant at the respective level.

Using the thresholds of statistical significance calculated in Table 4.2, the analysis determining the statistical significance can be found in the table below where  $\bar{r}_1$ ,  $\bar{r}_2$ , and  $\bar{z}$  represent the pre-program average for each question across students, post-program averages for each question across students, and the average of the differences, respectively.

**Table 4.3**

Finance Score	Full Sample	6th Graders	8th Graders
$\bar{r}_1$	0.46	0.42	0.48
$\bar{r}_2$	0.52	0.42	0.55
$\bar{z}$	0.06	0.00	0.08
$t(\bar{z})$	2.80***	0.00	3.14***

\*\*\*, \*\*, \* indicate statistical significance at the 0.01, 0.05, and 0.10 levels, respectively

The results shown in Table 4.3 indicate that the improvement in the overall average of finance scores was statistically significant at the 1% level. Additionally, by separating the scores of the sixth and eighth graders, the results show that there was no improvement in the overall finance average for the sixth graders. It may appear from the table above that there was no improvement in the sixth grade scores, but for the small sample size of twelve, some students improved and some students worsened. Thus, the differences in the overall pre and post scores happened to equal zero. The t-ratio of 3.14 for the overall improvement in the average of 8<sup>th</sup> graders' scores is significant at the 1% level indicating that the improvement in the 8<sup>th</sup> graders' finance scores is the reason for the statistical significance of the improvements of the overall sample.

A similar analysis can be conducted for the CST scores as well. For this analysis though, statistical significance of the improvements was tested for each individual CST question. The same equations were used for this analysis as in Table 4.3 above except on a per-question basis. The analysis determining the statistical significance of the CST improvements can be found in the Table 4.4 below where  $\bar{r}_1$ ,  $\bar{r}_2$ , and  $\bar{z}$  represent the pre-

program average for each question across students, post-program averages for each question across students, and the average of the differences, respectively.

**Table 4.4**

A) Full sample	Q1	Q9	Q10	Q11	Q12	Q13	Q14	Q15
$\bar{r}_1$	3.87	3.77	4.54	3.67	3.96	4.15	4.21	4.17
$\bar{r}_2$	4.25	4.12	4.65	3.87	4.29	4.44	4.17	4.17
$\bar{z}$	0.38	0.35	0.12	0.19	0.33	0.29	-0.04	0.00
$t(\bar{z})$	3.05***	2.35**	1.63	1.37	2.26**	2.13**	-0.27	0.00
B) 6th Graders	Q1	Q9	Q10	Q11	Q12	Q13	Q14	Q15
$\bar{r}_1$	3.92	3.83	4.42	3.83	4.08	4.33	4.25	4.33
$\bar{r}_2$	4.00	4.25	4.67	3.92	4.00	4.25	3.58	4.00
$\bar{z}$	0.08	0.42	0.25	0.08	-0.08	-0.08	-0.67	-0.33
$t(\bar{z})$	0.43	1.16	1.39	0.27	-0.23	-0.32	-1.43	-0.77
C) 8th Graders	Q1	Q9	Q10	Q11	Q12	Q13	Q14	Q15
$\bar{r}_1$	3.85	3.75	4.575	3.625	3.925	4.1	4.2	4.125
$\bar{r}_2$	4.33	4.08	4.65	3.85	4.38	4.50	4.35	4.23
$\bar{z}$	0.48	0.33	0.08	0.23	0.45	0.40	0.15	0.10
$t(\bar{z})$	3.13***	2.01**	1.00	1.42	2.97***	2.58**	1.43	0.78

\*\*\*, \*\*, \* indicate statistical significance at the 0.01, 0.05, and 0.10 levels, respectively

Based on the table above, we can conclude that the improvements in the overall responses for questions 1, 9, 12, and 13 all yielded statistically significant improvements. The t-ratio of 3.05 for question 1 indicates significance at the 1% level. Additionally, the t-ratios of 2.35, 2.26, and 2.13 for questions 9, 12, 13 respectively indicate that the improvements in these questions are significant at the 5% level. Upon further investigation, the same analysis can be applied to the group of 8<sup>th</sup> graders and 6<sup>th</sup> graders independently to determine the influence of each group's responses on the full sample. From the same table, it is apparent that the improvement in the 6<sup>th</sup> grade responses did not contribute significantly to the results of the overall sample. The 8<sup>th</sup> grade

improvements, however, did yield statistically significant results. Similar to the full sample results, the 8<sup>th</sup> grade responses generated a statistically significant improvement at the 1% level for question 1 and 12 and at the 5% level for questions 9 and 13 which pertain to confidence and self-respect.

A similar analysis can be performed for each of the CST *categories* as well. By separating the CST questions into the major categories, the significance of the change in student responses for each category can be determined. First of all, the student responses were averaged across questions for each of the categories. The  $z$ , or difference, is calculated by subtracting the pre-program average from the post-program average for each of the three CST categories. Then the same procedure can be applied as in the previous calculation. The average of the  $z$ 's across *students* for the entire category is calculated along with the categorical t-ratios to determine whether or not the results for each category are statistically significant. A summary of the results can be found in the table below:

**Table 4.5**

A)Full sample	Confidence	Self-Respect	Participation
$\bar{r}_1$	3.8013	4.2885	4.0385
$\bar{r}_2$	4.0897	4.4231	4.2115
$\bar{z}$	0.29	0.13	0.17
$t(\bar{z})$	2.67**	1.68*	1.56

\*\*\*, \*\*, \* indicate statistical significance at the 0.01, 0.05, and 0.10 levels, respectively

Using the same significance levels indicated in Table 4.2, the improvement in students' confidence levels yielded statistically significant results at the 5% level while

the improvement in self-respect was significant at the 10% level. Additionally, the change in participation was not statistically significant at the 1%, 5%, or 10% levels.

The correlation matrix below indicates that there are positive correlations among the differences in responses for the questions in the specific categories. These positive correlations support the placements of the various CST questions into their respective categories. The questions are color coded based on the CST category. Red, blue, and green represent the confidence, participation, and self-respect categories, respectively. These correlations are not meant to show necessarily the strength of the correlations between various questions, but rather, as an indication that the changes in responses for the questions within the three CST categories are positively related to one another.

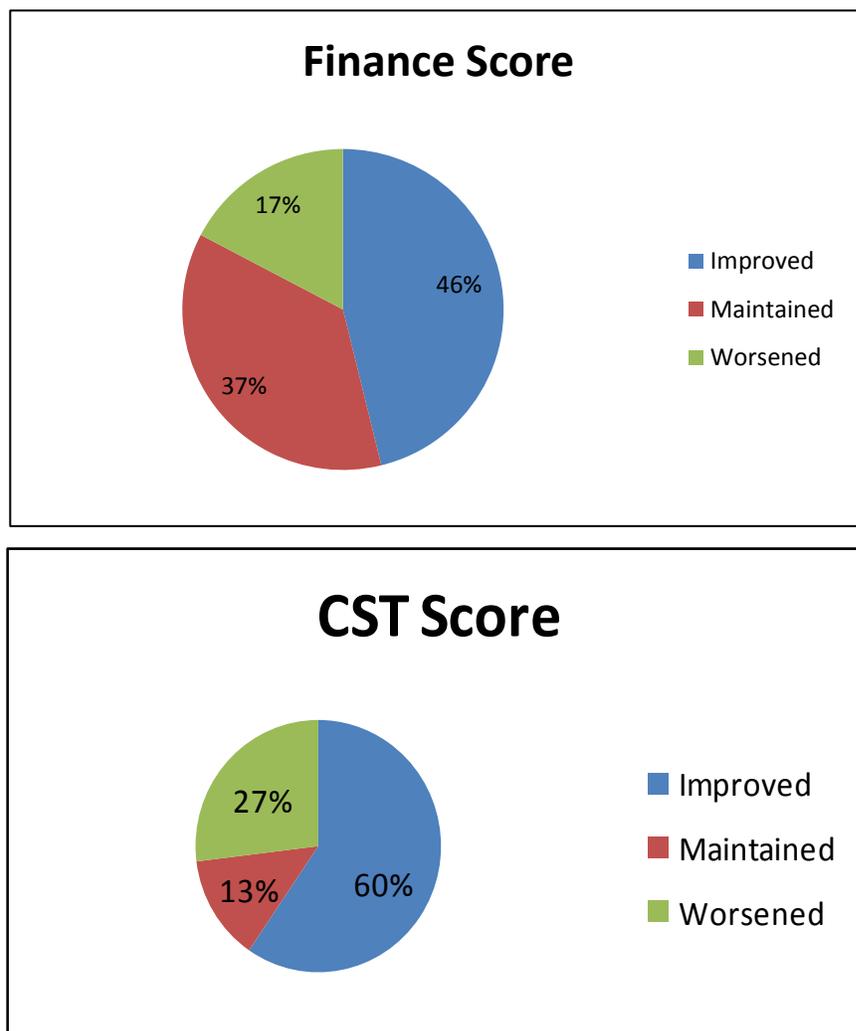
**Table 4.6**

	1	9	10	11	12	13	14	15
1	1							
9	-0.160	1						
10	0.198	-0.075	1					
11	0.067	0.466	0.222	1				
12	0.051	0.214	0.038	0.349	1			
13	0.270	-0.211	0.168	0.181	0.233	1		
14	0.379	-0.060	0.313	0.296	0.310	0.230	1	
15	0.043	0.128	0.152	0.384	0.447	0.219	0.462	1

In addition to the statistically significant improvements depicted in Table 4.5, it is interesting to analyze the changes in students' individual scores for both sections of the survey to determine what percentage of the total sample improved their scores, maintained their scores, or worsened. Although these are merely descriptive statistics, they provide additional insight into the individual performance of the students. It is

especially interesting that 60% of students increased their CST score after participating in BOOF while only 46% of students increased their finance score, further supporting the hypothesis that this program influences students' perceptions about themselves, their attitudes, and confidence. These percentages can be found in the figures below:

**Figure 4.3**



**Regression on Changes**

In addition to the analysis above, regression analysis provides additional insights into the correlations and relationships between students' financial ability and the overall CST scores. Using the data from the study, several regressions can be run in an attempt to understand better the relationship between financial knowledge and students' attitudes, perceptions, and confidence levels. The first set of regressions analyzes the significance of four relationships. Using the change in each student's finance score as the independent variable, regressions were run on each of the dependent variables listed below:

- 1) Change in CST scores
- 2) Change in Confidence student averages
- 3) Change Self-Respect student averages
- 4) Change in Participation averages

From the regression results, the "Multiple R" indicates the degree of correlation between the two variables, and therefore, a higher multiple R represents a stronger correlation. Additionally, the  $R^2$  and Adjusted  $R^2$  indicate how well the regression model fits the data of the two variables of the regression, or what percentage of the variance in the dependent variable (i.e. CST score) can be explained by the variations in the independent variable (finance score). Lastly, the p-value indicates the statistical significance of the results. For this statistic, a p-value of less than 0.05 indicates significance at the 5% level. The results of the regressions of each of the variables listed above against the change in the finance score are summarized below:

**Table 4.7**

Regression Summary	Intercept	Slope	Correlation	R <sup>2</sup>	Adj. R <sup>2</sup>
Δ CST	0.034553	0.0964829	0.145594	0.021	0.0016
<i>p</i> =	0.02899	0.30307			
Δ Confidence Avg.	0.053063	0.0765948	0.076682	0.006	-0.014
<i>p</i> =	0.02736	0.58898			
Δ Self-Respect Avg.	0.025475	0.0239544	0.03238	0.001	-0.019
<i>p</i> =	0.14786	0.81974			
Δ Participation Avg.	0.020406	0.2351077	0.229694	0.053	0.0338
<i>p</i> =	0.38638	0.10141			

Based on the summary of the regression results provided in Table 4.7, the results for the *p*-value indicate that these results are not statistically significant. Of all four of the regressions, however, the regression of the change in participation versus the change in finance score indicates the highest level of significance with a *p*-value of 0.101. Additionally, the correlation between the change in the participation scores and the change in finance scores is the strongest of the four at 22.97%, although the correlation between the change in CST and finance score still is relatively high at 0.1519 or 15.19%

Although the regression of the changes in the various dependent variables on the changes in the finance score did not yield as significant of results as expected, regressions of the individual pre and post scores offer some more promising results. For these regressions, the independent variable was the finance score and the dependent variables were the CST score, confidence average, self-respect average, and participation average. These regressions compare the finance score to a specific dependent variable at a specific point in time (i.e. pre-program finance score versus pre-program CST score) for a total of eight regressions. Six out these eight regressions generated statistically significant results. A summary of all of these regressions is depicted in Table 4.8.

**Table 4.8**

Regression Summary	Intercept	Slope Coefficient	Correlation	R <sup>2</sup>	Adj. R <sup>2</sup>
<u>Pre-Program:</u>					
CST	0.7047	0.2252	0.3475	0.1208	0.1032
	<i>p</i> = < 0.01	<b>0.0116</b>			
Confidence	0.6851	0.1629	0.1747	0.0305	0.0111
	<i>p</i> = < 0.01	0.2155			
Self-Respect	0.7283	0.2804	0.4254	0.1809	0.1645
	<i>p</i> = < 0.01	< <b>0.01</b>			
Participation	0.6988	0.2359	0.3325	0.1106	0.0928
	<i>p</i> = < 0.01	<b>0.0160</b>			
<u>Post-Program:</u>					
CST	0.7726	0.1465	0.3827	0.1465	0.1294
	<i>p</i> = < 0.01	< <b>0.01</b>			
Confidence	0.7524	0.1256	0.2645	0.0699	0.0513
	<i>p</i> = < 0.01	<b>0.0581</b>			
Self-Respect	0.7861	0.1887	0.3973	0.1578	0.1410
	<i>p</i> = < 0.01	< <b>0.01</b>			
Participation	0.7824	0.1147	0.2072	0.0429	0.0238
	<i>p</i> = < 0.01	0.1405			

Based on the regression output above, several conclusions can be made. First of all, it is clear that even though there were not statistically significant relationships between the change in finance scores and the change in the scores for the other dependent variables, there were significant relationships between the variables in the above table which represent students' performance at a given point in time rather than their change in performance. The evidence reveals there is a significant relationship between students' finance scores and CST scores.

In addition to the statistical analysis conducted in this chapter, there are a few additional descriptive statistics that are worth noting. First of all, as mentioned in the methodology description, three additional questions were added to the post-program

survey. Two of those asked students to rate two additional statements in the same manner as the CST questions. These two statements indicated to what extent students wanted to learn more about finance and how strongly they felt that they needed to learn more about finance. Based on the post-survey results, 81% of the students either agreed or strongly agreed with the statement, “I want to learn more about money and finance in the future.” Additionally, 83% of the students either agreed or strongly agreed that they *needed* to learn more about money and finance in the future. Now, these statistics do not indicate whether or not students will actually pursue further financial knowledge beyond the BOOF program or how they would pursue that. These statistics do tell us, however, that students are at least aware of the importance of financial literacy and most students understand that they need to learn more about finance beyond the scope of this financial literacy program.

All of the analysis up until this point has focused on the CST principles of dignity and participation which were previously determined as applying primarily to the students receiving the BOOF training. The principle, “commitment to the common good” which applies to the UDM student volunteers can be understood more fully with some supporting data. From the service learning reflection forms that were distributed to the fifty-one students in the College of Business Administration at UDM who volunteered with BOOF to fulfill their service learning requirements in previous semesters, 84% agreed that this service-learning experience increased their social awareness of responsible leadership in their communities. Additionally, Charlie Palms indicated that he has an awareness of doing the best for the common good, but BOOF increased his

understanding of the importance of doing the best for the common good. Additionally, he feels that BOOF gave him an avenue to take action (Palms)

### **External factors**

Although the results did yield some expected results, the correlation between the changes in the finance scores and the various independent variables was not as significant as I had expected. There are some additional factors, or inconsistencies, that may have influenced this. For example, there is not necessarily a consistency with the volunteers that are teaching the classes. Different groups of students may have different volunteers for different classes with the BOOF training. Some volunteers may be more comfortable speaking in front of large groups, working with children, or communicating the financial literacy material. Burton spoke to the importance of the connection between the volunteers and the students and explained that volunteers need to have the right spirit. She added that the last thing the children need is to have someone looking down on them. They need someone who has a good heart who believes that they can be better (Burton). This in no way suggests that the UDM volunteers did not have the right spirit or were “looking down” on the students, but if all of the volunteers who taught the classes to the students surveyed in this study did not have the same level of commitment and motivation, that may have affected the overall improvements in the scores.

Additionally, the students received this training over a span of two months which is a long period of time for a total of just four or five hours of training. This two month span does not allow for the consistent reinforcement that is needed to instill this financial knowledge in students. Many of these students may not have the financially responsible

behavior reinforced at home and in fact may have the opposite type of financial behavior encouraged. Therefore, these students need this financial behavior to be reinforced more often through the program. Otherwise, the financially responsible behavior they are learning from the program essentially may become void as soon as they go home.

Student attendance may be another external factor that influenced the overall results of this study. As mentioned above, the program was spread out over two months. In addition to that, however, student attendance was an issue even in completing the surveys before and after the program. For example, of the sixty-two students completed the pre-program survey, only fifty-three of those students were present on the day the post-program surveys were distributed. Additionally, several students completed the post-survey but did not complete the pre-survey. This may indicate that it is very possible that some students were absent on the days of the BOOF sessions which could explain the relatively small increase in the overall finance scores. These factors and inconsistencies may explain why there was not a strong relationship between the changes in the finance scores and the CST variables.

Family life, although not examined in this study, also plays an important role in financial literacy. In fact, it is probably the most influential external factor that may not have affected directly the results of this study but certainly affect financial literacy and financial responsibility in general. Kourtney Davis explained in her interview that she was surprised about how much the students did not know. She realized, however, that even though she learned math in school, she did not learn about debt, credit, and how to use a credit card. She mentioned that she was fortunate to learn financially responsible

behavior from seeing her mom write checks and pay bills, and she acknowledged that many of the students do not have those types of role models that she was fortunate enough to have (Davis). Additionally John Hope Bryant encourages families to discuss financial literacy at the kitchen table. He encourages individuals to make sure their families understand the difference between needs and wants and explains that financial literacy tools will help children participate in the global economy as they get older (Bryant).

## **CHAPTER FIVE**

### **FINAL REFLECTIONS AND CONCLUSION**

We see the Catholic Social Teaching (CST) principles exhibited in many different ways throughout this study. What is interesting about this clear representation of the principles is that all indications of the living out of these principles is rather indirect. For example, Michele Hurst Burton explained the importance of the applicable CST principles in her interview without actually knowing that what she was explaining was in direct alignment with the CST principles.

Additionally, the pre and post surveys of the Detroit International Academy students yielded interesting results as well. The results indicate that although there might not be a strong relationship between the dynamic and magnitude of the changes in the finance and CST scores, the regressions of the pre-program and post-program data indicate that at a point in time, there are relationships among several of the variables. Additionally, there were statistically significant improvements in the several of the CST questions.

Lastly, personal accounts from Michele Hurst Burton, Kourtney Davis, and Charlie Palms, further supported the connections that this study was trying to make in terms of the “commitment to the common good” and “option for the poor and vulnerable” CST principles. Their insights offered a unique perspective on the purpose of the program, its mission, how it can be improved to make an even greater impact, and their own motivations and experiences. In summary, I believe the several methods of data analysis proved for a well-rounded understanding of the connections between financial literacy and various aspects of CST.

### **Areas of Improvement**

Based on my personal experience volunteering with Banking on Our Future (BOOF), conducting this research over the past two months, and gathering feedback from the BOOF student volunteers through personal interviews and student reflection forms, it is clear that communication is one key area in which BOOF can improve. There are two main channels of communication with this program. First is the communication between the Detroit Public Schools and BOOF. This line of communication may even include additional communication between teachers and school counselors, as it did with the BOOF program at Detroit International Academy.

BOOF's pre-planning process and volunteer communication also could improve significantly in order to improve the overall impact of the program. The volunteers often have very busy schedules and therefore, rescheduling can add unnecessary stress to the volunteers. The rescheduling, although not necessarily the fault of BOOF can make the BOOF experience a burden rather than a positive experience. If volunteers are stressed, they might not be able to put their whole hearts into what they're doing which is the opposite of the types of volunteers the program wants and needs. Charlie Palms also indicated that the program could improve its pre-planning and mentioned that he was even a little nervous at the start of the program (Palms). Since the UDM volunteers are required to participate for their grade, there may be some volunteers who do not want to be there unfortunately. If this is the case, the additional stresses of rescheduling, coordination, etc will only make their experience worse and that can translate to the

young students which is not what the program seeks to do. Since BOOF wants positive volunteers, it would be wise for the program to invest in some ways to improve the overall communication and planning process to make the process, prior to the actual teaching, more enjoyable and seamless for the volunteers. Additionally, BOOF should provide some volunteer training so that the volunteers are accustomed to the material more prepared for the in-class teaching which is something that both Kourtney Davis and Charlie Palms suggested.

Another area in which Davis expressed concern is the lack of distinct curriculums for different age groups and inconsistency between the volunteer guides and the student workbooks. Ms. Burton did mention in her interview, however, that a new curriculum has just been completed and will be implemented hopefully toward the end of this year. This curriculum will be more user-friendly and the volunteer guides and student materials will coincide. The lack of differentiation for the different age groups, though, poses a couple of different challenges. For example, if volunteers find that the material is too advanced for students, they must then make the choice about what the students *will* understand and may omit important material if they are not aware of this ahead of time. Even for this study, the sixth and eighth graders received the same training and curriculum. Again, as mentioned earlier, students may not understand the material and therefore, the training may not have the intended impact. Additionally, using the same curriculum does not allow for students to progress through the program as they get older but only gives them a snap shot of financial literacy training.

## **Suggestions**

I believe BOOF Detroit needs a larger staff in order to fulfill its mission and have the impact that it hopes to have on the city. Ms. Burton recognizes this as well and hopes to expand her staff in the future in order to reach a greater number of students (Burton). Because the staff is so limited, Ms. Burton is taking on many different responsibilities which makes it difficult for every area of the program to receive all the attention it needs. For example, I think the program could benefit significantly with the addition of a volunteer coordinator. This person would be responsible for all volunteer organization, training, and coordination, allowing Ms. Burton to focus on the curriculum, overall program, expansion, etc. Additionally this person could be responsible for communicating between the schools and the volunteers and finding different BOOF opportunities. Now, Ms. Burton does not necessarily have a lot of control over this, but I think it is something Operation HOPE should consider to maximize its overall impact.

I also believe that the program needs to be more comprehensive and hands on. These students not only are not having this behavior enforced at home most likely, but they may very well have the entirely opposite behavior being encouraged at home which can cancel out everything the students have learned. Rather than simply teaching children about banking, BOOF also may want to consider partnering with a bank or a credit union to help students actually open a bank account and start saving rather than just emphasizing the importance of it. This way, students do not just learn *about* saving or *about* banking, but they are actually doing it. Again, if students' parents are not

supporting this behavior, then children will not even have the opportunity to take the first step toward saving. Therefore, by the time they are old enough to go to the bank and open an account themselves, they may have already developed poor saving and spending habits, continuing the cycle of financial illiteracy and irresponsibility.

Both UDM student volunteers interviewed for this study offered some ideas for ways in which BOOF could improve its overall impact. Kourtney Davis believes that the material needs to be more relevant to the age specific age groups which was mentioned briefly earlier. She indicated that some of the material was too difficult for the children and that there was often too much information to teach during the given class period. Additionally, she believes there needs to be more preparation time for the volunteers and that they need to have the material in advance. She also thinks that greater teacher involvement would be beneficial which is very interesting. In her experiences, she mentioned that some teachers would leave the classroom when the volunteers were teaching, but she believes that the session could move along more quickly if the teacher would walk around and assist students with math problems. She also thinks teacher involvement would help the students pay attention since they do not know and do not yet trust you (Davis). This could help facilitate that connection between the young students and the volunteers. I think she pointed out some important areas of improvement, and it is promising that these flaws are not ones that require an immense amount of effort to address. Therefore, BOOF may see some improvements simply by making a few relatively small changes.

### **What I would do differently**

If this study was to be repeated or further investigated in the future, there are several changes that could be made to improve the overall survey process and the significance of the results. First of all, in order to draw truly significant conclusions about the impacts of financial knowledge on attitudes, perceptions, and confidence in regards to the general population, a larger sample needs to be analyzed. Knowing that the sample size of fifty-two students for this study was very small, I understand that this does not provide the type of conclusive results I would have hoped for. I also would have liked to interview some of the young students who took the survey to gain a better understanding of some of their insights and perceptions.

In addition to the larger sample size, I think it would be extremely valuable and interesting to compare the results of students who have participated in BOOF to results of students who have participated in other financial literacy programs. If a survey similar to the one used in this study was distributed to many different groups of students participating in various financial literacy programs, the results could indicate some additional connections between financial literacy and the overall mission of CST. For example, if students who participated in a program like Junior Achievement show the same type of improvements or even better improvements than a BOOF student, this could suggest that basic financial literacy, without any type of emphasis on hope or dignity, is the key contributor to an improvement in the CST areas. This would suggest that financial literacy alone has a direct impact on students' attitudes and confidence.

Overall, BOOF is an excellent program, and its mission is admirable. I think with the appropriate staffing and funding, it has the potential to make an incredible difference in the city, state, and world through the promotion of dignity and financial literacy. Conducting this study was a very rewarding experience, and I really enjoyed being able to connect my financial and business education with my passion for promoting the mission of CST. Although I studied a very small sample of students, I am very pleased that the research yielded some significant results, and I believe that this study has introduced a promising foundation for opportunities for further research in this area and hopefully provides some insight into the impact that BOOF is having on the young people of Detroit.

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## APPENDIX

## Appendix A: Summary of BOOF objectives

<b>Module</b>	<b>Title</b>	<b>General Module Objectives: <i>Students will...</i></b>
1	A Course in Dignity	Define and understand dignity in their own culture as well as others Learn and understand the dignity principles Use their five senses to understand how dignity relates to them individually Learn and understand the dignity project
2	Basics in Banking	Explain the basics of money and banking Explain the differences between banks and credit unions Distinguish between earned and gifted money Distinguish between needs and wants Explain what a budget is Explain how to use a budget Explain the difference between a variable and a fixed expense Explain how to be smart shopper
3	Checking and Savings	Explain the difference between a checking account and a savings account Explain what a check register is and how to balance it Explain how to read a bank statement Demonstrate how to use deposit and withdrawal slips Demonstrate that they can compute the sum or difference of whole numbers and positive decimals to two places
4	Power of Credit	Explain what a credit card is and how it works Explain what a loan is Explain how interest works
5	Basic Investments	Explain the basics of investment Demonstrate that they can compute the sum or difference of whole numbers and positive decimals to two places

Source: HOPE CORPS Volunteer Guide

## Appendix B: Survey

**UDM-Banking on Our Future Survey**  
**Detroit International Academy**

**\*\*\*This is a survey and will NOT be graded. Please answer the questions honestly and to the best of your ability. Thank you!**

**Please complete the following:**

**Today's Date:** \_\_\_\_\_

**Grade (Circle One):** 6<sup>th</sup> Grade                      8<sup>th</sup> Grade

**Birthday:** \_\_\_\_\_                      **Initials:** \_\_\_\_\_

**Please circle the best answer:**

**1) Please rate this statement: *I understand how to save and spend my money.***

- a. Strongly Agree
- b. Agree
- c. I don't know
- d. Disagree
- e. Strongly Disagree

**2) What is a budget?**

- a. A family bank account
- b. A place where the government keeps its money
- c. A plan of how you will save and spend your money
- d. A special type of loan from the bank
- e. I don't know

**3) Where does money come from?**

- a. The government prints money.
- b. The bank creates money.
- c. Money comes from credit cards.
- d. Companies print money to pay their employees.
- e. I don't know.

**4) You just received \$100 for your birthday. What is the best thing to do with this money?**

- a. Put it in your wallet
- b. Store it in a piggy bank in your bedroom
- c. Put it in a savings account at the bank
- d. Dig a hole in your backyard and bury it
- e. Buy a new pair of shoes that you have been wanting
- f. I don't know

- 5) Sarah is at the store and sees a shirt that she wants to buy. The shirt costs \$20, but she only has \$7 in her wallet. If you were Sarah in this situation, what would you do?
- Ask your mom for the money you need to pay for it
  - Use your credit card
  - Decide not to buy the shirt and save your \$7
  - Buy something else for \$7 instead
  - Put the shirt in your purse without paying for it and save your \$7
- 6) You decide you want to buy a new car, and the bank gives you a \$1,000 loan that you must pay back in *one* (1) year. If the annual interest rate on this loan is 8%, how much money in *total* will you need to pay back to the bank in one year?
- \$800
  - \$1,008
  - \$1,080
  - \$8,000
  - I don't know
- 7) Last year John purchased one share of stock for \$45. Now the price of this stock has increased to \$150. If John decides to sell his one share of stock today, he will...
- Earn \$150
  - Earn \$105
  - Lose \$195
  - Lose \$45
  - I don't know
- 8) Which of the following is a way to invest your money?
- Signing up for a credit card
  - Buying a new iPod
  - Purchasing shares of stock in a company
  - Putting your money in a safe
  - I don't know
- 9) Please rate this statement: *I am confident in my knowledge about money and banking.*
- Strongly Agree
  - Agree
  - I don't know
  - Disagree
  - Strongly Disagree

**10) Please rate this statement: *I have a right to learn about money and finance.***

- a. Strongly Agree
- b. Agree
- c. I don't know
- d. Disagree
- e. Strongly Disagree

**11) Please rate this statement: *I feel confident in myself because I know about money and personal finance.***

- a. Strongly Agree
- b. Agree
- c. I don't know
- d. Disagree
- e. Strongly Disagree

**12) Please rate this statement: *I am confident that I can be financially stable when I am an adult.***

- a. Strongly Agree
- b. Agree
- c. I don't know
- d. Disagree
- e. Strongly Disagree

**13) Please rate this statement: *Paying what you owe and saving money responsibly is a way of respecting myself.***

- a. Strongly Agree
- b. Agree
- c. I don't know
- d. Disagree
- e. Strongly Disagree

**14) Please rate this statement: *I feel capable of using my money responsibly.***

- a. Strongly Agree
- b. Agree
- c. I don't know
- d. Disagree
- e. Strongly Disagree

**15) Please rate this statement: *I can empower myself by learning about money and personal finance.***

- a. Strongly Agree
- b. Agree
- c. I don't know
- d. Disagree

- e. Strongly Disagree

**16) Please rate this statement: *I WANT to learn more about money and banking in the future.***

- a. Strongly Agree
- b. Agree
- c. I don't know
- d. Disagree
- e. Strongly Disagree

**17) Please rate this statement: *I NEED to learn more about money and banking in the future.***

- a. Strongly Agree
- b. Agree
- c. I don't know
- d. Disagree
- e. Strongly Disagree

**18) \*\*Please list the most important thing that you learned from the Banking on Our Future Program:**

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