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The University of San Francisco

STUDENT PERCEPTIONS OF GRIT, EMOTIONAL-SOCIAL INTELLIGENCE, AND THE ACQUISITION OF NON-COGNITIVE SKILLS IN THE CRISTO REY CORPORATE WORK-STUDY PROGRAM

A Dissertation Presented
To
The Faculty of the School of Education
Department of Leadership Studies
Catholic Educational Leadership Program

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

by
Don Gamble
San Francisco
December 2015

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THE UNIVERSITY OF SAN FRANCISCO
Dissertation Abstract

STUDENT PERCEPTIONS OF GRIT, EMOTIONAL-SOCIAL INTELLIGENCE, AND NON-COGNITIVE SKILL ACQUISITION IN THE CRISTO REY CORPORATE WORK-STUDY PROGRAM

The Catholic Church has long emphasized an "option for the poor" and relied heavily on its schools to assist in providing the education necessary to help families escape poverty (Benson, Yeager, Guerra & Manno, 1986; Bryk, Lee, & Holland, 1993; Buetow, 1988; Convey, 1992; Greeley, 1982; Neal, 1997; United States Conference of Catholic Bishops, USCCB, 1998; York, 1996). Catholic schools in the United States are closing at a steady rate from a lack of funding, and this has created an ongoing problem for the outreach efforts of the Church and the low-income families with the greatest need (Brinig & Garnett, 2014; United States Department of Education, US DOE, 2008). In addition, families living in poverty have difficulty meeting the financial requirements and tuition demands of the schools that remain after taking care of basic needs for survival (Hudley, 2013; Rumberger, 2013). The Society of Jesus created Cristo Rey schools to provide one solution to this crisis facing the poor.

Of paramount importance to low-income students seeking success in their educational and professional endeavors are non-cognitive skills such as grit and emotional-social intelligence (Bar-On, 2006; Bar-On & Parker, 2000; Duckworth, Peterson, Matthews, & Kelly, 2007; Duckworth & Quinn, 2009; Gardner, 1983; Goleman, 1995; Salovey & Mayer, 1990; Tough, 2012). With regards to the aforementioned non-cognitive abilities and traits, the purpose of this study was threefold. First, it measured perceptions of grade 11 and 12 students from three Cristo Rey schools

regarding their non-cognitive skills of grit and emotional-social intelligence (intrapersonal, interpersonal, stress management, and adaptability). Secondly, it explored the extent to which these skills are perceived to be utilized and enhanced through their participation in the Cristo Rey Network's (CRN) Corporate Work-Study Program (CWSP). Finally, it identified what further skills and training the CRN students identified as necessary to ensure their success in the workplace.

The results indicated the students had a mean level of grit ($M = 3.5$) indicating responses on the Likert-style scale directly between "Somewhat like me" and "Mostly like me." For the ESI subscales, students recorded a mean score for intrapersonal (M = 13.47) approximating the choice "Just a little true of me," and mean scores for interpersonal (M = 19.24) that placed most student responses for this subscale between the values "Pretty much true of me" and "Very much true of me," and mean scores for stress management (M = 17.22) and adaptability (M = 16.05) that were above the middle point ESI subscale value of 15 and just below the choice "Pretty much true of me."

The three categories marked by the students with the highest frequency as "developed in the CWSP" were: social responsibility, interpersonal relationships, and flexibility. The categories least often chosen by the students included: self-awareness, self-regard, assertiveness, independence, empathy, and impulse control.

Finally the students most often responded they would like training in the intrapersonal and interpersonal domains, with communication, social, and computer skills as the most frequently requested skill sets. The participants indicated they would like additional training, workshops, classes, tutorials, and practice for what they are facing in the workplace in additional to training they already receive.

This dissertation, written under the direction of the candidate's dissertation committee and approved by the members of the committee, has been presented to and accepted by the Faculty of the School of Education in partial fulfillment of the requirements for the degree of Doctor of Education. The content and research methodologies presented in this work represent the work of the candidate alone.

Donald J. Gamble	December 18, 2015
Candidate	Date

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Dan McPherson, Ph.D.	December 18, 2015
Chairperson	
Doreen Jones, Ed.D.	December 18, 2015
Christopher Thomas, Ph.D.	December 18, 2015

DEDICATION

This dissertation is dedicated to
my loving wife Katherine, and my daughters
Amelia and Cora.
I never would have made it through this journey
without their love and support.

Thank you ladies.

ACKNOWLEDGEMENTS

The proposed study is the culmination of a long journey including many years of effort, support, grit, determination and an amazing level of love, collegiality, and care from my family, friends, and colleagues. I have been fortunate to cross paths with many people who have helped me find my way along this journey.

My first note of gratitude concerns my colleagues and the Jesuit community of Saint Ignatius College Preparatory. Without the gracious support of my administration and the Society of Jesus, I never would have been able to join a doctoral program. Regarding the Catholic Educational Leadership doctoral program at the University of San Francisco, I would like to thank my professors, my fellow students and colleagues, and the members of my dissertation committee. Along this journey Drs. Ben Baab, Doreen Jones, Dan McPherson, Chris Thomas, and Steven Katsouros, SJ, as well as USF staff member Thanh Ly, have all held significant roles in my growth as a student and advancement to candidacy.

Additionally, I would like to thank the various members of the Cristo Rey Network, based in Chicago, that gave their blessing to my work, as well as the Corporate Work Study Program directors, principals, and presidents of the three participating schools for permission to carry out this study with their students.

Finally, I must give thanks to my family. They have given me unwavering support along my dissertation journey. My mother and father, Don and Carol, my grandparents, aunt Deb, uncle Tom, sister Carrie, Pat, Debbie, “Grandpa Van”, Noah, Evan, and most of all my wife Katherine and my daughters Amelia and Cora have all been my sources of strength throughout my dissertation journey.

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CHAPTER I

THE RESEARCH PROBLEM

Statement of the Problem

The "option for the poor" is central to the mission and teaching of the Catholic Church (United States Conference of Catholic Bishops, [USCCB], 1998). Historically, the Catholic Church has relied greatly upon its schools to assist in this mission, and Catholic schools have contributed greatly to the education of low-income and minority students across the United States (Benson, Yeager, Guerra & Manno, 1986; Bryk, Lee, & Holland, 1993; Buetow, 1988; Convey, 1992; Greeley, 1982; Neal, 1997; York, 1996).

Current economic and social conditions in the United States present the U.S. Catholic Church and its schools with new challenges relative to their ministry to the poor. Of critical concern is the steady decline of U.S. inner city, faith-based schools due to lack of funding (Brinig & Garnett, 2014; United States Department of Education, [ED], 2008a). Specifically, the National Catholic Education Association (NCEA)(2014) reported that between 2000 and 2013, 2,090 Catholic schools, or 25.7% were closed or consolidated, and student enrollment declined by 651,298, or 24.5%. The NCEA also noted that most of the closed schools served low-income families. This has gravely impacted the outreach efforts of the Church and subsequently, the educational opportunities available to families with the greatest need. Additionally, families with low socio-economic status have great difficulty in meeting tuition demands at the remaining Catholic schools after prioritizing basic needs for survival (Hudley, 2013; Rumberger, 2013).

The USCCB (1990, 1995) urged its Catholic religious communities and educational leaders to seek new ways of educating the poor and the marginalized. The Society of Jesus (Jesuits) responded by creating the Cristo Rey Network (CRN) of secondary schools for minority high school students in urban communities across the United States. The CRN is a relatively new and innovative group of Catholic schools that exclusively serves low-income families and features a Corporate Work Study Program (CWSP) in addition to offering a college preparatory curriculum.

The first Cristo Rey high school was established in Chicago in 1996 as an outreach to Chicago's Hispanic community (Kearney, 2008). All CRN schools leverage revenue earned from students' participation in the CWSP to offset operating costs and support constituent families financially with free or greatly reduced tuition. As of 2015, the CRN sponsored 30 schools across the United States, thereby providing students from low-income families with a Catholic education that they would not have been able to otherwise afford as a result of the high tuitions of today's Catholic secondary schools (CRN, n.d.).

Additionally, the CRN, through the inclusion of its CWSP, may offer low-income students real-world experiences wherein they may utilize and strengthen valuable non-cognitive soft skills such as grit and emotional-social intelligence which Duckworth, Peterson, Matthews, and Kelly (2007) and Bar-On (2006) respectively found to be important for success in the post-secondary world of education and employment (Bar-On, 2006; Duckworth et al., 2007). A detailed explanation of the CRN's CWSP is provided in Chapter Two.

Although the CRN and its CWSP have been operational since 1996, there has been limited empirical investigation relative to the experiential benefits provided by the CWSP or the low-income students they serve. This study sought to fill this void and examined the perceptions of Grade 11 and 12 students of three Cristo Rey schools in California regarding their experience in the CWSP and the extent to which those experiences impacted their capacity of grit and emotional-social intelligence.

Background and Need

A quality education from a variety of faith-based schools has long been one of the primary options for low-income families seeking success for their children (ED, White House Domestic Policy Council, 2008a). The USCCB (2001) has placed a premium on the education and acquisition of skills for this important societal group. It stated:

> Working for the common good requires us to promote the flourishing of all human life and all of God's creation. In a special way, the common good requires solidarity with the poor who are often without the resources to face many problems…our obligations to the one human family stretch across space and time. They tie us to the poor in our midst and across the globe, as well as to future generations. The commandment to love our neighbor invites us to consider the poor and marginalized…as true brothers and sisters who share with us the one table of life intended by God for the enjoyment of all. (p. 8)

In an earlier document, the USCCB (1986) stated, "The obligation to provide justice for all means that the poor have the single most urgent economic claim on the conscience of the nation" (p. 20). It also mentioned that "The fulfillment of the basic needs of the poor is of the highest priority" and "increasing active participation in economic life by those who are presently excluded or vulnerable is a high social priority" (p. 21). It also concluded that, "The investment of wealth, talent, and human energy should be specially directed to benefit those who are poor or economically insecure" (p. 22).

A major challenge facing the multitude of faith-based communities trying to serve low-income students is the decline in the number of faith-based schools and the negative consequences of these losses to the disadvantaged students in urban settings across the nation (Brinig & Garnett, 2014; ED, White House Domestic Policy Council, 2008b). Data from the NCEA (2014) indicated the Catholic school system lost nearly 1,300 schools and approximately 616,000 students between 1999 and 2012. This trend creates a developing problem facing all students where the faith-based schools that have long provided high quality education and training, in particular to the poor and marginalized children who participated in this study, are declining at an alarming rate (ED, 2008a).

Attempts to address the crisis in urban faith-based schools have met with varying results (ED, 2008a). The CRN, based in Chicago, is a relatively new effort to address this crisis. The CRN is a group of 30 high schools that provide quality, Catholic, college preparatory education to urban young people who live in communities with limited educational options and underperforming public schools. The CRN began with the return of Father John Foley, S.J. to his hometown of Chicago after spending 34 years helping educate the poor and marginalized of Tacna, Peru. The Jesuit community in Chicago wanted to create a high-quality, college-prep, Catholic high school in the Pilsen community of Chicago. The Pilsen community is a predominantly Latino neighborhood of working class LSES families with few options and limited opportunities to attend a school such as the one envisioned by the Jesuits in Chicago (CRN, n.d.).

After assembling a team to conduct a feasibility study, arrange corporate partners, and complete all the necessary tasks required to open the new school, Cristo Rey Jesuit High School opened in 1996 with Father John Foley, S.J., as founder and the first

president. Father Foley also went on to become the first president of the newly formed CRN in 2001, as groups around the country approached the Cristo Rey Jesuit High School leadership team about how they might replicate the school and its mission of serving low-income families in their own respective communities (Kearney, 2008).

The unique aspect of the Cristo Rey school model is its CWSP, which places students into entry-level jobs in local businesses and schools. All students work five full days per month, gaining work experience and generating income that is used to make the school financially sustainable. When Cristo Rey schools reach full enrollment, 90% of operating expenses are covered by the proceeds of the work program and small tuition revenue. The revenue from the students' employment compensation covers 70% of a student's tuition. The tuition assistance aspect, coupled with a longer school day and year, "allows the students to receive a college preparatory education they previously could not afford while also gaining valuable job experience" (CRN, n.d.). However, to gain this valuable job experience, continue to be employed by the corporate partners in the CWSP, and thus provide the revenue to keep the entire CRN model operational, CRN students are required to both possess and exhibit the skills of grit and emotional-social intelligence in their job placements.

Research suggests that success in the classroom and in the work force is linked to the acquisition of a set of non-cognitive skills such as: (a) grit, (b) intrapersonal skills, (c) interpersonal skills, (d) adaptability, and (e) stress management (Bar-On, 2006; Bar-On & Parker, 2000; Duckworth et al., 2007; Gardner, 1983; Goleman, 1995; Salovey & Mayer, 1990; Tough, 2012). The latter four skills (b-e) are considered skills of emotional-social intelligence (Bar-On, 2006).

Duckworth et al. (2007) defined "grit" as "perseverance and passion for long-term goals" and added:

> Grit entails working strenuously toward challenges, maintaining effort and interest over years despite failure, adversity, and plateaus in progress. The gritty individual approaches achievement as a marathon; his or her advantage is stamina. Whereas disappointment or boredom signals to others that it is time to change trajectory and cut losses, the gritty individual stays the course. (p. 1087)

Duckworth et al. created a validated self-report questionnaire called the Grit Scale and tested it with six different populations. They found a strong relationship between grit and success outcomes which could not be explained by intelligence quotient (IQ) and stated that "achievement is the product of talent and effort, the latter a function of the intensity, direction, and duration of one's exertions toward a goal" (p. 1098), and suggested that "in every field, grit may be as essential as talent to high accomplishment" (p. 1100).

A similar conclusion regarding factors contributing to success in school and the workplace above and beyond inherent talent and IQ was made by Bar-On (2006) who created the Bar-On model of *emotional-social intelligence* (ESI). ESI is an important factor in the success of individuals across a wide variety of institutions and settings (Bar-On & Parker, 2000; Goleman,1995; Salovey & Mayer, 1990). The Bar-On model (2006) defines ESI as "a cross-section of interrelated emotional and social competencies, skills and facilitators that determine how effectively we understand and express ourselves, understand others and relate with them, and cope with daily demands" (p. 3). Bar-On (1997) also created the Emotional Quotient Inventory (EQ-i) to operationalize ESI and to measure the following five primary domains: (a) intrapersonal, (b) interpersonal, (c) adaptability, (d) stress management, and (e) general mood. These domains, with the

exception of general mood, are explored further in the following section discussing the conceptual framework used for the study and the review of the literature in Chapter II.

The CRN provided a unique opportunity to collect data on essential employment skills such as grit and ESI from a network of school communities that serve low-income students and are closely tied to the corporate workplace. Despite national acclaim and funding by donors such as the Walton Foundation, the Bill and Melinda Gates Foundation and philanthropists B.J. and BeBe Cassin, there is minimal literature on the CRN, the CWSP, and the students served by this network of schools (CRN, n.d.). This study was designed to fill this void and examined the perceptions of Grade 11 and 12 students of three Cristo Rey schools in California regarding their self-reported levels of grit and emotional-social intelligence, the extent to which these non-cognitive skills were affected by their involvement in the CRN's CWSP, and the skills and training they perceive are necessary for success in the CWSP. This investigation utilized an online survey that contained: (a) Duckworth et al.'s Short Grit Scale (Grit-S), (b) the Bar-On Emotional Quotient Inventory: Youth Version Short Form (EQ-i: YV(s)), and (c) a series of open-ended questions to gather data on non-cognitive skill acquisition in the CWSP.

Conceptual Framework

The Jesuits developed the CRN model to provide a private college preparatory education for low-income students. In order to do this, CRN students are required to go to work at a corporate job for five days per month. As explained in Chapter Two, participation in the corporate workforce requires grit and emotional-social intelligence. Adults have the opportunity to become grittier and increase their levels of ESI during college, but the CRN is placing high school students into the corporate workforce and

expecting them to have the non-cognitive skillsets necessary for that environment at a much younger age than their peers in the workplace. It would be morally wrong to place students with no grit or ESI into this environment, and equally irresponsible to send these teenagers to corporate job placements without the proper training. This study measured the students' grit and ESI, and also asked them what kind of skills and training would help them participate in the CWSP at a higher level. Grit and ESI were chosen as the conceptual framework for this study not only for the need to add data on these non-cognitive skills and their respective measurements with a population of low-income students to the literature, but also due to the fact that these skills are needed in the work environment of the CRN students.

Duckworth et al. (2007) constructed and validated a scale to measure grit that is incorporated into the survey instrument in the proposed study. In the process of creating the Grit Scale, Duckworth et al. collected data establishing an association between grit and: (a) educational attainment in adults, (b) cumulative GPA among undergraduates at an elite university, (c) finalists of the Scripps National Spelling Bee, (d) retention rates for a rigorous West Point Military Academy summer induction program and (e) GPA of the cadets. In all cases, Duckworth et al. found that those with higher scores on the Grit Scale were more successful than their less "gritty" counterparts.

The Bar-On Model provides the conceptual foundation for the Emotional Quotient Inventory (EQ-i) of which the Youth Version Short Form (EQ-i: YV(s)) is also used in the proposed study. The EQ-i is "a self-report measure of emotionally and socially intelligent behavior that provides an estimate of social-emotional intelligence" (p. 3).

The Bar-On Model (2006) of ESI is comprised of five key components:

> (a) The ability to recognize, understand and express emotions and feelings; (b) the ability to understand how others feel and relate with them; (c) the ability to manage and control emotions; (d) the ability to manage change, adapt and solve problems of a personal and interpersonal nature; and (e) the ability to generate positive affect and be self-motivated. (p. 2)

Individuals completing the EQ-i receive a total EQ score and scores on the following five composite scales: (a) intrapersonal, (b) interpersonal, (c) stress management, (d) adaptability, and (e) general mood. The EQ-i: YV(s) assesses four of the five scales of the Bar-On Model and does not include the general mood scale. The Bar-On Model is detailed in Table 1.

Table 1

The EQ-i Scales & What They Assess

EQ-i SCALES	EI SKILLS ASSESSED BY EACH SCALE
INTRAPERSONAL	Self-awareness & self-expression:
Self-regard	To accurately perceive, understand, & accept oneself
Emotional Self-Awareness	To be aware of & understand one's emotions
Assertiveness	To efficiently & constructively express one's emotions and oneself
Independence	To be self-reliant & free of emotional dependency to others
Self-Actualization	To strive to achieve personal goals & actualize one's potential
INTERPERSONAL	Social-awareness & interpersonal relationship:
Empathy	To be aware of & understand how others feel
Social Responsibility	To identify one's social group & cooperate with others
Interpersonal relationship	To establish mutually satisfying relationships & relate well with others
STRESS MANAGEMENT	Emotional management and regulation:
Stress Tolerance	To effectively & constructively manage emotions
Impulse Control	To effectively & constructively control emotions
ADAPTABILITY	Change management:
Reality-Testing	To objectively validate one's feelings & thinking with external reality
Flexibility	To adapt and adjust one's feelings & thinking to new situations
Problem-Solving	To effectively solve problems of a personal & interpersonal nature

GENERAL MOOD	Self-motivation:
Optimism	To be positive & look at the brighter side of life
Happiness	To feel content with oneself, others & life in general

The non-cognitive skills within the aforementioned scales are vital to student success (Andrew, DeRocco, & Taylor, 2009; Busteed, 2013; Deloitte, 2005) and the students of the CRN were in a unique position to self-report perceptions of said skills from participation in the CRN's CWSP.

Purpose of the Study

The purpose of this study was threefold. First, it measured perceptions of grade 11 and 12 students from three Cristo Rey schools in California regarding their non-cognitive skills of grit and emotional-social intelligence (intrapersonal, interpersonal, stress management, and adaptability). Secondly, it explored the extent to which these skills are perceived by the students to be utilized and enhanced through their participation in the Cristo Rey Network's (CRN) Corporate Work Study Program (CWSP). Finally, it identified what further skills and training the CRN students identified as necessary to aid their participation in the workplace of the CWSP.

Research Questions

1. What is the baseline level of the skill of grit of the Grade 11 and 12 students of three Cristo Rey Network schools in California, as measured by Duckworth and Quinn's (2009) Short Grit Scale (Grit-S)?

2. What are the baseline levels of the skills of emotional-social intelligence (intrapersonal, interpersonal, stress management, and adaptability) of the Grade 11 and 12 students of three Cristo Rey Network schools in California, as measured by

Bar-On's (2002) Emotional Quotient Inventory Youth Version Short Form (EQ-i: YV(s))?

3. What are the perceptions of the Grade 11 and 12 students of three Cristo Rey Network (CRN) schools in California regarding their skill of grit and emotional-social intelligence in relationship to the CRN's Corporate Work Study Program (CWSP) relative to these four factors:
   a. What skills do they identify as possessing prior to time spent in the CWSP?
   b. What skills do they identify as developing during time spent in the CWSP?
   c. What skills do they identify as learning about for the first time in the CWSP?
   d. What skills do they identify as not experienced in the CWSP?

4. What additional skills do the Grade 11 and 12 students of three Cristo Rey Network (CRN) schools in California identify to be important to learn to aid their participation in the CRN's Corporate Work Study Program?

5. What additional training do the Grade 11 and 12 students of three Cristo Rey Network (CRN) schools in California identify to be important to have to aid their participation in the CRN's Corporate Work Study Program?

Limitations

There were limitations that existed for the study. The unique nature of the CRN and its CWSP made it impossible to generalize the results to other populations of low-income minority students that attend traditional public and private schools in the United States. Also, due to financial limitations, the researcher only included a small sample of

Cristo Rey schools in the state of California. Thus, the students from the three participating schools were not representative of all students in the varied schools of the CRN.

In addition, while self-reporting perceptions may have lead to a social desirability bias, the positives associated with the students' self-reflection may outweigh the negatives (Boud, Keogh, & Walker, 1985; Dewey, 1991). Dewey maintained that the contribution of self-reflection to students' thought process, growth, and the acquisition of professional skills; and defined reflection as, "active, persistent and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusion to which it tends" (p. 9). Boud, Keogh, and Walker added that students benefit from, "those intellectual and affective activities that individuals engage in to explore their experience, which leads to new understanding and appreciations" (p. 19). Finally, the lack of a comparison group made the study primarily descriptive in nature. Despite these limitations, the study was still needed.

Educational Significance

This study contributed to the field of educational research examining low-income students involved in the Cristo Rey Work Study Program with a specific focus on the non-cognitive skills of grit and emotional-social intelligence. Although there is significant research on these skills and a sizeable amount of literature on students from low-income backgrounds, there is limited literature on the low-income students of the CRN and their participation in the CWSP. This study provided an opportunity to address the sizeable gap in the literature. Assessing students' perceptions of the extent to which

they self-report the existence of non-cognitive skills in the CWSP provided data and information upon which future research can build.

The study is of interest to a number of constituent groups directly related to the students of the CRN that are focused on building students' skills and aiding their participation in the CWSP. The leadership team of the CRN can disseminate the data and include the results in discussions and planning for program improvement, and other mission-centered initiatives of the CRN. Additionally, the research is useful to administration and faculty in the existing Cristo Rey schools throughout the United States looking for data to assist in the continual improvement of the mission and outcomes of their respective schools. Results can also be used to design curriculum, professional development, and general discussion points for improving the integrated educational and workplace experiences of the students in the CRN, especially in the areas of grit and emotional-social intelligence.

Educational practitioners and researchers examining work study programs, and the educational experience of low-income minority youth may also be interested in the results of this study. Future researchers can examine various portions of the research in greater detail and develop qualitative methods for an exploration of the skills nurtured in various work study programs serving low-income students.

CHAPTER II

REVIEW OF THE LITERATURE

Restatement of the Problem

The faith-based schools that traditionally serve low-income students are disappearing at an alarming rate (United States Department of Education, [ED], 2008a; National Catholic Education Association, [NCEA], 2014). The lack of quality educational opportunities negatively impacts low-income students and reduces their chances for success in college and the workplace relative to their affluent counterparts (Gibbs, Dosen, & Guerrero, 2009; Laffey, Espinosa, Moore, & Lodree, 2003; Marquez-Chisholm, Carey, & Hernandez, 2002; Mouza, 2008; Tavernise, 2012; Warschauer, Knobel, & Stone, 2004). The Cristo Rey Network (CRN) of schools is an option for low-income students to receive a college preparatory education and essential non-cognitive skills necessary for success in the workplace (Kearney, 2008). As of this writing, there is very little in the literature on the CRN.

Overview

This chapter addressed the preferential option for the poor espoused by the Catholic Church, the role of Catholic schools in the lives of low-income families, the Cristo Rey Network, and the CRN Corporate Work Study Program (CWSP). Additionally, the following variables of the proposed study: (a) grit, and the (b) intrapersonal, (c) interpersonal, (d) adaptability, and (e) stress management skills within emotional-social intelligence are discussed. The preferential option for the poor, and the continuing support the Catholic school system provides for families of low socio-economic status, chosen as topics with deference to the demographics of CRN schools,

are well documented (Arrupe, 1973; USCCB, 1998). The CRN and its CWSP were included in this review to provide a clear picture of the work being done to serve the aforementioned low-income demographic by the schools included in this study.

Grit and emotional-social intelligence are essential non-cognitive skills required for successful participation in the workforce (Bar-On, 2006; Duckworth et al., 2007). The CRN student participants of this study are members of the corporate workforce (CRN, n.d., Work Study Program), and the instrument completed by the student participants in this study included Duckworth et al.'s (2007) Short Grit Scale and Bar-On's (2006) Emotional Quotient Inventory Youth Version Short Form.

Catholic Education and the Preferential Option for the Poor

The Catholic Church has a long tradition of supporting and delivering a preferential option for the poor (USCCB, 1998), and Catholic schools have contributed significantly to the education of low-income and minority students in the United States (Bempechat, Boulay, Piergross, & Wenk, 2008; Benson et al., 1986; Buetow, 1988; Bryk et al., 1993; Coleman & Hoffer, 1987; Coleman, Hoffer, & Kilgore, 1982; Convey, 1992; Convey & Youniss, 2000; Greeley, 1982; Greeley, 2002; Neal, 1997; York, 1996).

Working with and for poor and marginalized students is "one of the chief concerns of the Church" and educating for justice is a "constitutive element of the mission" of Catholic schools (Arrupe, 1973, p. 2). The USCCB (1986) summarized this mission through the following six moral principles:

- Every economic decision and institution must be judged in light of whether it protects or undermines the dignity of the human person.
- Human dignity can be realized and protected only in community.
- All people have a right to participate in the economic life of society.

- All members of society have a special obligation to the poor and vulnerable.
- Human rights are the minimum conditions for life in community.
- Society as a whole, acting through public and private institutions, has the moral responsibility to enhance human dignity and protect human rights. (p. viii)

> Pope Paul VI (1965a) declared:
>
> All men of every race, condition and age, since they enjoy the dignity of a human being, have an inalienable right to an education that is in keeping with their ultimate goal, their ability, their sex, and the culture and tradition of their country, and also in harmony with their fraternal association with other peoples in the fostering of true unity and peace on earth. For a true education aims at the formation of the human person in the pursuit of his ultimate end and of the good of the societies of which, as man, he is a member, and in whose obligations, as an adult, he will share. (¶ 5)

Regarding the non-cognitive skills this study assessed, Pope Paul VI (1965a) stated that:

> Young people should be so trained to take their part in social life that properly instructed in the necessary and opportune skills they can become actively involved in various community organizations, open to discourse with others and willing to do their best to promote the common good. (¶ 1)

Pope Paul VI (1965b) also stated that "The joys and hopes, the griefs and anxieties of the people of this age, especially those who are poor or in any way afflicted, these too are the joys and hopes, the griefs and anxieties of the followers of Christ" (¶ 1) and that "Today there is an inescapable duty to make ourselves the neighbor of every man, no matter who he is, and if we meet him, to come to his aid in a positive way" (¶ 27). Regarding the equal dignity of all persons and the struggle for more humane conditions for all people, Pope Paul VI expressed "Excessive economical and social disparity between individuals and peoples of the one human race is a source of scandal" (¶ 29).

Long before Vatican II, the Catholic Church expressed a concern for the poor and disadvantaged. Buetow (1988) reported,

> Church teachings about the dignity of a person embrace especially the *anawim* – the poor, lepers, women, children, and other helpless and voiceless outcasts of

> society. The New Testament, beginning with St. John's prologue, ushered in a new and revolutionary concept of dignity for all people. (p. 128)

Referring to the less fortunate, Jesus taught, "As long as you did it for one of these, the least of my brethren, you did it for me" (Matt 25:34-36, New Revised Standard Version). He also worked to transform attitudes towards the poor and implored his listeners to look upon the poor as a sacrament of his own presence (Prov. 17:5, Matt 25:34-40) and professed that the meek are the blessed (Matt 5:4). The New Testament states that it is the *anawim*, not the privileged and mighty, who have the Gospel preached to them (Matt 11:5; Luke 4:18). Regarding the *anawim,* Buetow (1988) stated "The life of Jesus in poverty and the strong elements of care for the poor in the first Christian communities, especially those recorded in Luke's Gospel, inaugurated the Christian tradition of *anawim*" (p. 282). Buetow also highlighted that the Christian saints have continued this tradition: Saints Augustine, Basil, Francis of Assisi, John of the Cross, and Peter Claver.

Catholic schools in the United States have a strong record of upholding the preferential option for the poor and marginalized (Coleman & Hoffer, 1987; Coleman, et al., 1982; Evans & Schwab, 1995; Greeley, 1982; Keith & Page, 1985; Litton, Martin, Higareda, & Mendoza, 2010; Neal, 1997). Greeley (1982) analyzed the massive amount of data collected from his *High School and Beyond* (HSB) study of 7,000 Catholic high school students and compared it to a random sample of 7,000 public high school students. He concluded that low-income black and Hispanic Catholic school students displayed significantly higher levels of effort and achievement than their public counterparts. Greeley listed the following reasons for the increased academic achievement and effort displayed by the Catholic school students: (a) the type of students that attended the

schools, (b) ownership of the school environment by a religious community, (c) the quality of discipline, and (d) the quality of instruction in the schools.

Keith and Page (1985) challenged Greeley's (1982) data and conclusions on the basis that they did not account for students' ability. After adding the component of student ability to the HSB data, Keith and Page's analysis found that Catholic schools still had a more positive effect on minority students than did their public school counterparts due, in part, to their more stringent curriculum. However, Keith and Page found that the effort though positive was of a lesser degree than what Greeley had reported with student ability not accounted for.

In an examination of the effects of Catholic secondary schooling on high school graduation rates, college graduation rates, and future wages, Neal (1997) found the gains in all three areas to be modest for urban Caucasians and negligible for suburban students of all races, but significant in all three areas for urban minority students. Neal stated, "Catholic schooling dramatically increases the probability of high school graduation. Further, among those who graduate from high school, Catholic schooling appears to increase college graduation rates" (p. 121). Neal then used wage regression analysis to determine future wage gains for urban minority students were significant, as well. Neal noted that a vast majority of Catholic secondary schools are geographically concentrated in urban areas and they provide immense benefits to poor urban minority students primarily because the inner-city public schools available to the low-income students are often of low quality.

Grogger and Neal (2000) further examined the effects of Catholic schooling and found, similar to the original work of Neal (1997), that "Catholic secondary schooling is

associated with attainment gains for urban students generally and for urban minorities in particular," and "suburban whites in Catholic schools do not enjoy significant attainment gains" (p. 192). Grogger and Neal also examined achievement in math and found the effect of Catholic schooling on median math scores to be significant for urban minorities, modest for both suburban and urban white students, and negligible for suburban minorities. Overall, Grogger and Neal suggested that urban minorities benefitted the most from Catholic schooling. These findings accentuate the problem of declining quality educational choices for low-income students.

The positive educational impact of Catholic schools on the poor and marginalized of inner-city communities was reinforced by studies that found students from such communities scored higher on standardized tests in Catholic schools (Coleman & Hoffer, 1987; Coleman et al., 1982), and had higher graduation rates, with an increased number of students entering a four-year college (Evans & Schwab, 1995). The work of Litton et al. (2010) studied the impact of Catholic schools on ethnic minority students in the Los Angeles area. Participants included students who received Catholic Educational Foundation (CEF) support to attend various Catholic schools in the area. The CEF was created in 1987 to provide financial assistance to families that would otherwise be unable to attend Catholic schools. Litton et al. conducted a mixed-method study focused on continuation rates, high school graduation rates, and the long-term impact of Catholic schools on CEF-supported students and their families. Among the most striking findings was the graduation rate of the CEF-supported students (97.5%) in comparison to their low-income, ethnic minority, public school peers (66.4%). Additionally, Litton et al. found high levels of satisfaction among the CEF parents and their children regarding their

Catholic school experience, and concluded, "Catholic schools are making a major contribution to the lives of ethnic minority, low-income students in Los Angeles...keeping students in school longer, and thus, giving them more opportunities to succeed in the future" (p. 351). Litton et al. also found that Catholic school administration also found satisfaction working with the CEF communities.

Regarding Catholic schools and the common good, Bryk et al. (1993) conducted a 10-year collection of investigations that included an in-depth study of seven Catholic schools, statistical analyses of large national databases, and an exploration of the philosophical and historical roots of Catholic schools. They concluded that:

> [A] constrained academic structure, a communal school organization, and an inspirational ideology are the major forces that shape the operations of individual Catholic schools and contribute to their overall effectiveness. We also argue that these schools expose a broad cross-section of students to a distinctive vision of broad participation in a human society. This vision of the Catholic school contrasts sharply with the contemporary rhetoric of public schooling that is increasingly dominated by market metaphors, radical individualism, and a sense of purpose organized around competition and the pursuit of individual economic rewards. (p. 11)

As early as the writings of the New Testament, and continued throughout the last 2,000 years, Buetow (1988) has noted that the Catholic Church has espoused a preferential option for the poor and marginalized in society. Beginning with the foundation of Catholic schools in the 1800s in America, the deference to poor ethnic minorities has remained constant. Saint Elizabeth Ann Seton created of one of the first Catholic schools in the United States in 1810 with the mission of being a free common school for the poor. Seton's tireless efforts laid the groundwork for Catholic schools that continues to this day (Buetow, 1988; Litton et al., 2010). The Cristo Rey Network of

schools exclusively serves the demographic of poor ethnic minorities advocated for by Jesus Christ, the Catholic Church and its school system.

Cristo Rey Network

The Cristo Rey Network (CRN) provides many opportunities for low-income minority students to acquire a quality education and valuable experience in the workplace (Kearney, 2008). The first Cristo Rey high school opened in 1996 with founding President John P. Foley S.J. Father Foley began the work of creating a new school after spending the previous 34 years serving the poor of Tacna, Peru. In collaboration with his Provincial, Father Brad Schaeffer S.J., and a highly skilled team of professionals from multiple sectors of education, business, and finance, Father Foley created a Jesuit-sponsored, Catholic, college preparatory high school in the low socio-economic status Pilsen neighborhood of Chicago in response to the needs of the Latino community there. To help offset the large cost of opening and operating a new school, Father Foley and his team utilized a creative and ambitious plan to implement an innovative business model, the Corporate Work Study Program (CWSP), to help offset cost of operations and underwrite tuition for the low-income target population. The CWSP was the first of its kind and worked better than expected (J. Foley S.J., personal communication, July 9, 2013). The CWSP will be discussed further in the next section.

As the first Cristo Rey school showed signs of success, the innovative business model designed by Richard Murray and used as a template for the CWSP, attracted the attention of educators from across the country. In 2001, groups from Portland, Denver, and Los Angeles approached Father Foley and the Cristo Rey Jesuit High School leadership team about replication of the school for LSES families in their respective

communities. As a result of this collaboration, the CRN was founded in 2001 with Father Foley as its first President (J. Foley S.J., personal communication, July 9, 2013).

In 2003, after two years of operation for the initial CRN member schools, the CRN formally organized as a 501(c)(3) organization. The Bill & Melinda Gates Foundation, along with philanthropists B.J. and Bebe Cassin, provided funding to promote replication of the schools. After continued success, the number of schools totaled 25 in 2013 with the Walton Family Foundation agreeing to invest $1.6 million in the CRN to open 25 more high schools in LSES areas throughout the United States.

What began with the Jesuits has now spread to a variety of religious orders as endorsers of CRN schools in their respective provinces. Sisters, Brothers, and Fathers from 39 different religious affiliations sponsor and endorse Cristo Rey schools in urban areas throughout the country assuring the "institutions are Catholic in identity and mission, true to the religious charism of the sponsor, and appropriately governed" (Cristo Rey Network: n.d., Religious Orders and Endorsers, para. 1). A list of religious affiliations and endorsers is shown in Appendix A.

The CRN has aided low-income minority students across the nation. With the belief that "a college degree is an essential ticket to opportunity and a way out of poverty for today's youth" (CRN: n.d., Impact, para. 1), the CRN stated,

> The Cristo Rey Network has been giving hope, and a future, to students in urban communities who thought college for themselves was a fairy tale. Our schools have changed the path of the lives of countless students and have sparked a revival in inner-city Catholic education in the United States. (CRN: n.d., Impact, para. 2)

The impact of the CRN on youth in poverty is evident in the students' successful acceptance to college and matriculation within their various institutions. For the classes

of 2008-2012, 90% of CRN graduates have enrolled in college (CRN, n.d., Impact, para. 3). Of that group, approximately 90% have persisted into their sophomore year. Nationally, within that same time period, approximately 60% of all students matriculated to their sophomore year with African-American and Latino students both near approximately 40% total matriculation for the classes of 2005-2007 giving the CRN twice the rate of student matriculation as students' peers of a similar low-income background (CRN, n.d., Impact, para 3).

In addition to the positive impact of college acceptance and matriculation for LSES students, the CRN is transforming local communities. It stated:

> Cristo Rey schools increase economic activity, neighborhood stability and growth, employment, city tax base, and community development. Schools enrolling 350-500 students operate on an approximate annual budget of $3-5 million dollars and employ 40-75 individuals (full and part time). With 30 schools in underprivileged neighborhoods lacking employment and economic activities, the Cristo Rey Network is generating more than $100 million for the local economies. The center of this neighborhood is where a Cristo Rey Network school is established, bringing a beacon of new hope, safety, and stability into the community. (CRN, n.d., Impact, para. 7)

Cristo Rey Corporate Work Study Program

The CWSP of the CRN provides a unique opportunity for low-income minority students to acquire a college preparatory education and skill acquisition in the workplace that has been sparsely examined in the literature. In fact, examination of any type of work study program for students, regardless of socio-economic status, is limited within the literature.

The CWSP operates as an employee-leasing agent with students as employees of the CWSP, not the corporate clients. The CWSP handles all payroll, W-4, I-9, Workers' Compensation, FICA, FUTA and other employer forms and issues for the students.

Students in the CWSP work in job-sharing teams of four to cover a standard business week, Monday through Friday, 9 a.m. to 5 p.m., annually from Labor Day through the third week in June. The students all work one Friday per month so each student has one week per month in which they go to work twice (CRN, n.d., Work Study Program). An example of a monthly schedule for CRN students is shown in Table 2.

Table 2

CRN Corporate Work Study Program Monthly Schedule for Student Work Teams

	Monday	Tuesday	Wednesday	Thursday	Friday
Week 1	Student A	Student B	Student C	Student D	Student A
Week 2	Student A	Student B	Student C	Student D	Student B
Week 3	Student A	Student B	Student C	Student D	Student C
Week 4	Student A	Student B	Student C	Student D	Student D

Students assign their earnings from the Work Study Program to the Cristo Rey Network schools to cover 70% of the cost of their education. This experience allows the students to receive a college preparatory education they previously could not afford while also gaining valuable job experience. The academic schedules are structured so that students are available to work without missing a class and the extended day provides an opportunity for students to take a full course load of college preparatory coursework for four years (CRN, n.d., Work Study Program). Successful implementation of the CWSP creates revenue necessary for CRN schools to survive financially, operate, and carry out the CRN Mission Effectiveness Standards listed in Table 3 (CRN, n.d. Mission Effectiveness Standards).

Table 3

Mission Effectiveness Standards of the CRN

Cristo Rey schools adhere to a set of Mission Effectiveness Standards to protect the integrity of the model and articulate the shared mission. As a member of the Cristo Rey Network, a school:

No.	STANDARD
1.	Is explicitly Catholic in mission and enjoys Church approval.
2.	Serves only economically disadvantaged students. The school is open to students of various faiths and cultures.
3.	Is family centered and plays an active role in the local community.
4.	Shall prepare all of its students to enter and graduate from college.
5.	Requires participation by all students in the work study program. All students must be 14 years by September 1st.
6.	Integrates the learning present in its work program, classroom and extracurricular experiences for the fullest benefit of its student workers.
7.	Has an effective administrative and board structure as well as complies with all applicable state and federal laws.
8.	Is financially sound and at full enrollment the school is primarily dependent on revenue from the work study program to meet operating expenses. In addition, the school maintains a comprehensive advancement program to ensure financial stability.
9.	Supports its graduates' efforts to obtain a college degree.
10.	Is an active participant in the collaboration, support, and development of the Cristo Rey Network.

Although the CWSP may be absent from the current literature, research has been conducted investigating various forms of school-to-work programs (Blustein, Chaves, Diemer, Gallagher, Marshall, Sirin, & Bhati, 2002; Neumark & Rothstein, 2005; Neumark, 2006), work study programs (Scott-Clayton, 2011) out-of-school-time

programs (Greene, Lee, Constance, & Hynes, 2012), college- and career-readiness programs and academies (Hooker & Brand, 2009; Kemple, 2008), and other employment-related programs to assist students with acquiring skills and raising revenue to pay for their education (Castellano, Stone, Stringfield, Farley-Ripple, Overman, & Hussain, 2007; Farmer-Hinton & Adams, 2006; Parks-Yancy, 2012; Smith, 2005).

The Federal Work Study (FWS) program, created in 1964 as a part of the Economic Opportunity Act to subsidize the wages of student employees, has helped stimulate part-time employment of students from low-income backgrounds, and provided earnings to assist numerous students in acquiring an education at various institutions over the last half of the 20th century (Scott-Clayton, 2011). Despite the enormity of the FWS, with over one billion dollars allocated annually to hundreds of thousands of students, there exists little examination of the effectiveness of FWS. Scott-Clayton utilized quasi-experimental methodology to study the effectiveness of the FWS in the state of West Virginia, and found no evidence that FWS participation improved academic outcomes such as: (a) college GPA, (b) credits earned by semester, (c) probability of dropout, or (d) probability of completing a degree in college. Although Scott-Clayton's participants were college students and her sample was limited, the author inferred further research is necessary to explore acquisition of workplace skills, job networks, and time management in the FWS program. This study directly addressed this suggestion for future research with a similar population of students at the secondary level.

In an exploratory, qualitative study of the role of social class in the transition from school-to-work, Blustein et al. (2002) interviewed 10 men and 10 women to gauge the role of SES on the transition from school-to-work. The participants were all employed in

entry-level, low-skilled jobs and split into two cohorts based on family socio-economic status: high socio-economic status and low socio-economic status. Blustein used in-depth interviews with working-class young adults through a mix of consensual qualitative research, naturalistic inquiry, and grounded theory, and with a particular focus on "identifying plausible antecedent conditions of an adaptive transition" (p. 313). Blustein et al. organized their results into five categories of relevant vocational, educational, and relational aspects of the participants' lives: (a) functions of work, (b) self-concept crystallization and implementation, (c) educational resources and barriers, (d) relational resources, and (e) career adaptability. Among the 20 participants of their study, Blustein et al. found socio-economic status played an important role in the school-to-work transition, and mentioned "the high socio-economic status cohort expressed greater interest in work as a source of personal satisfaction, higher levels of self-concept crystallization, greater access to external resources, and greater levels of career adaptability compared with their low socio-economic status counterparts" (p. 311). Blustein et al. also noted that participants from the high socio-economic status cohort worked for "reasons related to personal satisfaction and meaning" while the low socio-economic status cohort desired work "primarily to ensure their economic survival" (p. 320). These data led Blustein et al. to call for future research on "the diverse pathways that individuals pursue in their work lives," and "the role of social class in the work lives of youth and adults across diverse cultural contexts" (p. 321). Finally, Blustein et al. suggested a critical lens be placed on the relationship between race and socio-economic status as the young adults of color in the study were exclusively found in the low socio-economic status cohort.

This study addressed Blustein et al.'s (2002) suggestions for further research. All Cristo Rey students are from low-income backgrounds, and the diverse pathway to work experience provided by the CWSP provided a fertile ground to examine the work lives of students from diverse cultural backgrounds.

In the school-to-work (STW) literature, students from low-income backgrounds are often referred to as the *forgotten half* (Blustein et al., 2002; Neumark, & Rothstein, 2005). In a study of six different types of STW programs, Neumark and Rothstein (2005) investigated (a) job shadowing, (b) mentoring, (c) co-op, (d) school enterprises, (e) tech prep, and (f) internships. Using a two-step process of first creating a reduced form model to operationalize the *forgotten half*, and then estimating regression models to evaluate data from the 1997 National Longitudinal Survey of Youth, Neumark and Rothstein tested whether STW programs were beneficial for the forgotten half of students less likely to go to college without said programs in place or available. In an examination of longitudinal joint work and schooling measures, college attendance, earnings, wages, and full-time status of most recent job, they found evidence that participating in STW programs was "particularly advantageous for men in the forgotten half. Among these men, mentoring and cooperative education programs (co-ops) that combine academic and vocational studies increase postsecondary education. Co-ops, school enterprise, and internship/apprenticeship programs boost employment and decrease idleness after leaving high school" (p. 20). However, Neumark and Rothstein found STW programs to be generally less effective across the spectrum of variables in their study for women and but did find some positive effects of mentoring, school enterprise, and internship /

apprenticeship programs for wages and earnings of women in the forgotten half included in their study.

The CWSP shares certain characteristics with secular programs serving low-income students. School-to-work (also referred to in the literature as *school-to-career*) programs, career academies, and out-of-school-time (OST) programs all share similarities with the CRN CWSP model. Although OST programs differ from the CWSP, and tend to be academic enrichment programs after school or in the summer, increased engagement in activities outside the walls of the classroom, and positive outcomes during adolescence, are goals of both.

In an examination of engagement, skill acquisition, and college and workforce education in OST programs, Greene et al. (2012) surveyed 455 youth attending 30 different OST programs across the state of Pennsylvania serving primarily low socio-economic status families. The participants of the survey were middle and high school students from low-income areas. The survey measured students' perceptions of their engagement in the OST programs with engagement conceptualized as the extent to which youth found the program activities enjoyable, interesting, and challenging. Each OST program included career-related content within its curriculum. Some explored regional careers, while others provided paid work experiences similar to the CWSP. Greene et al. examined how program content, staff quality, monetary incentives, and youth demographic characteristics correlate to youth engagement.

Results from their career-based OST survey indicated program content and staff quality had the strongest link to engagement. High school participants, who reported acquiring skills, learning about college, and learning about jobs during OST activities,

were found to be the most engaged in the OST programs. High levels of engagement were also reported by high school youth, who found the staff to be caring, skilled, and competent. Interestingly, monetary incentive was found to be associated negatively with youth engagement. Greene et al. (2012) recommended further research on OST programs to gain greater understanding of the characteristics that engage older low-income minority youth and facilitate greater success for them in the classroom as well as work environments similar to those utilized in the CWSP.

Research has shown a significant portion of low-income youth are unprepared for transitioning to the working world of adults and do not have the necessary tools and skills for college and beyond (Greene at al., 2012; Hooker, & Brand, 2009). Specifically, the work of Hooker et al., in conjunction with the American Youth Policy Forum (AYPF), analyzed 23 college- and career-readiness programs in the United States that were determined to be effective in preparing youth for school, the workplace, and beyond. Based upon their analysis of these successful programs, Hooker and Brand created a logic model to identify what it takes to prepare youth for educational, career, and long-term success. Their model is comprised of four interrelated components: (a) the foundation for learning and growth, which addresses knowledge, skills, abilities, and personal resources; (b) short-term outcomes for the secondary level, which addresses academic outcomes, planning for college and careers, and personal resources; (c) intermediate-range outcomes for the postsecondary level, which addresses academic outcomes, career-related outcomes, and personal resources; and (d) long-term outcomes, which address career success, civic engagement, and capacity for life-long learning. Figure 1 illustrates

the AYPF Logic Model created by Hooker and Brand. This flow chart visually depicts the interrelationship among the four components.

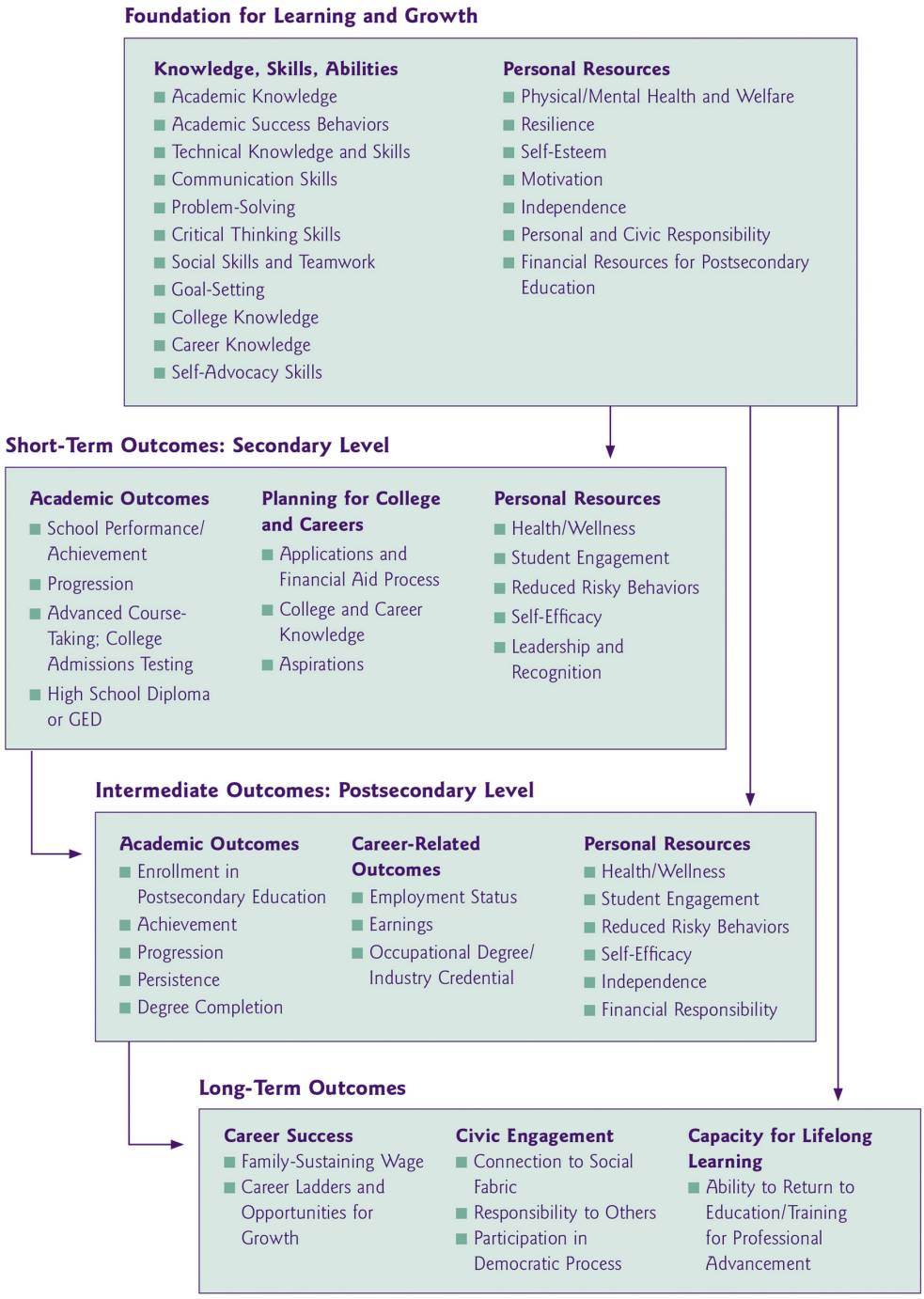

Figure 1. American Youth Policy Forum (AYPF) Logic Model For College- and Career-Readiness and Success created by Hooker and Brand (2009) in *Success at Every Step: How 23 Programs Support Youth on the Path to College and Beyond.* p.14. Copyright 2009 by AYPF.

There is considerable overlap between the foundation for learning and growth portion of the AYPF logic model and key elements of the skills of grit and emotional-social intelligence explored in this study. In addition, other themes investigated in this study such as persistence, independence, self-efficacy, and social responsibility are woven throughout the other levels of the model.

Of the 23 effective college and career readiness programs analyzed by Hooker and Brand (2009), Career Academies share a great deal of similarity with the CWSP. According to Hooker et al., Career Academies "integrate academic and vocational curricula using the context of the career theme and usually provide work-based learning opportunities with employers and community-based partners" (p. 47). The CRN does this. Likewise, both programs involve similar elements: (a) small learning communities, (b) adult mentors, (c) work-based learning, (d) applied and contextual curriculum, and (e) employer partnerships. Hooker and Brand recognized these five elements as contributing factors to the Career Academies' program effectiveness. Since the CRN's CWSP was not part of Hooker and Brand's sample, the same conclusion concerning the CWSP may not be empirically drawn. However, the possibility of these shared elements increasing the effectiveness of the CWSP remained, and awaited empirical verification, which this study provided.

Taking the evaluation of programs and services one level deeper, Kemple (2008) evaluated Career Academies for long-term impacts on labor market outcomes, educational attainment, and transitions to adulthood. Career Academies were established over 30 years ago as a high school reform initiative to increase student engagement and preparation for a successful transition to post-secondary education and employment.

They are traditionally small learning communities, within a larger public high school, that combine academic and technical curricula around a career theme and provide students workplace experience in the local community. There are approximately 2,500 Career Academies in the United States (Kemple, 2008). Using data gathered by the MDRC Corporation over the course of 15 years, Kemple conducted a rigorous longitudinal evaluation of the Career Academy approach using a random assignment research design in a diverse group of nine high schools across the United States with a sample of 1,400 students, approximately 85% of whom were either African American or Latino. Kemple's report described the influence of Career Academies on students' labor market prospects and postsecondary educational attainment in the eight years following their expected graduation.

Kemple (2008) found sustained gains in labor market earnings of approximately 11% of the members of the Career Academy group over eight years, but the Career Academies had no significant effect on postsecondary educational attainment numbers between groups. Kemple did, however, find that the Career Academies produced a significant increase in the percentage (a) of young people living independently with children and a spouse or partner and (b) of young men in the group also experiencing positive impacts on marriage and parenthood. Kemple, based on solid evidence regarding the potential impact of Career Academies, recommended future research and "evaluations of Academy variants should be undertaken to determine which elements might be most critical to success and effectiveness, and which elements can be improved or enhanced to further improve its effectiveness" (p. 43). The CWSP, in some ways, is a

variant of a Career Academy and this study evaluated the various elements of skill acquisition in an analogous program through the lens of grit and ESI.

Castellano et al. (2007) also completed a longitudinal examination of career-based comprehensive school reform in communities serving low-income minority youth. In a five-year, mixed-methods study designed to investigate the effect of career-based comprehensive school reform on generating success in high school and preparing low socio-economic status minority students for college and the workplace, Castellano et al.'s sample included three schools in communities with a high level of at-risk students. Engagement was measured using attendance and dropout rates, and achievement was measured by course-taking data and graduation data. High school transition was measured using (a) responses to a senior survey, (b) participation in technology preparation and dual-credit opportunities, and (c) achievement data for graduates who attended their local community college. All measures were compared to control-group high schools with similar student populations, but with no comprehensive school reform efforts in place.

The outcomes were mixed. Castellano et al. (2007) reported no significant difference in achievement levels between the two groups, but that the odds of dropping out of high school declined, as the proportion of the high school experience invested in Career and Technical Education (CTE) courses increased. In deference to transition to postsecondary life, Castellano et al. revealed more students as having a post-secondary school plan than their control group counterparts in two of the three pairs of schools in the study, and many students aligned the "next step" in their plan with their high school course of study.

Once low-income, first-generation minority students have access to the programs described in this review of the literature, and utilize them to get to college, students must continue to obtain social capital and network to achieve career goals (Parks-Yancy, 2012). Low-income students often know very little about career options beyond jobs they are already familiar with and commonly have constrained career plans as a result. Parks-Yancy conducted a qualitative study to elicit strategies to enhance social capital and the career expectations of low-income first-generation minority college students, and recommended solutions for the aforementioned LSES students such as: (a) assistance in learning networking skills, (b) career mentoring support, and (c) assistance with developing professional acumen. Parks-Yancy stressed the crucial nature of these resources to career trajectories and how, in absence of them, low-income students are less likely to consider a wide variety of vocational options available to them as graduates. The Cristo Rey CWSP provides students opportunities to network, find support for career decisions and professionalism, and acquire skills necessary for survival in the workplace. This study examined the extent to which the CWSP provides low-income students these opportunities and skills.

Grit

Duckworth et al. (2007) defined *grit* as a self-directed passion and perseverance for long-term goals and objectives. In the process of creating and validating the Grit Scale, Duckworth et al. collected data establishing an association between grit and: (a) educational attainment in adults, (b) cumulative GPA among undergraduates at an elite university, (c) finalists of the Scripps National Spelling Bee, and (d) retention rates for a rigorous West Point Military Academy summer induction program as well as GPA of the

cadets. The researchers conducted six different studies to develop and validate the original Grit Scale (Grit-O). Two years later, Duckworth and Quinn (2009) developed and validated the short version of the survey (Grit-S) used in this study.

In their first study, Duckworth et al. (2007) organized a cross-sectional study with the primary focus of developing and validating the Grit-O in a large sample of adults aged 25 years or older. The researchers assessed predictive validity of grit by association with increased levels of lifetime schooling among individuals of the same age. By including a wide range of ages, Duckworth et al. were able to explore whether or not grit grew with age. The researchers established a link to an established, non-commercial website (authentichappiness.org) that provides resources, information, and self-report measures on psychology research to an excess of 500,000 users to help validate the Grit scale. Data were collected on 1,545 participants aged 25 and older. Duckworth et al. generated a total of 27 items related to grit with an overall goal of "scale development...to capture the attitudes and behaviors characteristic of the high-achieving individuals described to us in early, exploratory interviews with lawyers, businesspeople, and other professionals" (p. 1090). However, after a rigorous process of analyzing and evaluating correlations, internal reliability coefficients, redundancy, vocabulary, and factor analysis of the items, the researchers eliminated 15 of the possible options and finalized the Grit-O scale with 12-items, demonstrating high internal consistency ($\propto = .85$).

In Study 1, Duckworth et al. (2007) confirmed their hypothesis that more educated adults exhibited a higher level of grit than less educated adults of the same age. They interpreted the observed association between grit and education as evidence that following through with long-term goals makes it possible to complete higher levels of

education, but noted that prominent personal academic accomplishments could have artificially inflated grit scores and that the self-report measure may have been subject to social desirability bias.

In their second study, Duckworth et al. (2007) examined whether or not the relationships between grit and both educational attainment and age would remain consistent when conscientiousness and other Big Five traits were controlled for, and if there is evidence that grittier people make fewer career switches than peers with less measured grit. In Study 2, the researchers had the 706 participants aged 25 and older (a) complete the same items from the first study, (b) report the number of times they had changed careers, and (c) complete the Big Five Inventory (BFI). The BFI is a 44-item Likert-scale instrument measuring Five Factor Model (FFM) traits in individuals. The data collected led Duckworth et al. to conclude that grit related more closely to conscientiousness than the other FFM traits, and that higher levels of grit were related to fewer career changes in the participants.

After establishing a significant relationship between grit and educational attainment in two diverse samples of adults aged 25 and older in the first two studies, Duckworth et al. (2007) tested the correlation between grit and grade-point average (GPA) in their third study. Their interest in predicting performance among high achievers led them to study grit relative to students at an elite university. In this study they also tested their hypothesis that grit is unrelated to IQ, which is measured by SAT scores. Study 3's sample consisted of 139 undergraduate students, majoring in psychology at the University of Pennsylvania, who had all scored in the 95th percentile on the SAT. As expected, the data showed that grittier students had higher GPAs than

the less gritty participants. Of note, the data also supported that "grit was associated with lower SAT scores suggesting that among elite undergraduates, smarter students may be slightly less gritty than their peers" (p. 1093).

In Study 4, Duckworth et al. (2007) tested grit in the context of the United States Military Academy, West Point. Admission to West Point is extremely competitive, and candidates must complete a rigorous summer program once admitted. Relative to this study the researchers stated,

> We expected grit to predict retention over the first summer and, among those cadets who remained, military and academic GPA one year later. Given the especially rugged experience of the summer regimen, we anticipate that grit would predict retention better than would self-control. We expect grit to be unrelated to IQ (measured by SAT scores) or to physical aptitude. (p. 1094)

Participants in the study included 1,218 of 1,223 freshman cadets, who entered the US Military Academy, West Point in July 2004, and who completed questionnaires that addressed the variables under investigation. The researchers compared grit scores to candidates' self-control as measured by the Brief Self-Control Scale; their Whole Candidate Score comprised of a weighed composite of: (a) high school rank, (b) SAT score, (c) Leadership Potential Score, with (d) Physical aptitude exam; (e) summer retention rate, (f) academic GPA, and (g) their Military Performance Score. Grit was not strongly related to self-control, Whole Candidate Score, or Military Performance score. Nor was grit the best predictor of cumulative first-year academic GPA among cadets who remained at West Point.

However, grit was a significant predictor regarding completion of the rigorous summer training program often referred to as "Beast Barracks" (p. 1096). Beast Barracks is designed with the intent purpose of strenuously testing the limits of West Point

candidates' physical, emotional, and mental quotients. Grittier candidates were more likely complete Beast Barracks and these data were replicated in the fifth study completed by Duckworth et al. that also examined an entire incoming freshman class at West Point six years later. The fifth study also tested whether grit had predictive validity for summer retention over and beyond FFM conscientiousness as measured by the BFI also used in their second study (p. 1096). Once again, grit was a significant predictor of summer program retention, but Big Five conscientiousness was not.

In their sixth and final study, which was longitudinal in design, Duckworth et al. (2007) measured grit in 175 (64%) of the contestants of the 2005 Scripp's National Spelling Bee with a particular focus on the final round of competition and the number of prior competitions attended by participants. The results of Study 6 suggested that grittier students worked harder and studied longer than their less gritty peers and, as expected, performed better in the spelling bee and competed in a higher number of previous competitions. The researchers also acknowledged that the longitudinal design of Study 6 added to their confidence that "grit is driving the observed correlations with success outcomes rather than the other way around" (p. 1098).

Summary of Grit

After reviewing the data from six studies, Duckworth et al. (2007), concluded that grit "accounted for significant incremental variance in success outcomes over and beyond that explained by IQ, to which it was not positively related" (p. 1098). Some of the major findings of Duckworth et al. indicated a higher level of grit: (a) led to higher levels of education and fewer career changes within age groups of adults, (b) appeared more often in older individuals than in younger ones and they suggested grit may increase with age,

(c) correlated with higher GPAs for undergraduate psychology students at the University of Penn as compared to their less gritty peers even despite lower SAT scores for the grittier students, (d) predicted the rate of retention for West Point cadets during their first summer of training better than any of the other measures used by the Army officers, and (e) led to advancement to later rounds of the Scripps National Spelling Bee within age groups of students due to the grittier students working harder and practicing longer than their less gritty peers. All of the aforementioned success outcomes displayed by grittier individuals in the work of Duckworth et al. are aims for the low socio-economic status students of the CRN. Retention of students in the CWSP, getting better grades, graduating from college, job stability, and getting grittier with age are all integral to the success of CRN students. These data, coupled with the grit necessary to survive and compete in the workforce highlight the need to study this non-cognitive skill with the CRN students in this study.

Emotional-Social Intelligence

Emotional-social intelligence (ESI) ultimately evolved from Darwin's (1859) work on the importance of emotional expression for survival, reproduction, and adaptation, and the work of Thorndike (1920) on *social intelligence*. It was introduced to modern educational research when Wechsler (1940) described the influence of non-cognitive factors on intelligent behavior, and further argued that models of intelligence at the time would not be complete until non-cognitive factors could be adequately described (Bar-On, 2006). Gardner's (1983, 1991) theories regarding Multiple Intelligences and Goleman's (1995) work with Social and Emotional Learning (SEL) continued the evolution of ESI as defined in the literature. Salovey and Mayer (1990) viewed

emotional intelligence as a part of social intelligence and claimed both are interrelated components of the same construct. Bar-On (2006) stated that "*alexithymia*...is the essence of social-emotional intelligence in that it focuses on the ability (or rather the inability) to recognize, understand and describe emotions" (p. 1). Regarding the descriptions, definitions, and conceptualizations of ESI from previous contributors to the field of ESI, Bar-On stated,

> ESI includes one or more of the following five key components: (a) the ability to recognize, understand and express emotions and feelings; (b) the ability to understand how others feel and relate with them; (c) the ability to manage and control emotions; (d) the ability to manage change, adapt and solve problems of a personal and interpersonal nature; and (e) the ability to generate positive affect and be self-motivated. (p. 3)

Regarding the Emotional Quotient Inventory (EQ-i) instrument upon which the Youth Version Short Form (EQ-i: YV(s)) used in this study is derived from, Bar-On added,

> The Bar-On Model provides the theoretical basis for the EQ-i, which was originally developed to assess various aspects of this construct as well as to examine its conceptualization. According to this model, ESI is a cross-section of interrelated emotional and social competencies, skills and facilitators that determine how effectively we understand and express ourselves, understand others and relate with them, and cope with daily demands. (p. 3)

The EQ-i contains five primary scales divided into 15 sub-scales. The scales and sub-scales are listed in Table 1 within the Conceptual Framework section of Chapter 1. The EQ-i: YV(s) only contains four of the five scales listed in Figure 3 with the exception of general mood. The following sections review literature pertaining to the four scales of ESI included in this study: (a) intrapersonal skills, (b) interpersonal skills, (c) stress management, and (d) adaptability.

Intrapersonal Skills

Intrapersonal skills are referred to as "talents or abilities that reside within the individual and aid him or her in problem-solving" (National Research Council, NRC, 2011, p. 63). Intrapersonal skills are both integral to success for students and simultaneously lacking in the "*digital native"* generation (Levine & Dean, 2012). Similar to the previously discussed self-regulation passion and perseverance for long-term goals and objectives in the section on grit, intrapersonal skills are described as "the ability to work autonomously; and to be self-motivating and self-monitoring" (NRC, p. 63). Other prominent researchers have defined the construct as:

- "The capacity of individuals to guide themselves, in any way possible, toward important goals states" (Fitzsimons & Bargh, 2004, p. 151).
- "Self-generated thoughts, feelings, and actions that are planned and cyclically adapted to the attainment of personal goals" (Zimmerman, 2000, p. 8).
- "The process by which one monitors, directs attention, maintains and modifies behaviors to approach a desirable goal" (Ilkowska & Engle, 2010, p. 266).

Relative to this skill, the works of Zimmerman (2000), Fitzsimmons and Bargh (2004), the Partnership for 21st Century Skills (2009), and Ilkowska and Engle (2010) described intrapersonal skills in terms of goal setting, which would correspond with Bar-On's notion of "*self-actualization"* efforts. Bar-On (2002) defined self-actualization as the "ability to realize one's potential capabilities" and involving one in pursuits that lead to a rich, meaningful, and full life. Self-actualization is one's ability to strive toward continual improvement of one's abilities, capabilities, and talents (p. 16).

Other intrapersonal skills outlined by Bar-On included self-regard, emotional self-awareness, assertiveness, and independence. Bar-On described self-regard as "the ability to respect and accept oneself as basically good." and compared it to a person's ability to feel fulfilled and satisfied with oneself regardless of perceived strengths and weaknesses. Self-regard relates greatly to a person's levels of self-assuredness, self-esteem, and self-respect (Bar-On, 2002, p. 15). Emotional self-awareness is listed by Bar-On as the "ability to recognize one's feelings" and is a person's ability to (a) be aware of his or her feelings and emotions, (b) differentiate between them, (c) identify what one feels and why, and (d) to be aware of what caused the feelings or emotions (p. 15). Assertiveness is characterized by Bar-On as the "ability to express feelings, beliefs, and thoughts and defend one's rights in a nondestructive manner." There are three main components of assertiveness: (a) the ability to express feelings, (b) the ability to openly express thoughts and beliefs, and (c) the ability to support and stand up for personal rights. Assertiveness is the balance between shyness and overbearing, or the ability to express beliefs without being aggressive or insulting (p. 15). Finally, Bar-On chronicled independence as the "ability to be self-directed and self-controlled in one's thinking and actions, and to be free of emotional dependency." Independent people, Bar-On professed, are self-reliant planners and decision makers who are able to work autonomously without overly relying on the opinion, protection, and support of others (p. 16).

Interpersonal Skills

The interpersonal subscale of Bar-On's ESI is comprised of the following categories: (a) empathy, (b) social responsibility, and (c) interpersonal relationships. Bar-On (2002) distinguished empathy as the "ability to be aware of, to understand, and to

appreciate the feelings of others." Empathy is a person's ability to be on the same wavelength with people and to diagnose, and truly understand how and why they feel they way they do (p. 16). Gentry, Weber, and Sadri (2007) mentioned the importance of empathy as a "construct that is fundamental to leadership" (p. 3) and after analyzing data from 6, 731 managers from 38 countries found that "empathy is related to job performance" and "is more important to job performance in some cultures than others" (p. 3). Gentry et al. utilized the Center for Creative Leadership's Benchmarks 360 instrument and had at least three subordinates of the managers rate them on the following four items: (a) sensitivity to signs of overwork in others, (b) interest in the needs, hopes, and dreams of other people, (c) willingness to help an employee with personal problems, and (d) compassion toward them when other people disclose a personal loss. Additionally, each manager had one boss rate them on the three following items: (a) performance in their present job, (b) the manager's leadership abilities compared to other leaders inside and outside of the organization, and (c) the likelihood the manager being evaluated by the boss would "derail in the next five years as a result of his or her actions or behaviors as a manager" (p. 5). With regards to the Center for Creative Leadership's four Benchmarks, the CRN students in this study listed requests for the CWSP staff in the open-ended portion of the instrument used to collect data that share many similarities with the items used to assess the empathy of the leaders in the work of Gentry et al. (2007).

Closely related to empathy, the category of social responsibility is operationalized as "the ability to demonstrate oneself as a cooperative, contributing, and constructive member of one's social group." Social responsibility relates to taking responsibility for

doing good things with and for people, and the ability to accept people in one's group and "use their talents for the good of the collective" (Bar-On, 2002, p.16). Social responsibility and being "with and for others" is very closely tied to the mission of the Jesuits that began the CRN (Arrupe, 1973). Additionally, relevant to the topics of social responsibility and leadership, Ruderman, Hannum, Brittain-Leslie, and Steed (2001) found that "participative management" had the highest number of meaningful correlations with measures of emotional intelligence" (p. 5). They described participative management as,

> Getting buy-in from colleagues at the beginning of an initiative by involving them, engaging them through listening and communicating, influencing them in the decision-making process, and building consensus. It is an important relationship-building skill, especially in today's management environment in which organizations value interdependency within and between groups. (p. 5)

Ruderman et al. found links between participative management and many of the categories in the ESI subscales, but noted a strong relation to social responsibility, and the third and final category of interpersonal skills, interpersonal relationships. Bar-On (2002) explained interpersonal relationships as the "ability to establish and maintain mutually satisfying relationships that are characterized by intimacy and by giving and receiving affection." This includes one's ability to establish and maintain positive and satisfying relationships with others (Bar-On, 2002, p. 16). Ruderman et al. (2001) noted the importance of developing these skills and stated, regarding leaders who are deficient in ESI subscales such as social responsibility and interpersonal relationships, that if they are "willing to try to change their ways, ESI can be developed and enhanced" (p. 4)

According to the National Research Council (2011), interpersonal skills "have long been recognized as important for success in school and the workplace" (p. 39).

Multiple studies have confirmed this finding (Baron & Markman, 2000; Ferris, Witt, & Hochwarter, 2001; Garavan, 1997; Gentry et al., 2007; Kilduff & Day, 1994; McConnell, 2004; Messmer, 2001; Munson, Phillips, Clark, & Mueller-Hanson, 2004; Phillips, 2004; Ruderman et al., 2001; Russell, Crafts, & Brooks, 1995; Sojka & Deeter-Schmelz, 2002; Wayne, Liden, Graf, & Ferris, 1997).

Possessing strong interpersonal skills is essential across the workforce (Klein, DeRoiun, & Salas, 2006). Klein et al., in an expansive review of the literature examining interpersonal skills, explained that these skills have a significant impact on success in the workforce. They stated, "Many of the most memorable and important moments of our working lives involve social interactions...and through these interactions, we gain knowledge of ourselves, other individuals, our organizations, and the world" (p. 79). Finding continued success in these social interactions, and more importantly in the workplace, "depends largely on the proper use of our interpersonal skills...as these skills are widely considered to be essential components of workplace success" (p. 79). The literature in this area suggested an important role for interpersonal skills across the many jobs and industries (Baron & Markman, 2000; Ferris et al., 2001; Garavan, 1997; Gentry et al., 2007; Kilduff & Day, 1994; McConnell, 2004; Messmer, 2001; Munson, et al., 2004; Phillips, 2004; Ruderman et al., 2001; Russell et al., 1995; Sojka & Deeter-Schmelz, 2002; Wayne, et al., 1997).

Stress Management

The ESI subscale of stress management is divided into two categories, stress tolerance, and impulse control. Bar-On (2002) defined stress tolerance as the "ability to withstand adverse events and stressful situations without 'falling apart' by actively and

positively coping with stress." Stress tolerance is having the capacity to choose how you react to stress, maintain a level of optimism that stress won't last, and to feel that one can control or influence the stressful situation. (p. 17). Impulse control was explained as the "ability to resist or delay an impulse, drive, or temptation to act" and includes the capacity to accept one's aggressive impulses, maintain composure, and control aggressive and irresponsible behaviors (Bar-On, 2002, p. 18).

Evidence suggested that low-income urban youth, such as those served by the Cristo Rey Network, are at an increased risk for stressful life experiences (Allison, Burton, Marshall, Perez-Febles, Yarrington, Kirsh, & Merriwether-DeVries, 1999; Attar, Guerra, & Tolan, 1994; Bennett & Miller, 2006; Turner & Avison, 2003). Poverty is accompanied by following economic stressors: (a) struggles to make ends meet, (b) interpersonal conflict over money issues, (c) evictions, (d) dilapidated housing, (e) crowding, (f) environmental toxins, (g) inadequate health care, (h) ineffective schools, and (i) disruptions to important services (Conger, Ge, Elder, Lorenz, & Simons, 1994; Crnic & Greenberg, 1990; Evans & English, 2002; Greene, 1993). In addition, low-income youth are subjected to a higher rate of physical abuse at home as compared to their more affluent peers (Morrison, Blumenthal, Krysan, Sugland, & Zill, 1992) and divorce of their parents and guardians (Ellis, 2000). Urban poverty is also accompanied by a high rate of community violence (Henrich, Schwab-Stone, Fanti, Jones, & Ruchkin, 2004; Youngstrom, Weist, & Albus, 2003). Thus learning stress management skills is critical to the survival and well being of low-income youth.

Adaptability

The Bar-On model (2002) of ESI has three categories for the subscale of adaptability: (a) reality testing, (b) flexibility, and (c) problem solving. Reality testing is explained as the "ability to assess the correspondence between what is experienced and what objectively exists." Bar-On noted that reality testing pertains to one's ability to gather objective evidence about a current situation, accurately assess the evidence, and determine ways to cope with the situation (p. 17). Bar-On added that flexibility is the "ability to adjust one's emotions, thoughts, and behaviors to changing situations and conditions" and mentioned that flexibility refers to one's "overall ability to adapt to unfamiliar, unpredictable, and dynamic circumstances" (p. 17). The third category of the adaptability subscale, problem solving, is illustrated by Bar-On (2002) as the "ability to identify and define problems as well as generate and implement potentially effective solutions." Problem solving relates to one's ability to confront problems rather than avoid them.

In the context of the workforce CRN students are participating in during their time in the CWSP, adaptability relates to their ability to acclimate and conform to varied roles, job responsibilities, schedules, and contexts while working effectively in a climate of ambiguity and changing priorities (Partnership for 21st Century Skills, 2009). Pink (2012) noted "buoyancy" as a quality of an adaptive and flexible person in which he or she continually exhibits the ability to bounce back from rejection and adversity on the job and adapt to situations where a supervisor, colleague, or supervised employee exhibit difficulty being convinced to adopt an idea, task, etc. Pink likened adaptive buoyancy to

staying afloat in an ocean of rejection and deemed it a necessary skill for employees adapting to the evolving demands of the workplace.

Summary of Emotional-Social Intelligence

The Bar-On model of ESI has five subscales of skill categories: (a) intrapersonal, (b) interpersonal, (c) stress management, (d) adaptability, and (e) general mood. This study only assessed the first four subscales, as the category of general mood is not included in the Emotional Quotient Inventory: Youth Version Short Form (EQ-i: YV(s)), which is a portion of the instrument used in this study. Within the four subscales included in this study, there are 15 categories of skills described in the previous section on ESI. A broad range of studies confirmed the importance of research and development relative to these skills in relationship to low-income youth (Allison et al., 1999; Attar, et al., 1994; Baron & Markman, 2000; Bennett & Miller, 2006; Conger et al., 1994; Crnic & Greenberg, 1990; Ellis, 2000; Evans & English, 2002; Ferris et al., 2001; Fitzsimmons & Bargh, 2004; Garavan, 1997; Gentry et al., 2007; Greene, 1993; Henrich et al., 2004; Ilkowska and Engle, 2010; Kilduff & Day, 1994; McConnell, 2004; Messmer, 2001; Morrison et al., 1992; Munson, et al., 2004; Partnership for 21st Century Skills, 2009; Phillips, 2004; Ruderman et al., 2001; Russell et al., 1995; Sojka & Deeter-Schmelz, 2002; Turner & Avison, 2003; Wayne, et al., 1997; Youngstrom et al., 2003; Zimmerman, 2000)

Summary of the Literature

The reduction in faith-based schools available to low-income students (ED, 2008a; NCEA, 2014) reduces the chances of these students for success in college and the workplace relative to their affluent counterparts (Gibbs, Dosen, & Guerrero, 2009; Laffey

et al., 2003; Marquez-Chisholm et al., 2002; Mouza, 2008; Tavernise, 2012; Warschauer et al., 2004). Amidst this decline, the CRN is an option for low-income students to receive a college preparatory education and essential non-cognitive skills necessary for success in the workplace (Kearney, 2008) that also addresses the preferential option for the poor espoused by the Catholic Church (USCCB, 1998).

CRN students' acceptance rates to college and matriculation within their various institutions have been twice the national rate for comparable demographic groups (CRN, n.d.). In addition to the positive impact of college acceptance and matriculation for low socio-economic status students, the CRN is transforming local communities through: (a) economic activity, (b) neighborhood stability and growth, (c) employment, (d) city tax base, and (e) community development. Schools in the CRN enrolling 350-500 students operate on an approximate annual budget of $3-5 million dollars and employ 40-75 individuals (full and part time). CRN schools generate a total of over 100 million dollars per year for local economies of the communities served by these students (CRN, n.d.).

Research on low-income students in work study programs has been sparse and exhibited mixed results. While the Federal Work Study Program (Scott-Clayton, 2011) displayed little effectiveness, other examples of school-to-work programs (Blustein et al., 2002; Neumark et al., 2005), out-of-school-time programs (Greene et al., 2012), college- and career-readiness programs (Hooker, & Brand, 2009), and Career Academies (Kemple, 2008) were all shown to have varied positive outcomes for low-income students.

Among the wide variety of skills acquired in the workplace, grit and emotional-social intelligence are essential non-cognitive skills required for successful participation

in the workforce (Bar-On, 2006; Duckworth et al., 2007). The extensive studies, reports, and papers researching the non-cognitive skills of grit and ESI supported the importance of developing these non-cognitive skills with low-income students, so that they could take their place in society's workforce. This review of the literature also provided validation that there is limited research on the concept of Cristo Rey schools, the Cristo Rey Network, and its Corporate Work Study Program.

CHAPTER III

METHODOLOGY

Restatement of Purpose

The purpose of this study was threefold. First, it measured perceptions of grade 11 and 12 students from three Cristo Rey schools in California regarding their non-cognitive skills of grit and emotional-social intelligence (intrapersonal, interpersonal, stress management, and adaptability). Secondly, it explored the extent to which these skills are perceived by the CRN students to be utilized and enhanced through their participation in the Cristo Rey Network's (CRN) Corporate Work Study Program (CWSP). Finally, it identified what further skills and training the CRN students identified as necessary to aid their success in the workplace.

Research Design

This study used a descriptive, cross-sectional online survey comprised of the following: (a) Duckworth et al.'s (2007) Short Grit Scale (Grit-S), (b) Bar-On's (2006) Emotional Quotient Inventory: Youth Version Short Form (EQ-i: YV(s)), and (c) items developed by the researcher pertaining to the students' experiences in the work study program (Appendix B). The three-part survey was chosen because it offered the most appropriate means of answering the research questions under investigation. In addition, the online format provided a number of benefits for the researcher and the participants. Benefits included the following: (a) the potential to collect a large amount of data in a short amount of time, (b) the administration to participants in geographically distant areas, (c) the elimination of data entry, (d) reduction in data processing for the researcher,

and (e) automatic validation of responses with respect to correct format, a defined range, and errors. (Fowler, 2009; Orcher, 2007).

Setting

This study took place within three CRN schools in the State of California, purposefully chosen to allow for gender balance and proximity to the researcher. School A represented an all-boys school, School B represented an all-girls school, and School C represented a coed school. The three schools were similar in their enrollment. School A had an enrollment of 281 students across grades nine through twelve with a faculty size of 51; School B had approximately 240 students with 44 faculty; and School C served 283 students, employed 50 faculty, and had a gender balance of 137 females and 146 males.

School A is located within the Roman Catholic Archdiocese of Los Angeles. Headquartered in Los Angeles, the archdiocese comprises the California counties of Los Angeles, Santa Barbara and Ventura. School B resides in The Roman Catholic Archdiocese of San Francisco, an ecclesiastical territory of the Catholic Church in the northern California region of the United States that covers the City and County of San Francisco and the Counties of Marin and San Mateo. Finally, School C is in the Roman Catholic Diocese of Sacramento, an ecclesiastical territory of the Roman Catholic Church also in the northern California region of the United States. The Diocese of Sacramento is comprised of the following counties: Siskiyou, Modoc, Trinity, Shasta, Lassen, Tehama, Plumas, Glenn Butte, Sierra, Colusa, Sutter, Yuba, Nevada, Yolo, Placer, Solano, Sacramento, El Dorado, and Amador.

Population and Sample

A total of 395 Grade 11 and 12 students were invited to complete the online survey (N = 395) during their advisory resource period with the CWSP Director and with their teachers administering the questionnaire. The total number of participants from each school is shown in Table 4. The number of students that responded and completed the survey (N = 277) represents a 70% response rate.

Table 4

The Three Cristo Rey Schools, Their School Type, and Number of Students Surveyed

School	Type	N
A	Single Gender - Boys	70
B	Single Gender - Girls	113
C	Coeducational	94
Total		277

Students from grades 11 and 12 were chosen to ensure the participants would have had sufficient involvement with the work study program and unique environment in the CRN to report their perceptions of the skills being assessed.

Instrumentation

This study utilized and combined two published surveys, Duckworth et al.'s (2007) Grit-S survey and Bar-On's (2006) EQ-i: YV(s) inventory to measure grade 11 and 12 Cristo Rey students' perceptions regarding their non-cognitive skills of grit and emotional-social intelligence (ESI). It also includes a researcher-designed portion to measure student perceptions of the CWSP and student demographic information. There were 50 items in the survey: Eight questions from Duckworth et al.'s Grit-S, 30 questions from Bar-On's EQ-i: YV(s), and an additional 12 demographic and open-ended work

study experience questions (Appendix B). The researcher received permission from the publishers of both surveys to utilize their instruments and to format them into *Survey Gizmo* for online administration.

Part I of the survey focused on Duckworth et al.'s Grit-S survey and utilized a five-point Likert-type scale. Scoring for questions 1, 3, 5, and 6 was measured using the following scale: (a) 1 = Very much like me, (b) 2 = Mostly like me, (c) 3 = Somewhat like me, (d) 4 = Not much like me, and (e) 5 = Not like me at all. In contrast, scoring for questions 2, 4, 7, and 8 was measured in the reverse order using the following scale: (a) 5 = Very much like me, (b) 4 = Mostly like me, (c) 3 = Somewhat like me, (d) 2 = Not much like me, and (e) 1 = Not like me at all. To calculate the grit score of participants, the points attributed to the eight responses were added together and divided by eight. The maximum score on the scale was five which equaled "extremely gritty" whereas the lowest score on this scale is one which equaled "not gritty at all."

Part II of the survey contained items from Bar-On's (2006) EQ-i: YV(s) and contained 30 statements that were answered utilizing a four-point Likert-type scale with the following choices for participants: (a) Very much true of me (Very often), (b) Pretty much true of me (Often), (c) Just a little true of me (Sometimes), and (d) Not true of me (Never/Seldom). It is of note that Bar-On chose to include two ratings for each item with a phrase in parentheses to help clarify each choice for respective participants. Scoring for Part II was done using a proprietary formula in the EQ-i: YV(s) Technical Manual. The EQ-i: YV(s) is a commercial product, and the Technical Manual must be purchased in order to score responses and calculate EQ and the ESI subscales used in Part II of this

study. The researcher is not permitted to publish items from the EQ-i: YV(s) or the scoring guidelines in this document.

Part III of the study contained the following: (a) eight demographic questions, (b) one matrix-grid multiple-response question to assess the effect of the CWSP on their acquisition of non-cognitive skills, and (c) three open-ended questions designed to gather input from CRN students about what they do at work, and what skills and training are necessary to facilitate future success for CRN students in the CWSP. The researcher designed the survey items in Part III.

A comparison of research questions with survey items is listed in Table 5.

Table 5

A Comparison of Research Questions with Survey Items

CONCEPTUAL FRAMEWORK	RESEARCH QUESTION	SURVEY ITEMS
Duckworth et al.'s 8-Item Grit-S	1. What is the baseline level of the skill of grit of the Grade 11 and 12 students of three Cristo Rey Network schools in California, as measured by Duckworth and Quinn's (2009) Short Grit Scale (Grit-S)?	1-8
Bar-On's EQ-i: YV(S) measuring: (a) intrapersonal skills (b) interpersonal skills (c) stress management (d) adaptability	2. What are the baseline levels of the skills of emotional-social intelligence of the Grade 11 and 12 students of three Cristo Rey Network schools in California, as measured by Bar-On's (2003) Emotional Quotient Inventory Youth Version Short Form (EQ-i: YV(s))?	(a) 10, 14, 20, 22, 29, 34 (b) 9, 12, 26, 31, 36, 38 (c) 18, 21, 24, 27, 30, 32 (d) 13, 16, 17, 25, 35, 37

3. What are the perceptions of the Grade 11 and 12 students of three Cristo Rey Network (CRN) schools in California regarding their skill of grit and emotional-social intelligence in relationship to the CRN's Corporate Work Study Program (CWSP) relative to these four factors: 48

a. What skills do they identify as possessing prior to time spent in the CWSP?
b. What skills do they identify as developing during time spent in the CWSP?
c. What skills do they identify as learning about for the first time in the CWSP?
d. What skills do they identify as not experienced in the CWSP?

4. What additional skills do the Grade 11 and 12 students of three Cristo Rey Network (CRN) schools in California identify to be important to learn to aid their participation in the CRN's Corporate Work Study Program? 49

5. What additional training do the Grade 11 and 12 students of three Cristo Rey Network (CRN) schools in California identify to be important to have to aid their participation in the CRN's Corporate Work Study Program? 50

Validity

Duckworth and Quinn (2009) developed the eight-item Short Grit Scale (Grit-S) to validate a more efficient instrument to measure grit. Duckworth et al. (2007) designed the original 12-item Grit Scale (Grit-O) with a two-factor structure that was not initially tested for differential predictive validity of the two factors in the Grit-O. Duckworth and Quinn (2009) conducted six studies to construct and validate the Short Grit Scale (Grit-S). In their first study Duckworth and Quinn kept the two-factor structure for the Grit-S and identified the items for the Grit-S with the best overall predictive validity across four samples originally used by Duckworth et al. (2007). In the second study, Duckworth and Quinn used confirmatory factor analysis to test the two-factor structure of the Grit-S instrument in a sample of 1,554 adults, examined the relationships between the Grit-O, the Grit-S, and the Five Factor Model (FFM) of personality traits, and explored predictive validity for career changes and educational attainment. The third study validated an informant version of the Grit-S and established consensual validity. The fourth study was used to examine test-retest reliability of the Grit-S in a sample of adolescents, and the fifth and sixth studies investigated the predictive validity of the Grit-S in a sample of West Point cadets and National Spelling Bee finalists respectively.

Duckworth and Quinn (2009) confirmed both predictive validity and consensual validity for the Grit-S across a wide range of subjects in the six different studies of the Grit-S. The empirical evidence for the predictive and consensual validity of the Grit-S is outlined in Table 6.

Table 6

A Summary of Criterion-Related Validity for the Grit-S.

Sample	Design	Measure	Grit-S	% Variance in Success Explained		Grit-O
				Perseverance of Effort	Consistency of Interest	
Study 2: Adults aged 25+	Cross-sectional	Educational attainment	1.3[ab]	0.6[ab]	1.4[ab]	2.0[ab]
Study 2: Adults aged 25+	Cross-sectional	Career changes	1.3[ab]	0.2[ab]	2.0[abc]	1.5[ab]
Study 4: 7th-11th graders	Longitudinal (1 year)	GPA	8.9[a]	12.4[ac]	2.7[a]	7.9[a]
Study 4: 7th-11th graders	Longitudinal (1 year)	Hours watching television	5.9[a]	7.1[a]	2.6[a]	5.7[a]
Study 5: West Point cadets	Longitudinal (3 months)	Retention	7.8[b]	6.1[b]	5.2[b]	7.9[b]
Study 6: Spelling Bee finalists	Longitudinal (1 month)	Final round	2.5[ab]	2.0[ab]	1.8[ab]	2.5[ab]

Note. Grit–S = Short Grit Scale; Grit–O = original 12-item self-report measure of grit.
[a]Controlling for age.
[b]Percentage of variance estimated using Nagelkerke R^2.
[c]In comparison with the other subscale, significantly stronger association with outcome according to a test for correlated correlation coefficients.

The EQ-i: YV(S) has also been tested for validity. In an examination of psychometric properties of scales within the EQ-i: YV, Bar-On (2006) found significant construct and predictive validity for the scales contained within the EQ-i: YV. Bar-On

also used factor analysis to evaluate empirically and confirm the theoretical validity of the instrument, and added a built-in correction factor that automatically adjusts the scale scores based on results obtained from the instrument's validity indices: Positive Impression and Negative Impression. To examine divergent construct validity, Bar-On simultaneously administered the EQ-i with various measures of cognitive intelligence such as the Wechsler Adult Intelligence Scale, the Progressive Raven Matrix, and the General Adult Mental Ability Scale to a sample of 4, 218 individuals across six separate studies. As Bar-On predicted, the results implied minimal overlap between the EQ-i and tests of cognitive intelligence. These data were confirmed by subsequent research ($n > 5000$) that suggested less than 4% of the variance of the EQ-i can be attributed to cognitive intelligence and supported Bar-On's (2006) assertion that ESI and cognitive intelligence are not strongly related and exist as separate constructs (Van Rooy & Viswesvaran, 2004).

To examine convergent construct validity of his model, Bar-On (2006) measured the correlation between the EQ-i and other measures of ESI. In a sample of 2, 417 individuals across 13 different studies, Bar-On found the overlap between domains to be 36%, which was much higher and more significant than the 4% established for overlap with cognitive domains. Finally, to demonstrate predictive validity, Bar-On summarized the results of 20 predictive validity studies carried out on a total of 22, 971 participants who completed the EQ-i in seven countries around the world. He found an average predictive validity coefficient of .59 with regards to various aspects of human performance. Despite finding robust construct and predictive validity, Bar-On

encouraged future researchers to replicate the various applications of the EQ-i and its derivative versions in school and the workplace. He stated:

> Parents and educators can benefit from this by raising and educating children to be more emotionally and socially intelligent, effective and productive from an early age onward. Human resources personnel in organizations could also make more widespread use of this model and measure in hiring, training and succession planning in order to increase individual effectiveness and organizational productivity. (p. 20)

Reliability

Duckworth et al's (2007) Short Grit Scale (Grit-S) has been thoroughly examined for internal consistency and test-retest reliability (Duckworth and Quinn, 2009). In a series of six studies designed to test the validity and reliability of the Grit-S, internal consistency and test-retest reliability were found to be stable. In Duckworth et al.'s fourth study, the sample had an internal reliability coefficient of $\propto = .81$. This was followed by an internal reliability coefficient of $\propto = .80$ in the fifth study conducted by Duckworth et al.

The reliability of Bar-On's (2006) model and instrument has been tested and confirmed by a number of researchers over the past 20 years (Bar-On, 2006, Matthews, Zeidner, & Roberts, 2002; Newsome, Day, & Cantano, 2000; Petrides & Furnham, 2000). The Bar-On Model and various versions of the EQ-i have all been found to be consistent, stable and reliable with an overall internal consistency coefficient of .97 based on the North American normative sample including more than 50,000 participants. Overall test-retest reliability over a six-month period was also measured to be .72 for males and .80 for females (Bar-On, 2006).

After all data were collected in this study, the researcher measured internal consistency reliability of the instrument in this study that includes both the Grit-S and the

EQ-i: YV(s). Data was processed using SPSS with Cronbach's Alpha used to determine the internal consistency coefficient. The researcher combined students' responses to individual questions from the Grit-S and EQ-i: YV(s) into scales that represent students' self-reported levels of grit and ESI.

Ethical Considerations

First and foremost, the researcher requested and obtained the necessary approvals from the appropriate authorities to engage in his research on Cristo Rey schools. Those authorities included the Superintendent or Associate Superintendents of the Archdioceses of Los Angeles and San Francisco and the Diocese of Sacramento wherein the Cristo Rey schools reside (Appendix D). Secondly, the Presidents or Principals of each of the three Cristo Rey schools to be studied also gave the researcher their permission to conduct his study with regards to grade 11 and 12 students in their schools, and who likewise participated in the CRN's CWSP (Appendix E). Lastly, the researcher requested and received the approval for his study from the University of San Francisco's Institutional Review Board for the Protection of Human Subjects [IRBPHS] (Appendix F).

The researcher provided the IRBPHS with all documentation necessary to begin his research: (a) the background and rationale for the study, (b) the description of the sample, (c) the recruitment procedures for participation in the study, (d) the necessary consent forms, (e) a copy of the questionnaire, (f) the description of potential risks and benefits to the participants, and (g) the assurance of the confidentiality of records. The documentation noted that the consent for the students' participation in the study would be received by their checking a box at the beginning of the online survey that indicated that they voluntarily chose to participate in the study. In addition, students were also

informed that they could withdraw from the online survey at any point, without penalty. The students were also informed that if time was an issue, they were permitted to stop the survey, and return to it when time permitted them to complete it. All participants were also assured of their right of confidentiality of their responses. They were notified that there were no potential risks for the study's participants, and benefits may have included a sense of personal satisfaction from completing the survey and knowing that their participation in the survey will add to the body of research regarding Cristo Rey schools and low-income youth, as well as the process of self-reflection that may enable students to benefit from, "those intellectual and affective activities that individuals engage in to explore their experience, which leads to new understanding and appreciations" (Boud et al., 1985, p. 19). The students were also assured there was no cost to them or their school for participating in this study. Therefore, all ethical issues were highly considered in this study because "the best a researcher can do is to be conscious of the ethical issues that pervade the research process and to examine his or her own philosophical orientation vis a vis these issues" (Merriam, 2009, p. 235).

Data Collection

To obtain permission from each school, the researcher emailed a formal request asking the President and Principal for his or her permission to have the study conducted in his or her school. This was followed by an official visit to each institution to discuss the proposed study with the President, Principal, and CWSP Director. After the three Cristo Rey school officials granted their permission for the study to take place at their sites, the researcher contacted the Archdiocese for two of the respective schools and the Diocese of the third for permission to administer the proposed questionnaire. All three

groups gave permission to the researcher. After the leadership teams of the schools and each respective Archdiocese or Diocese granted permission, and the researcher received approval to conduct the study from his dissertation committee, the researcher worked with the schools to plan the best time during the semester to administer the online questionnaire. The administration dates and times were finalized and approved by the Presidents, Principals, and CWSP Directors, and the researcher began the data collection process.

Prior to the administration of the questionnaire, the researcher sent an email to the CWSP Director notifying him or her that permission had been received to do the study at his or her school site, and provided that individual the following information that was also shared with the students in the web video: (a) an introduction to the researcher in the body of the email and via a web-based video accessible through a link in said email, (b) an explanation of the purpose and significance of the study, (c) an assurance of confidentiality of the information gathered, (d) a description of the length of time required to complete the survey, (e) an assurance the study has been approved by the Institutional Review Board for the Protection of Human Subjects (IRBPHS) at the University of San Francisco, (f) a link to the online instrument on *Survey Gizmo*, a web-based company that specializes in online survey tools that was chosen for its ease of use, simple interface, convenience, immediate aggregation of data, and the ability to generate reports, figures and tables for analysis, and (g) a note of thanks from the researcher (Appendix C). This information was distributed to the students during their weekly resource period with the CWSP Directors playing the video for student groups to reduce

possible bandwidth issues. The resource period is multi-functional and utilized by the CWSP Directors to deliver information, instructions, and other matters of business.

Upon the successful completion and approval of his dissertation proposal by his dissertation committee, the researcher began the data collection process. The completion of data collection occurred in January of 2015. Data was collected from students in grades 11 and 12 using *Survey Gizmo*, an online survey tool. On the agreed upon dates of data collection, the CWSP Directors played the video from the researcher and passed the link along to the students who then completed the 50-item questionnaire during the aforementioned weekly advisory resource period under the supervision of the Director. Students who were absent on the day the survey was administered were given time to complete it during the resource period the following week. Once all students had a chance to complete the survey, the link was deactivated and the collected data were compiled for analysis.

Data Analysis

The data collected from the surveys were examined using descriptive statistics techniques, including percentages, examination of the means, and analysis of standard deviations. Survey results from the study were downloaded from *Survey Gizmo* as a Microsoft Excel spreadsheet and imported into the Statistical Package for the Social Sciences (SPSS) software program. These data were analyzed with respect to the following areas: (a) the demographic information provided by the respondents, (b) the research questions and additional findings relative to (c) the most common duties and tasks experienced by the students in the CWSP, and (d) score differential for the various subscales of the EQ-i: YV(s) based on the demographic category of gender.

Part I of the study's questionnaire measured students' self-reported levels of grit, Part II measured students' self-reported levels of emotional-social intelligence, and Part III included both demographic questions and questions about the students' experiences and skill acquisition in the CWSP. After the researcher acquired the students' perceptions of the extent to which they exemplified the skills of grit and emotional-social intelligence being assessed, the researcher created frequency tables to identify the different levels of responses within each category and corresponding items of the instrument. The researcher used the aforementioned frequency tables, as well as charts, graphs, and other figures to describe the students' perceptions and add these valuable data to the literature.

CHAPTER IV

RESULTS

Restatement of the Problem

The "option for the poor" is central to the mission and teaching of the Catholic Church (United States Conference of Catholic Bishops, USCCB, 1998). Historically, the Catholic Church has relied greatly upon its schools to assist in this mission, and Catholic schools have contributed greatly to the education of low-income and minority students across the United States (Benson et al., 1986; Bryk et al., 1993; Buetow, 1988; Convey, 1992; Greeley, 1982; Neal, 1997; York, 1996).

Current economic and social conditions in the United States present the U.S. Catholic Church and its schools with new challenges relative to their ministry to the poor. Of critical concern is the steady decline of U.S. inner city, faith-based schools due to lack of funding (Brinig & Garnett, 2014; ED, 2008a). Specifically, the National Catholic Education Association (NCEA, 2014) reported that between 2000 and 2013, 2,090 Catholic schools, or 25.7% were closed or consolidated, and student enrollment declined by 651,298, or 24.5%. The NCEA also noted that most of the closed schools served low-income families. This decline has gravely impacted the outreach efforts of the Church and subsequently, the educational opportunities available to low-income families. Additionally, families with low socio-economic status have great difficulty in meeting tuition demands at the remaining Catholic schools after prioritizing basic needs for survival (Hudley, 2013; Rumberger, 2013).

The USCCB (1990, 1995) urged its Catholic religious communities and educational leaders to seek new ways of educating the poor and the marginalized. The

Society of Jesus (Jesuits) responded by creating the Cristo Rey Network (CRN) of secondary schools for minority high school students. The CRN is a relatively new and innovative group of Catholic schools that exclusively serves low-income families and features a Corporate Work Study Program (CWSP) in addition to offering a college preparatory curriculum.

Although the CRN and its CWSP have been operational since 1996, there has been limited empirical investigation relative to the experiential benefits provided by the CWSP or the low-income students they serve. This study sought to fill that void.

Overview

The purpose of this study was to measure the skills of grit and emotional-social intelligence of students in the Cristo Rey Network and to measure the students' perceptions of skill development and training during time spent in the Cristo Rey Corporate Work Study Program (CWSP). Specifically students were asked to self-report levels of Grit and Emotional-Social Intelligence, to reflect on their experiences in the CWSP with regards to these skills, and to reflect on what skills and training they need in the future for continued success in the program.

The researcher collected data from the three participating schools using an online survey administered by teachers and CWSP directors that included scales measuring the skill of grit, and the emotional-social intelligence skills of: (a) intrapersonal, (b) interpersonal, (c) stress management, and (d) adaptability. In addition the researcher explored open-ended questions in the survey to provide depth and context to the quantitative data and to generate a rich examination of the students' perceptions of the skills utilized and needed for success in the CWSP.

The survey was analyzed to answer the following research questions:

1. What is the baseline level of the skill of grit of the Grade 11 and 12 students of three Cristo Rey Network schools in California, as measured by Duckworth and Quinn's (2009) Short Grit Scale (Grit-S)?

2. What are the baseline levels of the skills of emotional-social intelligence (intrapersonal, interpersonal, stress management, and adaptability) of the Grade 11 and 12 students of three Cristo Rey Network schools in California, as measured by Bar-On's (2003) Emotional Quotient Inventory Youth Version Short Form (EQ-i: YV(s))?

3. What are the perceptions of the Grade 11 and 12 students of three Cristo Rey Network (CRN) schools in California regarding their skill of grit and emotional-social intelligence in relationship to the CRN's Corporate Work Study Program (CWSP) relative to these four factors:
   a. What skills do they identify as possessing prior to time spent in the CWSP?
   b. What skills do they identify as developing during time spent in the CWSP?
   c. What skills do they identify as learning about for the first time in the CWSP?
   d. What skills do they identify as not experienced in the CWSP?

4. What additional skills do the Grade 11 and 12 students of three Cristo Rey Network (CRN) schools in California identify to be important to learn to aid their participation in the CRN's Corporate Work Study Program?

5. What additional training do the Grade 11 and 12 students of three Cristo Rey Network (CRN) schools in California identify to be important to have to aid their participation in the CRN's Corporate Work Study Program?

This chapter will first describe the demographic data. These data will be followed in succession by the results from the five research questions. Finally, this chapter will include additional data from the study that were not included in the research questions.

Demographics

The survey was administered to three California Cristo Rey schools of similar size. To ensure gender equity and a balanced number of both male and female participants, one of the schools assessed was all-boys, the second was all-girls, and the third participating school was coeducational. Additionally, only juniors and seniors were assessed to provide depth of experience in the program.

The demographic questions asked the following of the CRN students: (a) gender, (b) age, (c) current year in school, (d) race/ethnicity, (e) school attended, the (f) type of business that employs them in the CWSP, (g) the length of time spent in the CWSP, and (h) the number of job placements held by the students during their time in the CWSP. Two hundred seventy-seven CRN students (N = 277) completed the survey from the total population of juniors and seniors at the three California schools (N = 395) for a response rate of 70.1%. There were 56.7% (n = 157) female respondents, and 43.3% (n = 120) male respondents. The gender balance in this study was largely influenced by the response rates from the three schools. Although the study was intended to be a census, the three schools exhibited a high variance with regards to response rate. These response data are shown in Table 7.

Table 7

Response Rates of Participant Schools

School	Total Respondents	Percent of School	Type	Percent of Sample
A	70	53	Single Gender - Boys	25
B	113	89	Single Gender - Girls	41
C	137	69	Coeducational	34

Slightly more juniors (n = 150) participated at a rate of 54.2% than seniors (n = 127) at 45.8%. Although only juniors and seniors were surveyed, the age of the participants ranged from 16 to 19 with the majority of the students (88.1%) being 16 (n = 124) or 17 (n = 120), and an additional 11.9% (n = 33) listed as 18 years of age.

Mission Effectiveness Standard 2 (ME2) from the CRN provides that each school will serve low-income families from a diverse group of faiths and cultures. Demographic data indicated success with regards to the varied cultures addressed in ME2. The ethnic background of the sample was predominantly Latino (n = 199; 71.8%). The remaining participants in the population identified themselves as follows in Figure 2.

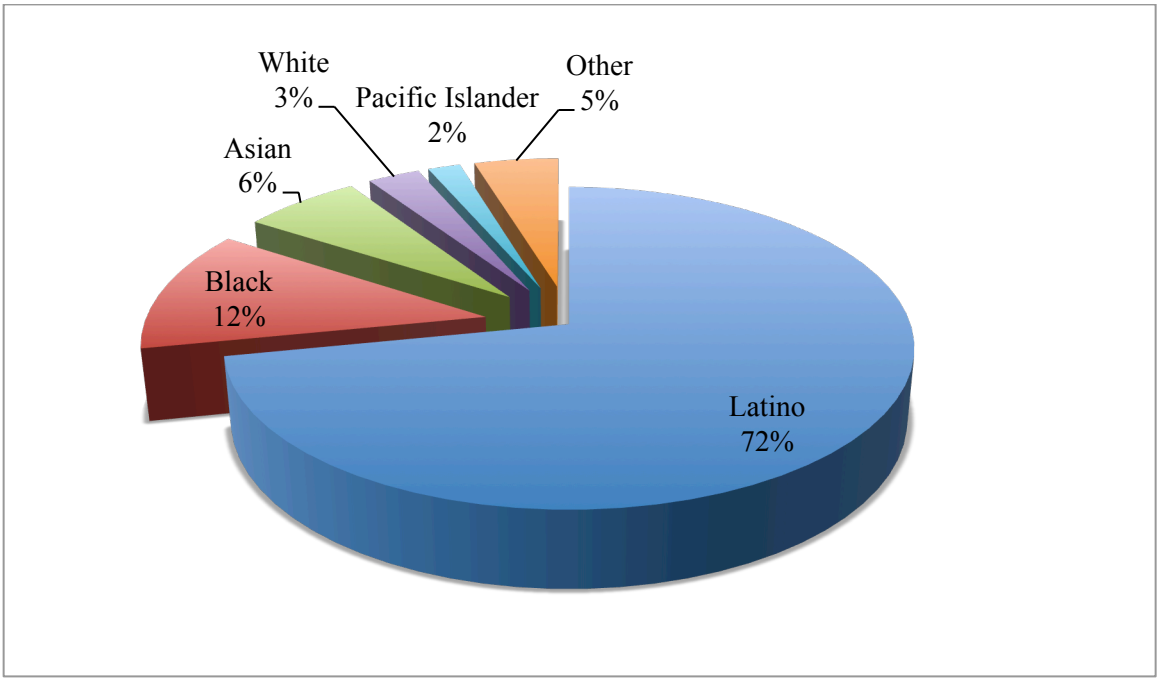

Figure 2. Pie chart representing percentages of ethnic background data reported by CRN student participants.

There were a wide variety of responses regarding the types of businesses that employed the respondents. The three most frequent categories of work marked by the CRN students were the legal field (n = 84; 30.3%), the finance sector (n = 63; 22.7%), and the health care industry (n = 57; 20.6%). The overall range of businesses and the corresponding number of participants who reported working in each are displayed in Figure 3. The students (N = 277) were permitted to choose more than one type of business as some of them change jobs from year to year.

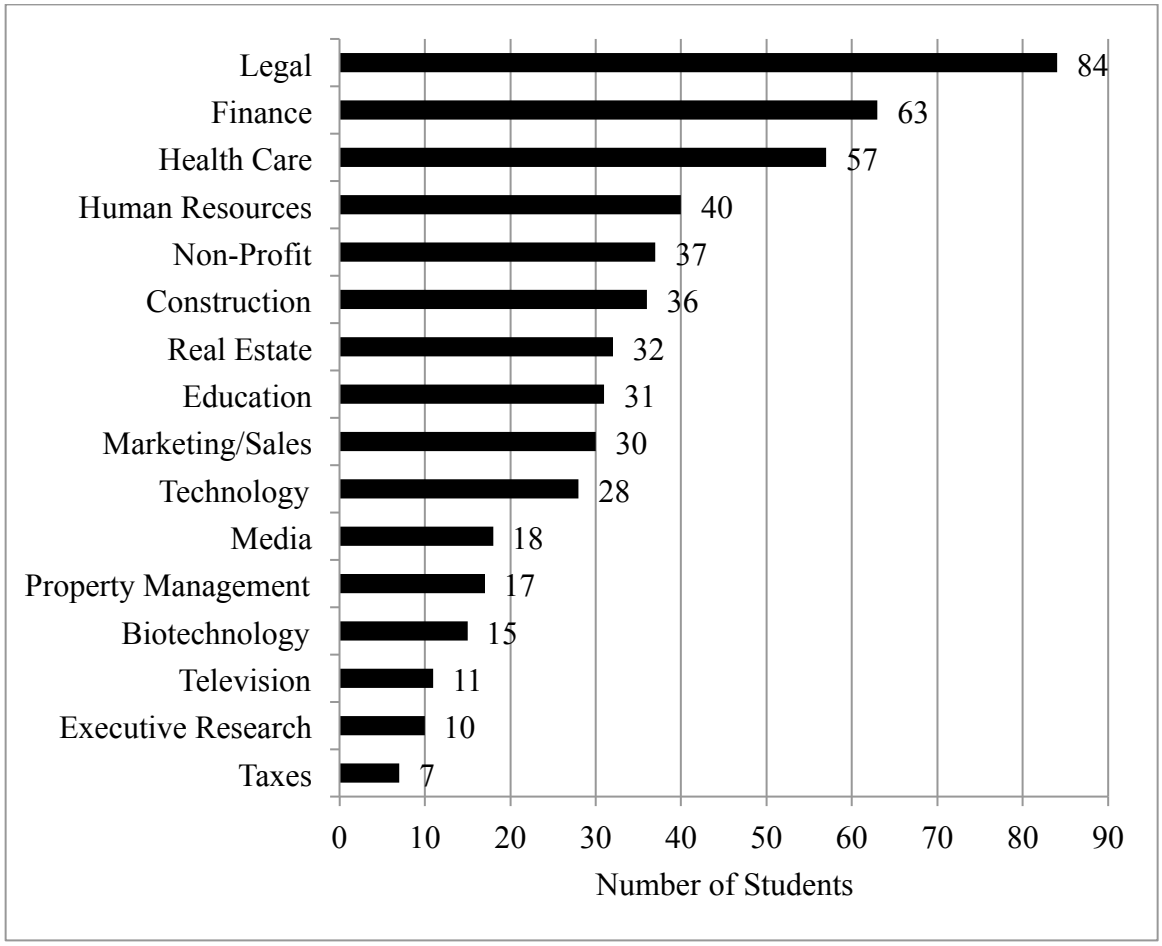

Figure 3. Categories of businesses in the CWSP and corresponding number of Grade 11 and 12 students who have worked within them.

The final two demographic questions focused on the students' time spent in the CWSP, and the number of different job placements held by the students. These data indicated the vast majority of the students (n = 246; 88.8%) in the schools surveyed and thus in the CWSP had been in their respective schools for the entirety of their high school experience with a small percentage of students mentioning they have only been in the program for one or two years (n = 31; 11.2%). These results are shown in Table 8.

Table 8

Number of Years Spent in the Corporate Work Study Program

Duration	n	Percent
1 year	11	4.0
2 years	20	7.2
3 years	134	48.4
4 years	112	40.4

During the respondents' time spent in the CWSP, most of the students (n = 233; 84.1%) have held more than one type of job placement. The number of students who have held two, three, or even four different jobs is shown in Table 9.

Table 9

Number of Different Job Placements for Students in the Corporate Work Study Program

Duration	n	Percent
1 placement	44	15.9
2 placements	80	28.9
3 placements	86	31.0
4 placements	67	24.2

Summary of Demographic Variables

The survey was completed by 277 CRN students that were in either the 11th or 12th grade in three different Cristo Rey schools in California. Slightly more females than males took the survey and, as previously mentioned, this is primarily due to the disparity in response rates between the all-boys School A and the all-girls School B (see Table 7). The majority of the population identified as being Latino or Black, and the ages of participants ranged from 15 to 19 with most of the students either being 16 or 17 years

old. There were a wide variety of job placements in a number of different fields of business and industry for the students, with most of the students having held more than one job placement during their time in the program.

Research Question 1

What is the baseline level of the skill of grit of the Grade 11 and 12 students of three Cristo Rey Network schools in California, as measured by Duckworth and Quinn's (2009) Short Grit Scale (Grit-S)?

Grit

This section will present the grit scores of the CRN students in this study, both their overall grit scores and the scores for each of the eight individual items in Part I of this study. Participants completed Duckworth et al.'s (2009) Short Grit Scale (Grit-S). The students' responses to the 8 Grit Scale questions provided a baseline set of data for these CRN students with regards to their levels of the non-cognitive skill of grit.

Point values for the possible Likert-type-scale responses are located in Chapter 3 (p. 53). After reverse coding negatively worded items, the researcher calculated the frequencies, mean, median, standard deviation, and Cronbach's Alpha for the students' grit scores. The overall mean and median grit score of the 277 student participants in the study was 3.5 with a standard deviation of .54, and a Cronbach's Alpha of .67. These results are displayed in Figure 4.

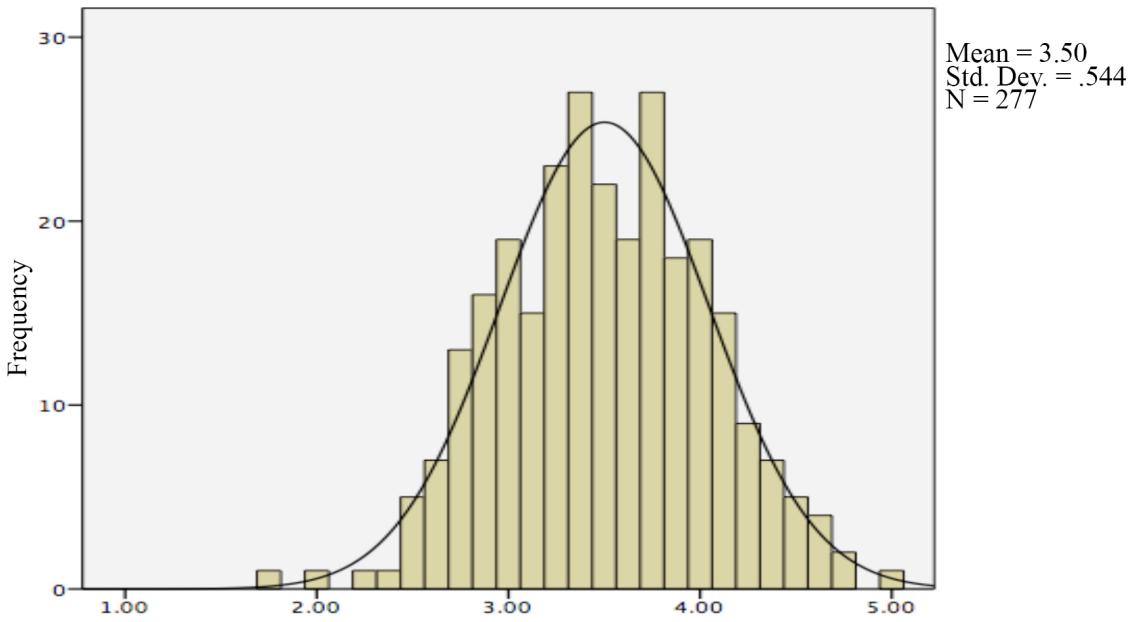

Figure 4. Histogram of the frequency of students' scores on Grit Scale and the normal distribution curve.

As mentioned in Chapter 3, the maximum score on the scale was five which equaled "extremely gritty," whereas the lowest score on this scale is one which equaled "not gritty at all." The Grit-S scores of the students in this study fall directly between the possible responses of "somewhat like me" and "mostly like me" after taking into account the recoding of negatively worded questions. Of note were the students' (N = 277) high grit scores relative to the following items: (a) Item 4: "I am a hard worker," (b) Item 7: "I finish whatever I begin," and (c) Item 8: "I am diligent." Students averaged a mean of 4.17 and recorded a median of 4 on these three questions indicating the items as "mostly like me." Descriptive statistics for the individual items of the Grit Scale are also listed in Table 10. It is of note that the standard deviations for items for items #4, #7, and #8 are smaller than the other items. This may be a result of the direct and straightforward wording of those three items as compared to the retrospective reflection required for the other five items from the Grit-S.

Table 10

Means, Medians, and Standard Deviations of Individual Grit Scale Items for all Respondents (N = 277)

Item	Mean	Median	SD
1. New ideas and projects sometimes distract me from previous ones.	2.80	3.00	.945
2. Setbacks don't discourage me.	3.03	3.00	1.046
3. I have been obsessed with a certain idea or project for a short time but later lost interest.	2.75	3.00	1.034
4. I am a hard worker.	4.24	4.00	.734
5. I often set a goal but later choose to pursue a different one.	3.01	3.00	1.070
6. I have difficulty maintaining my focus on projects that take more than a few months to complete.	2.87	3.00	1.197
7. I finish whatever I begin.	4.11	4.00	.842
8. I am diligent.	4.06	4.00	.840

In summary, the students had a mean level of grit (*M = 3.5*) above the middle point of the scale directly between "Somewhat like me" and "Mostly like me" with the highest grit scores recorded on Items 4, 7, and 8 indicating the respective statements "I am a hard worker," "I finish whatever I begin," and "I am diligent" as "mostly like me." These results indicate the CRN students have a significant amount of grit. Duckworth et al. (2007) studied six different groups to determine their level of grit and the CRN students exhibited the same level of grit (*M* = 3.5) as finalists from the Scripp's National Spelling Bee finalists, and a slightly higher level of grit than a sample of Ivy League

undergraduates ($M = 3.46$). While there are confounding variables that exist when comparing the groups studied by Duckworth et al. to the participants of this study, this juxtaposition provides context to the high level of grit recorded by the CRN students.

Research Question 2

What are the baseline levels of the skills of emotional-social intelligence (intrapersonal, interpersonal, stress management, and adaptability) of the Grade 11 and 12 students of three Cristo Rey Network schools in California, as measured by Bar-On's (2006) Emotional Quotient Inventory Youth Version Short Form (EQ-i: YV(s))?

Emotional-Social Intelligence

This section will discuss the CRN students' scores for total emotional-social intelligence (ESI) and the four ESI subscales: (a) intrapersonal, (b) interpersonal, (c) stress management, and (d) adaptability. Participant data in Part II was recorded using items from the EQ-i: YV(s). The items from the EQ-i: YV(s) cannot be reproduced in this study due to intellectual property restrictions from the distributors of the assessment, Multi-Health Systems. However, means, medians, and standard deviations for total Emotional Quotient (EQ) and each of the four subscales are presented.

The intrapersonal subscale was comprised of the following categories: (a) self-regard, (b) emotional self-awareness, (c) assertiveness, (d) independence, and (e) self-actualization. Interpersonal subscale categories included: (a) empathy, (b) social responsibility, and (c) interpersonal relationships. The stress management subscale contained the categories of (a) stress tolerance and (b) impulse control. Finally, the adaptability subscale incorporated the categories: (a) reality-testing, (b) flexibility, and (c) problem-solving.

The total EQ score, the EQ scores for the subscales, and the EQ scores of each individual item are based on the Likert-type-scale values 1-4 given to the coded responses. Of the 277 respondents, the students' mean total EQ score was 66 with a median total EQ of 68. The theoretical minimum for each subscale was 6 and the maximum possible score for each subscale was 24. This maximum subscale value, multiplied by four, provides a maximum total EQ score of 96 for the four subscales measured in this study. The theoretical middle point of the 1-4 scale used for each item is 2.5 and, when multiplied by the number of items (n = 6) in each of the four subscales of the EQ-i: YV(s), the theoretical middle point for the total score in each subscale is 15. Given the theoretical middle point of 15 for each subscale, the middle value of the total EQ score is 60. After reverse coding negatively worded items, the researcher summed the scores of the individual items within each subscale of emotional-social intelligence (ESI) to calculate the frequencies, means, standard deviations, and Cronbach's Alpha calculations for each of the scales. These calculations are shown in Table 11 with distributions exhibited in Figures 5 through 8.

Table 11

Means, Medians, Standard Deviations, and Cronbach's Alpha of ESI Subscales for all Respondents (N = 277)

Skills	*Mean*	*Median*	*SD*	∝
Intrapersonal	13.47	14.00	4.10	.82
Interpersonal	19.24	19.00	3.05	.77
Stress Management	17.22	18.00	4.34	.87
Adaptability	16.05	16.00	3.46	.86

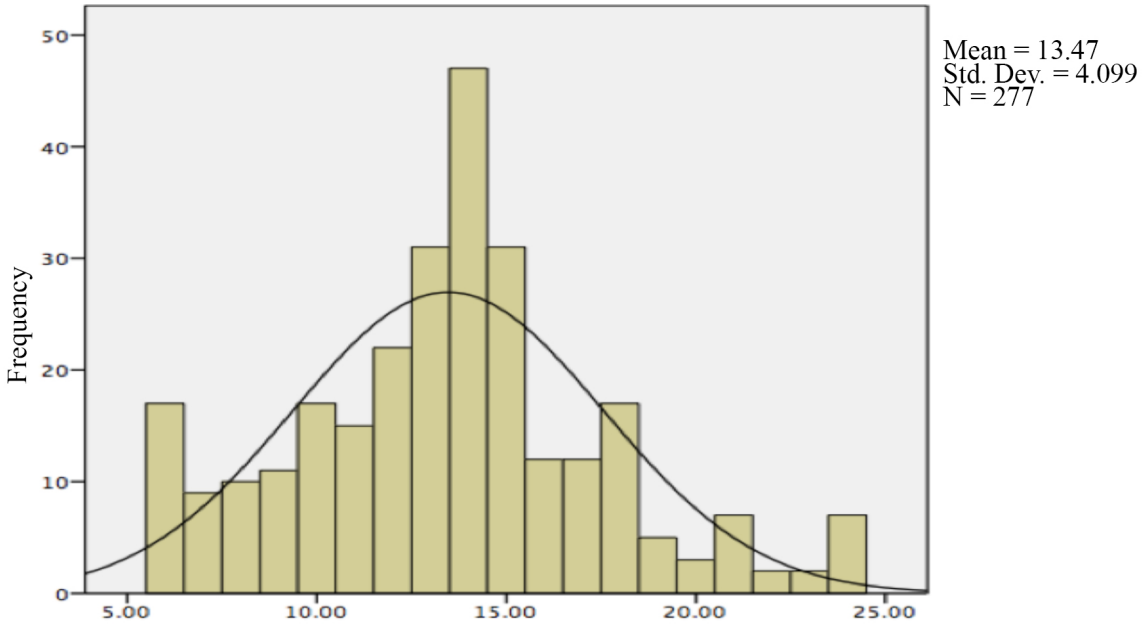

Figure 5. Histogram of the frequency of students' scores on EQ-i: YV(s) Intrapersonal subscale and the normal distribution curve.

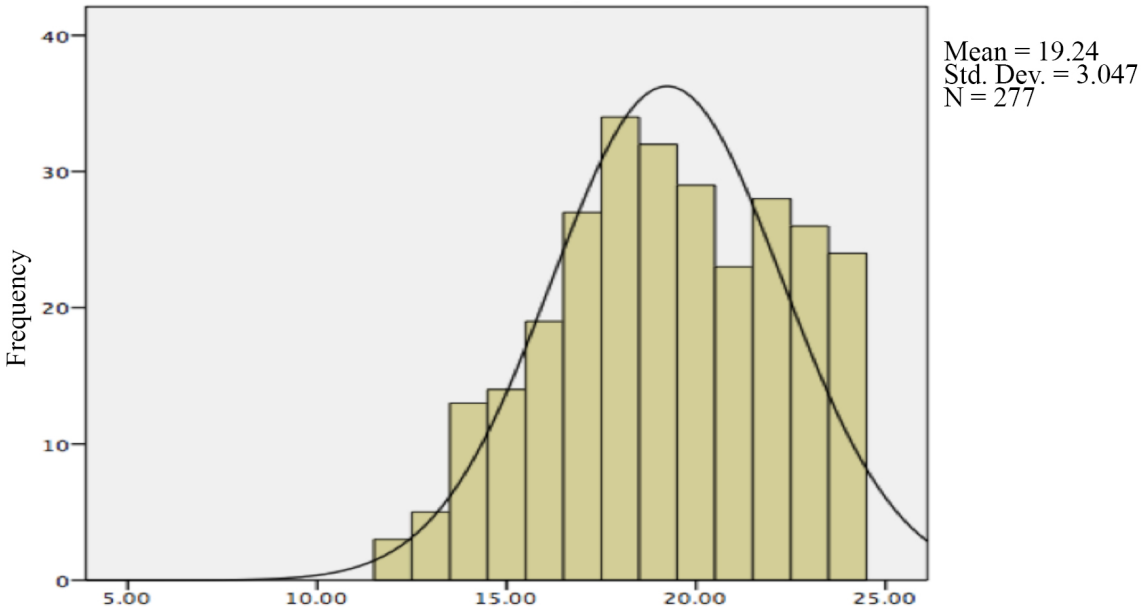

Figure 6. Histogram of the frequency of students' scores on EQ-i: YV(s) Interpersonal subscale and the normal distribution curve.

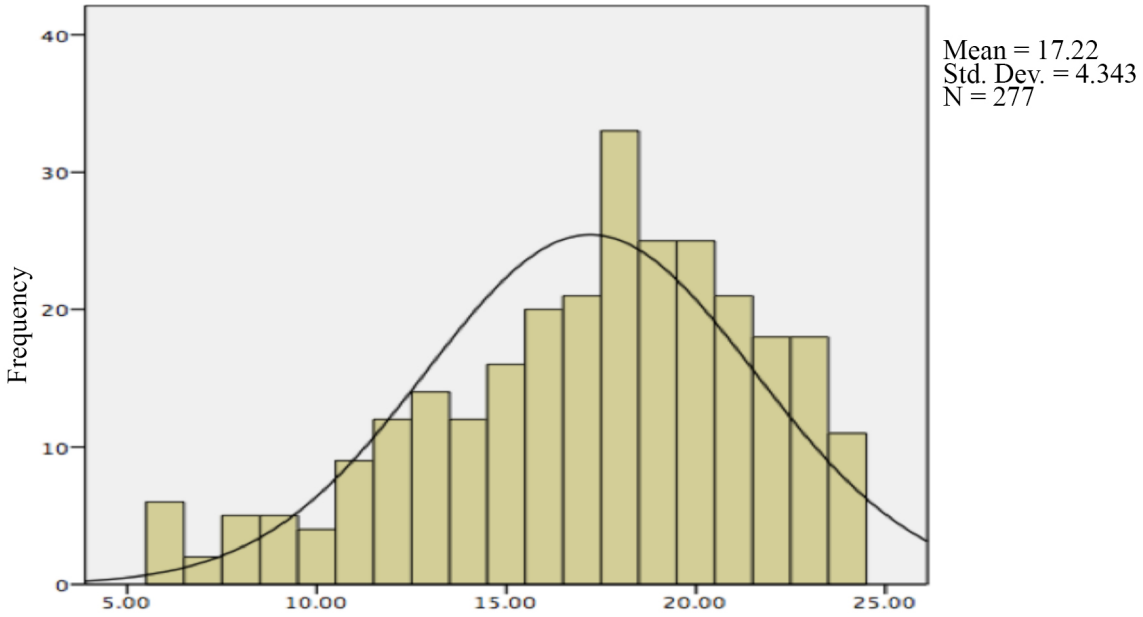

Figure 7. Histogram of the frequency of students' scores on EQ-i: YV(s) Stress Management subscale and the normal distribution curve.

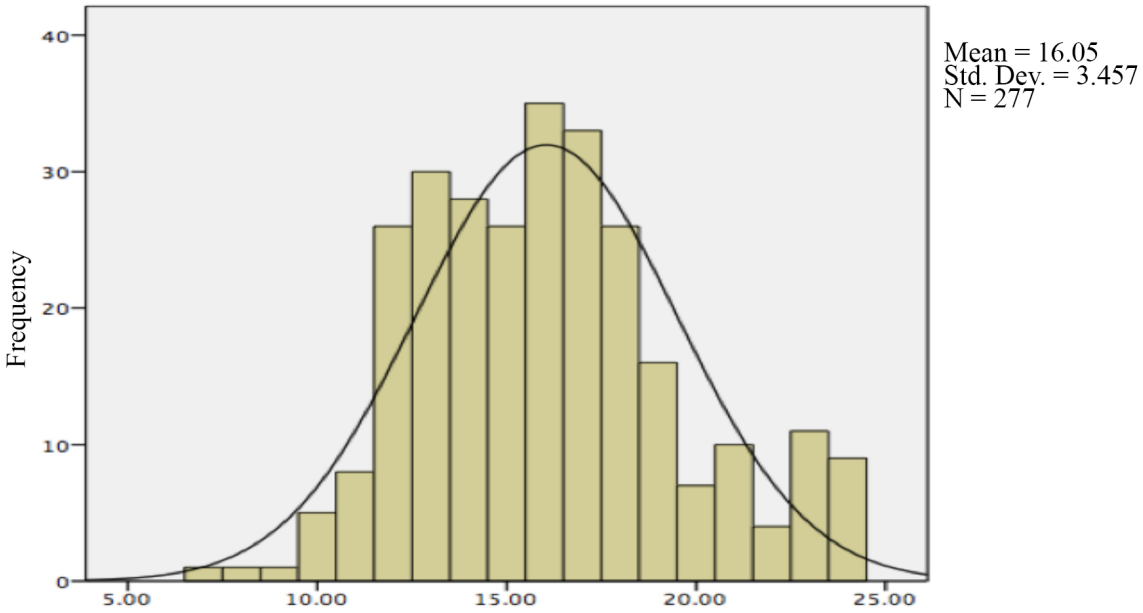

Figure 8. Histogram of the frequency of students' scores on EQ-i: YV(s) Adaptability subscale and the normal distribution curve.

The results indicate the students had a mean score for the ESI subscale of intrapersonal (M = 13.47) below the middle point subscale value of 15 near the choice "Just a little true of me." The mean score for the interpersonal ESI subscale (M = 19.24)

was the highest and indicated most student responses for this subscale were between the values "Pretty much true of me" and "Very much true of me." Finally, the ESI subscale mean values for stress management (*M* = 17.22) and adaptability (M = 16.05) were above the middle point ESI subscale value of 15 just below the choice "Pretty much true of me." Percentiles for mixed-gender ESI data were not available, but gender specific results for Total EQ and the ESI subscales revealed CRN students were below the median national norms listed in the EQ-i technical manual in all categories for both genders. The lone exception was stress management, which fell within the 67th percentile for male participants. Also of note were the varied standard deviations for the ESI subscales. The standard deviations for the interpersonal (*SD* = 3.05) and adaptability (*SD* = 3.46) subscales were tighter with a less volatile distribution of scores than the standard deviations for the intrapersonal (*SD* = 4.10) and stress management (*SD* = 4.34) subscales, which exhibited a larger spread of participants' scores.

Research Question 3

What are the perceptions of the Grade 11 and 12 students of three Cristo Rey Network (CRN) schools in California regarding their skill of grit and emotional-social intelligence in relationship to the CRN's Corporate Work Study Program (CWSP) relative to these four factors:

a. What skills do they identify as possessing prior to time spent in the CWSP?
b. What skills do they identify as developing during time spent in the CWSP?
c. What skills do they identify as learning about for the first time in the CWSP?
d. What skills do they identify as not experienced in the CWSP?

Skill Development in the CWSP

To answer this question, the researcher designed a multiple-response matrix-grid format with 13 subcategories of the ESI subscales, as well as the category of grit, measured in this study. These 13 ESI subcategories, and the four ESI subscales they represent are detailed in Table 1 located in Chapter 1. This section will discuss the results of this matrix-grid item from the survey.

For each of the 14 total subcategories, students were asked if they (a) had entered the program with this particular skill, (b) if they developed this skill in the CWSP, (c) if this study was the first time they had heard of this skill, and/or (d) if this skill was not addressed or expected of them in the CWSP. These data are shown in Table 12 with darker regions indicating a higher frequency of students' responses and lighter regions representing items from the grid checked the least frequently by the respondents. Students were allowed to choose multiple answers for Item 48. This allowed the students to indicate that they already had a particular trait or skill, but they also developed it further in the program, if that was the case.

The first choice (a) asked the students to reflect on whether or not they possessed each skill before entering the CWSP. There is a limitation involved when asking juniors and seniors to remember if they had certain skills before entering the work study program two or three years prior, but these data indicate a consistent majority of students that completed Item 48 responding that they entered the program with 11 of the 14 subcategories. The results of Research Question 3 and the matrix-grid item 48 from the survey instrument in this study are shown in Table 12. It should be noted that skills 1-13 represent the skills of ESI as measured by Bar-On's (2006) Emotional Quotient Inventory

Youth Version Short Form, whereas skill 14 represents the skill of grit as measured by Duckworth et al.'s (2007) Short Grit Scale.

Table 12

Student Responses from Matrix-Grid Survey Item Number 48

Skills	Came into CWSP with	Developed in CWSP	First time learning	Not experienced / not expected
1. Self-Awareness: (n = 263) To be aware of and understand your emotions	184 70.0%	61 23.2%	17 6.5%	15 5.7%
2. Self-Regard: (n = 263) To understand and accept yourself as you are	172 65.4%	70 26.6%	19 7.2%	17 6.5%
3. Assertiveness: (n = 260) To confidently express yourself and your emotions without being aggressive	132 50.8%	70 26.6%	18 6.9%	24 9.2%
4. Independence: (n = 263) To have freedom from control or emotional influence of others	155 58.9%	87 33.1%	10 3.8%	22 8.4%
5. Self-Actualization: (n = 263) To strive to achieve personal goals & achieve your potential	141 53.6%	116 44.1%	10 3.8%	11 4.2%
6. Empathy: (n = 261) To be aware of and understand how others fell	179 68.6%	63 24.1%	15 5.7%	18 6.9%
7. Social Responsibility: (n = 262) To identify with your social group and cooperate with others	124 47.3%	127 48.5%	16 6.1%	9 3.4%
8. Interpersonal Relationships: (n = 260) To establish mutually satisfying relationships and relate well with others	127 48.8%	117 45.0%	19 7.3%	8 3.1%
9. Stress Tolerance: (n = 260) To effectively and constructively manage your emotions	145 55.8%	94 36.2%	20 7.7%	15 5.8%
10. Impulse Control: (n = 261) To effectively and constructively control your emotions	149 57.1%	88 33.7%	21 8.0%	19 7.3%
11. Reality-Testing: (n = 258) To check your feelings and thinking in relation to the world around you	139 53.9%	98 38.0%	16 6.2%	24 9.3%
12. Flexibility: (n = 260) To adapt and adjust your feeling and thinking to new situations	124 47.7%	119 45.8%	17 6.5%	15 5.8%
13. Problem Solving: (n = 261) To effectively solve problems that are both personal and problems with others.	145 55.6%	100 38.3%	17 6.5%	17 6.5%
14. Grit: (n = 262) Perseverance and passion for long-term goals.	135 51.5%	118 45.0%	17 6.5%	13 5.0%

These data revealed that approximately half of the CRN students surveyed in this study entered the CWSP with all of the skills assessed. The three areas students identified the least as "Came into CWSP with" were: (a) social responsibility (n = 124; 47%), (b) interpersonal relationships (n = 127; 49%), and (c) flexibility (n = 124; 48%).

The second column of the matrix asking the students their perceptions of whether or not each of the skills represented by the 14 subcategories of Item 48 were developed during their time in the CWSP was of particular importance to the researcher. The researcher primarily focused on this column of Table 12 to examine student perceptions regarding whether or not they developed grit and the 13 subcategories of the ESI subscales. Responses in the second column reveal that the three categories identified most frequently as "Developed in the CWSP" are the same three identified least frequently in column one as "Came into CWSP with," as reported by the students.

The last two columns of the matrix-grid that asked the students if (c) this study was the first time they had heard of this skill, and/or (d) if this skill was not addressed or expected of them in the CWSP had a uniformly low frequency of 6.3% of total responses for choice (c) and a similarly low frequency of 6.2% of total responses for column (d).

Not all of the students surveyed finished the matrix-grid item on the instrument. There were 14 students out of the total 277 participants who began the study but did not complete the matrix-grid item near the end of the survey instrument. Of the 263 CRN students who did complete this item, some did not answer for all of the 14 subcategories of skills examined, with the lowest number of responses (n = 258) recorded for the subcategory of reality-testing.

Research Question 4

What additional skills do the Grade 11 and 12 students of three Cristo Rey Network (CRN) schools in California identify to be important to learn to aid their participation in the CRN's Corporate Work Study Program?

Requested Skills

Using an open-ended question, the researcher asked the students to request skills needed to aid their performance in the CWSP. Of the requests made by the CRN students, communication and computer skills were chosen most frequently.

While most of the responses were brief, a few in-depth responses were provided that might give deeper context to these data. One student responded, "I would like to learn more about the type of adults we will meet at work. It was difficult learning how to interact with them professionally. During my first few months I had to adjust they way I spoke with them. "

Regarding the difficulties encountered in the workplace by the CRN students, one participant mentioned she would like strategies from the CWSP staff that help her cope with stressful workplace scenarios and to "talk about how to respond to racial remarks in the workplace." Conversely, another student noted appreciation for their adult co-workers' support and expressed a desire for "help to understand that some people really are trying to help me."

Finally, concerning the interpersonal communication and social skills training requested by the students, one student offered this insight:

> "We need help learning how to be more assertive and confident so we're not shy or scared to talk to supervisors and coworkers. This developed over time for me and I continually improved each year. I am way better at communicating than I was four years ago."

Data from Research Question 4 are presented in Figure 9.

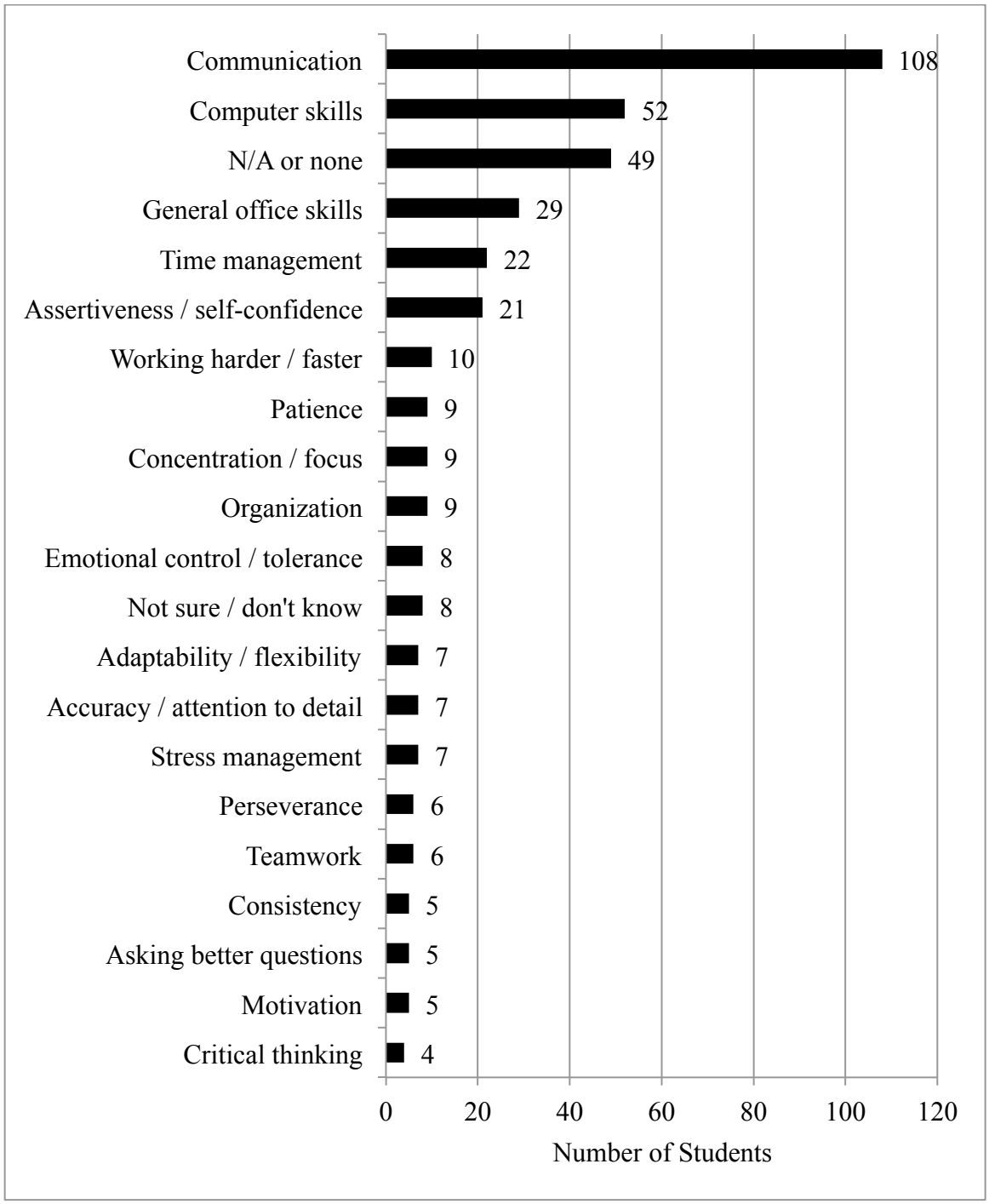

Figure 9. Frequency table showing number of times each skill category was requested by students in Research Question 4.

These responses revealed that students seek to do well in the workplace and refer to improved communication skills as an item that would aid their work performance.

The other area of skill improvement most frequently mentioned by the participants included competencies related to the use of computers and other related technology. Students suggested a wide range of technology skills that would benefit them in the CWSP. Some examples included how to fix printers and other office machines, more in-depth use of Microsoft Office software tools like Excel, programming skills, and a general desire to increase their ability to use desktop publishing and computer design skills in the workplace.

Research Question 5

What additional training do the Grade 11 and 12 students of three Cristo Rey Network (CRN) schools in California identify to be important to have to aid their participation in the CRN's Corporate Work Study Program?

Requested Training

The researcher also asked the students to request any training the CWSP staff could utilize to better prepare them for their work study experience. The responses to this question are displayed in Figure 10.

These data indicate most of the participants would like additional training, workshops, classes, tutorials, and practice for what they are facing in the workplace in additional to training they already receive, and that it would be helpful if some of that training could be tailored to the specific work sites to which the students are assigned. Many of the students also noted that the staff of the CWSP "do a good job" and that "they are great."

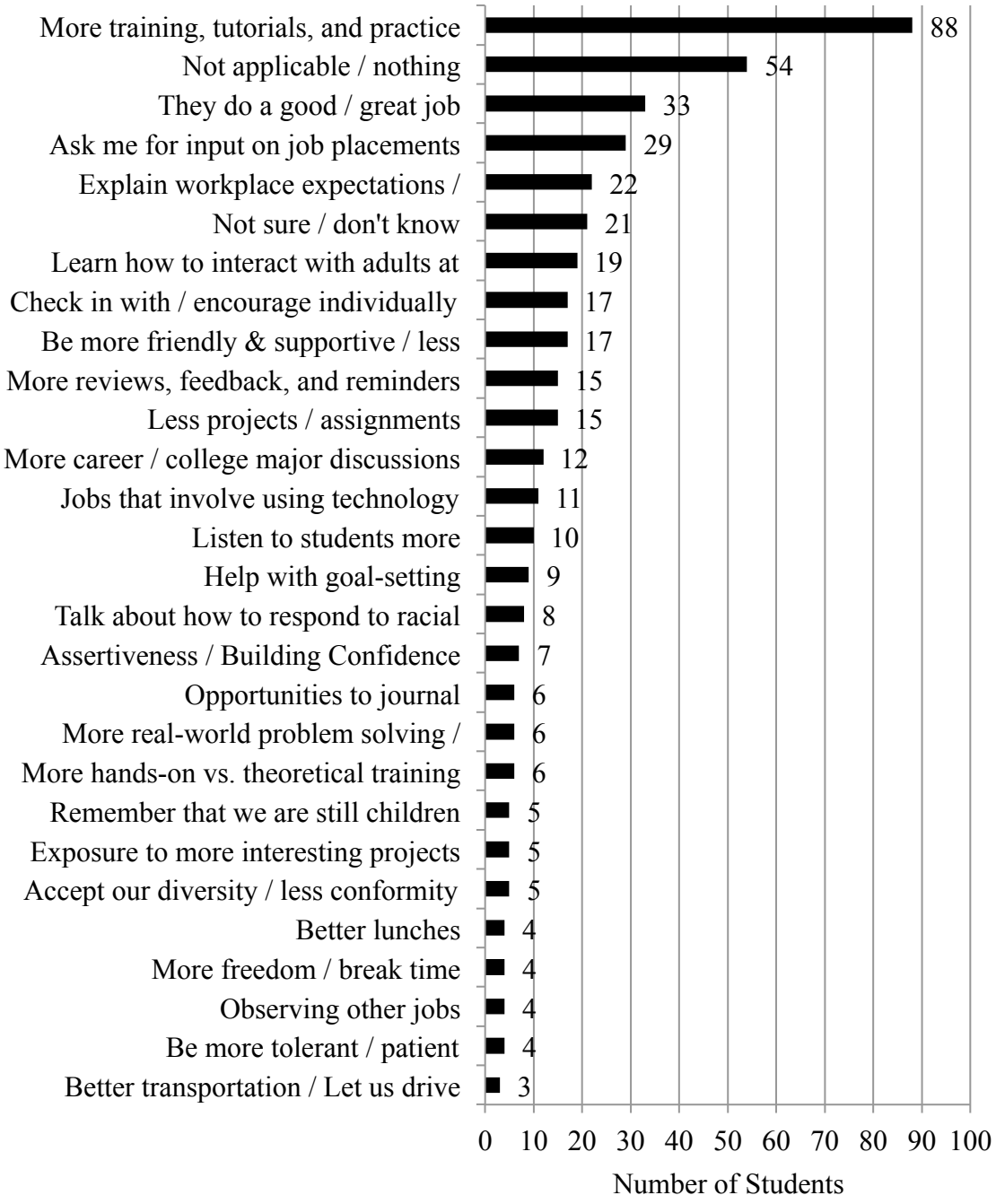

Figure 10. Frequency table showing number of times each type of training was requested by students in Research Question 5.

Students frequently mentioned a desire for more personalized and individualized care during their time in the CWSP. One student, asking adults to be compassionate as

students go through growing pains in the CWSP, said, “Realize that we are children and we are still learning. We aren’t grown adults and we have many flaws.” A different student added, “Check in with us, individually, more often about how we are doing at work and our health.” Other students wanted the CWSP staff to check in with them, if possible, and ask them for input on the types of jobs they would prefer and some wanted to extend that conversation to possible career options and advice on what to major in once they go to college. These data suggested a desire to work for “reasons related to personal satisfaction and meaning” that Bluestein et al. (2002, p. 311) mentioned as a trait of the high socio-economic status cohort from their study, although student responses indicating a strong desire to develop their non-cognitive skills and improve their performance in the CWSP can also be compared to the sense of urgency displayed by the low socio-economic cohort Bluestein et al. studied that worked “primarily to ensure their survival” (p. 320).

Additional Findings

Common Work Duties and Tasks

For Item 47, the researcher asked students to “briefly list your five most common work duties, tasks, skills used, etc. You can put a couple of words or a short phrase in each box. Complete sentences are not important.” The researcher grouped all of the responses into categories and listed the frequencies for each category in Figure 11.

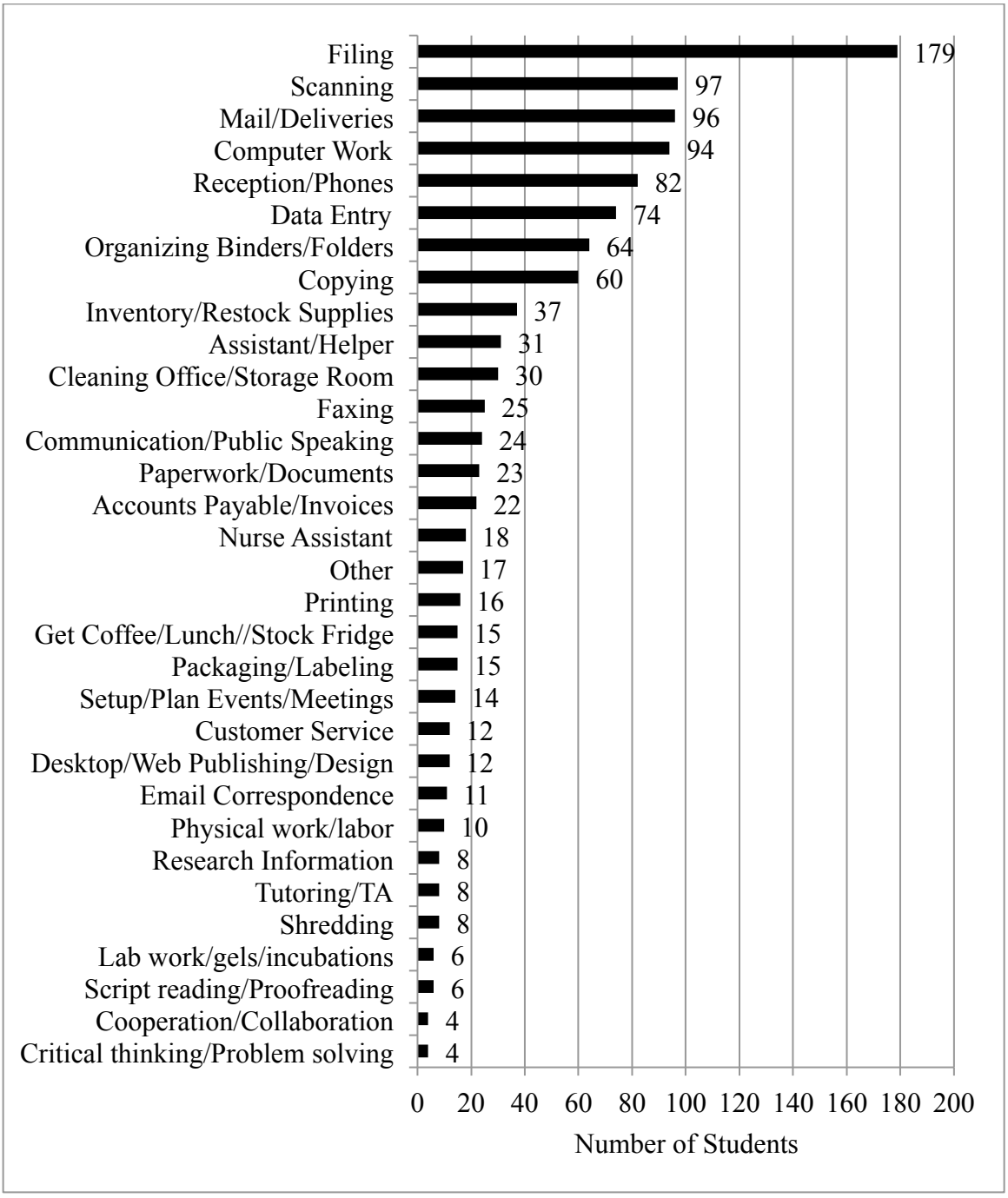

Figure 11. Frequency table showing number of times each category of common duties and tasks was recorded by students in Item 47.

The most common duties and tasks listed by the students included common office tasks such as: filing, scanning, mail and delivery work, copying, organizing binders and folders, data entry, receptionist duties, and computer work. "Other" jobs from Figure 11

included one or two mentions of the following categories of tasks and duties: automation machinery, checking transcripts, cross-checking monthly benefit summaries, job shadowing / observation, laminating, leading presentations, updating company vehicles, making name tags, note taking, putting donations away, reviewing surveillance video, updating social media pages, stamping, stapling, stuffing /opening envelopes, and giving tours.

The researcher entered all of the student responses into the online word aggregator software program "Wordle" to produce another visualization of these data. The result of the Wordle image is shown in Figure 12. The size of the words in the image corresponds with how frequently the words appeared in the students' responses.

Figure 12. Visual representation of the terms listed by the students in response to common duties and tasks at their job placements. Larger words represent terms that were chosen more frequently by the participants.

ESI Subscales by Gender

Although gender was not delineated in the research questions as a variable to be examined in this study, the researcher was required to separate the ESI subscale scores into gender to compare the students' responses to the national norms in the EQ-i technical manual that were only listed as gender specific for males and females. The results of these data are shown in Tables 13 and 14.

Table 13

Means & Norm Group Percentiles of Grit & ESI Subscales for Female Students (*n* = 157)

Skills	*M*	*Percentile*
grit	3.51	N/A
intrapersonal	13.41	38
interpersonal	19.94	46
stress management	16.61	47
adaptability	15.55	37

Table 14

Means & Norm Group Percentiles of Grit & ESI Subscales for Male Students (*n* = 120)

Skills	*M*	*Percentile*
grit	3.49	N/A
intrapersonal	13.54	48
interpersonal	18.32	45
stress management	18.02	67
adaptability	16.71	36

These results indicate female and male CRN students scored in virtually the same percentile in the subscales of interpersonal and adaptability, but males scored higher in the ESI subscales of intrapersonal and stress management. These data may help explain the larger standard deviation for the intrapersonal and stress management subscales mentioned on page 80 of this chapter.

Summary of Results

The results from Research Question 1 indicated the students had a mean level of grit (*M = 3.5*) above the middle point of the scale directly between "Somewhat like me" and "Mostly like me." CRN students are gritty and this finding is significant with regards to the students' capability to function in the corporate workplace experienced in the CWSP.

For the ESI subscales explored in Research Question 2, students recorded a mean score for intrapersonal (*M* = 13.47) below the middle point subscale value of 15 near the choice "Just a little true of me," while the mean score for interpersonal (*M* = 19.24) placed most students between the values "Pretty much true of me" and "Very much true of me." The mean scores for stress management (*M* = 17.22) and adaptability (M = 16.05) were above the middle point ESI subscale value of 15 and just below the choice "Pretty much true of me." Of the four subscales measured, only stress management, which was recorded in the 67th percentile for males, was above the 50th percentile of the national norm listed in the EQ-i technical manual for either gender on all of the subscales.

The matrix-grid in Table 12 (p. 82) used for Research Question 3 revealed that approximately half of the CRN students surveyed in this study entered the CWSP with all of the skills assessed. The three areas of skill students identified least frequently as

"Came into CWSP with" were: (a) social responsibility (*n* = 124; 47%), (b) interpersonal relationships (*n* = 127; 49%), and (c) flexibility (*n* = 124; 48%). In addition, the student participants identified these same three areas most frequently as "Developed in CWSP".

Results from Research Questions 4 indicated students want more assistance in the development of their communication and social skills to perform better in the workplace. CRN students also most frequently requested a variety of computer skills to help them do a better job in their CWSP placements and develop themselves professionally

Research Question 5 provided data that clearly indicates a desire for more training. The number of students requesting additional training (*n* = 88) was far more frequent than any of the other choices requesting a particular type of training. Students indicated they would like additional training, workshops, classes, tutorials, and practice for what they are facing in the workplace in additional to training they already receive, while many of the students also noted that the staff of the CWSP "do a good job" and that "they are great" (*n* = 33) with some participants also mentioning they do not need any further training (*n* = 54).

Additional findings included data on the most common duties and tasks listed by the students. Most of these responses involved office work such as: (a) filing, (b) scanning, (c) mail and delivery work, (d) copying, (e) organizing binders and folders, (f) data entry, (g) receptionist duties, and (h) computer work.

CHAPTER V

CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

Summary of the Study

This chapter will first provide a summary of the study, followed by a review of the major findings from the data presented in Chapter 4. The chapter will close with conclusions and implications based on these findings, and recommendations for future research and practice.

The Catholic Church has long emphasized an "option for the poor" and relied heavily on its schools to assist in providing the education necessary to help families escape poverty (Benson et al., 1986; Bryk et al., 1993; Buetow, 1988; Convey, 1992; Greeley, 1982; Neal, 1997; United States Conference of Catholic Bishops, USCCB, 1998; York, 1996). Catholic schools in the United States are closing at a steady rate from a lack of funding, and this has created an ongoing problem for the outreach efforts of the Church and the low-income families with the greatest need (Brinig & Garnett, 2014; ED, 2008a). In addition, families living in poverty have difficulty meeting the financial requirements and tuition demands of the schools that remain after taking care of basic needs for survival (Hudley, 2013; Rumberger, 2013).

The Society of Jesus created Cristo Rey Network (CRN) of schools to provide one solution to this crisis facing the poor. The unique aspect of the CRN is the Corporate Work Study Program (CWSP) that provides an opportunity for students to work a total of one week per month in a corporate job placement. The revenue generated from the students' employment with the corporate partners helps finance a college preparatory education as well as provide a valuable employment experience. The number of CRN

schools serving low-income families has been increasing every year since the first one was opened in 1996, yet very little exists in the literature documenting the path of these students, and the researcher carried out this study to fill that void.

Of importance to the success of low-income students in their educational and professional endeavors are the non-cognitive skills of grit and emotional-social intelligence (Bar-On, 2006; Bar-On & Parker, 2000; Duckworth et al., 2007; Duckworth & Quinn, 2009; Gardner, 1983; Goleman, 1995; Salovey & Mayer, 1990; Tough, 2012). The purpose of this study was threefold: (a) to measure the skills of grit and emotional-social intelligence (ESI) of Grade 11 and 12 students in three California Cristo Rey Network schools, (b) to measure the students' perceptions of skill development and training during time spent in the Cristo Rey Corporate Work Study Program (CWSP), and (c) to provide a forum for CRN students to request the skills and training they need to perform better in the CWSP. Specifically, the students were asked to self-report their levels of grit and ESI, reflect on their experiences in the CWSP with regards to these skills, and complete an open request for skills and training.

The conceptual framework for this study was derived from the Duckworth et al's (2007, 2009) work creating and validating the Grit Scale and Bar-On's (2006) research used to develop the Bar-On Model of ESI. Through the lens of grit and ESI, the researcher conducted this study by utilizing the following five research questions:

1. What is the baseline level of the skill of grit of the Grade 11 and 12 students of three Cristo Rey Network schools in California, as measured by Duckworth and Quinn's (2009) Short Grit Scale (Grit-S)?

2. What are the baseline levels of the skills of emotional-social intelligence (intrapersonal, interpersonal, stress management, and adaptability) of the Grade 11 and 12 students of three Cristo Rey Network schools in California, as measured by Bar-On's (2003) Emotional Quotient Inventory Youth Version Short Form (EQ-i: YV(s))?

3. What are the perceptions of the Grade 11 and 12 students of three Cristo Rey Network (CRN) schools in California regarding their skill of grit and emotional-social intelligence in relationship to the CRN's Corporate Work Study Program (CWSP) relative to these four factors:
   a. What skills do they identify as possessing prior to time spent in the CWSP?
   b. What skills do they identify as developing during time spent in the CWSP?
   c. What skills do they identify as learning about for the first time in the CWSP?
   d. What skills do they identify as not experienced in the CWSP?

4. What additional skills do the Grade 11 and 12 students of three Cristo Rey Network (CRN) schools in California identify to be important to learn to aid their participation in the CRN's Corporate Work Study Program?

5. What additional training do the Grade 11 and 12 students of three Cristo Rey Network (CRN) schools in California identify to be important to have to aid their participation in the CRN's Corporate Work Study Program?

With permission from the schools and each respective Archdiocese or Diocese, the researcher addressed these questions using an online survey administered to a total of

277 student participants from the junior and senior classes of three Cristo Rey schools in California. Research Questions 1 and 2 corresponded with Part I, and Part II of the instrument used in this study. Part I, which explored student perceptions of the non-cognitive domain of grit, utilized the Short Grit-Scale-S (Grit-S). Part II assessed student perceptions of the non-cognitive domain of ESI and was comprised of items from the Emotional Quotient Inventory Youth Version Short Form (EQ-i: YV(s)). Emotional-social intelligence was examined through the four subscales of intrapersonal, interpersonal, stress management, and adaptability. Part III included demographic questions and items that addressed Research Questions 3, 4, and 5.

Research Question 3 was directly addressed by Item 48 in Part III of the instrument in this study. This survey item was a multiple-response question in a matrix-grid format with 13 subcategories of the ESI subscales measured in this study: (a) intrapersonal, (b) interpersonal, (c) stress management, (d) adaptability, as well as (e) the category of grit. For each of the 14 total subcategories in the question, students were asked if they (a) had entered the program with this particular skill, (b) if they developed this skill in the CWSP, (c) if this study was the first time they had heard of this skill, and/or (d) if this skill was not addressed or expected of them in the CWSP.

Data for Research Questions 4 and 5 were gathered using two open-ended short-answer questions regarding (a) skills the students identified that would aid their performance in the CWSP (Item 49), and (b) student suggestions with respect to ways the CRN schools and their staff can provide the students the tools and training they need to aid their performance in the program and beyond (Item 50).

Conclusions

After examination of data from 277 CRN students from the junior and senior classes of three high schools in California, the following conclusions emerged: (a) the CRN is succeeding in their mission to serve low-income minority students, (b) CRN students are gritty, (c) the participants were below the national norm for all subscales of ESI, (d) more than half of the students surveyed entered the CWSP with all of the skills measured and further developed those skills in the CWSP, (e) the three ESI skill categories mentioned by the students as least present in their skillset when entering the CWSP were the same three skill categories mentioned as most developed during the CWSP," and (f) students desire more training of all types, with the most frequently requested being communication, social, and computer skills.

The demographics of the sample (N = 277) indicated alignment with CRN Mission Effectiveness Standard 2 that calls each school to be open to and to serve students of various cultures. The large majority (71.8%) of the students in this study were Latino, and a wide variety of multicultural students represented the remainder of the student participants from the three schools in this study. The Cristo Rey schools in this study are enrolling, teaching, and graduating the low-income students their mission statement claims they seek to educate.

Research Question 1 revealed that CRN students are gritty ($M = 3.5$). The students indicated they entered the CRN and CWSP with grit and they are hungry for more education, experience, and training with regards to grit, and the other non-cognitive skills measured in this study. The skills are essential in the workplace and must be

developed to increase the students' chances of success at their job placements (Bar-On, 2006; Duckworth et al., 2007).

Regarding the other skills in the four ESI subscales measured in Research Question 2, Students self-reported that their skills of emotional-social intelligence were intact, and in most categories somewhat present. However, these data showed students had a mean score for all four ESI subscales below the 50th percentile of national norms for both males and females in all ESI subscales with the exception of stress management for the males that fell within the 67th percentile (M = 18.02).

The matrix-grid in Table 12 (p. 82) used for Research Question 3 provided data that shows approximately half of the CRN students surveyed in this study entered the CWSP with all of the skills assessed. Table 12 also indicates the three areas students identified the least as "Came into CWSP with" were: (a) social responsibility, (b) interpersonal relationships, and (c) flexibility. These same three categories were identified the most as "Developed in CWSP."

Findings from from Research Question 4 indicated students want more assistance in the development of their communication and social skills to perform better in the workplace. CRN students also most frequently requested a variety of computer skills to help them do a better job in their CWSP placements and develop themselves professionally.

Research Question 5 provided three clear findings, (a) students surveyed primarily want to increase their communication, social, and computer skills, (b) the most frequent request for training was for more of all types, and (c) the most common duties and tasks the students complete are low-skill and often do not provide students with

opportunities for intellectual growth. The number of students requesting additional training (n = 88) was far more frequent than any of the other choices requesting a particular type of training. Students indicated they would like additional training, workshops, classes, tutorials, and practice for what they are facing in the workplace in additional to training they already receive, while many of the students also noted that the staff of the CWSP "do a good job" and that "they are great" (n = 33) with some participants also mentioning they do not need any further training (n = 54).

Implications

Demographics

The implications of demographic data, in conjunction with the requirement of CRN schools that students come from economically disadvantaged families, are clear. The CRN schools in this study are serving the low-income population of students identified in the CRN Mission Effectiveness Standards. Additionally, the CWSP provides a wide variety of job placements in businesses across the spectrum of the corporate world, and students from both genders have the opportunity to attend a CRN school and gain the work experience acquired in the CWSP. Finally, demographic data indicated a majority of the students (84%) have held more than one different job placement during their time in the CWSP. This finding implies that attention should be paid to the tools and skills students need to be flexible and adapt to a variety of job placements.

Grit

The CRN students in this study have a high level of grit. The participants mean grit score (*M = 3.50, SD = .54*) indicating answers in the midpoint between "somewhat

like me" and "mostly like me." Despite the limitations present from the lack of a national norm, and lack of measurement of comparable groups in the literature, it should be noted that the CRN students exhibited the same level of grit as the finalists from the 2005 Scripps National Spelling Bee (M = 3.5; SD = .67), and were "grittier" than Ivy League undergraduates (M = 3.46; SD = .61)

The CRN students in this study are gritty. This finding, viewed within the context of grit being an essential skill in the workplace and beyond (Duckworth et al., 2007), is significant in relation to the students' chances of functioning, exhibiting stamina, persevering, and ultimately succeeding in the corporate workplace experienced in the CWSP. Considering Duckworth et al. (2007) also mentioned parents and educators as partners in teaching children to add stamina to the passion and intensity of their work, it could be implied adding the leadership teams of each CRN school in the United States, the national leadership team of the CRN, and the corporate employers to this list of partners focused particularly on the acquisition of non-cognitive skills such as grit will increase the students' chances of success in the CWSP. Additionally CWSP personnel now join parents and educators as "partners" in the teaching of grit for this group of students.

Emotional-Social Intelligence

Considering the importance of the many non-cognitive skills comprising the domain of ESI, and the students' slightly below average scores for the four ESI subscales measured in this study, the implications are straightforward. Students may benefit from more exposure to non-cognitive ESI skills, and a supportive environment that nurtures

these skills with guidance from trusted adults in both the CRN and the work environment of the corporate partners of the CWSP.

Development of Skills in the CWSP

The three areas students identified the least as "Came into CWSP with" were: (a) social responsibility (*n* = 124; 47%), (b) interpersonal relationships (*n* = 127; 49%), and (c) flexibility (*n* = 124; 48%). These same three categories were identified the most as "Developed in CWSP." This finding may be of importance to the CWSP Directors and other personnel working to help the CRN students succeed in the CWSP. Social responsibility, interpersonal relationships, and flexibility are all essential qualities in the workplace, and it can be reasonably implied that the CRN has been successful in developing these skills with students participating in the CWSP.

Requested Skills and Training

Duckworth et al. (2007) suggested "grit may be as essential as talent to high accomplishment" (p. 1100). The researcher agrees with this statement, as well as the recommendation of Duckworth et al. that "children who demonstrate exceptional commitment to a particular goal should be supported with as many resources as those identified as gifted and talented" (p.1100). The most frequent student responses from Research Questions 4 and 5 were requests for additional skills, training, and resources that reveal a desire by the CRN students to perform better and achieve their goals in their respective CWSP placements. There were many categories of skills training requested by the students. They indicated an eagerness to learn and stated clear areas of interest with regards to development of additional skills. By far, the highest frequency of requests involved acquisition of communication and computer skills. These skill domains provide

a concrete answer to Kemple's (2008) call for future research that suggested "evaluations of Career Academy variants should be undertaken to determine which elements might be most critical to success and effectiveness, and which elements can be improved or enhanced to further improve its effectiveness" (p. 43).

There are a number of implications to these open-ended data provided by the students. The frequent requests to improve communication skills and enhance their ability to navigate difficult social situations in the workplace, coupled with the students' frequently requested desire for more computer skills, implied a strong ambition from the CRN students to develop themselves professionally and do a better job at their placements in the CWSP. This drive to succeed professionally was also apparent in the students' requests for more dialogue with CWSP staff about the types of jobs available, and for more frequent check-ins, reviews, advice, feedback, and reminders. Students want to have a closer connection with the CWSP staff and want to learn more about how potential jobs might fit into their hopes and dreams for their eventual careers.

Additional findings regarding the most common tasks and duties performed by CRN students at their job placements indicated the majority of the work being completed is low-skill in nature, repetitive, and mundane. This has implications on the students' levels of engagement at work, and their ability to challenge themselves intellectually at their respective job placements. In addition, there is a possibility that many of these low-skill jobs will not exist in the near future due to automation from machines and software programs. Strengthened and enhanced computer skills could increase students' ability to work in a more connected and automated society.

Recommendations

Recommendations for Future Research

Based upon the key findings of this study, the following are recommendations for future research for members of the CRN national team, staff of the CWSP at CRN schools, and researchers working with populations of low-income minority students in work study programs:

- Engage in qualitative research with CWSP students. In particular, in-depth qualitative discussions with students via 1-on-1 interviews and focus groups would add depth to the findings of this study and provide a clear picture of best methods to increase the efficacy of the CWSP and the success of the students.
- Assess students level of grit and emotional-social intelligence before they enter the CWSP, and again as they prepare to exit the program and go to college. This would also give the administration and staff of the CRN schools important pre-test / post-test data to measure changes in the grit and ESI of their students during the course of their time in the CWSP.
- Replicate this study with other Cristo Rey Schools. Valuable data would be available for individual schools and the CRN national team to disseminate and utilize to improve the CWSP and the students' experiences within it. Variants of the study could more closely examine any of the variables presented in this research.
- Future studies should quantitatively and qualitatively measure the perceptions of teachers, CWSP directors, and the employers/managers who interact with the CWSP students on a daily basis.

Recommendations for Future Practice

The following are recommendations for future practice for members and policymakers of the CRN national team, the leadership and staff of the CWSP at the various CRN schools across the United States, CRN students and teachers, parents of students in the CWSP, corporate partners, volunteers and donors:

- Develop strategies that strengthen the involvement the companies have in the students' relationship to their respective businesses. Encourage these companies to take an active role in the non-cognitive skill development of the students in their employ. Examine ways the business managers and employers can meaningfully engage and challenge the students to increase skill development in the CWSP.
- Provide the students more opportunities to develop professionally when they are away from the workplace. For the grittiest students in the CRN, additional opportunities to develop both non-cognitive and technology skills through a series of workshops, tutorials, classes, and training will help the students who utilize these opportunities find personal success in the CWSP, in college, and beyond.
- CRN staff can create blending learning modules for the students that utilize: (a) hands-on inquiry (ex. simple programming in Microsoft Excel), (b) online videos to introduce concepts used during the process of inquiry, (c) formative assessment to check for learning and generate questions from the students, and (d) a face-to-face opportunity, perhaps during the CRN students' advisory resource period, for groups of students to disseminate what they learned. Within this model, students

can learn collaborative problem-solving skills while also gaining valuable technological skills that may aid their performance in the workplace and beyond.

- Employers could also structure a blended-learning environment to help students use and learn software or hardware specific to their operations. For basic coding skills that could initially help students use Excel in a more powerful and efficient manner for companies, and later provide opportunities for students to build websites and create apps, there are a bevy of both free and proprietary online resources that provide videos, structured assessments, "gamified" badges and levels, and support forums. Employers could also use these modules for all of their other employees and new hires in the future.
- Employers could also include students in appropriate social gatherings at work (ex. birthday parties) or in various team-building activities or professional development opportunities the companies may already participate in outside of the work environment. This would help students learn appropriate social cues in a work setting or in team-building environment that are less formal yet still require social etiquette and professional behavior.
- Teachers, administration, and CWSP staff could collaborate and discuss which courses are a natural fit for cross-curricular learning between the classroom and the CWSP. For example, Excel could be used extensively in math and science, word processing skills could be enhanced in all of the classes that require student writing skills, and programming skills could be infused into a number of different science, technology, engineering, or math (STEM) courses a CRN may offer.

- A distinct focus on proper social and business etiquette to complement the communication skills already taught by CRN teachers across the United States could also be seamlessly woven into a great number of departments and disciplines at CRN schools.
- Finally, annual CRN program evaluations as well as planning sessions for the future of the CRN and the CWSP could include a discussion on job placements that require a higher level of skill. Robots will eventually automate many of the low-skill jobs with repetitive and mundane tasks and duties. Training students to perform in job placements that require more skill would benefit the students, and provide more options for the CRN as they review, adapt, and plan each cycle of their long-range plan for the CWSP. The jobs that will be required to sustain the success of the CRN in the future will undoubtedly change and the CWSP must adapt and change with the workforce.

Closing Remarks

Father Pedro Arrupe, S.J. (1973), in an address to the 10th International Congress of Jesuit Alumni of Europe, in Valencia, Spain, on July 31, 1973, stated:

> Today our prime educational objective must be to form men-and-women-for-others; men and women who will live not for themselves but for God...men and women who cannot even conceive of love of God which does not include love for the least of their neighbors; men and women completely convinced that love of God which does not issue in justice for others is a farce. (p. 2)

This address was considered radical at the time, and although these words were addressed to alumni of the schools operated by the Society of Jesus, having love for the "least of thy neighbors," a love that issues justice, applies to all educators, administration, staff, employers, family, and members of the CRN community. With the explicit call to "serve

only economically disadvantaged students," (CRN, Mission Effectiveness Standards, n.d.), Cristo Rey schools are doing the work of serving and loving the least of their neighbors financially. With deference to the preferential option for the poor, awareness of the low number of quality educational opportunities for low-income families, and recognition of the need in the literature for empirical data on grit and emotional-social intelligence in the workplace with a valuable group of low-income high school students, the researcher addressed a key request of the founder of the Cristo Rey Network, who stated:

> I am convinced that we really do not yet know the power of our educational model. We are hoping that people will study us carefully, write doctoral dissertations about us and measure the effect that this experience has on the students. (Foley, 2010)

The CWSP is a purposeful effort to provide low-income students the skills necessary to succeed in the workplace, and improve their lives. Aiding student performance in the CWSP can be facilitated by improvements to the CWSP, and these improvements can be rooted in research and the resulting data. Although the CRN has been in existence for nearly 20 years, there are many facets of the schools and their work study programs that need further study, examination, and analysis for efficacy and best practices with regards to program improvement and optimizing vectors for successful skill acquisition for CRN students. The researcher encourages others to share the experiences of these students and provide them with a voice in the literature through a wide variety of quantitative and qualitative explorations. More research and data will facilitate deeper understanding of the effect the CWSP is having on low-income students, and provide the various members of the CRN community multiple means of ensuring the

students acquire vital skills, earn a place at the table of meaningful employment, and enjoy full, happy lives.

Pope Francis (2013), on a trip to Brazil for World Youth Day stated:

> Young people are the window through which the future enters the world. They are the window, and so they present us with great challenges. Our generation will show that it can rise to the promise found in young people when we know how to give them space. This means that we have to create the material and spiritual conditions for their full development; to give them a solid basis on which to build their lives; to guarantee their safety and their education to be everything they can be; to pass on to them lasting values that make life worth living; to give them a transcendent horizon for their thirst for authentic happiness and their creativity for the good; to give them the legacy of a world worthy of human life; and to awaken in them their greatest potential as builders of their own destiny, sharing responsibility for the future of everyone. If we can do all this, we anticipate today the future that enters the world through the window of the young.

May results from this study, and those that follow, contribute to the full development of the low-income students served by the CRN. With hard work, collaboration amongst all constituencies involved in the development of CRN students, and a purposeful effort to listen to the dreams, desires, and requests of these students, the words of Francis can be brought to fruition as the students of the Cristo Rey Network become the window to a diverse, equitable, and inclusive future.

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APPENDICES

APPENDIX A

Religious Orders and Endorsers

Basilian Fathers
Detroit Cristo Rey High School

Brothers of the Christian Schools (District of Eastern North America)
Cristo Rey New York High School

Brothers of the Christian Schools (San Francisco District)
De La Salle North Catholic High School (Portland)
San Miguel High School (Tucson)

Clerics of St. Viator
Cristo Rey St. Martin College Prep (Waukegan, IL)

Congregation of the Mission (Vincentians)
Cristo Rey Brooklyn High School

Dominican Sisters of Mission San Jose
Immaculate Conception Academy (San Francisco)

The Holy Cross Province of the Congregation of the Passion
Holy Family Cristo Rey Catholic High School (Birmingham)

Marist Brothers of the Schools (USA Province)
Christ the King Preparatory School (Newark)

Oblates of St. Francis de Sales
Cristo Rey Philadelphia High School

Passionists
Cristo Rey Brooklyn High School

Salesians of Don Bosco
Don Bosco Cristo Rey High School (Washington, DC)

School Sisters of Notre Dame
Cristo Rey Dallas College Prep

Sinsinawa Dominician Sisters
Cristo Rey St. Martin College Prep (Waukegan, IL)

Sisters of Charity of Cincinnati
DePaul Cristo Rey High School (Cincinnati)

Sisters of Charity of Leavenworth
Cristo Rey Kansas City High School

Sisters of Charity of St. Elizabeth
Christ the King Preparatory School (Newark)

Sisters of Humility of Mary
Saint Martin de Porres High School (Cleveland)

Sisters, Servants of the Immaculate Heart of Mary (Monroe, MI)
Detroit Cristo Rey High School

Society of the Holy Child (American Province)
Cristo Rey New York High School
Cristo Rey St. Martin College Prep (Waukegan, IL)

Society of Jesus (California Province)
Cristo Rey High School (Sacramento)
Cristo Rey San Jose Jesuit High School
Verbum Dei High School (Los Angeles)

Society of Jesus (Chicago-Detroit Province)
Christ the King Jesuit College Preparatory School (Chicago)
Cristo Rey Jesuit High School (Chicago)
Cristo Rey Jesuit High School (Milwaukee)
Saint Martin de Porres High School (Cleveland)

Society of Jesus (Maryland Province)
Cristo Rey Atlanta Jesuit High School
Cristo Rey Jesuit High School (Baltimore)

Society of Jesus (Missouri Province)
Arrupe Jesuit High School (Denver)

Society of Jesus (New England Province)
Cristo Rey Atlanta Jesuit High School

Society of Jesus (USA Central and Southern Province)
Cristo Rey Jesuit College Preparatory School of Houston
Holy Family Cristo Rey Catholic High School (Birmingham)

Society of Jesus (New York Province)
Cristo Rey Atlanta Jesuit High School
Cristo Rey New York High School

Society of Jesus (Wisconsin Province)
Cristo Rey Jesuit High School (Milwaukee)
Cristo Rey Jesuit High School (Twin Cities)

Society of Mary
Cristo Rey Atlanta Jesuit High School

Roman Catholic Archdiocese of Boston
Cristo Rey Boston High School

Roman Catholic Archdiocese of Los Angeles
Verbum Dei High School (Los Angeles)

Roman Catholic Archdiocese of Newark
Christ the King Preparatory School (Newark)

Sisters of Mercy of the Americas (West-Midwest)
Cristo Rey High School (Sacramento)

Sisters of Mercy Mid-Atlantic Community
Cristo Rey Brooklyn High School

Sisters of Notre Dame de Namur (Boston and Ipswich)
Notre Dame Cristo Rey High School (Lawrence, MA)

Sisters of Providence of St. Mary-of-the-Woods
Providence Cristo Rey High School (Indianapolis)

Sisters, Servants of the Immaculate Heart of Mary (Immaculata, PA)
Cristo Rey Philadelphia High School

Roman Catholic Archdiocese of Portland
De La Salle North Catholic High School (Portland)

Roman Catholic Archdiocese of Washington, DC
Don Bosco Cristo Rey High School (Washington, DC)

Roman Catholic Diocese of Columbus
Cristo Rey Columbus High School

Roman Catholic Diocese of Sacramento
Cristo Rey High School (Sacramento)

APPENDIX B

Survey Instrument

Part I: Grit

1) New ideas and projects sometimes distract me from previous ones.
( ) Very much like me ( ) Mostly like me ( ) Somewhat like me ( ) Not much like me ( ) Not like me at all

2) Setbacks don't discourage me.
( ) Very much like me ( ) Mostly like me ( ) Somewhat like me ( ) Not much like me ( ) Not like me at all

3) I have been obsessed with a certain idea or project for a short time but later lost interest.
( ) Very much like me ( ) Mostly like me ( ) Somewhat like me ( ) Not much like me ( ) Not like me at all

4) I am a hard worker.
( ) Very much like me ( ) Mostly like me ( ) Somewhat like me ( ) Not much like me ( ) Not like me at all

5) I often set a goal but later choose to pursue a different one.
( ) Very much like me ( ) Mostly like me ( ) Somewhat like me ( ) Not much like me ( ) Not like me at all

6) I have difficulty maintaining my focus on projects that take more than a few months to complete.
( ) Very much like me ( ) Mostly like me ( ) Somewhat like me ( ) Not much like me ( ) Not like me at all

7) I finish whatever I begin.
( ) Very much like me ( ) Mostly like me ( ) Somewhat like me ( ) Not much like me ( ) Not like me at all

8) I am diligent*. (*Diligent is defined as persistent, tireless, careful, hard-working)
( ) Very much like me ( ) Mostly like me ( ) Somewhat like me ( ) Not much like me ( ) Not like me at all

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Part II: Emotional-Social Intelligence (EQ-i: YV(s))

9 - 38) Items cannot be displayed due to copyright restrictions

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Part III: Demographics / Work Study Experience

39) What is your gender?
( ) Female ( ) Male

40) What is your age?
( ) 15 ( ) 16 ( ) 17 ( ) 18 ( ) 19

41) Are you a junior or a senior in high school?
( ) Junior ( ) Senior

42) What is your race/ethnicity?
( ) Pacific Islander ( ) Black ( ) Latino ( ) Asian ( ) Arab ( ) Indian ( ) Native American ( ) White ( ) Multiracial/Other _____

43) What school do you attend?
( ) School A* ( ) School B* ( ) School C* * - names withheld

44) What type of business employs you in the Corporate Work Study Program?

- Finance	**- Executive Research**	**- Insurance**
- Legal	**- Biotechnology**	**- Accounting**
- Education	**- Non-Profit**	**- Real Estate**
- Technology	**- Television**	**- Taxes**
- Construction	**- Media**	**- Human Resources**
- Property Management	**- Health Care**	**- Marketing / Sales**

45) How long have you been in the program? (Pull-down menu >> 1-4yrs.)

46) How many different job placements have you had? (Pull-down menu >> 1-4)

47) In the boxes below, <u>briefly</u> list your five most common work duties, tasks, skills used, etc.

- **You can put a couple of words or a short phrase in each box.**
- **Complete sentences are not important.**

48) For each term listed below, state whether you came into the work study program with that skill set, if it was developed during your time in the work study program, if this survey is your first time learning or hearing about it, and/or if it was not addressed or not expected of you in the work study program. You may check more than one column.				
	Came into work study program with	**Developed in work study program**	**First time learning this**	**Not experienced / not expected of me**
Self-Awareness: To be aware of and understand your emotions				
Self-Regard: To understand and accept yourself				
Assertiveness: To confidently express yourself and your emotions without being aggressive.				
Independence: To have freedom from control or emotional influence of others.				
Self-Actualization: To strive to achieve personal goals and achieve your potential.				
Empathy: To be aware of and understand how others feel.				
Social Responsibility: To identify with your social group and cooperate with others.				
Interpersonal relationships: To establish mutually satisfying relationships and relate well with others.				

48) (CONTINUED) For each term listed below, state whether you came into the work study program with that skill set, if it was developed during your time in the work study program, if this survey is your first time learning or hearing about it, and/or if it was not addressed or not expected of you in the work study program. You may check more than one column.				
Stress tolerance: To effectively and constructively manage your emotions.				
Impulse control: To effectively and constructively control your emotions.				
Reality-testing: To check your feelings and thinking in relation to the world around you.				
Flexibility: To adapt and adjust your feelings and thinking to new situations.				
Problem-solving: To effectively solve problems that are both personal and problems with others.				
Grit: Perseverance and passion for long-term goals				

49) What skills do you need additional training on to help better your performance?

50) How can the work study program staff better prepare you for your work study experience?

APPENDIX C

Email to CWSP Directors

Hello (CWSP Director's name),

The purpose of this message is to give you instructions and some context regarding my study on grit, emotional-social intelligence, and non-cognitive skill acquisition in the Corporate Work Study Program.

I've attached a copy of my (online) survey instrument, included simple concise directions, and added a link to a quick 2-3 min. online video introducing the study to your students. The text transcript of that video is included in this email. The survey will be online and should take approximately 20-25 minutes. Please let me know if you have any questions.

My proposed purpose and research questions are as follows:

Purpose of the Study

The purpose of this study is threefold. First, it will measure perceptions of grade 11 and 12 students from three Cristo Rey schools regarding their non-cognitive skills of grit and emotional-social intelligence (intrapersonal, interpersonal, stress management, and adaptability). Secondly, it will explore the extent to which these skills are perceived to be utilized and enhanced through their participation in the Cristo Rey Network's (CRN) Corporate Work Study Program (CWSP). Finally, it will identify what further skills and training the CRN students identified as necessary to ensure their success in the workplace.

Research Questions

1. What is the baseline level of the skill of grit of the Grade 11 and 12 students of three Cristo Rey Network schools in California, as measured by Duckworth and Quinn's (2009) Short Grit Scale (Grit-S)?

2. What are the baseline levels of the skills of emotional-social intelligence (intrapersonal, interpersonal, stress management, and adaptability) of the Grade 11 and 12 students of three Cristo Rey Network schools in California, as measured by Bar-On's (2003) Emotional Quotient Inventory Youth Version Short Form (EQ-i: YV(s))?

3. What are the perceptions of the Grade 11 and 12 students of three Cristo Rey Network (CRN) schools in California regarding their skill of grit and emotional-social intelligence in relationship to the CRN's Corporate Work Study Program (CWSP) relative to these four factors:
    a. What skills do they identify as possessing prior to time spent in the CWSP?
    b. What skills do they identify as developing during time spent in the CWSP?
    c. What skills do they identify as learning about for the first time in the CWSP?
    d. What skills do they identify as not experienced in the CWSP?

4. What additional skills do the Grade 11 and 12 students of three Cristo Rey Network (CRN) schools in California identify to be important to learn to aid their participation in the CRN's Corporate Work Study Program?

5. What additional training do the Grade 11 and 12 students of three Cristo Rey Network (CRN) schools in California identify to be important to have to aid their participation in the CRN's Corporate Work Study Program?

Thank you for the opportunity to work with your students. I look forward to providing you with data and shining a spotlight on the work you and your colleagues are doing.

With gratitude,
Don Gamble

Instructions:
1. Play the linked video for the students.
2. Inform them that they may opt out of the survey and/or quit at any time.
2. Provide them with the link to the survey.

Transcript of video to students:

Hello students,

My name is Don Gamble, and I'm a teacher and a graduate student in San Francisco. I am going to give you a short survey today, because I would like to give you a voice. There are piles of academic literature, studies that have been run, and data that have been collected, but nothing about the Cristo Rey Network, your school, and your voice. That is what I want to change today.

First I want to ask you about yourself, and then I want to ask you about the work study program and how your school can make that experience better for you. Please answer as honestly as possible, and don't worry, everything is anonymous and completely confidential.

My goal is to not only give you a voice, but also to put something out there in the literature for others to read so that more studies will be run, more data will be collected to improve the experience of Cristo Rey students throughout the years.
Thank you for your time. I really appreciate your participation, and if you have any questions please email me at dgamble@siprep.org. I would be happy to discuss any parts of the study, the results, or any questions that you may have. Thanks again for your time, and have a happy holiday season.

***Text at the end of the video:

WORK STUDY SURVEY:

→ 50 questions

→ 20-25 minutes

→ bitly.com/workstudysurvey

APPENDIX D

Superintendents' Permissions

THE ARCHDIOCESE OF SAN FRANCISCO
DEPARTMENT OF CATHOLIC SCHOOLS
ONE PETER YORKE WAY, SAN FRANCISCO, CA 94109-6602 (415) 614-5660 FAX (415) 614-5664

February 25, 2014

Mr. Don Gamble
Instructor of Anatomy & Physiology
Instructor of Multimedia Design
St. Ignatius College Preparatory
2001 37th Avenue
San Francisco, CA 94116

Dear Don,

Thank you for your message of February 21, 2014, requesting permission to run your proposed doctoral study at ICA here in SF. If ICA's President and Principal, Sister Diane and Mrs. Lisa Graham agree with your proposal, you also have my permission.

Sincerely yours,

Maureen Huntington

Ms Maureen Huntington
Superintendent of Catholic Schools

ROMAN CATHOLIC
DIOCESE OF SACRAMENTO
DIOCESIS CATOLICA ROMANA DE SACRAMENTO
DEPARTMENT OF CATHOLIC SCHOOLS
2110 Broadway, Sacramento, CA 95818 Phone 916.733.0100 Fax 916.733.0195

February 21, 2014

Hello Don,

I apologize for my delayed response! Yes, per Sister Eileen and Andreas Agos' approval, you also have our approval to administer the survey. I will follow up this week with a formal letter on letterhead.

Small world… I grew up three blocks from SI. I went to Holy Name Grammar School and Mercy HS (back in the day when SI was still an all boys school!)
I wish you all the best with your continued studies.

Thoughtfully,

Laurie Power

Laurie Power
Associate Superintendent
Chief Academic Officer
Catholic School Department
Diocese of Sacramento
(916) 733-0114

ARCHDIOCESE OF
LOS ANGELES

DEPARTMENT OF CATHOLIC SCHOOLS
3424 WILSHIRE BOULEVARD, LOS ANGELES, CA 90010-2242 (213) 637-7300 FAX (213) 637-6140

March 7, 2014

Don,

I discussed your project with our Superintendent Msgr. Sal Pilato. He is happy to give you permission to work at Verbum Dei High School. He also indicated that he would be interested in receiving a copy of your findings.

Good luck and God bless!

Jim McClune
Assistant Superintendent
Department of Catholic Schools
Archdiocese of Los Angeles
213 637-7701

APPENDIX E

CRN School Permissions

VERBUM DEI
HIGH SCHOOL

The Jesuit Work Study College Prep in Los Angeles

March 10, 2014

To Whom It May Concern:

Verbum Dei High School hereby grants permission to Don Gamble to conduct research for his doctoral dissertation on the topic of non-cognitive skills & the Cristo Rey Work-Study Program. I understand that the study involves administering an online survey to all of our juniors and seniors.

If you need any additional information, please feel free to contact me at (323) 564-6651 ext. 6000.

Sincerely,

D. O'Connell, Ed.D.

Daniel J. O'Connell, Ed.D.

Tel 323.564.6651 Fax 323.564.9009 www.verbumdei.us | 11100 South Central Avenue, Los Angeles, CA 90059-1199

IMMACULATE CONCEPTION ACADEMY
A CRISTO REY SCHOOL IN THE DOMINICAN TRADITION

21 February 2014

To Whom It May Concern:

I am writing to confirm our approval of Mr. Don Gamble's research work at Immaculate Conception Academy. Our Corporate Work Study Team will meet with Mr. Gable next week to plan logistics. We understand that the purpose of this study is to survey the perceptions of students in Grades 11 and 12 in three Cristo Rey schools in California regarding their acquisition of non-cognitive skills during their employment within the Corporate Work-Study Program; we feel that his findings will provide us with valuable insight as we continue to refine our training and support of students in the workplace.

Sincerely,

Lisa Graham

3625 - 24TH STREET ❖ SAN FRANCISCO ❖ CA ❖ 94110-3607 ❖ (415) 824-2052 ❖ FAX (415) 821-4677 ❖ WWW.ICACADEMY.ORG

6200 McMahon Drive
Sacramento, CA 95824-3153
Phone: 916-733-2660 • Fax: 916-739-1310
www.CristoReySacramento.org

February 21, 2014

To: Don Gamble

Fr: Andreas Agos
Principal
Cristo Rey High School

Re: Participation in study

This letter confirms that Cristo Rey Sacramento will participate in your study on non-cognitive skills. I understand that our students will complete an online survey taking approximately 30 minutes and that this data will be used in your doctoral dissertation. We support your research and look forward to seeing the results and using them to improve our academic and work-study programs.

APPENDIX F

IRBPHS Approval

UNIVERSITY OF SAN FRANCISCO

Protocol Exemption Notification

To: Donald Gamble
From: Terence Patterson, IRB Chair
Subject: Protocol #261
Date: 04/14/2014

The Institutional Review Board for the Protection of Human Subjects (IRBPHS) at the University of San Francisco (USF) has reviewed your request for human subjects approval regarding your study.

Your project (IRB Protocol **#261**) with the title **Student Perceptions of Non-Cognitive Skills in the Cristo Rey Corporate Work Study Program** has been approved by the University of San Francisco IRBPHS as **Exempt** according to 45CFR46.101(b). Your application for exemption has been verified because your project involves minimal risk to subjects as reviewed by the IRB on 04/14/2014.

Please note that changes to your protocol may affect its exempt status. Please submit a modification application within ten working days, indicating any changes to your research. Please include the Protocol number assigned to your application in your correspondence.

On behalf of the IRBPHS committee, I wish you much success in your endeavors.

Sincerely,

Terence Patterson,
Chair, Institutional Review Board for the Protection of Human Subjects
IRBPHS - Univeristy of San Francisco
IRBPHS@usfca.edu