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A Program Evaluation of Check and Connect for Successful School Completion

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COLLEGE OF EDUCATION

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MAEd, Monmouth University, 2006

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Doctoral Study Submitted in Partial Fulfillment

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Abstract

School leaders at an urban public high school implemented the Check and Connect (C&C) program to improve student engagement outcomes for at-risk students in 2010-2011. No formal program evaluation of C&C had been conducted in the 2012-2013, 2013-2014, and 2014-2015 school years to show whether the program was effective. The purpose of this study was to investigate the relationship between successful school completion and participation in the C&C program. A quantitative, quasi-experimental program evaluation was conducted to determine whether C&C's student-related variables including cohort, gender, ethnicity, socioeconomic status, and truancy predicted students' successful school completion. Archival data of students eligible for graduation ($N = 668$) were analyzed using chi square tests and logistic regression. Results showed that the model, including C&C participation and all student-related variables, was significant in explaining the variance for successful school completion. Follow-up analyses revealed that C&C participation for the 2013 graduation cohort only, females, and low truancy students were significantly more likely to complete school, suggesting a need for further investigation of the program's implementation strategy. An evaluation report was developed with recommendations to evaluate C&C for implementation fidelity and to consider the use of observable indicators to recruit students for C&C participation who may require targeted or intensive interventions for successful school completion. This endeavor may contribute to positive social change by informing stakeholders of C&C's effectiveness, helping leaders make future decisions about how to approach program implementation and evaluation, and increasing successful school completion.

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Dedication

This effort is dedicated to my four pillars of strength. To my parents, my father Robert and mother Ruthie, you have allowed me to stand on your shoulders of support, which has allowed me to envision the mark of a higher calling. To my husband, Ralph, your wisdom has encouraged me to never let my schooling interfere with my education. To my sons Aaron and Calvin, your existence and presence throughout this journey has constantly served as motivation to persevere in spite of difficulty, obstacles, and unfavorable circumstances. And last but not least, to my daughters Lauren and Ahvani, your award-winning smiles have shown me that it is possible to count it all as joy. I love you all!

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Above all, I would like to honor and praise God for his omnipresence, the opportunity to fulfill his will for my life, and for simply being “the alpha and the omega” of my destiny. Next, I would like to thank my incredible committee members. First, I would like to thank Dr. Mary Hallums for not only being my first chair but also for demonstrating empathy and endless encouragement. Next, I would like to recognize Dr. Andrea Wilson for not only being my second committee member but also for providing her relevant, rigorous, and reliable responses in the form of feedback. I cannot forget to acknowledge Dr. Mary Howe for not only being my URR reviewer but also for offering her faith in my doctoral project study, foresight of the challenges that I would inevitably have to overcome, plus the firm advice needed to reach the next level. In addition, I would like to express my gratitude for my statistician and editor for their assistance with scholarly writing. Last but not least, I must salute my family, friends, and even foes for the inspiration they have given me to achieve my goals.

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Section 1: The Problem

Introduction

Summative outcome-based evaluations are used to determine the merit of programs that are implemented to ensure students receive a quality education (Weir, 2017). Former President Barack Obama (State of the Union Address, 2011) indicated that the first step towards superior learning was for individuals to receive a quality education and earn a diploma to demonstrate acquisition of the knowledge and skills required to graduate from high school. Some believed that the United States was making strides toward superior learning due to a report from the U.S. Department of Education (USDOE), which showed that nationally the average freshman graduation rates of public high school students reached the highest level in 2011-2012 since 2002-2003 (James, 2013; National Center for Education Statistics [NCES], 2015). According to those reports, during the 2011-2012 school year, 81% of high school students nationwide graduated on time, which is a substantial 7.1-point increase from the 73.9% recorded in 2002-2003. Yet, there were still more than 1 million students in the United States who did not graduate from high school on an annual basis (Alliance for Excellent Education, 2015). About 7,000 students dropped out of school each day, which means 1 student dropped out every 26 seconds (Miller, 2011). Researchers have identified an almost 30% dropout rate for all public high school students (Bridgeland, Dilulio, & Morison, 2006), with that number reaching almost 50% for African American, Hispanic/Latino, and Native American youth.

There were various reasons why students dropped out of high school. Doll, Eslami, and Walters (2013) suggested that the dropout explanations fall into three categories: employment-related, family-related, and school-related reasons. Dropouts themselves reported a variety of reasons for leaving school; however, those reasons do not reveal the underlying causes, especially multiple factors in elementary or middle school that may have affected students' attitudes, behaviors, and performances in high school prior to dropping out (Rumberger, 2011).

Despite the reasons why students became high school dropouts, school leaders were held accountable for raising high school graduation rates. Graduation rates were one of the goals to be addressed via the Every Student Succeeds Act (ESSA) of 2015, the new title for the reauthorization of the Elementary and Secondary Education Act (ESEA) of 1965. Regardless of federal directives in accountability and assessment, public school administrators had a professional obligation to address and solve the low graduation rate problem. At an urban public high school recognized by the pseudonym XYZ High School (XYZHS), the school improvement committee (SIC) acknowledged the obligation to reengage its student population and aid in their efforts toward school completion. One continuous specific, measurable, actionable, realistic, and time-bound goal for XYZHS was to increase the graduation rate by 5% each year, to be evidenced by cohort performance. One way XYZHS school leaders addressed the need to increase the graduation rate was by adopting and implementing a student engagement program known as Check and Connect (C&C) during the 2010-2011 school year for at-risk students who required targeted or intensive interventions. According to the What Works Clearinghouse

(WWC, 2015), C&C has had positive effects on improving student engagement outcomes such as school completion. For more than 20 years, C&C affected student engagement outcomes including increased attendance, persistence in school, accrual of credits, and school completion rates, as well as decreased truancy, tardies, behavioral referrals, and dropout rates (WWC). However, Gage, Sugai, Lunde, and DeLoreto (2013) emphasized, "No two schools or districts are the same, no single strategy is likely to accommodate the unique ecological, organizational, cultural, or historical features of an individual school" (pp.134-135). In other words, the mere fact that a school adopted and implemented a credible and reliable program did not guarantee success in every school setting. Moreover, this C&C program had not been evaluated for effectiveness. Therefore, there was a need for a program evaluation.

The Local Problem

Although C&C was implemented at XYZHS from 2010-2011 to the present, no researchers or XYZHS personnel evaluated the program to determine (a) its effect on the number of successful school completers, or (b) whether there are student independent variables that predict successful graduation. In the interim, C&C implementers regularly tracked students' attendance, behavior, academic progress and performance, as well as progress toward graduation via a student information system known as PowerSchool. In addition, the school completion outcomes were reported to a statewide data reporting system known as NJSMART (NJ Standards Measurement and Resource for Teaching). The quantitative archival data principals compiled and stored on NJSMART over the years had not been used to measure intended outcomes (Facilitator, personal

communication, June 8, 2014; Principal, personal communication, January 30, 2015). “It is through program evaluation that services can be credibly shown to be helpful, ineffective, or harmful" (Royse, Thyer, & Padgett, 2015, p.1). Therefore, a program evaluation was needed to (a) analyze if there are statistically significant differences in the number of students who attain school completion, as measured by the successful graduation of eligible students in the 2012-2013, 2013-2014, and 2014-2015 school years for C&C participants compared to program nonparticipants and (b) determine whether there are student independent variables that predict successful graduation.

Rationale

The problem in this study was a gap in educational practice as it relates the C&C program’s effect on successful school completion at XYZHS. Outcome evaluations are commonly conducted to assess the effectiveness of a program in producing change. According to Brown and Woods (2012), practical use of outcome-based program evaluation techniques provides stakeholders specific and precise data obtained through multiple sources and explaining the effects of the program and improvements needed. Schools’ educational practices and programs must be regularly evaluated in order for their fundamental worth to be known (Cellante & Donne, 2013; Spaulding, 2014). Spaulding (2014) also suggested that evaluations should be conducted to determine areas of reinforcement and refinement pertaining to program implementation.

An evaluation of the C&C program was essential to address a gap in practice at XYZHS and hold the school leaders accountable for measuring the program’s success and shortcomings. School accountability is the process of evaluating school performance

on the basis of student performance measures (Figlio & Loeb, 2011). Amo (2015) indicated that accountability policies are an integral part of the American educational system. One dimension of accountability was the exposure to intervention. Exposure to intervention was intended to improve educational outcomes because the presence of "accountability pressure" makes some principals more attentive to quality assurance and more active with respect to school improvement activities (Altrichter & Kemethofer, 2015). However, evaluations were rarely conducted to aid in school improvement (Dieltiens & Mandipaza, 2014). Therefore, there was a need to publicly report evidence regarding the effectiveness of the C&C program for successful school completion. The purpose for conducting the program evaluation at XYZHS was not only for compliance, but also for support.

Evidence of Problem at Local Level

More than 20 years of research have revealed that C&C has positive effects for staying in school (Abrams, 2015). Ongoing research documents have shown that C&C interventions yielded an increase in attendance and completion rates for students who required targeted or intensive interventions as a result of absenteeism, multiple referrals or suspensions, and low grades. However, since C&C was implemented at XYZHS in 2010-2011, school completion (graduation) rates averaged between 52.5% and 71.1%. In other words, local, district, and state school completion goals (78%) have not been reached for 5 years. Accordingly, the C&C program's effect on the number of successful school completers was not evident. Neither was it evident whether student-related independent variables (i.e., C&C participation, the individual student, gender, ethnicity,

SES, and truancy) help predict successful graduation at XYZHS. Therefore, a study that compared the number of school completers with regard to C&C participants and nonparticipants and determined whether various student-related independent variables (i.e., C&C participation, graduation cohort, gender, ethnicity, SES, and truancy) predict successful school completion is worthy of further investigation (see Table 1).

Table 1 shows the number of years C&C was implemented at XYZHS. It also shows the annual school completion rates since the program's implementation. According to the table, school completion goals as measured by graduation rates were not met since implementation in 2010-2011.

Table 1 reveals a 1-point decrease in the school completion rates from 2010-2011 to 2011-2012. Then there was a 10.9-point increase in school completion rates from 2011-12 to 2012-2013. The following year (2013-2014), school completion rates decreased by 7.5-points. However, in 2014-2015 school completion rates have increased by 15.2-points but have yet to meet local, district, and state successful school completion/ graduation goals.

The school completion rates in Table 1 are considered troubling because XYZHS was not achieving the local, district, and state expectations. In 2010-2011, 75% of the freshman cohort was expected to graduate in 4 years but only 53.5 % completed school on time. There was a 21.5-point difference in comparison to the local, district, and state successful school completion/ graduation goals. Then in 2011-12, 75% of the freshman cohort was expected to graduate in 4 years but only 52.5% completed school on time. There was a 22.5-point difference. In 2012-2013, 75% of the freshman cohort was

expected to graduate in 4 years but only 63.4% completed school on time. Although the gap in graduation rates began to close as evidenced by the 10.9-point difference in 2012-2013, in 2013-2014 the gap widened again by a 22.1-point difference in comparison to the local, district, and state successful school completion/ graduation goals. In 2013-2014, 78% of the freshman cohort was expected to graduate in 4 years but only 55.9.0 % completed school on time. In 2014-2015, 78% of the freshman cohort was expected to graduate in 4 years but only 71.1% completed school on time, which accounts for a 6.9-point difference.

Table 1

XYZHS: 2011-2015 Successful School Completion Rates and Goals

Academic School Years C&C was Implemented	XYZHS Successful School Completion/ Graduation Rates	Local, District, & State Successful School Completion/ Graduation Goals	Local, District, & State Successful School Completion/ Graduation Goals Met
2010-2011	53.5%	75.0%	NO
2011-2012	52.5%	75.0%	NO
2012-2013	63.4%	75.0%	NO
2013-2014	55.9%	78.0%	NO
2014-2015	71.1%	78.0%	NO

Note. Adapted from the "NCES," 2015

XYZHS is currently recognized as a low-performing "focus" school because school completion goals have repeatedly not been achieved. Focus schools must employ a state-approved coach to help the school develop, implement, and monitor intervention strategies for the purpose of improving the performance of disengaged students at risk of not meeting standards or at risk of dropping out of school (New Jersey Department of Education, 2014). According to Hazel, Vazirabadi, and Gallagher (2013) engagement may impact students' academic achievement, including school completion rates. So to

increase the likelihood of student engagement intervention efficacy there was an increased focus on the implementation and evaluation of programs that encompass alterable variables (Barry & Reschly, 2012). Accordingly, XYZHS school leaders referenced the WWC for a list of research-based program interventions recommended to improve student engagement (Principal, personal communication, August 21, 2011). C&C was adopted and implemented in 2010-2011 and is currently being used to improve student engagement outcomes at XYZHS.

One of the intended student engagement outcomes of C&C was to improve school completion rates for at-risk students who required targeted or intensive interventions. The assumption was that "C&C works because it is a research-based intervention" (Principal, personal communication, August 21, 2011). Although it was possible that C&C made a statistically significant difference for its participants, there was no empirical evidence of C&C's effect on the number of successful school completers and there was no evidence that student-related independent variables (i.e., C&C participation, the individual student, gender, ethnicity, SES, and truancy) predicted successful school completion.

Until the school completion rates reach 78%, XYZHS will remain a low-performing "focus" school. Therefore, there was a need to investigate C&C's effect on the number of successful school completers and whether student-related independent variables (i.e., C&C participation, the individual student, gender, ethnicity, SES, and truancy) were associated with successful graduation. The results of a quantitative, quasi-experimental program evaluation may be useful for school leaders to make informed decisions about how resources were best used to improve school completion.

Evidence of Problem from Professional Literature

On April 9, 1965 Congress enacted the ESEA of 1965. The bill was authorized as part of President Lyndon B. Johnson's "War on Poverty." Through a special source of funding (Title I), the law allocated large resources to meet the needs of educationally deprived children, especially through compensatory programs for the poor.

The No Child Left Behind (NCLB) Act of 2001 was an amendment to the ESEA of 1965. In exchange for rigorous and comprehensive state-developed plans designed to improve educational outcomes for all students, close achievement gaps, increase equity, and improve the quality of instruction, the NCLB Act of 2001 required that all states that accept financial assistance in the form of Title I funds (with the commitment to improve the educational achievement of disadvantaged learners) undergo a process of increased accountability. To ensure all students were making gains toward meeting state standards, Adequate Yearly Progress (AYP) was used as a formula of assessment made up of many components to measure various student engagement outcomes. At the secondary school level, school completion rates were used to determine whether a school met AYP.

Schools that did not meet their AYP requirements by the 2014 deadline were offered the opportunity to apply for the ESEA Flexibility Waiver granted by the USDOE on a yearly basis. As a result, there was no longer an expectation that states attain student proficiency in language arts literacy and mathematics by the 2013-2014 school year. The ESEA Flexibility Waiver reset the schools' goal to close half of their achievement gaps within six years (NCLB, 2002). The ESEA Flexibility Waiver also allowed districts and schools to reset the bar for what is considered acceptable growth regarding school

completion rates and on test scores for the current school year. In exchange for that flexibility, states were required to (a) adopt standards for college and career readiness, (b) focus improvement efforts on 15% of the most troubled schools, and (c) create guidelines for teacher evaluations based in part on student performance (McNeil & Klein, 2011). Accordingly, the state's ESEA Flexibility Waiver resulted in distinguished categories of schools. Schools were either identified as a "focus," "priority," or "reward" schools based on school completion rates, total school-wide and subgroup academic performance, as well as measures of student growth. "Reward" schools are considered high performing schools. "Priority" schools are categorized as the lowest-performing Title 1 schools in the state over the past three years. "Focus" schools are low-performing schools found to exhibit better overall performance but troubling achievement gaps (McNeil & Klein, 2011; New Jersey Department of Education, 2014). This system allows for a range of schools from across the state to attain reward status, regardless of their absolute starting point.

As of December, 2015, the ESEA Flexibility Waiver was reauthorized as the ESSA of 2015. As a result of the ESSA of 2015, there is no longer an expectation that states must attend to a large menu of goals mandated by the USDOE. Instead, States can pick their own goals for the long-term, short-term, and interim that address proficiency on tests, English-language proficiency, and graduation rates. States must still submit accountability plans to the USDOE. States have wide-ranging discretion in setting goals, figuring out what to hold schools and districts accountable for and deciding how to intervene in low-performing schools. In addition, states must also incorporate other

factors besides tests to support students' opportunities to learn (i.e., school-climate, teacher engagement, or access to and success in advanced coursework) as well as use locally developed evidence-based interventions. Another significant change from the ESEA Flexibility Waivers to the new ESSA plan is that the performance of each subgroup of students must be measured separately. The performance data for each subgroup will be reported to the state starting in the 2017-2018 school year (Klein, 2015).

Definition of Terms

The following terms are operationally defined in this section to provide clarity for the reader.

Adjusted cohort graduation rate: Percentage of students left at the school after the number of students who transfer to the school are added and the number of students who leave the school are subtracted from the total of students who complete high school in four years after starting ninth grade for the first time (NCES, 2015).

Alterable variables: The aspects of the school's climate and that can be changed or altered by the institution of learning to encourage and engage all students to learn (Bloom, 1980).

At-risk students: Any student who requires targeted or intensive interventions due to absenteeism, multiple referrals or suspensions, or low grades, because they are indicators of disengagement, which suggests that the students are likely to fail or drop out of school before high school graduation (Elffers, 2013).

Check and Connect (C&C): A structured mentoring program that targets disengaged students due to a history of chronic absences (Christenson, Stout, & Pohl, 2012).

Cohort: The name given to a group of students who start ninth grade for the first time (NCES, 2015).

Cohort year: The graduation year assigned a group of students who start ninth grade for the first time (NCES, 2015).

Dropout: Any student enrolled in a school some time during the school year, expected to be in membership the following school year, and not enrolled in grades 9-12 by October of the following school year (Freeman et al., 2015).

Graduation rate: Percentage of students who complete high school in four years after starting ninth grade for the first time as measured by the annual cohort (NCES, 2015).

Powerschool: PowerSchool is a web-based student information system that includes a that includes all classes, rosters, student demographic information, grading periods, standards, rubrics and grades scales, which are automatically loaded into the gradebook in real time for stakeholders to have instant visibility to assignments, scores, grades, comments and progress toward each standard (Pearson Education, 2015).

School climate: The quality of the experience(s) encountered by students at school as it relates to interpersonal relationships and social interactions (Quaglia & Quay, 2003).

School completion: Graduation from high school with sufficient academic and social skills to partake in postsecondary enrollment options and/or the world of work (Appleton, Christenson, Kim, & Reschly, 2006).

School culture: The organizational processes and practices regarded as the norm (Goldring, 2002).

Status variables: Factors that cannot be changed or controlled by the school (Freeman et al., 2015).

Student engagement: Observable participation in school activities, identified by school completion (graduation) rates (Christenson, Reschly, & Wylie, 2012).

Successful graduation: When a student (who completes high school in four years after starting ninth grade for the first time or during their assigned cohort year) is awarded a state-endorsed diploma (not a certificate of completion or general education diploma [GED]) after meeting the following requirements:

1. Meet the district attendance requirements.
2. Demonstrate proficiency in all sections of the State Assessment process applicable to the class graduating in the year they meet all other graduation requirements in accordance with NJAC 6AA: 8-4.1(b) through (d).
3. Complete successfully any course requirements stated in the administrative code as well as meeting the district's standards. The proficiencies required must include the Core Curriculum Content Standards approved by the State Board of Education.

4. Select and complete successfully enough academic and elective credits to meet the district minimum of 160 credits.
5. Perform a total of 60 hours of community service with a minimum of 30 hours completed by the end of tenth grade (XYZHS Parent/Student Handbook, 2015).

Truancy: Any intentional unauthorized or illegal absence to a scheduled class for reasons that are impermissible or unexcused via the school attendance policy (Shute & Cooper, 2015).

Significance of the Study

Student engagement has been found to be the key to preventing dropouts (Rumberger, 2011). When students were engaged they valued school completion (Christenson, Reschly et al., 2012). Therefore, one intended student engagement outcome of C&C was to improve school completion (graduation) rates. If school completion rates met the school's local, district, and state's goal, the following dangers would be avoided: chartering, reconstitution, contracting, or state takeover. In addition, the following values may also be gained: student enrollment, parental involvement, community involvement, and global leadership (NCLB, 2002). Therefore, there was a need to investigate whether there was a significant difference in the number of school completers as measured by the successful graduation of eligible students in the 2012-2013, 2013-2014, and 2014-2015 school years for C&C participants compared to program nonparticipants, as well as whether student-related independent variables (i.e., C&C participation, the individual student, gender, ethnicity, SES, and truancy) predicted successful school completion. The

results may inform school leaders of whether C&C is benefiting students at XYZHS regarding school completion. Accordingly, data derived from this study may contribute to positive social change by informing school leaders of C&C's effectiveness for school completion, helping leaders make future decisions about how to approach program evaluation, and increase successful school completion.

Research Questions and Hypotheses

Every school is unique (Osanloo, & Schwartz, 2015). Yet, schools across the United States rarely evaluate the effect of any program (Muhlhausen, 2012). Program evaluation is a vital step in assessing whether the programs initiated are of high quality, are cost effective, and most importantly, benefiting students (Jackson, 2014). The lack of a program evaluation demonstrates a gap in practice. Conducting a quantitative, quasi-experimental program evaluation may shed light on the gap in practice at XYZHS. The following research questions guided this study:

RQ1: Is there a significant difference in the number of students who attain school completion as measured by the successful graduation of eligible students in the 2012-2013 school year for C&C program participants compared to program nonparticipants?

$H_0$1: There is no statistically significant difference in the number of students who attain school completion as measured by the successful graduation of eligible students in the 2012-2013 school year for C&C program participants compared to program nonparticipants.

H_a1: There is a statistically significant difference in the number of students who attain school completion as measured by the successful graduation of eligible students in the 2012-2013 school year for C&C program participants compared to program nonparticipants.

RQ2: Is there a difference in the number of students who attain school completion as measured by the successful graduation of eligible students in the 2013-2014 school year for C&C program participants compared to program nonparticipants?

H_02: There is no statistically significant difference in the number of students who attain school completion as measured by the successful graduation of eligible students in the 2013-2014 school year for C&C program participants compared to program nonparticipants.

H_a2: There is a statistically significant difference in the number of students who attain school completion as measured by the successful graduation of eligible students in the 2013-2014 school year for C&C program participants compared to program nonparticipants.

RQ3: Is there a difference in the number of students who attain school completion as measured by the successful graduation of eligible students in the 2014-2015 school year for C&C program participants compared to program nonparticipants?

H_03: There is no statistically significant difference in the number of students who attain school completion as measured by the successful graduation of eligible students in the 2014-2015 school year for C&C program participants compared to program nonparticipants.

H_a3: There is a statistically significant difference in the number of students who attain school completion as measured by the successful graduation of eligible students in the 2014-2015 school year for C&C program participants compared to program nonparticipants.

RQ4: Do student-related independent variables (i.e., C&C participation, cohort year, gender, ethnicity, SES, and truancy) predict successful graduation?

$H_0$4: The student-related independent variables (i.e., C&C participation, cohort year, gender, ethnicity, SES, and truancy) do not predict successful graduation.

H_a4: The student-related independent variables (i.e., C&C participation, cohort year, gender, ethnicity, SES, and truancy) predict successful graduation.

A short-term goal for the program evaluation was to inform school leaders of the C&C's effect on the number of successful school completers at XYZHS from 2012-2013 to 2014-2015 and to determine whether student-related independent variables (i.e., C&C participation, cohort year, gender, ethnicity, SES, and truancy) predicted successful graduation. As an outcome of the program evaluation, the results were included in a project intended to contribute to positive social change by informing school leaders of C&C's effectiveness for school completion, helping leaders make future decisions about how to approach program evaluation, and increase successful school completion.

C&C is a research-based program intervention established to improve student engagement outcomes (i.e., increased attendance, persistence in school, accrual of credits,

and school completion rates, as well as decreased truancy, tardies, behavioral referrals, and dropout rates). Current research may show consistent results. If and when consistent results emerge from multiple studies with different settings, sample sizes, and populations then the combined evidence from these studies would provide stronger evidence of the program's merit (WWC, 2015).

Review of the Literature

The aim of this literature review was to present a synthesis of research on the problem, which is the lack of an evaluation of the C&C program at XYZHS. The investigation of C&C's effect on the number of successful school completers was a worthwhile scholarly discourse because C&C was implemented across the United States in over 27 states, and internationally since the 1990s and has been found to be 1 of 27 dropout prevention interventions reviewed by the U.S. Department of Education's WWC, and the only model found to have positive effects for keeping kids in school (Abrams, 2015; WWC, 2015). However, Gage et al. (2013) held "No two schools or districts are the same, no single strategy is likely to accommodate the unique ecological, organizational, cultural, or historical features of an individual school" (pp.134-135). In other words, the mere fact that a school has adopted and implemented a credible and reliable program does not guarantee success in every school setting. Since a one-size fits all blueprint that works for all students does not exist, there is a need for a program evaluation (Christenson & Thurlow, 2004).

This review of literature begins with an explanation of how the theoretical framework is associated with the student engagement intervention known as C&C. Then

a historical overview of student engagement will be provided. The bulk of this review will demonstrate a saturation of how status variables and school alterable variables effect the student engagement outcome of interest. This review of literature will then be used to justify a quantitative, quasi-experimental program evaluation.

Theoretical Framework

The phenomenon studied was student engagement outcomes as it related to school completion. One theory that guided this study was Finn's (1989) participation-identification model. The other theory that guided this study was Bronfenbrenner's (1979) ecological systems theory. Both theories were also used to develop the theoretical framework of the C&C program (Christenson, Stout et al., 2012). Therefore, Finn and Bronfenbrenner's theories were deemed suitable to guide this study.

Finn. I used Jeremy Finn's (1989) participation-identification model as part of the theoretical framework for this quantitative, quasi-experimental program evaluation. In his model, Finn hypothesized that successful students develop a sense of identification with school when they participate. Finn suggested that the success of students in school paralleled the students' level of participation and identification with the school. Finn argued that a reciprocal relationship exists between participation and identification. In other words, participation formed greater identification and greater identification formed greater participation. On one hand, students who strongly identified with their school had a greater likelihood for student engagement and success. On the other hand, weak identification with the school had been linked to dropout.

Accordingly, involvement in school activities demonstrates school connectedness and a sense of belonging (Appleton, Christenson, & Furlong, 2008; Davis & McPartland, 2012). Although schools provided activities for students to help develop school connectedness and a sense of belonging, it is important to note that there were some factors (i.e., status variables) that could not be controlled. Status variables (i.e., gender, ethnicity, or SES) may have affected a student's identification with the school. In other words, simply participating in an activity did not guarantee the development of school connectedness or a sense of belonging. However, Using Jeremy Finn's (1989) participation-identification model as part of the theoretical framework that guides this study was justified because it may have helped to substantiate which student-related independent variables were associated with successful graduation.

Bronfenbrenner. I used Urie Bronfenbrenner's (1979) ecological systems theory as part of the theoretical framework for this quantitative, quasi-experimental program evaluation. In his model, Bronfenbrenner saw behavior as being shaped by the interaction between an individual and his or her surroundings. According to Bronfenbrenner, there are many different levels of environmental factors that can affect a child's development or behavior, starting from people and institutions immediately surrounding the individual to nation-wide cultural forces. He later added that time, specific events, and changes in culture over time were also major effects on behavior. Bronfenbrenner identified five systems or different environments that influenced behavior. The five systems are as follows:

- The Micro-System

- The Meso-System
- The Exo-System
- The Macro-System
- The Chrono-System

In brief, Bronfenbrenner (1979) claimed that individual relationships, a combination of multiple relationships, a specific setting, a culture, or experience in time impacts one's development or behavior. Bronfenbrenner suggested that in the micro-system an individual's direct relationship with family, peers, neighborhood, or school life effects their development or behavior. He also proposed that indirect relationships can affect an individual's development or behavior. Bronfenbrenner indicated that in the meso-system the combination of relationships between the individual and his or her family, peers, neighborhood, and school life effects development or behavior. In the exo-system he specified that a specific setting alone may have a direct effect on one's development and behavior. Yet, in the macro-system Bronfenbrenner revealed that society or culture effects the individual's development or behavior. Lastly, it is in the chrono-system where Bronfenbrenner uncovered that the individual's experiences, environmental events, and transitions over time effect his or her development or behavior. According to Bronfenbrenner, any of the five systems may effect an individual's development or behavior. Therefore, it was essential to understand the five systems to reach each child or student who required targeted or intensive interventions as a result of absenteeism, multiple referrals or suspensions, and low grades.

Using Bronfenbrenner's (1979) ecological systems theory as part of the theoretical framework for this study was justified because each of the five systems related to the "check" and "connect" components of the C&C program. During the "check" component, students were assigned a mentor to regularly monitor their attendance, behavior, academic progress and performance as well as develop a one-on-one relationship preferably for a period of 2 years. This component aligned with the micro-system in Bronfenbrenner's theory because it is about the effect of direct relationships.

The "Connect" component aligned with two systems outlined in Bronfenbrenner's (1979) ecological systems theory. During the connect component, the mentor eventually collaborated with the student's teacher and serves as a liaison to the parent. This structure speaks to the meso-system of Bronfenbrenner's theory because it is about how combinations of relationships affect the student's behavior. In addition, the meetings that were held between the mentor and student took place at the school. Those meetings were designed to not only develop a one-on-one relationship but also generate notes to inform teachers of the students' needs in the classroom and to inform parents of the students' needs at home. Therefore, this practice was associated with the exo-system in Bronfenbrenner's theory because it is about the effect of a particular setting.

As a result of the implementation of the two "check" and "connect" components, school culture and climate were believed to change. The culture that was developed between C&C program implementers and the program participants connected to the macro-system of Bronfenbrenner's theory because it relates to cultural norms that are said to effect development or behavior. Furthermore, the experiences with the mentor,

parents, teachers and classmates over the preferable 2-year minimum participation agreement sustained the chrono-system. The chrono-system in Bronfenbrenner's theory relates to the effect of experiences over time.

Recent studies have examined the effect of the five ecological systems to understand the phenomenon of observable student engagement as it relates to school completion (Crawford, 2013; Davis & McPartland, 2012; Shapiro, 2012). The use of Bronfenbrenner's (1979) theory provided opportunities to connect existing knowledge about student engagement outcomes as it relates to the number of school completers and provided a basis for hypotheses. If the results show that C&C made a significant difference in the number of school completers in the 2012-2013, 2013-2014, 2014-2015 school years for C&C participants compared to program nonparticipants at the data analysis stage, articulating Finn and Bronfenbrenner's theoretical propositions may help raise awareness of why C&C is benefiting students at XYZHS with regard to their progress toward successful graduation.

Historical Overview of Student Engagement

Research on student engagement began to surface in the 1970s and 1980s (Noel, Stover & McNutt, 2015). During the 1970s the term "student engagement" emerged as an academic concept in reaction to problems with student achievement (McKinney, Mason, Perkerson, & Clifford, 1975). Students who did not achieve academically were considered disengaged and disadvantaged because there was a strong likelihood that they would not complete school. In the 1980s, the concept of student engagement began to shift. Student engagement was no longer viewed solely as a reactive tool to help

disengaged and disadvantaged students achieve and complete school. Instead it was deemed as a proactive strategy to assist teachers with classroom management in hopes of reducing disruptions and discipline issues (Dunleavy & Milton, 2008). Throughout the 1990s student engagement became a useful classroom management strategy to engage students in their work. From 2000 onward research on student engagement was challenged. In a study on optimal states of learning, Shernoff, Csikszentmihalyi, Schneider, and Shernoff (2003) found that many students were achieving academically and participating in some activities, but several were still disengaged. It was Bopry and Hedberg (2005) who questioned whether the engagement models being delivered in the schools really allowed students to gain "competence" and a sense of "control" over their own learning. Accordingly, the meaning of student engagement then shifted to an increase of attention to the school context, particularly the relationships between school climate and student's experience of engagement (Dunleavy & Milton, 2008). In 2009, the goal for student engagement shifted once again from students becoming high achievers to becoming skilled lifelong learners. All in all, student engagement is considered to be important for learning, performance, retention, persistence, experience, and achievement (Gunuc & Kuzu, 2015).

Constant shifts in the goals of student engagement made it difficult for researchers and educators to define and measure it (Willms et al., 2009). Fredricks et al. (2011) noted that measurement of student engagement is required if progress is to be tracked over time. Historically, various measures were used. Measures focused on behaviors and quantitative data –such as attendance, standardized test scores, truancy, and graduation

rates. Studies that have tracked student engagement outcomes (i.e., school completion rates) had strong results. However, studies that have tracked student engagement in schools over time lack strong results because student engagement is a very complex, multidimensional, and dynamic phenomenon. The effect of status variables on student engagement is a dynamic that makes the construct complex.

Status Variables that Affect Student Engagement Outcomes

Status variables are factors that cannot be changed or controlled by the school (Freeman et al., 2015). Relevant and recent research suggests that core status variables associated with student engagement outcomes are synonymous with the concept of student-related independent variables (i.e., the individual, their gender, ethnicity, SES, and truancy). These status variables or student-related independent variables connect to the ways that students are identified and how students identify themselves in schools. Whether students' identify with a school in a positive or negative way (due to their gender, ethnicity, SES, and truancy or the lack thereof), the effect of the status variable(s) or student-related independent variables connects to Jeremy Finn's (1989) participation-identification model.

Individuals. It was common practice to address student engagement concerns by exclusively blaming each student individually for their disengagement. Historically, no one else other than the individual was consulted when school leaders measured engagement issues (Okwakpam & Okwakpam, 2012). Neither parents, teachers, program facilitators, nor individuals in the community were informed or consulted when student engagement concerns arose because it was assumed that principles regarding right and

wrong were already established at home as a social norm. In other words, the individual was at fault. Roderick, Kelley-Kemple, Johnson, and Beechum (2014) further extended Okwakpam and Okwakpam's claim by indicating that an individual's transitional performance between the 8th and 9th grade year predicted whether that student would dropout and not complete school during their assigned cohort year.

Gender. Studies on student engagement have also found differences in gender to be an influential factor. Research revealed that the male student population in urban schools is the most susceptible to truant behaviors that lead to school incompletion (Lynch, Kistner, & Allan 2014; Marvul, 2012; Sälzer, Trautwein, Lüdtke, & Stamm, 2012). Lynch et al. further extended the argument by concluding that males continue to have higher dropout rates than females (e.g., 8.5% vs. 7.5%); and the dropout rates for African Americans and Hispanics (e.g., 9.9% and 18.3%, respectively) remain consistently higher than that of Caucasians (4.8%). Male and female students tend to thrive in different classroom environments, and their cognitive abilities tend to develop at different rates (Myers, 2015). Although Ingul, Klockner, Silverman, and Nordahl (2012) studied the association between gender and high absences associated with low school completion rates, they found that there was no significant difference. Instead, Ingul et al. argued that school absenteeism is a main predictor for school dropout. Ingul and Nordal (2013) further extended the argument. Research is extremely limited with regard to the effect of transgender students on school completion.

Ethnicity. In terms of academic achievement, Kurtz-Costes, Swinton, and Skinner (2014) claimed that Asians and Whites outperform Blacks and Latinos in the United

States. Asians and Whites graduate at rates between 78-80% while Blacks and Latinos graduate at rates 59-63% (Swanson, 2012). Although graduation rates have remained consistent between 2002-03 to 2012-2013, there has been a decrease in high school completion rates for Whites, Blacks, and Latinos (Fitzgerald et al., 2013). Donnelly (2015) pointed out that it has been since the second half of the 20th century that many minority students (i.e., Black and Latinos) have found themselves in under-performing or even failing schools, as defined by the NCLB Act of 2001. However, Swanson acknowledged that the graduation rates for Blacks and Latinos improved in 2008-2009, which was the most recent year for which graduation rate data were available at the time of his study. According to these studies, in a school that includes multiple ethnicities (i.e., Hispanic, Black, White, and Asian) it is expected that the Whites and Asians will outperform the Hispanics and Blacks in terms of school completion.

Socioeconomic status. SES is also associated with the rate at which students' complete school. School leaders determine students' SES by whether they qualify and receive free or reduced lunch. If a student qualifies and receives free or reduced lunch he or she is considered economically disadvantaged. Shah (2011) explained that students' SES is important to acknowledge because economically disadvantaged students have financial circumstances that hinder their ability to engage at school. However, Shah also noted that discrepancies often exist regarding SES. It is likely that some students have a different SES than reported by the school. Shah suggested that the percentage of students who qualify for free or reduced lunch may be higher than recorded because lunch applications frequently have errors that could change the status of lunch offering.

Whether reported or not reported, high levels of poverty have consistently been linked to significantly lower graduations rates (Swanson, 2012).

Both Donnelly (2015) and Homel et al. (2012) begged to differ that students' SES is not a very important factor to acknowledge. Donnelly maintained that a challenging curriculum, dedicated communities, principals, and teachers, as well as involved parents were stronger predictors of academic success that lead to school completion. According to the research conducted by Homel et al., family income (which is used to calculate eligibility for free or reduced lunch) had a small effect on high school completion.

Truancy. When Nolan, Cole, Wroughton, Clayton-Code, and Riffe (2013) measured the effect of SES on truancy (i.e., unexcused absences) in an attempt to identify demographics that are at great risk, the findings revealed that students who have low SES are at greater risk for truancy. In that study conducted by Nolan et al., 21 schools within a large Midwestern school district were used as the sample. Sälzer et al. (2012) agreed that truancy is increased among economically disadvantaged students and that it is linked to lower rates of successful graduation.

In sum, professional literature reveals that status variables or student-related independent variables (i.e., the individual student, gender, ethnicity, SES, and truancy) affect the student engagement outcome of interest, school completion. However, researchers have contended that there is no lone variable to blame, but, rather, it is the combination of factors that has relevance (Veiga et al., 2012). Therefore, a study that would take those factors into account during the data collection and analysis phases will be beneficial.

School Alterable Variables that Affect Student Engagement Outcomes

School alterable variables refers to the aspects of the school's climate and culture that can be changed or controlled by the institution of learning to encourage and enable all students to attend school regularly so that they may acquire knowledge at a high standard (Bloom, 1980). The effect of school alterable variables on student engagement is another dynamic that makes the construct of student engagement complex. Relevant and recent research suggests that school alterable variables associated with student engagement outcomes include individual interventions that influence the school climate as it relates to direct relationships (i.e., between the individual student and another adult; as well as between the student and a specific location) and team-based interventions that influence the school culture as it relates to indirect relationships (i.e., between the student and more than 1 other person; the student and society, as well as the student and experiences over time). These school alterable variables reflect the variety of contextual factors that affect effect human development and behavior. Therefore, school alterable variables connect to Bronfenbrenner's (1979) ecological systems theory.

School climate. Recent and relevant research shows that school climate effects student engagement (Iachini, Buettner, Anderson-Butcher, & Reno, 2013). School climate refers to the quality of the experience(s) encountered by students as it relates to interpersonal relationships with mentors, teachers, and parents and social interactions (Quaglia & Quay, 2003). The student relationships with mentors, teachers, and involved parents, as well as social interactions are associated with Bronfenbrenner's (1979) ecological systems theory on the micro-system level and exo-system level. Both

contextual factors are believed to effect human development and behavior. This subsection will discuss the how those individual interventions effect the student engagement outcome of interest, school completion.

Mentor-student relationships. Marvul (2012) pointed out that if young people perceive that adults at school care about them both personally and as students, then the probability that they would engage, connect, and bond to the school will increase. As a result of these relationships, their attendance is likely to improve and their unacceptable behaviors (i.e., truancy) may diminish. Marvul also noted that minority children who have close relationships with adults at school tend to achieve academically and socially.

Social interactions. Woolley (2009) disclosed that social interactions with adults are even more important and influential for ethnic students, including Latino youth. According to Woolley, the achievement gap is diminished when there is a supportive adult in students' lives who meets with the student to hold high educational expectations. In other words, Woolley suggests that there is no race or ethnicity disparity for White, Black, and Hispanic students at risk for failure to complete high school because of their environments or backgrounds due to the social-interactions.

Teacher-student relationships. The lack of teacher support is considered a barrier to school completion in the traditional school setting (Iachini, et al., 2013). Research reveals that the characteristics of teachers staffed in alternative high schools are key factors in reducing the dropout rate of at-risk students. Students with the same teachers for 2 years or more were highly predictive of successful graduation (Izumi, Shen, & Xia, 2015). Nonetheless, when a student returns to school or class after an unexcused absence,

the way the situation is handled by a teacher can strengthen or weaken the student-teacher relationship. The teacher's cold response may cause the student to feel alienated; and the teacher's warm response may cause the student to feel a sense of belonging (Gottfried, 2011).

Parent-student relationships. Castro et al. (2015) posited that parental involvement has a positive and moderate impact on academic achievement, which is linked to successful graduation. According to Hayes (2011) parental involvement not only includes direct involvement in schools, such as volunteering in classrooms and attending school parent-teacher conferences, but also indirect or hidden behaviors, such as discussing school, sharing family issues, and conveying educational expectations. Wilder (2014) agreed that the relationship between parental involvement and academic achievement was positive. The finding of Wilder's study also revealed that the relationship was the strongest if parental involvement was defined as parental expectations for academic achievement of their children. However, the impact of parental involvement on student academic achievement was weakest if parental involvement was defined as homework assistance. The relationship between parental involvement and academic achievement was found to be consistent across different grade levels and ethnic groups. According to Xu (2012) parental involvement dimensions were significantly associated with graduation for White students; and not for ethnic minorities. Epstein (1996) claimed that parental involvement does not always lead to student achievement or successful school graduation, regardless of ethnicity.

School culture. Recent and relevant research shows that school culture affects student engagement outcomes (Haines, Gross, Blue-Banning, Francis, & Turnbull, 2015). School culture refers to the practices regarded as a norm (Goldring, 2002). When schools implement team-based interventions, those interventions become common practices. The interventions discussed below are delivered with a team-based approach. The team-based approach is associated with Bronfenbrenner's (1979) ecological systems theory on the meso-system level because when various contextual factors interact they are believed to affect human development and behavior. Therefore, this subsection will discuss the how team-based interventions affect the student engagement outcome of interest, school completion.

Team-based interventions. As part of the increased focus on school accountability over the past 15 years, more attention has been paid to studying and reporting the effect of interventions designed to improve student outcomes (Fredricks et al., 2011). As a result of the research conducted by Balfanz and Byrnes (2012) it was found that collaborative support from teachers and parents was associated with positive student engagement outcomes. Yet, Wilson and Tanner-Smith (2013) contended that there is no single prevention or intervention strategy that is better than the other. Tanner-Smith and Wilson also agreed that numerous prevention programs that involve teachers and parents increased the chances for successful graduation. Skinner indicated that if team-based interventions are not conducted then truant students are more likely to drop out of school before graduating (Skinner, 2014).

Kearney and Graczyk (2014) described collaborative support as a team-based approach and added that literature over the past 25 years shows that the Response to Intervention program offers early identification and support of students with learning and behavior needs. Skola and Williamson (2012) recognized the Truancy Intervention Project as an example of a team-based approach funded by the Georgia Bar Association to provide families with the resources and services necessary to ensure regular attendance in school and increase successful graduation. The Truancy Intervention Project has represented over 6,000 students through early intervention counseling and in-court volunteer programs. In addition, Castro et al. (2015) identified the Student Success Skills program as an effective team-based approach after a quantitative meta-analysis of 37 studies was published on the most useful skills and strategies associated with student engagement outcomes for youth. Hahn et al. (2015) acknowledged a team approach to interventions during their study on the effect of programs designed to increase High School Completion (HSC). The results of their meta-analysis revealed that the team-based or balanced approach was effective in increasing HSC. This study of multiple program interventions from 1985-2011 showed strong evidence that a variety of HSC programs can improve successful high school graduation GED rates.

Check and Connect. C&C is also a team-based intervention established to increase school completion. A partnership of researchers, practitioners, parents, and students developed C&C in 1990 at the Institute on Community Integration. Since 1990, C&C has undertaken several trials to corroborate its effects on improving school completion rates (Abrams, 2015; Christenson, Sinclair, Thurlow, & Evelo, 1999; Sinclair,

Christenson, Evelo, & Hurley, 1998; Sinclair, Christenson, & Thurlow, 2005). According to Abrams (2015), "Most of the research on C&C occurs in schools that have extreme poverty and a significant low achieving school population" (p. 2). Abrams also indicated that C&C was used in Canada, New Zealand, and multiple states in the United States. It involves mentors who are trained to monitor students' attendance, tardiness, behavioral referrals, and grades, which are all indicators of a student's progress toward school completion. The mentors are also trained to work with teachers, students, and their families to solve problems and develop skills.

According to the XYZHS building principal, the SIC examines a Microsoft Excel spreadsheet before implementation of C&C can occur (personal communication, August 21, 2011). The SIC is made up of building administrators, guidance counselors, instructional coaches, child study team members, and the school social worker. The SIC uses the spreadsheet to compile of list of at-risk students who require targeted or interventions based on historical and current records of attendance, academic achievement, and progress toward school completion. In turn, those students are invited to participate in the program. The students who are invited to participate in the program are recognized as being in 1 of 2 zones (i.e., the red or yellow zone). Students are considered to be in the *red zone* if SIC determines that students show signs of school withdrawal or disengagement and need intensive, personalized interventions. Other students are considered to be in the *yellow zone* if SIC determines that students are simply not compliant to universal interventions or practices applied to all students. Approximately, 5% of the program's population is the red zone and 15% percent of the

program's population is yellow zone each year. In other words, 20% of a population of about 800 students equates to 160 at risk students who require targeted or student engagement interventions but roughly 20-30 accepts the invitation to participate each year. It is important to note that there are low participation rates each year because the program facilitators have decided to target ninth graders. Ninth graders are the target population because their retention rates are approximately 30% each year, which is considered to be high (Principal, personal communication, August 21, 2011).

Once students agree to participate, teachers are asked to volunteer as mentors. C&C mentors are required to attend one training session. During that training session the roles of the mentor is summarized and clarified. It is the first role of the mentor to build a strong relationship based on mutual trust and open communication over the course of at least two years with a caseload of no more than two students enrolled in the C&C. The intent of building a relationship between the mentor and the mentee is to keep education a prominent issue. It is assumed that the program is implemented with fidelity (Facilitator, personal communication, June 8, 2014).

The second role for the mentor is to "check" on their mentee's attendance, grades, behavior referrals, suspensions and credit accrual via data that are reported and readily accessible by school personnel on a web-based student information system known as PowerSchool. PowerSchool is not only used to track mentee(s) progress from class to class, but it is also used to track mentee(s) progress program-to-program and school-to-school. For example, a student may simultaneously participate in the Saturday Attendance Program (SAP), which permits students to recover up to eight absences by

attending four-hour sessions. In addition, a student may concurrently participate in Apex Learning, an afterschool course with a digital curriculum that permits students to recover academic credit for one or more classes while participating in C&C. Under these circumstances, the mentor must monitor or "check" the progress of each program. These checks are then used to guide the mentors' efforts to improve and maintain students' "connection" with school (Christenson, Stout et al., 2012).

The "connect" component of C&C serves as the third role of the mentor. To "connect," individualized meetings between the mentor and student(s) are held for approximately 10 minutes during non-academic classes (i.e., Physical Education, World Language, or Art) but ultimately during a time agreed upon. The mentor documents the information discussed during those meetings via a "log-entry" on PowerSchool. Then the mentor uses the log-entries as a means to contact, communicate, and cooperate with the mentee, mentee's teachers, and family members. The purpose of connecting with the students' teachers and family members is not only to make education a prominent issue among all stakeholders but to also enhance the home-school communication and home-school support for learning. To that end, the C&C functions as a means for stakeholders to promote student engagement by nurturing students so that they continue to make progress towards successful graduation (Christenson, Stout et al., 2012).

In conclusion, this review of literature presented a theoretical framework guided by two theories, an overview of student engagement, saturation of critically analyzed research on student-related status variables and school-related alterable variables, as well as a synopsis of how individual and team-based interventions affect the student

engagement outcomes of interest, school. To obtain relevant and recent research, a combination of the following search terms was used as a Booleans to access peer-reviewed journals, popular articles, books, reports, and dissertations: alterable variables, at-risk students, climate, collaboration, culture, dropout, graduation, mentors, outcomes, parents, programs, secondary schools, school completion, student engagement, students, teachers, and team-based. The relevant and recent research revealed that student-related status variables and school-related alterable variables effect school completion. However, empirical evidence on C&C's effect on school completion within the last 5 years was found to be extremely limited. In addition, recent research conducted using a quasi-experimental approach with archival data was extremely limited. Furthermore, data from one school was extremely limited.

It is important to conduct a program evaluation to fill the gap in practice with regard to the evaluation of C&C's effect on successful school completion at XYZHS. A quantitative, quasi-experimental program evaluation may inform school leaders of C&C's effect on the number of successful school completers from 2012-2013 to 2014-2015. In addition, the results of this study may inform school leaders whether student-related independent variables are associated with successful graduation. This study may contribute to positive social change by informing school leaders of C&C's effectiveness for school completion, helping leaders make future decisions about how to approach program evaluation, and increase successful school completion.

Implications

Student engagement initiatives often fall short of using one particular approach that works in all educational settings. So when school leaders choose an initiative to address their population of students, it becomes essential to evaluate the initiative or intervention to ensure that it works within that particular setting. As a practice, data are often collected once an initiative is implemented because it is deemed useful. However, the data are rarely used for evaluation purposes.

Since 2010-2011, C&C facilitators collected data but did not use data to measure successful school completion. It was assumed that the program worked because it is a research-based intervention (Principal, personal communication, August 21, 2011). However, that assumption does not help school leaders make informed decisions about how resources (e.g., time, money, energy, human and material capital) are used to improve school completion.

The results of the quantitative, quasi-experimental program evaluation were expected to inform school leaders of the C&C's effect on the number of successful school completers at XYZHS from 2012-2013 to 2014-2015. In addition, the results of the study may inform school leaders whether student-related independent variables are associated with successful graduation. Tentative directions for the project that will become the appendix of this quantitative quasi-experimental program evaluation include: an evaluation report of C&C's effect on successful school completion in 2012-2013, 2013-2014, and 2014-2015 and the student-related independent variables that predict successful school completion; a curriculum plan with units that emphasize how teachers

may monitor student records and use it to make data-based decisions; professional development/training curriculum and materials for C&C mentors that specifies how to build relationships between mentors and students, mentors and teachers, as well as mentors and parents; or a policy recommendation intended to change attendance and graduation requirements. However, the results of the study will be used to inform the development of the project.

Summary

The concern for student engagement outcomes in schools arose as a reaction to educators' and the general population's restlessness to decrease high rates of school dropout. Recent and relevant research reveals that the problem could stem from the level of participation in school and contextual factors that are school related. Increasing successful school graduation rates often included individual as well as team-based approaches to program interventions.

In 2010-2011, XYZHS school leaders implemented a research-based student engagement intervention known as C&C to encourage disengaged students to attend school, complete the curriculum, and become prepared for postsecondary education upon graduation. Although C&C was implemented at XYZHS in 2010-2011, no researchers or XYZHS school personnel ever evaluated the program to determine its effectiveness on the number of successful school completers or whether there were student independent variables that predict successful graduation. Therefore, there was a need for a quantitative quasi-experimental program evaluation. This study may contribute to positive social change by informing school leaders of C&C's effectiveness for school completion,

helping leaders make future decisions about how to approach program evaluation, and increase successful school completion.

All in all, Section 1 exposed that accountability measures are not being met due to the lack of any publicly reported program evaluation conducted of the C&C program at XYZHS, which was adopted with the intent to increase school completion. The purpose and rationale for the need of a quantitative program evaluation was explained. Terms were defined. Research questions were presented. The theoretical framework and a review of literature associated with the variables in question were included. Implications were specified and a summary was delivered. Section 2 contains a description of the study's methodology including: the research design and approach, setting and sample, instrumentation and materials, data collection, data analysis, assumptions, limitations, scope, and delimitations; as well as measures taken to protect participants' rights. Data analysis results will also embody Section 2.

Section 2: The Methodology

Introduction

School leaders implemented a research-based intervention, known as C&C from 2010-2011 to the present at XYZHS to improve student engagement for students requiring targeted or intensive interventions. No researchers or XYZHS school personnel have publicly reported any C&C evaluation measuring the program's success in achieving the intended outcomes. In addition, no researchers or XYZHS school personnel have publicly reported any C&C evaluation that compared the program participants' student engagement outcomes with the nonparticipants. The purpose of this study was to investigate the relationship between successful school completion and participation in C&C. A short-term goal for the study was to inform school leaders of C&C's effect on the number of successful school completers at XYZHS from 2012-2013 to 2014-2015 and determine whether student-related independent variables predict successful graduation. The results may contribute to positive social change by helping school leaders make informed decisions regarding how resources (e.g., time, money, energy, and human and material capital) are best used to improve school completion. Although C&C is a research-based intervention established to improve student engagement outcomes (i.e., increased attendance, persistence in school, accrual of credits, and school completion rates, as well as decreased truancy, tardies, behavioral referrals, and dropout rates), consistency across multiple studies with different settings, sample sizes, and populations would provide stronger evidence of the program's merit (WWC, 2015). This section includes the research design and approach, setting and sample, data collection and

analysis strategies, limitations of the study, and protections afforded to participants during the project study.

Research Design and Approach

The research design I chose was a quantitative, quasi-experimental program evaluation. I also chose an ex-post facto and summative approach to the evaluation. The following lists the questions and hypotheses that guided this study:

RQ1: Is there a significant difference in the number of students who attain school completion as measured by the successful graduation of eligible students in the 2012-2013 school year, for C&C program participants compared to program nonparticipants?

$H_0$1: There is no statistically significant difference in the number of students who attain school completion as measured by the successful graduation of eligible students in the 2012-2013 school year for C&C program participants compared to program nonparticipants.

H_a1: There is a statistically significant difference in the number of students who attain school completion as measured by the successful graduation of eligible students in the 2012-2013 school year for C&C program participants compared to program nonparticipants.

RQ2: Is there a difference in the number of students who attain school completion as measured by the successful graduation of eligible students in the 2013-2014 school year for C&C program participants compared to program nonparticipants?

$H_0$2: There is no statistically significant difference in the number of students who attain school completion as measured by the successful graduation of eligible students in the 2013-2014 school year for C&C program participants compared to program nonparticipants.

H_a2: There is a statistically significant difference in the number of students who attain school completion as measured by the successful graduation of eligible students in the 2013-2014 school year for C&C program participants compared to program nonparticipants.

RQ3: Is there a difference in the number of students who attain school completion as measured by the successful graduation of eligible students in the 2014-2015 school year for C&C program participants compared to program nonparticipants?

$H_0$3: There is no statistically significant difference in the number of students who attain school completion as measured by the successful graduation of eligible students in the 2014-2015 school year for C&C program participants compared to program nonparticipants.

H_a3: There is a statistically significant difference in the number of students who attain school completion as measured by the successful graduation of eligible students in the 2014-2015 school year for C&C program participants compared to program nonparticipants.

RQ4: Do student-related independent variables (i.e., C&C participation, cohort year, gender, ethnicity, SES, and truancy) predict successful graduation?

$H_0$4: The student-related independent variables (i.e., C&C participation, cohort year, gender, ethnicity, SES, and truancy) do not predict successful graduation.

H_a4: The student-related independent variables (i.e., C&C participation, cohort year, gender, ethnicity, and SES, and truancy) predict successful graduation.

I conducted a quantitative, quasi-experimental program evaluation with an ex-post facto and summative approach to investigate differences in graduation at XYZHS from 2012-2013 to 2014-2015 based on participation in the C&C program. My intent was also to determine whether student-related independent variables (i.e., C&C participation, the individual student, gender, ethnicity, SES, and truancy) predicted successful school completion. I gathered deidentified archival quantitative data to analyze if a relationship existed between successful graduation and participation in the program.

Quantitative methods were appropriate for the study because I intended to gather data using quantifiable variables and to use statistics to assess differences and relationships among the variables (Allwood, 2012). According to Lodico, Spaulding, and Voegtle (2010) "all quantitative research approaches summarize results numerically" (p. 12). To investigate if the C&C intervention was beneficial in helping disengaged students complete school, I assessed if C&C participation and student demographics predicted graduation. Because the aim of this study was to assess the effectiveness of the C&C program by measuring its outcomes via performance data, a quantitative methodology was the most suitable choice (Creswell, 2013). According to Merriam (2015), "A basic

qualitative study would be interested in (1) how people interpret their experiences, (2) how they construct their worlds, and (3) what meaning they attribute to their experiences" (p.23). Qualitative methodology was not chosen because the aim of the study was not to describe thoughts or perceptions pertaining to the intervention. Because quantitative archival data from 2012-2013 to 2014-2015 to measure the outcome of interest (i.e., school completion) the quantitative approach was most appropriate for the study.

A quasi-experimental research design was best suited for the study because placement of participants in C&C was determined by students' agreement to volunteer and not by random assignment. According to Rossi, Lipsey, and Freeman (2004), a quasi-experimental design is one in which "intervention and control groups are formed by a procedure other than random assignment" (p. 264). Because the groups for analysis (participants and nonparticipants of C&C) were already established, a quasi-experimental design was best suited to the study. I did not manipulate or randomly assign the groups; therefore, an experimental design was not appropriate for the study (Campbell & Stanley, 1963).

This study involved archival data from 2012-2013, 2013-2014, and 2014-2015 were used to determine the number of students eligible for school completion. I reviewed data after the completion of activities for each year. Therefore, an ex-post facto approach was suitable because this study occurred "after the fact" (Spaulding, 2014).

From 2010-2011 to the present, C&C has operated at XYZHS with only assumed evidence of success. No internal or external evaluators have analyzed empirical data to affirm any of the program's intended outcomes. For accountability, a quantitative, quasi-

experimental program evaluation was warranted. A program evaluation is designed for the researcher to determine the level of success or failure of a program and to make decisions regarding educational programs (Lodico et al., 2010). In program evaluations, findings are often used for ongoing or short-term decision making purposes, and programs can be modified based on the results of one evaluation. A program evaluation was warranted because the C&C program's success was never evaluated to make educational decisions once it was implemented in 2010-2011.

Program evaluations have two approaches, formative and summative. A researcher typically conducts formative evaluations with the hope that the evidence will help form or shape the program to perform better (Scriven, 1991). Formative program evaluations are generally used for programs in their early stages or during piloting of a program to determine potential improvements for implementation (Stufflebeam & Shinkfield, 2007). Summative approaches to program evaluations typically pertain to determining whether a program's goals or expectations were met (Rossi et al., 2004). One of the goals of implementing C&C at XYZHS was to increase school completion rates for C&C participants. C&C participants were students who needed targeted interventions to increase engagement and success. In assessing if the number of students who graduated from the school differed between those in the targeted intervention and those in the greater school population, I investigated if the C&C program had positively influenced graduation rates among participants. Because I intended to assess if this program goal was met, a summative approach was warranted. Lodico et al. (2010) noted researchers tend to use both formative and summative information in identifying areas in need of

improvement and in determining a program's success or failure. However, a summative program evaluation was most suitable for this quantitative, quasi-experimental program evaluation because the intent of this study was to determine whether expectations were met, not to make the program better.

The primary focus of the program evaluation was to help school leaders determine the merit in providing human capital and material resources to the C&C program at XYZHS. Therefore, the purpose of this quantitative, quasi-experimental program evaluation was to investigate the relationship between successful school completion and participation in the C&C program and determine whether student-related independent variables predicted successful school completion. This study may contribute to positive social change by informing school leaders of the effectiveness of C&C for school completion, helping leaders make future decisions about how to approach program evaluation, and increase successful school completion.

Setting and Sample

The setting of this project study was a northeastern inner-city public high school (XYZHS) where school leaders serve an average of 800 students each year.
From 2010-2011 to 2014-2015, the student population at XYZHS was predominately female (n = 482). The school population was comprised of Hispanic (59.3%), Black (31.0%), White (8.7%), and Asian (1.0%) students. A large number of the students were economically disadvantaged, with 60% eligible for free lunch (NCES, 2015).

To be included in the sample students had to be enrolled at MPXHS for all four years of high school and had to have reached graduation eligibility for the 2013-2015

cohorts. Students had to have met district attendance requirements, demonstrated proficiency in the appropriate sections of the state graduation assessment, and met course requirements as indicated by the district for graduation. Additionally, to be included in the sample students had to have met the district minimum of 160 credits and completion of a total of 60 hours of community service. Students enrolled in the C&C program were assigned a mentor to regularly check their attendance, behavior, plus academic progress and performance. The mentor would also connect with the student(s), teacher(s), and parent(s) to intervene if problems were identified. Furthermore, the mentor would advocate for the student, coordinate services, provide ongoing feedback and encouragement, as well as emphasize the importance of staying in school.

I chose convenience sampling to gather archival data on participants for this quantitative, quasi-experimental program evaluation. The justification for this type of sample was that archival data were readily available and representative of the entire school population. I gathered deidentified archival records from 2012-2013 to 2014-2015 from the school district upon approval of the study. The XYZHS district board of education, XYZHS building principal, and Walden University's Institutional Review Board (IRB) granted approval to conduct the study.

I conducted a G*Power analysis to determine the sample size for statistical validity. For research questions 1 through 3, I chose a chi square test. For a chi square test with an alpha of .05 and a power of .80, the minimum sample size necessary was 122 participants (Faul, Erdfelder, Buchner, & Lang, 2014). For the binary logistic regression, with an alpha of .05 and a power of .80, the minimum sample size was 372 participants

(Faul et al., 2014). I attempted to secure a sample to suffice the size requirement of the more stringent analysis (i.e., 372 participants). If the intended sample size was not attained, I planned to conduct a post hoc power analysis to indicate the achieved sample size.

Instrumentation and Materials

XYZHS school leaders tracked student progress toward graduation and successful graduation eligibility status using New Jersey's Standards Measurement and Resource for Teaching (NJ SMART). The XYZHS building principal supplied deidentified archival data pertaining to graduation status from the NJSMART database. NJSMART is a comprehensive statewide longitudinal data system that serves multiple purposes including (a) staff/student identification, (b) data warehousing, (c) data reporting, and (d) analytics. The reliability and validity of NJSMART is deemed to be a reliable and valid data source because it is a statewide secure data transfer and reporting site.

The XYZHS building principal supplied deidentified archival data pertaining to student demographic information from the PowerSchool database. The C&C facilitators used PowerSchool to determine whether a student was eligible to participate in the program (Facilitator, personal communication, June 8, 2014). PowerSchool is reliable and valid data source because it is a secure web-based student management system designed to strengthen communication between the school and home by providing parents and legal guardians access to their child's attendance records and academic progress online (Pearson Education, 2015). Based on information gathered from the PowerSchool database, students were identified for participation in C&C based on

absenteeism, multiple referrals or suspensions, and low grades. Typically, C&C facilitators identified 15-20 students for program inclusion each year. Once the students were selected, C&C facilitators asked both students and their parents or guardians for permission to partake in this program via a letter formally typed on school letterhead. The rate of consent has always been 100% (Facilitator, personal communication, February 17, 2015).

Shultz, Hoffen, and Reiter-Palmon (2005) noted, the use of archival data sets provides significant methodological benefits, such as reducing threats to internal validity. The authors added that reduction of the chance of researcher bias, generalization, and convergence are all benefits that can provide support for construct validity. The raw deidentified data sets was available by request.

Data Collection and Analysis

I sent a site authorization letter to the XYZHS district superintendent to secure permission to conduct the program evaluation. The XYZHS board of education officially authorized the building principal to gather and supply the requested deidentified archival data, in accordance with the criteria indicated in the letter. I then sent a letter of cooperation to the XYZHS building principal to secure permission to conduct the program evaluation. After I received approval from both the XYZHS district superintendent and building principal, I requested and received permission to conduct the study from Walden University's IRB (approval # 07-01-16-0161818) before any data were gathered.

To address the research questions, I secured the necessary deidentified archival data stored on the NJSMART and PowerSchool databases from the building principal who also served as the XYZHS C&C facilitator. The archival data sets comprised of information related to successful graduation, C&C participation, cohort year, gender, ethnicity, SES, and truancy for the 2013-2015 cohorts.

Successful graduation, C&C participation, SES, and gender were reported as dichotomous variables. Successful graduation and program participation were reported as yes or no responses, while gender was reported as male or females. SES was operationalized as students' free or reduced lunch program eligibility and was reported in a yes or no format. Ethnicity was a categorical variable, with response options that reflected and reported based on the school's ethnic composition. Truancy was a categorical variable, with response options that reflected and was reported as the cumulative days not present.

For the quantitative analysis, I used the Statistical Package for the Social Science (SPSS) version 23.0 to analyze the data. For all analyses an alpha level of .05 was used to determine statistical significance. Lodico et al. (2010) suggested the *p* value should be set at .05 in an effort not to miss a true difference that might exist. I used SPSS to conduct descriptive and inferential statistics. Descriptive statistics help describe the sample demographics and included frequencies and percentages for categorical variables, and means and standard deviations for continuous variables (Howell, 2017). Inferential statistics help to facilitate drawing conclusions based on the sample data (Creswell,

2013). Using inferential statistics, I addressed all 4 research questions and made decisions regarding the null hypotheses.

To assess research questions 1 through 3, I conducted chi square tests of independence. This analysis is appropriate when the researcher intends to assess relationships between categorical variables (Pallant, 2010). The chi square test helped determine if the actual graduation frequency for C&C program participants was higher than would be expected by chance. I conducted a chi square test of independence to assess the relationship between C&C participation and successful graduation for each cohort year. Prior to conducting the chi square tests, I confirmed that expected frequencies below 5 did not comprise more than 20% of the cells and no cell had an expected frequency of less than 1 (Pagano, 2013). If either of these assumptions were violated I planned to conduct a Yates continuity correction to determine significance (Stevens, 2009).

To assess research question 4, I conducted a binary logistic regression. I used the logistic regression analysis to assess the predictive relationship of the independent variables on the binary outcome variable (i.e., successful graduation). The dependent variable of successful high school completion is measured as a yes or no response. I sought to determine if the model consisting of the categorical independent variables predicted school graduation contingently and autonomously. By using logistic regression, I sought to estimate the probability of an event occurring, as suggested by Stevens (2009). Using this analysis allowed the possible effects of 1 or more demographic variables to be accounted for and controlled when determining the effect of C&C. I used

the Nagelkerke R^2 to assess the variability accounted for on the dependent variable by the independent predictor variables. I examined overall model significance by the collective effect of the independent variables, represented by the χ^2 coefficient and individual predictors were assessed using the Walden coefficient.

Exp (B) predicted probabilities of an event occurring. For significant predictors, an Exp (B) higher than 1 indicated for every 1-unit increase in the independent variable the dependent variable will be X times more likely to be coded 1. I evaluated an Exp (B) value less than 1 using 1/Exp (B). This indicated that a 1-unit increase in the independent variable caused the dependent variable to be X times more likely to be coded 0.

Assumptions, Limitations, Scope, and Delimitations

Assumptions

I assumed all data were entered into NJSMART and PowerSchool accurately on the basis that they are the official reporting systems for the XYZHS district recognized by the state. I assumed students' successful graduation status comprised the most relevant and accurate measure of graduation achievement to assess the effectiveness of C&C. I assumed C&C was implemented with fidelity to the prescribed methods and activities of the program. Therefore, I assumed the program was positioned to achieve the intended goal of increasing student graduation.

Limitations

The findings from the study may have important implications for educators and school officials. I assumed the data were accurate and all students were accounted for, because all school administrators in the state are required to provide statistics for

NJSMART; and both school administrators and educators in the XYZHS district use PowerSchool to access demographic information. However, some limitations existed. One limitation to the study related to the challenge of measuring and interpreting what characteristics influenced successful school completion. I used caution in the interpretation of findings from program evaluation because one or more confounding variables might have contributed to the outcome and no ability to control the variables exists when using archival data. As with any educational research, sampling errors and interaction effects might have threatened the validity of results. I did not separate the sample by education status (i.e., regular education or special education), although some special education students were expected to take more than 4 years to graduate, depending on their disability. I noted that I did not manipulate the data sets to address this potential issue during the analysis phase.

Scope

The scope of this study included students eligible for successful school completion during the 2012-2013, 2013-2014, and 2014-2015 school years in one K-12 public school cluster having an average population of 800 students. I have centered this study on successful graduation, C&C participation, and several student demographic characteristics. The student demographic variables included in the analysis were gender, ethnicity, and SES.

Delimitations

This study was bounded by the focus on one high school, XYZHS, located in the northeast United States. The study was bounded by the cohort years selected for inclusion

2013-2015. The study was delimited by the archival data sets selected for use, which limited the variables included in the analysis. Only one school was used because in the XYZHS district, XYZHS was the only high school that had implemented C&C since 2010-2011. As a result, I was able to analyze and report school completion rates for at least 3 cohort years in this quantitative, quasi-experimental program evaluation. Although it typically takes a cohort 4 years to graduate, during the year the C&C was implemented, the program was offered to retained freshman. Therefore, the graduation years and cohort years of interest were 2012-2013, 2013-2014, and 2014-2015. I used deidentified archival data because they provided an efficient, easy to access data source to determine program outcomes.

Protection of Participants Rights

This study did not involve direct contact with human participants. I only used deidentified archival data available from the XYZHS building principal. Before I gathered data, I requested permission to use deidentified archival data from the XYZHS district superintendent and building principal.

Because students were members of a protected population, I took measures to ensure that their privacy was not infringed upon. I requested and received permission from the XYZHS district superintendent and building principal to gather data. Walden University's IRB also approved the request to obtain data (approval #07-01-16-0161818). Because the intervention and instructional activities were part of the standard curriculum of the school and the research used existing data, Walden University's IRB did not require parental consent. To maintain the confidentiality of the students, the XYZHS

building principal did not include any personally identifying information in the data sets supplied. All information necessary for the analyses was within the deidentified archival data sets.

No potential benefits to participation existed for students with information contained in the data sets. Participants could have been potentially harmed if information was disclosed from the data sets. In addition to the data set being deidentified, further risks were minimized by securely storing the data on my personal, password protected computer. Any hardcopy data were stored in a locked cabinet in my home office. The keys to the cabinet are in a separate locked drawer. I will keep the data stored for a period of 5 years. At the end of the 5-year period, I will shred and destroy any hard copy data. I will scrub any data stored on my personal computer from the computer drive.

Data Analysis Results

Data analysis involved assessing the effectiveness of C&C in achieving the intended outcomes of the program. The results of this quantitative, quasi-experimental program evaluation were intended to reveal if C&C was effective in improving the number of school completers in the 2012-2013, 2013-2014, and 2014-2015 school years. I compared graduation rates between C&C student participants and nonparticipants. The results were also intended to reveal if student-related independent variables predicted successful school completion. Descriptive statistics have been included to provide an overview of the composition of the sample. Inferential statistics for the project included chi square tests of independence for research questions 1 through 3, and a binary logistic regression for research question 4. I conducted the chi square tests of independence to

assess the relationship between C&C participation and graduation for each graduation cohort. I conducted the binary logistic regression to assess if C&C participation, cohort year, gender, ethnicity, SES, and truancy as measured by cumulative days absent predicted successful graduation.

Descriptive Statistics

Slightly more than half of the participants in the sample were female (*n* = 375, 56%) and Hispanic (*n* = 373, 56%). Most of the sample consisted of Hispanic and Black students (*n* = 247, 37%). A few White (*n* = 42, 6%) and Asian (*n* = 6, 1%) students were in the sample. A large proportion of the sample consisted of students who received free lunch (*n* = 497, 74%). Few students in the sample received reduced lunch (*n* = 52, 8%). The 2013 graduation cohort comprised 40% of the study sample (*n* = 265). The remainder of the sample was approximately evenly split between the 2014 (*n* = 202, 30%) and 2015 (*n* = 201, 30%) graduation cohorts. I did not separate the sample by education status (i.e., regular education or special education), although some special education students were expected to take more than 4 years to graduate, depending on their disability. Observable graduation statuses included graduated, off-track continuing, transfer out_unverified, dropout, and active student-status unknown. Most students in the sample had graduated (*n* = 424, 63%). Six students were on track and continuing to pursue graduation (1%). Two students in the sample were active but their graduation status was unknown (0%). Frequencies and percentages are presented in Table 2.

Table 1

Frequency Table for C&C Participation, Gender, Ethnicity, SES, Graduation Cohort, and Graduation Status

Variable	*n*	*%*
C&C Participation		
No	615	92
Yes	53	8
Gender		
Female	375	56
Male	293	44
Ethnicity		
Asian	6	1
Black	247	37
Hispanic	373	56
White	42	6
SES (Lunch Status)		
Free	497	74
Normal	119	18
Reduced	52	8
Graduation Cohort		
2013	265	40
2014	202	30
2015	201	30
Graduation Status		
Active Student - Status Unknown	2	0
Dropout	71	11
Graduated	424	63
Off-Track Continuing	70	10
On-Track Continuing	6	1
Transfer Out - Unverified	95	14

I originally proposed to use number of days that the student was considered ‘truant’ as an independent variable within the analysis. However, the data set contained 3 data points for truancy (i.e., cumulative days toward truancy; attendance: number of days in membership; and cumulative days not present). I included truancy as measured by cumulative days not present in the analysis because the cells of that data point were fully populated. The observations for truancy as measured by cumulative days not present,

ranged from 0.00 to 95.00 with an average of 2.78 (*SD* = 9.86). Table 3 presents the mean, standard deviation, minimum and maximum for the continuous variable included in the study.

Table 3

Means and Standard Deviations for Cumulative Days Not Present

Variable	*M*	*SD*	*n*	Min.	Max.
Cumulative Days Not Present	2.78	9.86	668	0.00	95.00

Results of Analysis

To assess research questions 1 through 3, I conducted 3 chi square tests of independence. Each analysis assessed the presence of associations between C&C program participation and graduation status, for the 2012-2013, 2013-2014, and 2014-2015 cohorts. I conducted this analysis to determine if a significant difference existed in successful graduation and C&C program participation.

Inferential Analyses for Research Question One

For research question one, "Is there a significant difference in the number of students who attain school completion, as measured by the successful graduation of eligible students in the 2012-2013 school year for C&C program participants compared to program nonparticipants," I conducted a chi square test of independence to examine whether C&C program participation and successful graduation were independent for the 2012-2013 cohort. The C&C program participation was operationalized as no (0) and yes (1). Successful graduation was operationalized as no (0) and yes (1). Prior to conducting the analysis, I assessed the assumption of adequate cell size, which requires all cells to

have expected values higher than 0 and 80% of cells to have expected values of at least 5 (McHugh, 2013). The assumptions of the analysis were met.

The results of the chi square test for research question 1 were significant, $\chi^2(1) = 5.45$, $p = .02$, suggesting that C&C program participation and successful graduation were not independent of one another. This implies an association existed between C&C program participation and successful graduation because $p < .05$. The percentage of successful graduates who participated in the C&C program was higher than the percentage of students who graduated and did not participate in the C&C program for the 2012-2013 cohort. In other words, a relationship was found between C&C program participation and successful graduation for the 2012-2013 cohort. Based on this finding, I rejected the null hypothesis for research question 1. According to the literature, team-based interventions or collaborative support from teachers and parents, has been associated with positive student engagement outcomes and school completion (Balfanz & Byrnes, 2012; Skinner, 2014; Wilson & Tanner-Smith, 2013). The C&C program is a team-based intervention considered to be a school-alterable variable that affects student engagement outcomes (i.e., school completion) because it is an aspect of the school's climate and culture that can be changed or controlled by the institution of learning to encourage and enable all students to attend school regularly so that students may acquire a high standard (Bloom, 1980). Furthermore, the finding that C&C participation is related to successful school completion supports Finn's (1989) participation-identification model and theoretical framework, which upholds that students who participate in school-related

activities form a sense of identification. A sense of identification maximizes students' likelihood of engagement and success. Table 4 presents the results of the chi square test.

Table 4

Results of the Chi Square Test of Independence for C&C Participation and Successful Graduation, 2012-2013 Cohort

C&C Participation	Successful Graduation	
	No	Yes
No	94 [38.68]	149 [61.32]
Yes	3 [13.64]	19 [86.96]

Note. $\chi^2(1) = 5.45$, $p = .02$. Items in brackets represent row percentages.

Inferential Analyses for Research Question Two

For research question two, "Is there a difference in the number of students who attain school completion, as measured by the successful graduation of eligible students in the 2013-2014 school year for C&C program participants compared to program nonparticipants," I conducted a chi square test of independence to examine whether C&C program participation and successful graduation were independent for the 2013-2014 cohort. Prior to conducting the analysis, I assessed the assumption of adequate cell size, which requires all cells to have expected values higher than 0 and 80% of cells to have expected values of at least 5 (McHugh, 2013). The assumptions of the analysis were met.

The results of the chi square test for research question 2 were not significant, $\chi^2(1) = 1.99$, $p = .16$, suggesting that C&C program participation and successful graduation were independent of one another. This implies no association exists between C&C program participation and successful graduation for 2013-2014 because $p > .05$. Based on this finding I failed to reject the null hypothesis for research question 2. This finding

counters Finn's (1989) participation-identification model, which upholds that students who participate in school-related activities form a sense of identification, which maximizes their likelihood of engagement and success. Table 5 presents the results of the chi square test.

Table 5

Results of the Chi Square Test of Independence for C&C Participation and Successful Graduation, 2013-2014 Cohort

C&C Participation	Successful Graduation	
	No	Yes
No	85 [45.45]	102 [54.55]
Yes	4 [26.67]	11 [73.33]

Note. $\chi^2(1) = 1.99$, $p = .16$. Items in brackets represent row percentages.

Inferential Analyses for Research Question Three

For research question three, **"**Is there a difference in the number of students who attain school completion, as measured by the successful graduation of eligible students in the 2014-2015 school year for C&C program participants compared to program nonparticipants," I conducted a chi square test of independence to examine whether C&C program participation and successful graduation were independent for the 2014-2015 cohort. Prior to conducting the analysis, I assessed the assumption of adequate cell size, which requires all cells to have expected values higher than 0 and 80% of cells to have expected values of at least 5 (McHugh, 2013). All cells had expected values higher than 0; however, only 75% of cells had expected counts of at least 5. Because this assumption was not met, the Yates continuity correction was reported.

The results of the chi square test for research question 3 were not significant, $\chi^2(1) = 0.00$, $p = .95$, suggesting that C&C program participation and successful graduation were independent of one another. This implies no association exists between C&C program participation and successful graduation for 2014-2015 because $p < .05$. Based on this finding I failed to reject the null hypothesis for research question 3. This finding counters Finn's (1989) participation-identification model, which upholds that students who participate in school-related activities form a sense of identification, which maximizes their likelihood of engagement and success. Table 6 presents the results of the chi square test.

Table 6

Results of the Chi Square Test of Independence for C&C Participation and Successful Graduation, 2014-2015 Cohort

C&C Participation	Successful Graduation	
	No	Yes
No	54 [29.19]	131 [70.81]
Yes	4 [25.00]	12 [75.00]

Note. $\chi^2(1) = 0.00$, $p = .95$. Items in brackets represent row percentages.

Inferential Analyses for Research Question Four

For research question four, "Do student-related independent variables (i.e., C&C participation, cohort year, gender, ethnicity, SES, and truancy) predict successful graduation," I conducted a binary logistic regression to examine whether C&C program participation, graduation cohort, gender, ethnicity, SES, and truancy as measured by cumulative days not present had a significant effect on the odds of students successfully graduating. The reference category for graduated was did not graduate and was coded '0'

in the analysis. I calculated Variance Inflation Factors (VIFs) to detect the presence of multicollinearity between predictors. High VIFs indicate increased effects of multicollinearity in the model. Variance Inflation Factors higher than 5 are cause for concern, whereas a VIF value of 10 should be considered the maximum upper limit for the measure (Menard, 2009). All predictors in the regression model had variance inflation factors (VIF) less than 10. Table 7 presents the VIF for each predictor in the model.

Table 7

Variance Inflation Factors for Predictor Variables

Variable	*VIF*
Check & Connect Participation	1.01
Graduation Cohort	1.01
Gender	1.01
Ethnicity	1.04
SES	1.03
Cumulative Days Not Present	1.02

The overall model of student-related independent variables for research question 4 was significant, $\chi^2(10) = 168.18$, $p < .001$, suggesting that C&C participation, graduation cohort, gender, ethnicity, SES, and truancy as measured by cumulative days not present had a significant effect on the odds of students graduating contingently. The Nagelkerke R-squared value calculated for this model was 0.30. The Nagelkerke R^2 indicated that the variables in the model accounted for 30% of the variance in graduation outcome. The overall regression model correctly predicted 73.2% of graduation outcomes. Based on this finding, I rejected the null hypothesis for research question 4. Because the overall

model was statistically significant, the individual predictors were assessed for statistical significance and contribution to the likelihood of graduating.

The regression coefficient for C&C program participation was significant, B = -1.28, Exp(B) = 0.28, p = .01. This finding indicates individuals who did not participate in the C&C program were less likely to have graduated because $p < .05$. This outcome aligns with other researchers who stated C&C program participation may serve as a predictor of students' likeliness to stay in school and graduate within 4 years (Abrams, 2015; Christenson, Sinclair et al., 1999; Sinclair et al., 1998; Sinclair et al., 2005).

I selected the 2015 graduation cohort as the reference group for the analysis; the probability of being coded as graduated for the 2013 and 2014 cohorts was calculated in comparison to the 2015 cohort. I assessed a statistically significant relationship with graduation for the 2013 and 2014 cohorts in comparison to the 2015 cohort. No statistical significance was found for the 2013 cohort. Statistical significance existed for the 2014 cohort, B = -0.69, Exp(B) = 0.50, p = .00. This finding indicated students in the 2014 cohort were less likely to graduate than the 2015 cohort because $p < .05$. This outcome relates to other researchers in the literature who indicated that because it was assumed that the principles regarding right and wrong were already established at home as a social norm. An individual's transitional performance between the 8th and 9th grade year may have also contributed to whether that student would dropout and not complete school during their assigned cohort year (Okwakpam & Okwakpam, 2012; Roderick et al., 2014).

The regression coefficient for females was significant, $B = 0.44$, Exp(B) = 1.55, $p = .02$. This finding indicates female students were 1.55 times more likely to graduate than their male counterparts because $p < .05$. This outcome supports previous researchers in the literature, who maintained males continue to have higher dropout rates than females (Lynch et al., 2014).

The regression coefficient for truancy as measured by cumulative days not present was significant, $B = -0.32$, Exp(B) = 0.73, $p < .01$. This finding indicated that as students' number of days not present increased students were less likely to graduate because $p < .05$. This outcome mirrors previous literature, with findings that the number of truancy as measured by truancy as measured by cumulative days not present or unexcused absences (i.e., truancy) has been linked to lower rates of successful school graduation (Ingul et al., 2012; Ingul & Nordal, 2013; Sälzer et al., 2012). The results of the regression analysis for C&C participation, graduation cohort, gender, ethnicity, SES, and truancy as measured by cumulative days not present are included in Table 8.

Table 8

Logistic Regression Results with C&C Participation, Gender, Ethnicity, SES, Graduation Cohort, and Cumulative Days Not Present Predicting Graduated

	B	S.E.	Wald	*p*	Exp (*B*)	95% C.I.	
						Lower	Upper
C&C Participation (ref: Yes)	-1.28	0.46	7.62	.01	0.28	1.45	8.96
Graduation Cohort 2013 (ref: 2015)	-0.29	0.23	1.58	.21	0.75	0.48	1.17
Graduation Cohort 2014 (ref: 2015)	-0.69	0.23	8.72	.00	0.50	0.32	0.79
Gender (ref: Male)	0.44	0.18	5.71	.02	1.55	1.08	2.23
Asian (ref: White)	0.56	1.18	0.23	.63	1.76	0.17	17.80
Black (ref: White)	-0.03	0.39	0.01	.94	0.97	0.46	2.07
Hispanic (ref: White)	0.15	0.38	0.16	.69	1.16	0.55	2.44
Free Lunch Fee (ref: Reduced Lunch Fee)	-0.66	0.39	2.90	.09	0.52	0.24	1.10
Standard Lunch Fee (ref: Reduced Lunch Fee)	-0.77	0.43	3.16	.08	0.46	0.20	1.08
Cumulative Days Not Present	-0.32	0.07	19.95	.00	0.73	0.63	0.84

Note. $\chi^2(10) = 168.18$, $p < .001$, Nagelkerke $R^2 = 0.30$.

All in all, student-related independent variables were associated with positive student engagement outcomes and school completion. According to the literature, the student-related independent variables in this study (i.e., graduation cohort, gender, and truancy as measured by cumulative days not present) are status variables because they are factors that cannot be changed or controlled by the school (Freeman et al., 2015). The finding that student-related independent variables predict successful graduation supports Bronfenbrenner's (1979) ecological systems theory, which indicates that the individual, a combination of multiple relationships, a specific setting, a culture, or experience in time influences one's behavior; and aligns with current literature related to how status and school-alterable variables affect student engagement outcomes (i.e., school completion).

Summary

This section included an outline of the methodology for the quantitative, quasi-experimental program evaluation. I described and justified the research design, setting and sample, instrumentation, data collection and analysis, limitations, and protection for participants. I reported results using tables, descriptive statistics, and inferential analysis to answer the 4 research questions. I gathered and reviewed deidentified archival data from 2012-2013 to 2014-2015 supplied by the XYZHS building principal from the NJSMART and PowerSchool databases.

For research question 1, a relationship existed between C&C program participation and successful graduation for the 2012-2013 cohort. I found that C&C participation is related to successful school completion, which supports Finn's (1989) participation-identification model, which upholds that students who participate in school-related activities form a sense of identification. A sense of identification maximizes students' likelihood of engagement and success.

For research question 2, no relationship existed between C&C program participation and successful graduation for the 2013-2014 cohort. Again, for research question 3, no relationship existed between C&C program participation and successful graduation for the 2014-2015 cohort. These findings counter Finn's (1989) participation-identification model, which upholds that students who participate in school-related activities form a sense of identification. These findings suggest there may have been changes in the implementation of the program. Therefore, I recommend that school leaders examine program fidelity during future program evaluations to determine how a

sense of identification was stimulated to maximize students' likelihood of engagement and successful school completion.

For research question 4, all student-related independent variables in question (i.e., C&C participation, graduation cohort, gender, ethnicity, SES, and truancy as measured by cumulative days not present) had a significant effect on the odds of students graduating. However, C&C program participation, graduation cohort, gender, and truancy as measured by cumulative days not present were significant predictors of likeliness to graduate. These findings support Bronfenbrenner's (1979) ecological systems theory, which indicates that the individual, a combination of multiple relationships, a specific setting, a culture, or experience in time influences one's behavior. These findings also align with current literature related to how status and school-alterable variables affect student engagement outcomes (i.e., school completion). Therefore, I recommend that school leaders consider strategies to address each variable in an effort to improve the C&C program.

As an outcome of the results, I will include the findings and recommendations in an evaluation report presented to the XYZHS district superintendent and building principal upon chief academic officer (CAO) approval of this project study. In Section 3, I summarize a description of the project. I also discuss the project's goals and rationale. A review of literature is included along with the project's implications. In Section 4, I offer reflections and conclusions related to the process of developing the evaluation report.

Section 3: The Project

Introduction

Students need to receive a quality education and earn a diploma to demonstrate that they have the knowledge and skills required to graduate from high school. Still, more than 1 million students in the United States do not graduate from high school yearly (Alliance for Excellent Education, 2015). Despite the reasons why students drop out of high school, school leaders are held accountable for low graduation rates and are expected to take measures to increase graduation rates (NCES, 2015).

Increasing graduation rates is one of the goals of the ESSA of 2015. According to the ESSA of 2015, states are given autonomy for accountability and assessment of student achievement. Accordingly, public school administrators have a professional obligation to address and solve their low school completion (graduation) problems.

At XYZHS, the SIC acknowledged the necessity to reengage and support students in their efforts toward school completion. One continuous specific, measurable, actionable, realistic, and time-bound goal for XYZHS was to increase graduation rates by 5% each year, as evidenced by cohort performance. Consequently, XYZHS school leaders adopted and implemented C&C, a student engagement program, during the 2010-2011 school year for at-risk students requiring intensive or targeted interventions.

The C&C program has shown positive effects on improving student engagement outcomes related to school completion (WWC, 2015). For more than 20 years, the C&C program affected student engagement outcomes, which included school completion rates (WWC, 2015). However, because of the unique social, cultural, and institutional factors

of individual schools, the success of a specific program may not be universal. Because the adoption and implementation of a reliable and credible program does not guarantee success, a need existed for the evaluation of the C&C program at XYZHS.

Educational programs must be routinely evaluated to determine their effectiveness and whether they are producing intended outcomes (Gargani & Miller, 2016). Cellante and Donne (2013) suggested researchers should conduct evaluations to determine areas of program reinforcement, development, and refinement. Brown and Woods (2012) indicated practical use of outcomes-based program evaluation techniques provides stakeholders with specific and precise data, obtained through multiple sources, explaining the effects of the program and improvements needed.

Before choosing the appropriate research design, considerations included the following: the nature of the research questions, the amount of control regarding what was being studied, and the desired outcomes (Merriam, 2015). I decided to conduct a quantitative, quasi-experimental program evaluation because quasi-experimental designs with an ex-post facto approach are appropriate in cases where connections between outcomes and educational components are assumed to be linear (Durning, Hemmer, & Pangaro, 2007; Zhang, Fei, Quddus, & Davis, 2014). Therefore, this design allowed me to examine the relationship between participation in the C&C program and school completion. I used the following research questions to drive the evaluation:

RQ1: Is there a difference in the number of students who attain school completion as measured by the successful graduation of eligible students in the 2012-2013 school year for C&C program participants compared to program nonparticipants?

RQ2: Is there a difference in the number of students who attain school completion as measured by the successful graduation of eligible students in the 2013-2014 school year for C&C program participants compared to program nonparticipants?

RQ3: Is there a difference in the number of students who attain school completion as measured by the successful graduation of eligible students in the 2014-2015 school year for C&C program participants compared to program nonparticipants?

RQ4: Do student-related independent variables (i.e., C&C participation, cohort year, gender, ethnicity, SES, and truancy) predict successful graduation?

The project for this doctoral study culminated in an evaluation report (see Appendix A). The findings of the quantitative, quasi-experimental program evaluation shaped the recommendations that I will present to the XYZHS school leaders in contribution to their ongoing commitment to improve successful school completion (graduation) rates. In this section, I describe the project, its goals, and rationale. This section also details a review of literature that supports the theoretical foundation of program evaluations and genre of the project (i.e., evaluation report). The review of the literature is followed by a discussion of the resources, supports, and barriers acknowledged to develop the project. This section also includes a proposal for the project's implementation, a timetable, and a description of the roles and responsibilities of stakeholders. Last, I cover the implications pertaining to social change for local stakeholders and the larger context.

Description of Project

This project is an evaluation report for school leaders who have implemented C&C as a student engagement intervention to improve student school completion rates at XYZHS. The evaluation report was appropriate because it served as a useful way to describe program successes and shortcomings (Centers for Disease Control and Prevention, 2013). Using the report, I addressed the problem of this study, the lack of a program evaluation. I used deidentified archival data from 2012-2013, 2013-2014, and 2014-2015 to determine if a significant number of school completers who participated in the C&C program existed as opposed to nonparticipants. In addition, through the report I addressed whether student-related independent variables predicted successful graduation.

The evaluation report begins with an executive summary. The subsequent sections follow the executive summary: an introduction, background, methodology, discussion of results, conclusions and recommendations, and summary (see Appendix A). The intended audience was the XYZHS district superintendent and building principal because they make final decisions regarding the adoption, implementation, and maintenance of C&C at XYZHS.

Goals of the Project

The overarching goal of the project was to address a gap in practice that existed because of the lack of a C&C program evaluation at XYZHS. The objective was to produce a project based on the results of the program evaluation conducted. The aim was to perform a quantitative, quasi-experimental program evaluation to ascertain whether C&C met its intended student engagement outcome (i.e., increased school completion)

for 3 cohorts and to determine whether student-related independent variables (i.e., C&C participation, graduation cohort, gender, ethnicity, SES, and truancy as measured by cumulative days not present) predicted successful graduation in order to enhance the quality of the program. Accordingly, the project that resulted from the quantitative, quasi-experimental program evaluation was an evaluation report (see Appendix A). The purpose of the evaluation report was to communicate findings, conclusions, and make recommendations. For this study, the recommendations are based on the results of the quantitative, quasi-experimental program evaluation of C&C for successful school completion.

Rationale

Project Genre

In 2010-2011, the C&C program was implemented at XYZHS to improve student engagement outcomes (i.e., school completions) for at-risk students who required targeted or intensive interventions because preventative measures did not work. No researchers or XYZHS personnel have evaluated or publicly reported evidence regarding the effectiveness of the C&C program for successful school completion at XYZHS. This was the overarching problem of this study. An evaluation of the program was essential to address the gap in practice and demonstrate accountability for measuring the program's success and shortcomings. I addressed the gap in practice and accountability by developing the project (evaluation report). I also addressed data analysis results of Section 2 through the content of the evaluation report based on the results to (a) determine the merit of implementing C&C during 2012-2013, 2013-2014, and 2014-

2015, (b) establish which student-related independent variables were predictors of successful graduation, and (c) serve as the basis of the recommendations and future research.

Problem Addressed

At XYZHS, student engagement was a prevalent problem as indicated by a trend of low graduation rates. Although XYZHS school leaders implemented C&C since 2010-2011 to improve student engagement outcomes (i.e., school completion), school completion rates averaged between 53.5-71.1%. In other words, local, district, and state school completion rates at XYZHS were not reached for 5 consecutive years. The effectiveness of C&C on the number of successful school completers who have participated in the program was not evident. Neither was it evident whether student-related independent variables predicted successful school completion. Therefore, a study that (a) compared the number of school completers with regard to C&C participants and nonparticipants and (b) identified specific student-related independent variables that predicted successful school completion was worthy of further investigation. I will present the findings, conclusions, and recommendations derived from the study in the project (evaluation report).

Review of the Literature

I conducted a comprehensive online search through Walden University's library. ProQuest, EBSCOHost, Academic Search Complete, ERIC, SAGE, Google Scholar, and Lexis/Nexis were the databases used to identify literature on the topic. Various combinations of the following keywords were used, along with Boolean operators, to

narrow the search: *education*, *program evaluation*, *program evaluation report*, *quasi-experimental*, and *ex-post facto design*. Articles used for this literature review consisted largely of peer-reviewed articles published within the past 5 years. For some foundational studies and theoretical material, it was necessary to include literature outside of the 5-year window.

Rationale for the Evaluation Report

Tentative directions for the project included (a) an evaluation report of the effectiveness of C&C on successful school completion in 2012-2013, 2013-2014, and 2014-2015 and the student-related independent variables that predict successful school completion; (b) a curriculum plan with units that emphasize how teachers may monitor student records and use that information to make data-based decisions; (c) professional development-training curriculum and materials for C&C mentors, which specifies how to build relationships between mentors and students, mentors and teachers, as well as mentors and parents; or (d) a policy recommendation intended to change attendance and graduation requirements. However, I used the results of the quantitative, quasi-experimental program evaluation to select the most suitable genre for this project. I decided to develop an evaluation report based on the results of the study with the intent to address the gap in practice and demonstrate accountability not only for compliance, but also for support.

Evaluation reports are ideally suited to communicate the findings of program evaluations to various stakeholders (CDC, 2013; Schalock et al., 2014). According to Frye and Hemmer (2012) evaluation reports initially describe the program in question

and explain the purpose for conducting the evaluation of the program. Frye and Hemmer believed evaluation reports should communicate the *what*, *how*, and *why it matters* questions pertaining to the program being evaluated. The *what* involves describing the program, its purpose, and how program activities relate to desired outcomes (Frye & Hemmer, 2012). The *how* refers to the way the evaluation of the program was carried out and whether the program is operating per its intended purpose. This concept is similar to Creswell's (2013) perspective that the evaluation report is an appropriate choice for communicating whether a specific treatment (i.e., C&C program) influenced intended outcomes (e.g., school completion). The *why it matters* involves describing why it was necessary to evaluate the program and why the program is important to its larger context (Frye & Hemmer, 2012). Other researchers argued that the evaluation report should be taken a step further by allowing evaluators to present findings, draw conclusions, and make recommendations for program development and direction (Gargani & Miller, 2016; LaGraff, Stolz, & Brandon, 2015). In 2006, the WWC published a systematic review of all the researchers who examined the influence of C&C on high school students with learning, behavioral, or emotional disabilities who are at risk of dropping out. The WWC recently updated this report in 2015 to include more recent publications. The evaluation reports included several components: overview, program information, research summary, effectiveness summary, references, research details for each study, outcome measures for each domain, findings included in the rating for each outcome domain, supplemental findings for each outcome domain, endnotes, rating criteria, and a glossary of terms). All evaluation reports may not communicate the same information, but each should

communicate the findings of program evaluations to various stakeholders. Evaluation reports may help to explain the purpose for conducting a program evaluation while addressing the gap in educational practice (i.e., the lack of summative evaluation of the C&C program's effectiveness during the 2012-2013, 2013-2014, and 2014-2015 cohort years).

Rationale for Program Evaluations

This section of the literature review includes the rationale for conducting a program evaluation. Program evaluation involves analyzing and understanding programs through the systematic collection of information. The purpose of the program evaluation is to reveal what contributes to the program's effectiveness and identify what actions should be taken to address the findings of the evaluation process (Grammatikopoulos, Tsigilis, Gregoriadis, & Bikos, 2013; Haight, Chapman, Hendron, Loftis, & Kearney, 2014). Program evaluations are important because they can be used to obtain information regarding what may be needed for accountability to stakeholders, program improvement, as well as decision-making regarding future program direction and funding (Gargani & Miller, 2016; Tarsilla, 2015).

Current research shows that researchers who have evaluated school-based student mentoring programs focused on the C&C program (Abrams, 2015; Hartwig & Maynard, 2015); the Check In, Check Out program, which has components similar to those of the C&C program (Barber, 2013; Bunch-Crump, 2015; Harrison, 2013; Hawken et al., 2014); and the 5000 Role Models of Excellence Project (Stanford, 2016). All of these programs had a similar purpose, which was to determine the effectiveness of the program for

student engagement outcomes. Student engagement outcomes involved behavioral engagement and academic engagement (Abrams, 2015; Barber, 2013; Bunch-Crump, 2015, Harrison, 2013; Hartwig & Maynard, 2015; Hawken et.al., 2014; Stanford, 2016. The findings of the quantitative, quasi-experimental program evaluation conducted in Section 2 reflect behavioral student engagement outcomes (i.e. school completion).

Program Evaluation Models and Designs

According to Frye and Hemmer (2012), educational and intervention programs are fundamentally about change. Educational intervention programs are designed to disseminate information to participants or bring about desired changes in behavior (Blanchard, Torbeck, & Blondeau, 2013). Program evaluations usually allow a researcher to determine whether desirable change has occurred because of the program's implementation (Grammatikopoulos et al., 2013). According to Frye and Hemmer's program evaluation guide for educators, the exposure to various program evaluation models and designs will help educators to "become more competent and confident in designing educational program evaluations that support intentional program improvement while adequately documenting or describing the changes and outcomes intended and unintended associated with their programs" (p.288). Common program evaluation models include the four-level model (Kirkpatrick, 1996), context-input-process-product (CIPP) model (Stufflebeam et al., 2007), and logic model (Knowlton & Phillips 2012). Common program evaluation research designs are the quasi-experimental and ex-post facto non-experimental studies (Frye & Hemmer, 2012). The design of a study is the method by which a researcher assigns intervention and comparison groups.

Four-level model. Researchers have used Kirkpatrick's four-level model for two decades. Researchers have used the four-level model to evaluate learner outcomes and educational programs. Kirkpatrick's model involves collecting data at four levels: (a) learner satisfaction, (b) learning resulting from the program, (c) changes in participants' behavior, and (d) programs' end results related to the larger context (Kirkpatrick, 1996). Kirkpatrick's model is useful for providing a multifaceted approach to program outcomes (Pruitt & Silverman, 2015). Kirkpatrick's model can be used to evaluate the C&C program. It can also be useful to address the gap in educational practice at XYZHS (i.e., the lack of evaluating the C&C program's effectiveness since it was implemented in 2010-2011). If Kirkpatrick's model was used, the results may have contributed to the development of the evaluation report.

CIPP model. CIPP models are also multi-dimensional. CIPP models consist of four evaluative components (i.e., context, input, process, and product), which allow researchers to evaluate programs based on a multifaceted approach (Stufflebeam et al., 2007; Torbeck, Canal, & Choi, 2014). Like Kirkpatrick's model, CIPP models are suitable for educational contexts because they allow researchers to evaluate and understand educational programs in terms of their complex, dynamic, and interrelated components (Pruitt & Silverman, 2015). Focusing on four evaluative components (i.e., context, input, process, and product) can provide researchers with a powerful holistic approach to evaluate a program's successes and shortcomings (Shalock et al., 2014). Therefore, the CIPP model can be used to evaluate the C&C program. This model can also be useful to address the gap in educational practice at XYZHS (i.e., the lack of

evaluating the C&C program's effectiveness since it was implemented in 2010-2011). If the CIPP model was used, the results may have contributed to the development of the evaluation report.

Logic models. The structure of logic models however, represents a rational approach to program evaluation because the relationships between programs' methods and outcomes are clearly understood (Frye & Hemmer, 2012). According to Spaulding (2014), it is important for program evaluators to recognize that logic models can be developed either before program implementation or after completion of activities. In other words, logic models can be used to evaluate program planning, implementation, as well as outcomes (Bane, 2015; Blanchard et al., 2013). When using a logic model, an evaluation of how the intervention is designed to create change is required to judge the program's value (Frye & Hemmer, 2012). An evaluation of the intervention's design includes the examination of (a) the community problem or need, (b) the specific intervention inputs and outputs, as well as (c) the intended outcomes (i.e. short-term, intermediate, and long-term). Although the simplicity of logic models is attractive to both novice and experienced researchers, logic models are often not suitable for understanding how the dynamic and interrelated components of educational programs work together (Hawken et al., 2014). Similar to the four-level and CIPP model, logic models can be used to evaluate the C&C program. Therefore, logic models can also be useful to address the gap in educational practice at XYZHS (i.e., the lack of evaluating the C&C program's effectiveness since it was implemented in 2010-2011). If the logic model was used, the results may have contributed to the development of the evaluation report.

Quasi-experimental design. Researchers have used quasi-experimental designs since the mid-1960s (Hawken et al., 2014). The quasi-experimental design has been used by researchers much longer than the more recent program evaluation models (i.e., four-level, CIPP, and logic models). A quasi-experimental design can be used to evaluate the C&C program. It may also be useful to address the gap in educational practice at XYZHS (i.e., the lack of evaluating the C&C program's effectiveness since it was implemented in 2010-2011). Moreover, I used this design to determine whether a connection existed between the outcome of successful school completion and C&C program participants versus nonparticipants. The results of this design contributed to the development of the evaluation report.

Quasi-experimental designs are different than the program evaluation models aforementioned (i.e., four-level, CIPP, and logic models) because the participants used in the design must not all be involved in the program in question. The quasi-experimental design mimics a true experiment in that comparisons are made between two or more groups of individuals with similar backgrounds exposed to different conditions as a result of their natural histories (Koniewski, 2013; Povedano, Cava, Monreal, Varela, & Musitu, 2015; Rodriguez-Franco et al., 2012). In other words, quasi-experimental designs typically include a treatment group and a comparison group in cases where connections between outcomes and educational components are assumed (Abel, Chung-Canine, & Broussard, 2013; Vogt & Slish, 2011; Zhang et al., 2014). Quasi-experimental designs are useful in educational contexts in which true experimental and tightly controlled designs would not be feasible (Hung, Hsu, & Rice, 2012; Tolan, Henry, Schoeny,

Lovegrove, & Nichols, 2014). Researchers can measure the dependent variable of interest that usually differs from study-to-study to determine whether or not statistically meaningful differences exist between the experimental groups.

Ex-post facto approach. Similar to the quasi-experimental research design, ex-post facto is a nonexperimental research approach. This approach derives its name from the fact that the assignment of participants is based on events that occurred in the past or after the fact (Frye & Hemmer, 2012). The range of educational topics for which researchers have used an ex-post facto approach speaks to the usefulness of the design. Alvarez-Garcia, Perez, Gonzalez, and Perez (2015) examined specific groups of secondary education students with varying student-related independent variables (i.e., gender, age, psychological factors, educational, factors, socio-emotional support, academic achievement, parental control, and frequent use of internet) based on events that occurred after the fact to predict the occurrence of cyber victimization in adolescence. The results showed that age, off-line school victimization, parental control, risky internet behaviors, using online social networks or instant messaging applications, and frequency of internet use during weekends are statistically significant risk factors for both occasional and severe cyber victimization. Like Alvarez-Garcia et al. (2015), Olufemi (2013) also conducted an ex-post facto study of student-related independent variables (i.e., SES, gender, and successful school completion). The results indicated that the financial status of parents had a significant effect on educational attainment of female secondary school students, which suggested educated parents with well-paying jobs focused more attention on the educational development or progress toward graduation of

their female children than the parents of children who were less privileged. During that same year, Kreamalmeyer (2013) conducted an ex-post facto study on the C&C program. Attendance and dropout rates from 2004 to 2012 were analyzed after the fact and compared on the school level, state level, and national level. Kreamalmeyer gathered both qualitative and quantitative data to reveal the results. Kreamalmeyer found that attendance increased steadily from 2009 to 2012 and dropout rates significantly decreased 4 years after the implementation of the C&C program. Kreamalmeyer's (2013) study is a practical example of the application of a combined quasi-experimental research design with an ex-post facto approach to program evaluation in educational studies.

Participants in each ex-post facto study included secondary education students. In addition, the researchers made comparisons between various experimental groups within an educational setting. Therefore, I used the ex-post facto approach to determine whether a difference existed in the outcome of successful school completion for groups of students eligible to graduate during each years of interest (i.e., 2012-2013, 2013-2014, and 2014-2015). The results of the quantitative, quasi-experimental program evaluation with the ex-post facto approach has contributed to the development of the evaluation report

In conclusion, I used this review of literature to inform the evaluation report. The review of literature included research on evaluation reports. I discussed examples of the content presented in evaluation reports. A portion of the review helped to develop a broad understanding of the rationale used to develop program evaluations for school-based student mentoring programs, such as C&C as well as for those programs with nearly an

identical framework. However, program evaluation models and designs largely encompassed this review of literature. In sum, I justified why I chose the evaluation report as the genre of the project, why program evaluations are necessary, how evaluation models and designs guide solutions to project barriers.

Project Description

Resources, Supports, Barriers

This section describes the resources and supports needed to develop and present the evaluation report. I did not consider funding as a factor for the production, distribution, or presentation of the evaluation report. However, the technological materials needed to produce the project (i.e., conducting research, typing, revising, and editing the evaluation report) were access to the internet, scholarly databases, and Microsoft Word. In terms of support, the research methods, findings, conclusions, and recommendations delivered in the evaluation report are subject to the scrutiny of others who are experts in the field of education, such as the editor, Walden dissertation committee, and CAO before distribution. However, in terms of presentation, finding a common time when and location where the report can be presented to XYZHS school leaders (i.e., district superintendent and building principal) may be difficult to arrange. A potential solution to the time barrier is to plan a tentative date, rain date, and deadline when scheduling to present the evaluation report.

Proposal for Implementation and Timetable

I will need a period of 10 months to produce, distribute, and present the evaluation report. During the *production stage*, 7 months will be required to access the

internet and scholarly databases, type the evaluation report on Microsoft Word, and undergo the scrutiny of an editor, the Walden dissertation committee, and CAO. These steps will occur from November (2016) to May (2017). After CAO approval, the XYZHS school leaders (i.e., district superintendent and building principal) will receive a hardcopy via interoffice mail and an electronic copy via email of the evaluation report along with the times and dates I will be available for a presentation in June (2017). This will mark the *distribution stage*. During the distribution stage, I will await a list or calendar of times and dates of availability from XYZHS school leaders. I will propose that a period of 1 month will be needed for the XYZHS school leaders to receive the evaluation report and provide their dates and times of availability for a presentation. Upon receipt of the XYZHS school leaders' availability, the following dates will be scheduled within a 2-month window: a tentative date, rain date, deadline, and follow-up date which will be considered the *presentation stage*. I will need 30 minutes to 1 hour to present the evaluation report during a time and in a location most convenient for the XYZHS school leaders. After the presentation, I will discuss how I can support XYZHS school leaders with the future evaluations and the execution of recommendations.

Table 9

Evaluation Report: Proposal for Implementation and Timetable

Evaluation Report: Proposal for Implementation and Timetable			
STAGE	TIME	MONTH	ACTIVITY
Production	Six (7) months	November to May	*Access Internet and scholarly databases to conduct research for evaluation report. *Type evaluation report. *Undergo scrutiny of editor, Walden dissertation committee, and CAO.
Distribution	One (1) month	June	*Send hardcopy and electronic copy of the evaluation report to XYZHS school leaders (i.e., building principal along with the times and dates of my availability. *Receive a list or calendar of time and dates of availability from XYZHS school leaders.
Presentation	Two (2) months	July to August	*Schedule a tentative date, rain date, deadline date and follow-up dates within a four-month window. *Present the evaluation report in 30-60 minutes during 1 meeting. * Discuss how I can support XYZHS school leaders with future program evaluations and the execution of recommendations.

Roles and Responsibilities

As the main designer of the project, it was my duty to decide on an effective way to communicate what prompted the evaluation of the C&C program as well as the evaluation report. I chose which components to present in the evaluation report. I was responsible for interpreting the findings from the data analysis of the quantitative, quasi-experimental program evaluation used to guide the evaluation report. In addition, I was accountable for drawing conclusions and making recommendations based on the results. Moreover, I was obligated to develop a plan to present the evaluation report to the XYZHS school leaders. The plan included time to discuss how I can support XYZHS school leaders with future program evaluations and the execution of recommendations.

Project Implications

Social Change

Social change may include any significant adjustment over time in terms of behavior patterns, cultural values, or norms. “Walden University defines positive social change as a deliberate process of creating and applying ideas, strategies, and actions to promote the worth, dignity, and development of individuals, communities, organizations, institutions, cultures, and societies” (Walden University Program Handbook, 2013, p.5). As this study revealed, no researchers or XYZHS personnel have conducted a program evaluation to examine the effectiveness of the C&C program on successful school completion at XYZHS. This study was a deliberate process of applying a strategy (i.e., a quantitative, quasi-experimental program evaluation) to promote the development of individuals (XYZHS school leaders) pertaining to their practice of conducting program evaluations. I also used the outcomes of the quantitative, quasi-experimental program evaluation to create ideas in the form of conclusions and recommendations. The section includes a description of potential positive changes that the evaluation report could have on the local setting. This section concludes with a description of potential positive social changes that the evaluation report could have on the larger context.

Local Stakeholders and Larger Context

The evaluation report may contribute to positive social change. On the local level, the evaluation report may contribute to positive social change by informing school leaders of the successes and shortcoming of implementing C&C at XYZHS. The evaluation report may also contribute to positive social change for the larger context by

informing school leaders of the effectiveness of C&C for school completion, helping leaders make future decisions about how to approach program evaluation, and increase successful school completion.

Conclusion

In Section 3, I described and explained the development of the evaluation report. This section contained a discussion of the project's description, goals, and rationale. The review of literature included an interconnected analysis of the project's genre, program evaluation models and approaches, and examples of content found in evaluation reports to support the genre selection. Section 3 also included a narrative and a chart to explain a timetable for the implementation of the project. Last, I discussed social change implications for local stakeholders and the larger context. In Section 4 I reflect on the development of the project (evaluation report). I also discuss project strengths, project limitations, recommendations for alternative approaches, and reflections on the importance of the work. Furthermore, in Section 4 I explain what I learned about scholarship, being a scholar, project development, being a practitioner, as well as leadership and change. I concluded the section with a discussion of project implications, applications, and directions for future research.

Section 4: Reflections and Conclusions

Introduction

Section 4 completes the project. This section provides a scholarly discussion of my reflection on the process of developing the evaluation report. I reflected on the project's strengths, limitations, and recommendations for alternative approaches. I included an analysis of what I learned in terms of scholarship, being a scholar, project development, being a practitioner, as well as leadership and change. This section ended with project implications, applications, and directions for future research.

Project Strengths and Limitations

Project Strengths in Addressing the Problem

The strength of this evaluation report pertains to its methodology. I chose to conduct a quantitative, quasi-experimental program evaluation to guide the content of the evaluation report. Quantitative methods were appropriate for this study because they allowed me to gather data using quantifiable variables and use statistics to assess differences and relationships among the variables. A quasi-experimental design was the best choice for the evaluation because students in the C&C program were not randomly selected; they volunteered to participate. An ex-post facto approach was appropriate because the evaluation took place after the fact (i.e., after 2012-2013, 2013-2014, and 2014-15). The summative approach to program evaluation was appropriate because it allowed me to determine program outcomes. Moreover, the choice of an evaluation report created by myself, as an external evaluator, served as a quality assurance measure for the project.

Project Limitations in Addressing the Problem

As with any project, limitations existed as I developed the evaluation report to help address the problem (i.e., the lack of evaluating the C&C program's effectiveness since it was implemented in 2010-2011). The sample used in the methodology section to conduct the quantitative, quasi-experimental program evaluation involved of only one school, although school leaders implemented the program at other high schools that had similar demographics within the district. However, all schools did not start implementation during the 2010-2011 school year. There would not have been enough data (i.e., at least 3 years of school completion rates) if I chose a school for the study that began implementation of C&C after 2010-2011. Furthermore, sampling only the graduates from one school limited the generalizability to a larger population.

Another limitation in addressing the problem with an evaluation report informed by the results of the quantitative, quasi-experimental program evaluation was that the results did not take into consideration other observable indicators of student engagement outcomes such as academic achievement. There were other initiatives within the district that students participated in that may have contributed to successful school completion during the 2012-2013, 2013-2014, and 2014-2015 school years. I could not determine causality.

A different limitation in addressing the problem with an evaluation report informed by the results of the quantitative, quasi-experimental program evaluation stemmed from the type of data gathered. I did not include qualitative data, which would have helped to explain the results. For example, I would have been able to explain why a

significant difference existed in the number of school completers for the 2012-2013 cohort and not the other years (i.e., 2013-2014 and 2014-2015) if I included qualitative data. The study findings may have been enriched if I collected and analyzed qualitative data in the form of narrative log-entries as well as interviews of program participants (i.e., student graduates, mentors, teachers, and parents). Qualitative data would have helped to describe the thoughts or perceptions regarding the effectiveness of the C&C program for school completion.

Recommendations for Alternative Approaches

Based on the content of this study, I recommend two alternative ways to fill the gap in practice as it relates to the lack of C&C program evaluation at XYZHS. One recommendation is to use the CIPP model to conduct to conduct program evaluations each year. The CIPP model requires the evaluation of a program's context, input, process, and product when judging a program's merit. One or more of the CIPP model's criteria, including context, input, process, and product may be evaluated at evaluator's discretion. Accordingly, the CIPP model can be used as a summative evaluation tool to assess the effectiveness of a program and as a formative evaluation tool to evaluate the planning and implementation of an intervention.

Another recommendation is to use the logic model to conduct program evaluations each year. Evaluators often use logic modeling as a summative evaluation tool to assess the effectiveness of a program. However, researchers can also use this method as a formative evaluation tool to evaluate the planning and implementation of an intervention.

The CIPP and logic models are common approaches to program evaluation (Frye & Hemmer, 2012; Torbeck et al., 2014). Both models include an analysis of the outcomes met or not met because of implementing a program. Like the CIPP model, the logic model can be used to conduct evaluations during the planning and implementation stage of evaluation. However, the logic model can also help school leaders understand the relationships among the resources, inputs, activities, and outputs used to operate the program and produce the intended outcomes.

Unlike the quantitative, quasi-experimental program evaluation, the logic and CIPP models allow researchers also to examine the planning and implementation phases of a program, which detail program actions and activities (Frye & Hemmer, 2012; Torbeck et al., 2014). Examining program plans and implementation of actions can allow school leaders to make even more data-driven decisions regarding how to improve student engagement outcomes, namely school completion.

Scholarship, Project Development, Leadership and Change

What I Learned About Scholarship

Scholarship is an ongoing challenge. It requires a person to develop cognitive skills such as analysis, application, evaluation, and creation. To develop those cognitive skills, I have learned that a scholar must have a sincere interest in the subject under study. My interest in student engagement kept my focus during the development of the evaluation report. However, I learned that a clear purpose that extends beyond a short-term outcome must be realized to overcome the anxiety associated with scholarship. It helps to be connected to a community of learners during the journey.

What I Learned About Being a Scholar

The development of the evaluation report has taught me a few things about being a scholar. I have learned to grasp the foundation of what it takes to conduct educational research. Through this process, I have recognized that to be a scholar requires more than simply staying abreast of current research in a particular field to the point of saturation. It includes understanding the biases, assumptions, and implications of relevant sources as well as peer-reviewed scholarly journals. Being a scholar also involves using that knowledge to support ideas and decisions as a scholar-practitioner. Research can support the development of ideas and support the decisions made by a practitioner. More importantly, I learned that the knowledge gained during the process of developing the evaluation report should be used for the purpose of contributing to positive social change.

What I Learned About Being a Project Developer

I learned it was equally important to include stakeholders' input regarding how their needs could be met to ensure that the development of the project was not only useful but also used. Although I knew that I wanted to fill a gap in practice as it relates to student engagement, I learned that project development requires thorough research, planning, and coordination efforts to address any problem. As I developed the evaluation report, I realized that multiple indicators of student engagement exist (e.g., student attendance, academic achievement, and school completion). However, focusing on multiple indicators of student engagement outcomes was too ambitious. Narrowing the focus to only one indicator was the best option to ensure the development of a thorough project study.

I began the development of this project study unsure of the direction it would take towards social change. Tentative directions included (a) an evaluation report of C&C's effect on successful school completion in 2012-2013, 2013-2014, and 2014-2015 and the student-related independent variables that predict successful school completion; (b) a curriculum plan with units that emphasize how teachers may monitor student records and use it to make data-based decisions; (d) professional development/training curriculum and materials for C&C mentors, which specifies how to build relationships between mentors and students, mentors and teachers, as well as mentors and parents; (e) or a policy recommendation intended to change attendance and graduation requirements. However, I learned that the results of the study inform the development of the project.

What I Learned About Being a Practitioner

As a practitioner, completion of the evaluation report was challenging. As a result of completing the development of the evaluation report I learned the importance of literature reviews. I now understand that the theoretical framework is needed to explain why a research problem exists. I also learned that the review of literature helps to develop a current understanding of a subject and its significance to practice. It is vital that practitioners connect current knowledge of methodological contributions and substantive findings regarding a particular topic to be considered a specialist in any field of study.

What I Learned About Leadership and Change

I have learned important lessons related to leadership and change during the development of the evaluation report. I began the development of the evaluation report believing that I was a limitless leader. I assumed that my doctoral candidacy implied

credibility. In other words, I thought I had all the answers. In essence, I was covering feelings of inadequacy and insecurity. As the development of the evaluation report continued, I recognized that I cannot be a good leader if I cannot be a good follower. I needed to follow the lead of others and their expertise to raise levels of competence, morality, and motivation. I learned that cooperation, ethics, and a sense of community were also needed. In sum, instead of being a limitless leader I learned that a transformational leader is more equipped to positively influence social change in individuals and social systems.

Reflection on Importance of the Work

Program evaluation is the systematic assessment of a program's worth. Researchers commonly conduct outcome evaluations to reveal answers to questions regarding efficacy and influence on educational outcomes. The outcome evaluation conducted as part of the development of the evaluation report was important because it helped to determine the level of success of a program.

C&C, the research-based program intervention in this study, was established to improve student engagement outcomes (i.e., increased attendance, persistence in school, accrual of credits, and school completion rates, as well as decreased truancy, tardies, behavioral referrals, and dropout rates). XYZHS school leaders decided to adopt and implement C&C to help improve school completion rates. However, no empirical evidence existed regarding the efficacy of the C&C program at XYZHS. Therefore, an evaluation was needed to determine the program's merit.

Implications, Applications, and Directions for Future Research

The insights gained as a result of developing the evaluation report have implications at the organizational level. The evaluation report is a valuable resource for school leaders who have implemented C&C for improving successful school completion. The evaluation report will potentially serve as a model for future research.

The empirical implication of developing the evaluation report is that quantitative research is needed to measure program successes and shortcomings. Program facilitators need to know to what extent intended outcomes are being met. Developing an evaluation report informed by a quantitative methodology will allow researchers summarize results numerically.

The methodological implication of developing the evaluation report is that a quantitative, quasi-experimental program evaluation is one way to determine program efficacy (e.g., the effectiveness of C&C on student engagement outcomes as they relate to school completion). Although other program approaches may be used, using a quantitative, quasi-experimental program evaluation to guide the development of the evaluation report helped to mimic a true experiment. Comparisons were made between two groups of individuals (i.e., a treatment group and a comparison group) with similar backgrounds exposed to different conditions as a result of their natural histories.

The theoretical implication of developing the evaluation report is that researchers and school leaders must not only gather data, but they must examine data. Data may be examined to identify outcomes. When researchers examine data to determine outcomes, at least 3 years of data should be considered to show a trend. Data may also be examined

to gather feedback regarding (a) a program as a product, (b) program progress, and (c) program processes.

Directions for future research include formative program evaluations. I recommend pairing formative program evaluations that are focused on program fidelity with summative evaluations focused on determining program merit. In addition, I recommend that future research include reviews of other observable student engagement indicators, cohort membership, gender identity, and truancy reports.

Conclusion

Schools' educational practices and programs must be regularly evaluated to become aware of their fundamental worth. An evaluation of the C&C program was essential to address the gap in practice at XYZHS. A need existed to demonstrate accountability not only for compliance, but also for support.

The quantitative, quasi-experimental program evaluation of the C&C at XYZHS provided a foundation for social change. Based on the research design, C&C program facilitators can replicate this study each year to evaluate whether intended student engagement outcomes related to school completion are being met. Based on the results, school leaders will be made aware of C&C's successes and shortcomings at XYZHS.

Evaluation reports are an effective platform to justify the rationale for conducting a program evaluation. Evaluation reports are also an effective strategy to communicate findings, conclusions, and recommendations based on results. Upon presentation of the evaluation report, school leaders will be in a position to fill the gap in practice and make informed decisions regarding how resources are used for successful school completion.

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Appendix A: The Project

Doctoral Project Study Title:

A Program Evaluation of Check and Connect for Successful School Completion

Date of Evaluation Report:

May 2017

The XYZ High School (XYZHS) district has been concerned with student engagement. To address student engagement, school leaders implemented the Check and Connect (C&C) program at XYZHS, which is an urban public high school that services each year an average of 800 students in grades 9-12. The purpose of implementing C&C was to improve student engagement outcomes (i.e., school completion) for at-risk students who required targeted or intensive interventions. No researchers or XYZHS personnel have publicly reported or evaluated the effectiveness of C&C for successful school completion at XYZHS, which was the overarching problem of this study. Therefore, no empirical evidence existed with regard to the program's efficacy at XYZHS. After gathering deidentifiable archival data from 2013-2015 of the number of students eligible for school completion, a quantitative, quasi-experimental program evaluation was used to determine whether there was a significant difference in the number of students who successfully completed school in 4 years by participating in the C&C program as compared to those who did not participate in the C&C program. The quantitative, quasi-experimental program evaluation was also conducted to determine whether student-related independent variables predicted successful graduation in 4 years. Jeremy Finn's (1989) participation-identification model and Urie Bronfenbrenner's (1979) ecological systems theory guided the study as the theoretical framework. Three chi square 2x2 tests of independence were conducted for the years in question (i.e., 2012-2013, 2013-2014, and 2014-2015) to compare observed and expected frequencies. Logistic regression analyses were used to determine whether 1 or more student-related

independent variables predicted successful graduation. Data analyses revealed that C&C participation and successful graduation were related for the 2012-2013 cohort. This finding supports Finn's (1989) participation-identification model, which upholds students who participate in school-related activities form a sense of identification, which maximizes their likelihood of engagement and success. Based on the study's results, I recommend formative evaluations of the fidelity of program implementation in the future for XYZHS school leaders. Analyses also revealed that the overall model of student-related independent variables (i.e., C&C participation, gender, ethnicity, socioeconomic status [SES], graduation cohort, and truancy as measured by cumulative days not present) predicted successful graduation contingently. In addition, student-related independent variables (i.e., C&C participation, cohort year, gender, and truancy) predicted the likelihood of graduating on time autonomously. The finding that student-related independent variables predict successful graduation supports Bronfenbrenner's (1979) ecological systems theory, which indicates that the individual, a combination of multiple relationships, a specific setting, a culture, or experience in time impacts one's behavior; and aligns with current literature related to how status and school-alterable variables affect student engagement outcomes (i.e., school completion). Recommendations include strategies for school leaders to address each variable found to influence successful school completion. As an outcome of the results, this study led to the development of an evaluation report. This endeavor may contribute to positive social change by informing school leaders of C&C's effectiveness for school completion, helping leaders make future

decisions about how to approach program evaluation, and increase successful school completion.

Section 1: Introduction

This evaluation report includes the following six sections: an introduction, background, methodology, discussion of results, conclusions and recommendations, and summary. The quantitative, quasi-experimental program evaluation of the efficacy of C&C provides summative feedback for the school leaders in the XYZHS public school district. The doctoral project study team involved in the program evaluation included the EdD Doctoral Candidate at Walden University; Committee Chairperson at Walden University; Second Committee Member at Walden University; and University Research Reviewer at Walden University.

The C&C program is a research-based intervention established to affect student engagement outcomes. For more than 20 years C&C has been successful to increase school completion rates (What Works Clearinghouse, 2015). The XYZHS building principal adopted C&C on behalf of the district to increase student engagement outcomes for students requiring targeted or intensive interventions when basic rules and regulations did not work. The evaluation of C&C stemmed from the lack of knowledge regarding the effectiveness of the program for school completion specifically at XYZHS.

I used a program evaluation to determine whether an intended student engagement outcome (i.e., increased school completion) was being met. The program evaluation also helped to ascertain whether student-related independent variables (C&C participation, gender, ethnicity, SES, graduation cohort, and truancy) predicted successful

school completion contingently and autonomously. To accomplish this program evaluation, I gathered deidentified archival data from the NJ Standards Measurement and Resource for Teaching database (NJ SMART), a statewide student data reporting system) and PowerSchool, a district-wide student data reporting system, for all students eligible to graduate during the following years: 2012-2013, 2013-2014, and 2014-2015.

This evaluation report is intended to provide summative feedback to school leaders regarding whether there was a significant difference in the number of students, who attained school completion after measuring the successful graduation of eligible students in C&C participants, compared to program nonparticipants and whether student-related independent variables predict successful graduation. Based on the findings of the program evaluation, XYZHS school leaders will have gained an awareness of C&C program effectiveness regarding successes and shortcomings, which will assist with decision-making concerning program maintenance, modification, or discontinuation of current resources used to improve school completion.

Section 2: Background

Based on a comprehensive review of literature, both status variables and school-alterable variables were identified as key-contributing factors related to student engagement. Status variables were defined as the factors that cannot be changed or controlled by the school (e.g., the student, their gender, ethnicity, SES, and truancy). School alterable variables were defined as factors that can be changed or controlled by the school (i.e., team-based interventions). C&C is a team-based intervention established

to increase school completion. In response to the significant need for improve school completion (i.e., graduation) rates at XYZHS, C&C was implemented from 2011-present.

A partnership of researchers, practitioners, parents, and students developed C&C in 1990 at Institute on Community Integration (ICI). Since 1990, C&C has undertaken several trials to corroborate its effects on improving school completion rates (Christenson, Sinclair, Thurlow, & Evelo, 1999; Sinclair, Christenson, Evelo, & Hurley, 1998; Sinclair, Christenson, & Thurlow, 2005). According to Abrams (2015), "Most of the research on C&C occurs in schools that have extreme poverty and a significant low achieving school population" (p. 2). Abrams also indicated that C&C was used in Canada, New Zealand, and multiple states in the United States. C&C involved mentors who are trained to monitor students' attendance, tardiness, behavioral referrals, and grades, which are all indicators of a student's progress toward school completion. The mentors were also trained to work with teachers, students, and their families to solve problems and develop skills. C&C facilitators typically identified and invited 15-20 students to participate in the C&C program each year. Once the students were selected, both the students and their parents/guardians were contacted by mail to ask their permission to partake in this program. The rate of consent has always been 100% (Facilitator, personal communication, February 17, 2015).

Section 3: Methodology

Purposes of the Evaluation

A program evaluation is designed to help determine the level of success or failure of a program and to make decisions regarding educational programs (Gargani & Miller,

2016). “It is through program evaluation that services can be credibly shown to be helpful, ineffective, or harmful" (Royse, Thyer, & Padgett, 2015, p.1). The results of any program evaluation can be used to contribute to social change (Frye & Hemmer, 2012). A program evaluation was warranted because successes and failures were never revealed for the C&C program since it was implemented at XYZHS in 2010-2011.

No publicly reported evidence existed of the C&C program effectiveness for successful school completion at XYZHS. The purpose for conducting a program evaluation at XYZHS was to fill a gap in educational practice. The rationale for selecting this problem was for school-based accountability. School accountability is the process of evaluating school performance on the basis of student performance measures (Figlio & Loeb, 2011). Amo (2015) indicated that accountability policies are an integral part of the American educational system. One dimension of accountability was the exposure to intervention. Exposure to intervention is intended to improve educational outcomes because accountability pressure makes some principals more attentive to quality assurance and more active with respect to school improvement activities (Altrichter & Kemethofer, 2015). Although accountability pressure is necessary for school improvement, the practice of conducting program evaluations to aid in school improvement is rare (Dieltiens & Mandipaza, 2014). In fact, from 2010-2011 to the present, C&C has operated at XYZHS with only assumed evidence of success. No empirical data have been analyzed to affirm any of its intended outcomes. For accountability purposes, a quantitative, quasi-experimental program evaluation was warranted.

Evaluation Design

The evaluation design I chose was a quantitative, quasi-experimental program evaluation to investigate differences in graduation at XYZHS from 2013 to 2015 based on participation in C&C. I gathered deidentified archival data to analyze if there is a relationship between successful graduation and participation in the program. The data were also gathered to determine whether student-related independent variables predicted successful graduation.

Quantitative methods were appropriate for the study because quantifiable variables and statistics were gathered to assess differences and relationships among the variables numerically (Allwood, 2012). According to Lodico, Spaulding, and Voegtle (2010), "all quantitative research approaches summarize results numerically" (p. 12). To investigate if the C&C intervention was beneficial in helping disengaged students complete school, I assessed whether a significant difference existed between school completion for C&C participants and nonparticipants. I also assessed whether specific student demographics predicted successful graduation within 4 years. Because the aim of this study was to assess the effectiveness of the C&C program by measuring its outcomes via performance data, a quantitative methodology was the most suitable choice (Creswell, 2013). A qualitative methodology was not chosen because the aim of the study was not to describe thoughts or perceptions about the intervention. "A basic qualitative study would be interested in (1) how people interpret their experiences, (2) how they construct their worlds, and (3) what meaning they attribute to their experiences" (Merriam, 2015, p.23).

Because the deidentified archival data used to measure the school completion was quantitative in nature, the quantitative approach was selected appropriately for this study.

A quasi-experimental research design was best suited to conduct this doctoral project study because placement of participants in C&C was determined upon students' agreement to volunteer and not by random assignment. According to Rossi, Lipsey, and Freeman (2004), a quasi-experimental design is one in which "intervention and control groups are formed by a procedure other than random assignment" (p. 264). Because the groups for analysis (participants and nonparticipants of C&C) were already established, a quasi-experimental approach was best suited for the study. The groups were not manipulated or randomly assigned; therefore, an experimental design was not appropriate for the study (Campbell & Stanley, 1963).

Archival data from 2012-2013, 2013-2014, and 2014-2015 were used to identify the number of students eligible for school completion. Data were reviewed after the completion of activities for each year to determine whether students graduated during their assigned cohort year (e.g., the 4th year after entering high school as a first-time freshman). Therefore, an ex-post facto approach was suitable because this study was conducted "after the fact" (Spaulding, 2014).

Summative approaches to evaluations typically focus on determining whether a program's goals or expectations were met (Rossi et al., 2004). One of the intended outcomes for implementing C&C at XYZHS was to increase school completion. Because I decided to assess whether the intended outcome was met, a summative approach to program evaluation was warranted. Lodico et al. (2010) noted that researchers tend to use

both formative and summative information in identifying areas in need of improvement and in determining a program's success or failure. However, a summative program evaluation is most suitable for this quantitative quasi-experimental program evaluation because the intent of this study was to determine whether expectations were met, not to directly make the program better. Therefore, the research design and approaches used for this study were appropriate to develop a quantitative, quasi-experimental program evaluation. The research questions guiding this study were as follows:

RQ1: Is there a significant difference in the number of students who attain school completion, as measured by the successful graduation of eligible students in the 2012-2013 school year, for C&C program participants compared to program nonparticipants?

RQ2: Is there a difference in the number of students who attain school completion, as measured by the successful graduation of eligible students in the 2013-2014 school year, for C&C program participants compared to program nonparticipants?

RQ3: Is there a difference in the number of students who attain school completion, as measured by the successful graduation of eligible students in the 2014-2015 school year, for C&C program participants compared to program nonparticipants?

RQ4: Do student-related independent variables (i.e., C&C participation, cohort year, gender, ethnicity, SES, and truancy) predict successful graduation?

Data Collection Instruments Used

C&C mentors at the local site regularly tracked students, attendance, behavior, academic progress and performance, as well as progress toward graduation via PowerSchool. C&C facilitators continuously used PowerSchool to determine whether a

student was eligible to participate in the program (Facilitator, personal communication, June 8, 2014). PowerSchool is deemed to be a reliable and valid data source. It is deemed reliable because it is a secure web-based student management system. PowerSchool is designed to strengthen communication between the school and home by providing parents and legal guardians access to their children's attendance records and academic progress online (Pearson Education, 2015).

Building principals reported school completion outcomes to NJSMART and PowerSchool. Shultz, Hoffen, and Reiter-Palmon (2005) noted that the use of archival data sets provides significant methodological benefits, such as reducing threats to internal validity. The authors added that reduction of the chance of researcher bias, generalization, and convergence are all benefits that can provide support for construct validity. However, the quantitative archival data compiled over the years have yet to be used to measure intended outcomes (Facilitator, personal communication, June 8, 2014; Principal, personal communication, January 30, 2015). Therefore, a program evaluation was needed to use the data for decision-making.

Data Collection Procedures

I sent letters of cooperation to the XYZHS district superintendent and building principal to secure district and school level permission to conduct the quantitative, quasi-experimental program evaluation. The approved letters were used as part of an application to obtain approval from the Walden University's Institutional Review Board (IRB). After obtaining approval from Walden University's IRB (approval # 07-01-16-0161818), the necessary deidentified archival data from the NJSMART and PowerSchool

database were gathered from the XYZHS building principal who also served as the C&C facilitator. For this doctoral project study, I requested deidentified archival data from 2013-2015 related to eligibility for graduation, C&C participation, assigned cohort year, gender, ethnicity, SES, and truancy. Data were provided upon request.

To address the research questions 1-4, the archival data set comprised of information related to successful graduation, C&C participation, cohort year, gender, ethnicity, SES, and truancy. Successful graduation, C&C participation, SES, and gender were collected in two parts. Successful graduation and program participation were reported as yes or no responses, while gender was reported as male or females. SES was operationalized as student's free or reduced lunch program eligibility and was also reported in a yes/no format. Ethnicity was reported as a categorical variable, with response options that reflected the school's ethnic composition. Truancy was reported as a nominal variable with response options that reflected the number of cumulative days not present.

For the quantitative analysis, I used the Statistical Package for the Social Science (SPSS) version 23.0. For all of the analyses an alpha level of .05 will be used to determine statistical significance. Lodico et al. (2010) suggested that the *p* value should be set at an alpha level of .05 in an effort not to miss a true difference that might exist. SPSS was used to conduct descriptive and inferential statistics. *Descriptive statistics* were used to describe the sample demographics and include frequencies and percentages for categorical variables, means, and standard deviations for continuous variables (Howell, 2017). *Inferential statistics* were used to facilitate the drawing of conclusions based on

the sample data (Creswell, 2013). Using inferential statistics, I addressed all 4 research questions and made decisions regarding the null hypotheses.

To assess research questions 1 through 3, I conducted chi square tests of independence. This analysis is appropriate when the researcher intends to assess relationships between categorical variables (Pallant, 2010). The chi square was used to determine if the actual graduation frequency for C&C program participants was higher than would be expected by chance. Prior to conducting the chi square tests, I confirmed that expected frequencies below 5 do not comprise more than 20% of the cells in the data set and that no cell has an expected frequency of less than 1 (Pagano, 2013). If either of these assumptions were violated, I planned to use a Yates continuity correction to determine significance (Stevens, 2009).

To assess research question 4, I conducted a binary logistic regression. The rationale for choosing the logistic regression analysis was that the outcome or dependent variable (i.e. successful school completion) is binary or two-fold. The dependent variable was measured as a yes or no response. I wanted to determine if one or more of the categorical student-related independent variables (i.e. C&C participation, cohort year, gender, ethnicity, SES, and truancy) were predictive of school graduation contingently and autonomously. By using logistic regression, I sought to estimate the probability of an event occurring (Stevens, 2009). Using this analysis, possible effects of one or more demographic variables were accounted for and controlled when determining the efficacy of C&C.

Section 4: Discussion of Results

Setting and Sample

Each year at XYZHS, the population for this study included an average of 800 students. From 2012-2013 to 2014-2015, the student population at MPXHS was predominately female (n = 482). The school population was comprised of Hispanic (59.3%), Black (31.0%), White (8.7%), and Asian (1.0%) students. The majority of students were economically disadvantaged, with 60% eligible for free lunch (National Center for Education Statistics, 2015).

To be included in the sample students had to be enrolled at MPXHS for all 4 years of high school and had to have reached graduation eligibility during the 2012-2013, 2013-2014, and 2014-2015 academic school years. Students had to have met district attendance requirements, demonstrated proficiency in the appropriate sections of the state graduation assessment, and met course requirements as indicated by the district for graduation. Additionally, to be included in the sample, students had to have met the district minimum of 160 credits and completion of a total of 60 hours of community service. Students enrolled in C&C were assigned a mentor to regularly check their attendance, behavior, plus academic progress and performance. The mentor would also connect with the student(s), teacher(s), and parent(s) to intervene if problems were identified. Furthermore, the mentor would advocate for the student, coordinate services, provide ongoing feedback and encouragement, as well as emphasize the importance of staying in school.

I chose convenience sampling to gather archival data on participants for this quantitative, quasi-experimental program evaluation. The justification for this type of sample is that archival data are readily available and representative of the entire school population. Deidentified archival records from 2012-2013, 2013-2014, and 2014-2015 were gathered from the school district upon approval of the study. Approval was granted by the Board of Education at the district level and by the building principal at the school level and Walden University's IRB (approval # 07-01-16-0161818).

A G*Power analysis was conducted to determine the necessary sample size for statistical validity. For research questions 1 through 3 a chi square test was chosen for data analyses. For a chi square test with an alpha of .05 and a power of .80, the minimum sample size necessary was 122 participants (Faul, Erdfelder, Buchner, & Lang, 2014). For the binary logistic regression, with an alpha of .05 and a power of .80, the minimum necessary sample size was 372 participants necessary (Faul et al., 2014). A sample to suffice the size requirement of the more stringent analysis was obtained.

Data Analyses

The following data analysis was conducted to assess the effectiveness of C&C in achieving the intended outcomes of the program. The results of this quantitative, quasi-experimental program evaluation were intended to reveal if C&C was effective in regard to significantly improving the number of school completers in the 2012-2013, 2013-2014, and 2014-2015 school years for C&C student participants as opposed to nonparticipants. The results were also intended to reveal if student-related independent variables predicted successful school completion. Descriptive statistics have been included to provide an

overview of the sample composition. Descriptive statistics help describe the sample demographics, frequencies, and percentages for categorical variables, and means and standard deviations for continuous variables (Howell, 2017). Inferential statistics have been included to assess the strength of the relationship between the independent and dependent variables by comparing the probabilities of the results with the established alpha value. Inferential statistics help to facilitate drawing conclusions based on the sample data (Creswell, 2013). Using inferential statistics, I addressed all 4 research questions and made decisions regarding the null hypotheses.

Descriptive Statistics

Slightly more than half of the participants in the sample were female (n = 375, 56%) and Hispanic (n = 373, 56%). The majority of the sample consisted of students who received free or reduced lunch (n = 549, 82%). The sample was roughly evenly split among students in the 2013, 2014, and 2015; however, there were more students in the 2013 cohort (n = 265, 40%). The most frequently observed graduation status was graduated (n = 424, 63%). I also included truancy in the analysis. The observations for truancy as measured by cumulative days not present, ranged from 0.00 to 95.00, with an average of 2.78 (*SD* = 9.86).

Results, Interpretation, and Explanation of Descriptive Analysis

To assess research questions 1 through 3, I conducted three chi square tests of independence. Each analysis assessed the presence of associations between C&C program participation and graduation status, for the 2012-2013, 2013-2014, and 2014-

2015 cohorts. This analysis was also conducted to determine if there was a difference in successful graduation and C&C program participation as compared to nonparticipation.

Inferential Analyses for Research Question 1

For research question 1, "Is there a significant difference in the number of students who attain school completion, as measured by the successful graduation of eligible students in the 2012-2013 school year for C&C program participants compared to program nonparticipants," a chi square test of independence was conducted to examine whether C&C program participation and successful graduation were independent for the 2012-2013 cohort. C&C program participation was operationalized as no (0) and yes (1). Successful graduation was operationalized as no (0) and yes (1). Prior to conducting the analysis, the assumption of adequate cell size was assessed, which requires all cells to have expected values greater than 0 and 80% of cells to have expected values of at least 5 (McHugh, 2013). The assumptions of the analysis were met.

The results of the chi square test for research question 1 were significant, $\chi^2(1) = 5.45$, $p = .02$, suggesting that C&C program participation and successful graduation were not independent of one another. This implies that there was an association between C&C program participation and successful graduation because $p < .05$. The percentage of successful graduates who participated in the C&C program was higher than the percentage of students who graduated who did not participate in the C&C program for the 2012-2013 cohort.

According to literature, team-based interventions or collaborative support from teachers and parents has been associated with positive student engagement outcomes and

school completion (Balfanz & Byrnes, 2012; Skinner, 2014, Wilson & Tanner-Smith, 2013). The C&C program is a team-based intervention considered to be a school-alterable variable that affects student engagement outcomes (i.e., school completion) because it is an aspect of the school's culture that can be changed or controlled by the institution of learning to encourage and enable all students to attend school regularly so that they may acquire a high standard (Bloom, 1980). Furthermore, the finding that C&C participation is related to successful school completion supports Finn's (1989) participation-identification model, which upholds that students who participate in school-related activities form a sense of identification. A sense of identification maximizes students' likelihood of engagement and success.

Inferential Analyses for Research Question 2

For research question 2, "Is there a difference in the number of students who attain school completion, as measured by the successful graduation of eligible students in the 2013-2014 school year for C&C program participants compared to program nonparticipants," a chi square test of independence was conducted to examine whether C&C program participation and successful graduation were independent for the 2013-2014 cohort. Prior to conducting the analysis, the assumption of adequate cell size was assessed, which requires all cells to have expected values greater than zero and 80% of cells to have expected values of at least five (McHugh, 2013). The assumptions of the analysis were met.

The results of the chi square test for research question 2 were not significant, $\chi^2(1) = 1.99$, $p = .16$, suggesting that C&C program participation and successful graduation

were independent of one another. This implies that there was no association between C&C program participation and successful graduation because $p > .05$. This finding counters Finn's (1989) participation-identification model, which upholds that students who participate in school-related activities form a sense of identification, which maximizes their likelihood of engagement and success.

Inferential Analyses for Research Question 3

For research question 3, "Is there a difference in the number of students who attain school completion, as measured by the successful graduation of eligible students in the 2014-2015 school year for C&C program participants compared to program nonparticipants," a chi square test of independence was conducted to examine whether C&C program participation and successful graduation were independent for the 2014-2015 cohort. Prior to conducting the analysis, the assumption of adequate cell size was assessed, which requires all cells to have expected values greater than 0 and 80% of cells to have expected values of at least 5 (McHugh, 2013). All cells had expected values higher than 0; however, only 75% of cells have expected counts of at least 5. Because this assumption was not met the Yates continuity correction was reported.

The results of the chi square test for research question 3 were not significant, $\chi^2(1) = 0.00$, $p = .95$, suggesting that C&C program participation and successful graduation were independent of one another. This implies that there was no association between C&C program participation and successful graduation because $p > .05$. This finding counters Finn's (1989) participation-identification model, which upholds that students

who participate in school-related activities form a sense of identification, which maximizes their likelihood of engagement and success.

Inferential Analyses for Research Question 4

For research question 4, "Do student-related independent variables (i.e., C&C participation, cohort year, gender, ethnicity, SES, and truancy) predict successful graduation," a binary logistic regression was conducted to examine whether C&C program participation, gender, ethnicity, SES, graduation cohort, and truancy had a significant effect on the odds of students successfully graduating. The reference category for graduated was did not graduate. Variance Inflation Factors (VIFs) were calculated to detect the presence of multicollinearity between predictors. High VIFs indicate increased effects of multicollinearity in the model. Variance Inflation Factors greater than 5 are cause for concern, whereas a VIFs of 10 should be considered the maximum upper limit (Menard, 2009). All predictors in the regression model have variance inflation factors (VIF) less than 10.

Variance Inflation Factors for Predictor Variables

The overall model for research question 4 was significant, $\chi^2(10) = 168.18$, $p = .001$, suggesting that C&C participation, gender, ethnicity, SES, graduation cohort, and truancy had a significant effect on the odds of students graduating contingently. This implies that there was association between the group of student-related independent variables and successful graduation because $p > .05$. The Nagelkerke R-squared value calculated for this model was 0.30. The Nagelkerke R^2 indicated that the variables accounted for 30% of the variance in graduation outcome, and the overall regression

model correctly predicted 73.2% of NCLEX-RN outcome. Because the overall model was statistically significant, the individual predictors or student-related independent variables were assessed for statistical significance and contribution to the likelihood of graduating autonomously.

The regression coefficient for C&C program participation was significant, B = -1.28, Exp(B) = 0.28, p = .01. C&C program participation was significant because $p < .05$. This finding indicates individuals who did not participate in the C&C program were less likely to have graduated. This outcome aligns with literature stating that C&C program participation may serve as a predictor of students' likeliness to stay in school and graduate within four years (Abrams, 2015; Christenson et al., 1999; Sinclair, Christenson, Evelo et al., 1998; Sinclair, Christenson, & Thurlow, 2005).

The regression coefficient for the 2014 graduation cohort was significant, B = -0.69, Exp(B) = 0.50, p = .01. The graduation cohort was significant because $p < .05$. This finding indicated that students in the 2015 cohort were less likely to graduate than the 2014 cohort. This outcome relates to the literature that indicates that individual members may influence a cohort because principles regarding right and wrong were already established at home as a social norm. An individual's transitional performance between the eighth and ninth grade year may have also contributed to whether that student would dropout and not complete school during their assigned cohort year (Okwakpam & Okwakpam, 2012; Roderick, Kelley-Kemple, Johnson, & Beechum, 2014).

The regression coefficient for females was significant, B = 0.44, Exp(B) = 1.55, p = .02. Female gender was significant because $p < .05$. This finding indicated that female

students were 1.55 times more likely to graduate than their male counterparts. This outcome supports literature, which maintains that males continue to have higher dropout rates than females (Lynch, Kistner, & Allan, 2014).

The regression coefficient for truancy as measured by cumulative days not present was significant, B = -0.32, Exp(B), $p = .01$. Truancy was significant because $p < .05$. This finding indicated that as students' truancy increased they were less likely to graduate. This outcome mirrors literature, stating that the number of truancy or unexcused absences has been linked to lower rates of successful school graduation (Ingul, Klöckner, Silverman, & Nordahl, 2012; Ingul & Nordal, 2013; Sälzer et al., 2012).

All in all, student-related independent variables were associated with positive student engagement outcomes and school completion. According to literature, the student-related independent variables in this study (i.e., graduation cohort, gender, and truancy) are status variables because they are factors that cannot be changed or controlled by the school (Freeman et al., 2015). The finding that student-related independent variables predict successful graduation supports Bronfenbrenner's (1979) ecological systems theory, which indicates that the individual, a combination of multiple relationships, a specific setting, a culture, or experience in time impacts one's behavior; and aligns with current literature related to how status and school-alterable variables affect student engagement outcomes (i.e., school completion).

Results, Interpretation, and Explanation of Inferential Analyses

The problem pertained to the lack of empirical evidence by way of program evaluation. Using inferential tests (chi square tests of independence and binary logistical

regression), I assessed the 4 research questions for this doctoral project study based on the problem. Multiple hypotheses operationalized the research questions by tracking the efficacy of C&C and student-related independent variables for school completion.

Strengths and Weaknesses Shown in Results

The strength of this quantitative, quasi-experimental program evaluation was based on the availability of reliable data on school completion and student-related independent variables over a 3-year period at XYZHS. There was consistency in the number of students eligible for school completion over a 3-year period at XYZHS. I performed a quantitative analysis and used the SPSS software for reliability of results. I reported positive findings and showed a relationship between school completers and C&C participation at XYZHS for the 2012-2013 cohort as a result of the summative program evaluation. This finding supports Finn's (1989) participation-identification model, which upholds that students who participate in school-related activities form a sense of identification, which maximizes their likelihood of engagement and success. The results also showed that C&C participation, graduation cohort, gender and truancy were significant predictors of students' likeliness to graduate. The finding that student-related independent variables predict successful graduation supports Bronfenbrenner's (1979) ecological systems theory, which indicates that the individual, a combination of multiple relationships, a specific setting, a culture, or experience in time impacts one's behavior; and aligns with current literature related to how status and school-alterable variables affect student engagement outcomes (i.e., school completion).

Section 5: Conclusions and Recommendations

Conclusions

I reported results using tables, descriptive and inferential statistical analysis to answer the 4 research questions. I gathered and reviewed deidentified archival data from 2012-2013 to 2014-2015 from the NJSMART and PowerSchool databases. Using descriptive statistical analyses, I reported slightly more than half of the participants in the sample were females (56%) and Hispanics (56%). Furthermore, I reported a large number of low SES students (82%) who qualified for free or reduced lunch.

For research question 1, inferential statistical analysis of results from the chi square test of independence indicated that the C&C program participation and successful graduation were not independent of each other for the 2012-2013 cohort. Therefore, an association exists. The percentage of students who achieved successful graduation was higher among C&C participants than nonparticipants.

The results for research questions 2 and 3, inferential statistical analysis of the results from the chi square tests of independence indicated that C&C and successful graduation were independent of each other for the 2013-2014 and 2014-2015 cohorts. Therefore, an association did not exist. Perhaps the extent to which delivery of the C&C intervention adhered to program protocol or the program model originally developed may have been different. Perhaps the same person did not mentor students for at least 2 years. Perhaps the mentors that volunteered for 1 year did not volunteer during subsequent years. Perhaps mentors and mentees were not meeting as expected. Perhaps

log-entries were not made to inform the progress of the mentee. Perhaps the C&C program was not implemented with fidelity.

Nonetheless, for research question 4, inferential statistical analysis of the results from the binary logistic regression indicated that C&C participation, gender, ethnicity, SES, graduation cohort, and truancy had a significant effect on the odds of students graduating contingently. It is no surprise that the student-related independent variables had a significant effect on the odds of students graduating because it aligns with literature I reviewed regarding student engagement outcomes. However, only C&C program participation, graduation cohort, gender and truancy were significant predictors of likeliness to graduate autonomously. I believe ethnicity was not a significant predictor of students' likeliness to graduate because more than half of the population was categorized as Hispanic (56%). I believe SES was not a significant predictor of students' likeliness to graduate because a tremendous portion of the population qualified for free or reduced lunch (82%). In other words, the sample was not differentiated enough to show a difference in those two student-related independent variables.

Recommendations

No two schools or districts are the same, and no single strategy is likely to accommodate the unique ecological, organizational, cultural, or historical features of individual schools. Other schools may produce similar or varying results using the same program. Therefore, in the future researchers should study schools that have implemented C&C to determine whether student engagement outcomes have been met. Individual schools should also be analyzed for implications regarding professional development,

curriculum, and policy recommendations. Analyses of differentiated performances across specific schools and courses could provide information regarding factors that contribute to students successfully graduating in 4 years.

Conduct formative evaluations. In this study, I conducted a quantitative, quasi-experimental program evaluation to fill a gap in practice. I used a summative approach to conduct the quantitative, quasi-experimental program evaluation because the intent of this study was to determine whether expectations were met, not to make the program better. Each year the C&C program was implemented, improved successful school completion rates were expected for program participants because C&C is a research-based program intervention established to improve student engagement outcomes (i.e., increased attendance, persistence in school, accrual of credits, and school completion rates, as well as decreased truancy, tardies, behavioral referrals, and dropout rates).

I found that a relationship between the number of school completers and C&C program participation existed only for the members of the 2013 cohort. Based on this finding, there is a strong possibility that the program was not being implemented with fidelity. So, in addition to summative outcome-based evaluations (e.g., quantitative, quasi-experimental program evaluations), for future research I recommend school leaders conduct formative program evaluations that focus on the fidelity of C&C implementation. Formative evaluations may offer school leaders other feedback regarding the product, progress, and process of the program as a strategic Tier II intervention.

The first step toward implementing the program with fidelity will be to conduct a formative evaluation to assess program processes. To formatively evaluate the C&C

program, the CIPP model is recommended as one alternate program evaluation model. When using CIPP, an evaluation of the contexts, inputs, processes, and products is required to judge the program's value. If the contexts, inputs, processes, and products are evaluated each year, then school leaders will be more aware of the program's successes and shortcomings and can plan accordingly. Another alternate program evaluation model that I recommend is the use of the logic model. A logic model is a program evaluation tool used to conceptualize a change effort. When using a logic model, an evaluation of how the intervention is designed to create change is required to judge the program's value. School leaders may evaluate the intervention's design by the examination of (a) the community problem or need, (b) the specific intervention inputs and outputs, as well as (c) the intended outcomes (i.e. short-term, intermediate, and long-term). Awareness of program fidelity via formative evaluation will help school leaders make even more data driven decisions regarding how to improve student engagement outcomes as they relate to successful school completion.

Review observable engagement indicators. In this study, I found C&C participation to be predictive of successful school completion. Although the rate of consent for C&C participation was 100%, C&C facilitators typically invite between 15-20 students to participate in the program each year. Based on this finding, C&C should be continued and extended school-wide if possible. For future research, I recommend that school leaders periodically recognize, assess, and review all observable student engagement indicators to identify students who may benefit from C&C participation. Although progress toward graduation and attendance are behavioral indicators that are

currently being used to determine C&C program eligibility, others but are not limited to: suspensions, being on time, and whether or not students participate in extracurricular activities. In addition to students being selected to participate in C&C based on academic achievement, school leaders should observe other academic engagement indicators, which include but are not limited to: time on task, credit accrual, homework completion, and engaging in class activities. Upon review of the aforementioned student engagement indicators, school leaders should plan accordingly. The plan should include an invitation to participate in the C&C program. If the level of participation remains low (e.g., between 15-20 students each year) then actions should be taken to offer the program to more students. Students who show signs of school withdrawal or disengagement should be considered for C&C participation as an intensive and personalized Tier III intervention instead of simply being disregarded. If the level of participation substantially increases to more than half of the student population then actions should be taken to offer the program school-wide.

Review cohort membership. In this study, I found the graduation cohort to be predictive of the successful school completion. I assessed a statistically significant relationship with graduation for the 2013 and 2014 cohorts in comparison to the 2015 cohort. No statistical significance was found for the 2013 cohort. Statistical significance existed for the 2014 cohort. This finding indicated students in the 2014 cohort were less likely to graduate than the 2015 cohort. In conclusion, individual members of a specific cohort may influence successful school completion rates for that cohort.

For future research I strongly recommend a cohort review. School leaders should review students' records before they enter high school (i.e., eighth grade) as they are being assigned a cohort. The cohort review should be conducted as a proactive measure for identifying candidates that may benefit from the C&C program. If so, those candidates should be invited to participate in the C&C program as a preventative Tier I measure. Waiting until the first marking period to select participants who require targeted or intensive interventions may be too late to ensure students are on track for graduation.

Review gender identity. In this study, I found gender to be predictive of successful school completion. Female students were 1.55 times more likely to graduate than their male counterparts. Based on this finding, perhaps school leaders need to make special accommodations for male students and those who identify as males by seeking to increase the number of male mentors. I recommend school leaders annually review the number of male stakeholders (i.e., students, mentors, teachers, and parents or guardians) and plan accordingly. The plan should include encouraging male-to-male relationships. That will be one way to promote positive male role models in the community.

Review truancy reports. In this study, I found truancy as measured by cumulative number of days not present to be predictive of successful school completion. As students' truancy increased they were less likely to graduate. So, in addition to the daily student attendance report, I recommend school leaders regularly review absenteeism filtered by period, subject, and teacher to plan accordingly. In schools where students are consistently not meeting attendance goals due to habitual absence during first period, perhaps school hours may be changed to meet the needs of the community. In

schools where attendance goals are not being met because students frequently skip subjects considered too easy or challenging, perhaps school leaders may create a school voice committee. The school voice committee is one way to empower students to take charge of their education by allowing them to collaborate with teachers and administrators in an effort to share their instructional needs and thoughts regarding what meaningful work looks like to them. In schools where students are consistently not meeting attendance goals due to poor teacher-student relationships, perhaps professional development regarding rapport building can be offered during professional learning community meetings.

I also recommend that the number of sessions offered for Saturday Attendance should increase and begin during the first marking period of school instead of the second and third marking periods. Saturday Attendance is an attendance recovery program implemented at XYZHS. When school leaders wait too late to implement the Saturday Attendance program limited seating becomes a critical issue. Limited seating may result in fewer school completers.

Section 6: Summary

Summary of Analyses

Foundationally, student engagement can be both internal and observable. Internal engagement may be cognitive and affective. Observable engagement may be academic and behavioral. One example of a student behavioral engagement indicator is progress toward school completion. For school leaders, progress toward local, district, and state graduation goals also indicate whether a school's overall student population is engaged.

According to the State DOE, XYZHS has been identified as a low-performing focus school due to the trend of low graduation performance. In 2010-2011, XYZHS school leaders implemented the C&C program as a student engagement initiative with the intent to improve school completion among its participants. The C&C facilitator assigned mentors to check student attendance, behavior, and academic performances so that the mentor may connect with the student, their teachers, and their families. Without that team-based intervention in place, students who needed intensive interventions would further disengage. Statistical analyses in this doctoral project study have revealed a) the number of school completers were high amongst C&C program participants for the first cohort to graduate after 3 years of program implementation; and b) the overall model was significant, suggesting that C&C participation, gender, ethnicity, SES, graduation cohort, and truancy had a significant effect on the odds of students graduating. These findings support Jeremy Finn's (1989) participation-identification model as well as Urie Bronfenbrenner's (1979) ecological systems theory, which guided this study.

The information provided in this evaluation report may contribute to positive social change. On the local level, this evaluation report may contribute to positive social change by informing school leaders of the successes and shortcomings of implementing C&C at XYZHS. In terms of the larger context, this evaluation report may also contribute to positive social change by informing school leaders of the effectiveness of C&C for school completion, helping leaders make future decisions about how to approach program evaluation, and increase successful school completion.

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