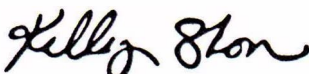ACCEPTANCE

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NURTURING TALENT: THE IMPACT OF ACADEMIC, EMOTIONAL, AND SOCIAL
SUPPORT ON IB HIGH SCHOOL STUDENTS IN AN ADVANCED ACADEMIC
PROGRAM, WITHIN A LARGE URBAN SCHOOL

by

Sondra Lynna Knudsen

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ABSTRACT

Pressure has been put on educators to increase the achievement of all students, yet the primary emphasis has been put on moving low-performing students toward base proficiency instead of improving the proficiency of all student groups (Baum, Renzulli & Hebert, 1995; Colangelo, Assouline & Gross, 2004; DeBray & Blankenship, 2013; Xiang, Dahlin, Cronin, Theaker & Durant, 2011). Additionally, educational leaders are increasing the push for students to be engaged in rigorous academic courses, oftentimes without appropriate support for either the students or staff (Cleaver, 2011; Plucker, Giancola, Healy, Arndt & Wang, 2015; Schaps, 2005; Smarick, 2013; VanderArk, 2014; Walton & Spencer, 2009).

The goal of this study was to examine the support systems provided for students in advanced academic programs and their level of academic success. By examining not only student populations, but also the educators that may be providing support, a unique opportunity is created to compare and determine the outcome through multiple lenses. In order to explore this topic, surveys were created containing both open and closed-ended questions on the views of academic, emotional and social support provisions as well as future planning and effectiveness of all support areas. Surveys and semi-structured follow-up interviews were conducted with three participant groups; alumni, administrative personnel, and teachers. Triangulation of information was accomplished with the use of additional statistical tests which were performed to determine the relationship between support and student success.

Quantitative results determined that there was no correlation between any of the four support areas and student success. However, qualitative results disagreed with the statistical results and provided rich information on not only the view of support that was provided, but also the areas of concern and frustration for all three participant groups.

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ACKNOWLEDGMENTS

I would first like to thank Concordia University for providing the opportunity to pursue this life-long goal. Thank you also to my committee members, Dr. Kellie Albrecht, Dr. Stephanie Hartzell, and Dr. Kelly Skon for your guidance during this arduous, enlightening, and sometimes frustrating process.

Vast thanks go out to my family and my BFF for their love, support, encouragement, understanding, and often-times tolerance as I travelled this journey. You create within me a reason to strive to always be the best I can be.

My greatest thanks go to my husband, Bob, who believed in me, even when I did not, and was always there as my greatest cheerleader and frequently late-night proofreader. Words cannot express how much everything you have done means to me, and yes, I will now be able to weed the yard.

This dissertation is dedicated to the students in the Franklin High School IB program, past, present and future, because without you I would not have taken this journey in the first place. May you always get the support you need to become the wonderful leaders I know you are.

CHAPTER 1: INTRODUCTION

There is a definite lack of attention regarding the academic needs of up to eight million

students who are identified as high-ability or potentially high-ability but are underachieving

(Jack Kent Cooke Foundation [JKCF], 2015; National Association for Gifted Children [NAGC],

2015b). Student achievement is more than test scores and grades. Yet the drive to increase these

scores has created an atmosphere where the emphasis focuses on improving the middle ground

(Plucker, Burroughs & Song, 2010). Educators are told to concentrate on getting students who

are below the acceptable achievement levels up to the point where they are achieving at least the

base standards. However, this has created a dilemma. What about the students who could

achieve at much higher levels than they are, but are not? Neglecting and ignoring these

potentially high-achieving students is the general reaction occurring nationwide (NAGC, 2015a).

While our nation focuses, deservedly, on doing a better job of educating students who fail at

attaining basic skills, this other group of underserved students is slipping through the cracks

(Wyner, Bridgeland & Diiulio, 2008). Similarly, to the low-achieving group, high-ability

students are losing the battle to achieve, and maintain, at a level commensurate with their skills.

Educators can no longer hold on to the faulty assumption that students who are able will find

their way. In doing this, we fail students in their educational process. Wyner et al. (2008)

contended that without support high-achieving students, especially those who are lower-income,

are less likely to attend the most selective colleges, graduate from college, or go on to receive a

graduate degree. These statistics serve as support to show that for students to be competitive and

successful in today's global society, we must focus on more than one group of under-achieving

students. A nation will only flourish when children from all groups receive the opportunities and

support that enables them to reach their fullest potential (NAGC, 2015c; Olszewski-Kubilius & Clarenbach, 2012).

This study will evaluate the effects of support, or lack of support, provided to high school students within advanced academic programs. The research will investigate the need for a mixed system of support within the population in this study.

Problem Statement

Roadblocks in the United States are preventing high-ability students from reaching their full potential (Cleaver, 2011; Colangelo, Assouline & Gross (Eds.), 2004; JKCF, 2015; NAGC, 2015b; Plucker, Hardesty & Burroughs, 2013). These roadblocks include a focus on base proficiency, a lack of academic offerings and support, the absence of early intervention or advancement opportunities, inappropriate or non-existent resources due to a lack of funding, and an unawareness of educators and administrators. A system needs to be developed that provides support for students as well as educators since each group has specific and unique needs.

Although pressure was put on the education system to increase the achievement of all students with the establishment of the No Child Left Behind Act (NCLB), high-ability students were often neglected (Epstein, Pianko, Schnur & Wyner, 2011; Farkas & Duffett, 2008). Today, in the wake of NCLB, primary emphasis has been placed on moving low-performing students toward base proficiency instead of improving the proficiency of all student groups (Baum, Renzulli & Hebert. 1995; Colangelo et al., 2004; DeBray & Blankenship, 2013; Xiang, Dahlin, Cronin, Theaker, & Durant, 2011).

In a report to the U.S. Department of Education, Ross (1994) stated that most of the bright students spend time in school working well below their capabilities. Many feel this is too frequently due to a practice referred to as educational triage (Booher-Jenning, 2005; Lauren &

Gaddis, 2012). Since those students who are on the edge in the data sets are the easiest to move, this is where the time, effort and money are often spent (Lauren & Gaddis, 2012, p. B-2). Ultimately, interest and support for services and programs fluctuate with the economic cycle (Purcell & Eckert, 2005). Although school reform has focused on a push for children from all economic and cultural backgrounds to reach their full potential, this belief frequently does not extend to America's most talented and hard-working students (Booher-Jenning, 2005).

When surveyed about their offerings for gifted education, results found that state's offerings to high-ability students, or students with the potential for high-ability, within the current education system were minimal (Krunholz, 2011; NAGC, 2015c). Lack of attention to the academic needs of these students includes three to five million gifted and talented (GT) identified students (NAGC, 2015b), and the 3.4 million students that are considered as high-ability or potentially high-ability (JKCF, 2015). With these numbers in mind, there is evidence of a need to create greater academic success for students in advanced academic programs.

When educational programs, requirements, and provisions focus primarily on opportunities for unprepared or low-achieving students, these programs fail to meet the needs of high-ability individuals. Programs aimed at early intervention could easily be applied to both student groups however this seldom occurs. Educational research has shown that early intervention is a necessity in the cognitive development and affective growth of young students (Guilbault, 2012). Programs such as Head Start and other Early Childhood Intervention services provide a nurturing, enriching and engaging environment, which can lead to greater educational success. Young, high-ability students need this same opportunity. By limiting the challenges and learning opportunities of this group, their cognitive growth may be limited, and educational needs ignored (Scott & Delgado, 2005). With the placement of high-ability children in

responsive learning environments and access to early enrollment in kindergarten or first grade, they perform "as well as or better than their older classmates" (Guilbault, 2012, p. 2).

Advancement opportunities may offer a solution to students who are prepared and exhibit the ability to excel. Despite the need to provide opportunities for high-ability young students, findings regarding the advancement of children who have demonstrated their ability to excel show that at least a dozen states do not allow children to start kindergarten early. In 2010, California fell in line with at least 20 other states by increasing the starting age to five years old by September 1st (California Education Code 48000[a], 2010). The National Center for Education Statistics (2014) also reported that six states require students to be five by July 31 or August 1 and only the state of Minnesota allows school boards the option of adopting an early admissions policy (see Appendix A).

In addition to the concerns regarding early admission to kindergarten, at least 30 states only allow those in 11th and 12th-grade concurrent enrollment in high school and college classes (Krunholz, 2011). "Almost no-one" will waive mandatory attendance laws for the 15-year-old who has gained everything they can out of high school and wants to move on (Krunholz, 2011, p. 33). Instead, these students are often left to figure it out on their own, and consequently, their potential may plateau and even decline in their academic environment, falling into the category of underachiever.

The requirement to add, or improve, services and options for high-ability students may appear obvious, but their needs are generally neglected. Factors contributing to this neglect include the lack of funding resources, the variations in the definitions of gifted or advanced, and the common view that gifted or advanced students do not need specialized services (NAGC, 2015a; Plucker, Giancola, Healy, Arndt & Wang, 2015).

Funding figures alone show neglect in resources when figures for federal funding in 2007 show only 3 cents per $100 spent on education allocated for gifted children or advanced academics (NAGC, 2015). As there are no federal mandates regarding funding for advanced academics, which includes all programs for high-ability students, state or local districts make these decisions. This decision-making process that lies within the hands of states, or most commonly, local districts, contributes to a disparity of programs and services across the nation as gifted programs are permissive, not mandated in the United States (Plucker et al., 2015).

In an attempt to address the lack of requirements for students in advanced academic programs there are provisions within the recently passed Equal Success for Students Act (ESSA), the successor to NCLB (NAGC, 2016). This act includes requirements for states and districts to provide information on their plans to improve skills of educational leaders in identifying gifted and talented students, provide instruction based on their specific needs, and include this subgroup in their disaggregated performance data. The enactment of the ESSA also continues to arrange for the use of Title I and Title II funds and is a part of the Elementary and Secondary Education Act (ESEA) initially enacted in 1965.

Title I and Title II funds are federal grant programs that were designed to provide both educational opportunities and highly qualified educators to students living in areas of high poverty (U.S. Department of Education [USDOE], 2015a; USDOE, 2015b). Title I assists to help ensure that this low-income population can meet challenging academic standards and must focus, generally, on children who are failing or at the most risk of failing (USDOE, 2015a). The purpose of Title II funding is to improve teacher and principal quality by increasing the number of highly qualified educators within schools (USDOE, 2015b). Even though Title I and Title II funds were designed to assist in meeting the needs of students, the parameters for their use, or

the interpretation of the parameters of use, frequently exclude the needs of high-ability students (NAGC, 2016). To have a nation flourish, children from all groups need to be given the opportunity and support that enables them to reach their fullest potential (NAGC, 2015b; Olszewski-Kubilius & Clarenbach, 2012).

This study will explore the supports necessary for the academic, emotional and social needs of high-ability students in advanced academic programs.

Purpose of the Study

The goal of this study is to examine the support systems provided for students in advanced academic programs and their level of academic success. By examining not only student populations but also the educators that may be providing support, a unique opportunity is created to compare and determine the outcome through multiple lenses. These different views may develop a perception of how best to support high-ability students in their quest for academic success. Not only can students be successful as high school students, but by providing needed support, we can ensure continued achievement in their academic and life-long careers. Through highlighting availability versus need of this unique student population, there can be a plan that will allow for the creation of programs and classrooms where all students who have the capability, potential or motivation can access adaptive, rigorous and relevant instruction and programs.

In the 1954 *Brown v. Board of Education* Supreme Court decision, it states that education is a right, which must be made available to all students on equal terms. It is not to be given only where it is the easiest or most cost-effective in order to raise statistics. However, some districts, possibly to avoid the reporting and use requirements, may simply discontinue their gifted and talented education (GATE) programs (NAGC, 2015a). This discontinuation of programs does

not mean that highly able students are not within the district, but merely means that the district is under no pressure to provide the information and the support needed to improve or sustain their achievement. According to DeBray and Blankenship (2013), Congress has recently emphasized: "equity for individual students rather than for entire protected classes of students" (p. 22). Yet this equity is still not applied to all students, and without the needed programs and services, many students in advanced academic programs remain without the support they need to achieve at the maximum level of their academic ability.

In 2015-16, one of the indicators of the Academic Performance Index (API) at the high school level includes measures of student college preparedness reflected, in part, by their offerings of Advanced Placement (AP) and International Baccalaureate (IB) programs (California Department of Education [CDE], 2015). An increasing number of institutes of higher education are using student participation in AP or IB as an admissions criterion (Chajewski, Mattern & Shaw, 2011; International Baccalaureate Organization [IBO], 2007). Achievement gaps between educational subgroups of students exist at all levels of achievement, including those at the top (Loveless, Farkas & Duffett, 2008). Research by Xiang et al. (2011) found that from 2000 to 2007, while the lowest achieving students made rapid gains in both reading and math, the performance of top students was stagnant. How will the view that all students in all classrooms, even high-achievers, deserve equal attention be endorsed?

As an educator who has been involved in several aspects of the educational spectrum, the researcher can say from experience that the achievement of high-ability, or potential high-ability, students does not appear to be an educational priority. Having worked with both at-risk students who are at the bottom and the top ends of the spectrum of academic need, the researcher has had the unique opportunity to provide educational services to facilitate the success of both extremes.

Students at the low end of the spectrum included those who were no longer working in the traditional academic arena. They were expelled, released due to attendance issues, or may have simply chosen to explore an alternative educational setting because traditional education was not working for them. Students at the top of the spectrum included both individuals who were focused on their post-secondary goals and were using advanced academic programs as a means to an end and those who were in need of an academic challenge, but not necessarily focused on their end goals (or sometimes any goals). Both groups of students were (and are) at-risk, for differing reasons, but both needed support to accomplish their goals. It has been highlighted that the current emphasis is to bring low-performing students, at the low end of the spectrum, up to proficiency (Baum et al., 1995; Colangelo et al. (Eds.), 2004; DeBray & Blankenship, 2013; Purcell & Eckert, 2005; Xiang et al., 2011). Support, monetary and legislative, as well as system-based programs, are provided for this low-performing group. Where does the support come from for the high-end of the spectrum when they are not performing to their ability levels? This researcher's experience shows that the support for this group is little to none and is an area in need of significant change in order to address this other achievement gap.

Educators have a responsibility to all students and must be aware of the myriad of factors that lead to underachievement. Providing what is required to ensure students may perform to their highest potential is an obligation. This provision is essential to not only the students considered low performing, or those who may be the easiest to move up to a more acceptable achievement level, but to all groups of students, including those who wish to demonstrate their ability to perform at the highest levels. While the current push is for advanced programs to be more accessible to all students, provisions for more than access are necessary. To ensure success for students within these programs, we must provide needed support.

Research Questions

This research explores support given for students in advanced academic programs, along with its effects, within a large urban school district. The research questions are as follows:

1.   What impact do academic, social, and emotional supports have on academic success of high-ability students in advanced academic programs?

2.   What are the beliefs among students, teachers, and administrative personnel regarding the support services provided to students in advanced academic programs?

3.   What impact does support for future planning have on the success of former students of advanced academic programs in their post-high-school endeavors?

Theoretical Framework

Comprehensive Model of Giftedness and Talent

Olsen (1989) dedicated her book, *Silences,* to individuals whose talent was silenced or almost silenced through misunderstanding, neglect, convenience or one of the many other reasons given throughout the years. A comprehensive model for change is necessary if we are to meet the needs of our high-ability students and keep them from being silenced as well.

Historically, giftedness, or the definition of high-ability, has been based on general intellectual ability (Hollingworth, 1940; Hong & Milgram, 2008; Jenkins, 1936; NAGC, 2016; Terman, 1925). This definition began with the works of Lewis Terman (1925) where intellectual ability was the guiding force in the development of programs offered to serve these students. It was Edward Thorndike (1927) who first suggested that intelligence is the sum of specific abilities. This view then led to an understanding that neither nature nor nurture alone contribute to intelligence, but both are factors in the realization of potential, creativity, and productivity of

gifted or high-ability children (Hong & Milgram, 2008; Renzulli, 1978; Subotnik, Olszewski-Kubilius & Worrell, 2011).

Young people with high-potential are too frequently unidentified, and as a result, their specific needs, characteristics, and backgrounds are ignored by programs that do little or nothing to develop their talents (Olszewski-Kubilius & Clarenbach, 2012). Hong and Milgram (2008) established that these high-ability, exceptional children "whose physical, intellectual, or socio-emotional development differs significantly from the norm require special education, that is, services or activities in addition to or in place of those generally offered by the school," (p. 10).

Hong and Milgram (2008) developed the comprehensive model of giftedness and talent (CMGT). This model provides parents, teachers, counselors, and educators the necessary knowledge and understanding in a useable format which they can use as a tool to improve gifted education and to prevent talent loss. Beyond that, the use that applies to this study is the more general goal which "is to encourage lay and professional people to use the model to provide a large portion of our children and adolescents, gifted and non-gifted, with the learning opportunities to realize their potential" (p. 12).

The understanding on which the CMGT builds is that "if individuals do not have an interest or intention to act on the opportunities that the environment affords, then learning will not occur" (Hong & Milgram, 2008, p. 15). This lack of action is true no matter how high their ability may be and frequently those with high-ability must feel an even greater purpose for their action. They are not content with going through the motions. Within talent development models there is a continuum of talent development and an understanding that this development is a continuous process (Hong & Milgram, 2008; Piirto, 1998; Subotnik et al., 2011). According to Hong and Milgram (2008), this concept of a continuum is not present in any other models of

giftedness or ability. The continuum highlights the argument that talent development is "dynamic instead of static, with the degree of talent manifestation changing as individuals work toward excellence to their fullest," (Hong & Milgram, 2008, p. 17). Within this framework, the rate of an individual's development is determined not only by his or her self-awareness of their potential, but also by personal motivation, practice and, most definitely, by provided environmental support (Barron & Harackiewicz, 2001; Garn & Lolly, 2014). This concept agrees with Vygotsky's (1978) zone of proximal development (ZPD) defined as:

The distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance, or in collaboration with more capable peers (p. 86).

The level of development depicted within the CMGT as a triangle (see Figure 1), symbolizes the understanding that as the degree of difficulty increases, the number of people who achieve the level of success decreases. As educators, we must acknowledge that all students continue to develop and learn. Additionally, we must recognize that all students should be given opportunities to develop their potential and achieve their highest level of talent (Hong & Milgram, 2008; Subotnik et al., 2011).

The level of attained talent is not without influence. One of the positive influences of the CMGT is the understanding that besides biological contributions, an individual's talent is also dependent upon their cognitive abilities, personal-psychological attributes and environmental-social factors (Hong & Milgram, 2008). These overlapping influences interact to impact talent development (see Figure 2).

The requirements of attributes and abilities for talent development include cognitive abilities: analytical-thinking and creative-thinking, personal-psychological attributes and

environmental-social factors (Hong & Milgram, 2008). To improve educational practices for

high-ability students, CMGT, as well as the talent development models, illuminate the varied

elements that affect this talent development, thereby leading to the capability to foster talent

development and reduce talent loss within this group (Hong & Milgram, 2008; Subotnik et al.,

2011).
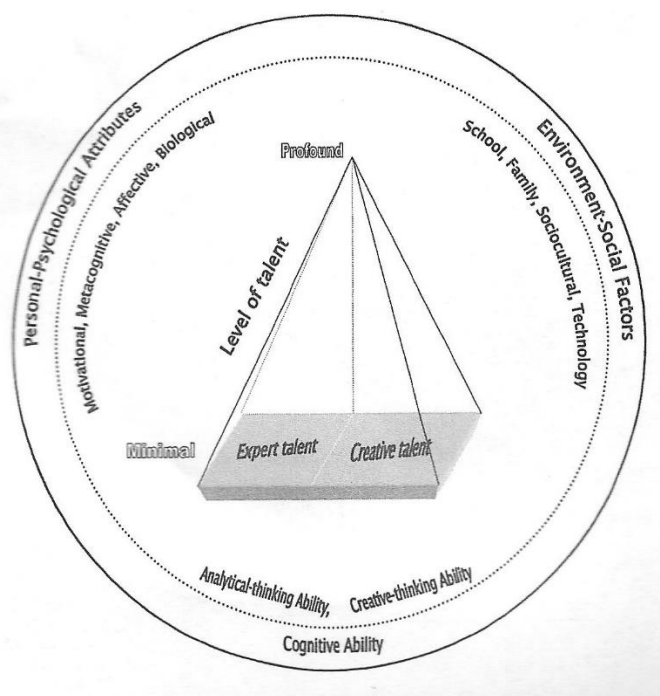
Figure 1. A Comprehensive Model of Giftedness and Talent. Reprinted from *Preventing Talent
Loss (p. 16),* by E. Hong and R. M. Milgram, 2008, New York, NY. Copyright 2008 by
Routledge.

The goal of CMGT along with other Talent Development Models such as the pyramid

model is to develop the understanding and path for any supporter of education to provide an

educational system that is both differentiated and individualized to students who show potential

for high levels of accomplishment (Hong & Milgram, 2008). They emphasize the fact that

students need different opportunities for growth and levels of challenges to continuously improve

their intellectual capacities and develop their unique talents (Hong & Milgram, 2008; Piirto,

1998; Subotnik et al., 2011). Once students reach a particular degree of challenge, they should

be presented with a new level of challenge as well as shown how to find their individual

challenges. The appropriate challenge is what nurtures and sustains the growth of high-ability

students.
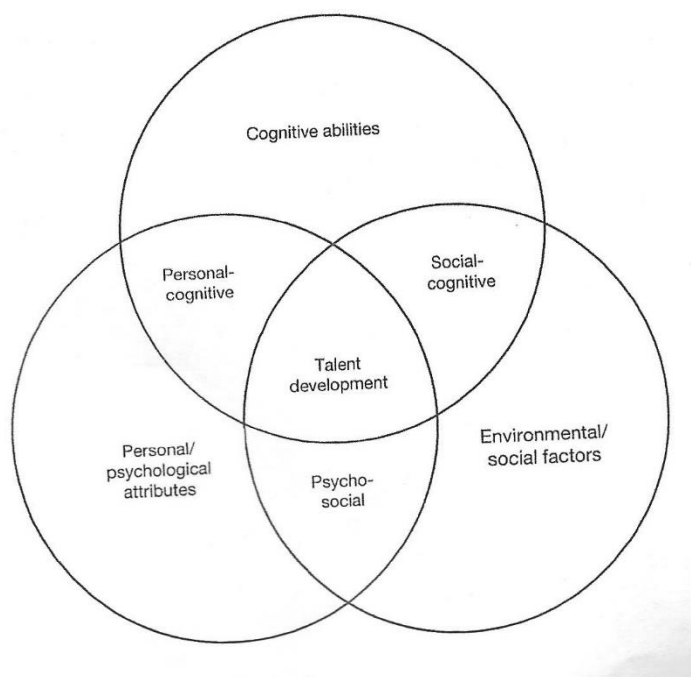
Figure 2. Context of Talent Development. Reprinted from *Preventing Talent Loss (p. 18),* by E. Hong and R. M. Milgram, 2008, New York, NY. Copyright 2008 by Routledge.

Significance of the Study

Academically gifted and talented students along with those who are of high potential

make up approximately six million students in the United States (JKCF, 2013; NAGC, 2015c).

This number equates to nearly 12% of the entire kindergarten through 12th-grade population.

These students are different from the norm for their age groups regarding learning abilities,

depth, the complexity of understanding and potential. The estimated number of students who are

high-ability students but underachieving is between 58 and 78 percent (Cleaver, 2011). This

figure highlights how we, as a country, are failing millions of students not normally added to the

not proficient list.

So, what happens, when within school districts, there is evidence that the needs of a specific group of students are not being served? Just as the SAT was an exam created to allow greater access to higher education for the high-ability but less privileged student populace (About the SAT, 2016) there must be an equitable system in place to support the very same student group in their earlier academic endeavors.

The significance of this study is its examination and work towards solving needs of this unique student group. Issues such as the push towards base proficiency, early intervention, advancement opportunities and inappropriate resources are nationwide. Solutions may not happen without intervention at levels higher than the school district, but suggestions for improvement will be discussed in this paper. Others such as specific support needs and academic offerings along with support interventions and awareness of educators and administrators will be specifically addressed within the research being completed and reviewed.

Lack of access to advanced academic offerings is a concern for all students and particularly those with high-ability. School districts may participate in programs such as Advanced Placement (AP), Dual Enrollment (DE) or International Baccalaureate (IB) to meet this need. What support is available for those students who may take on the challenge of advanced academics but are struggling? Through analysis of the support needs of high-ability students, a plan can be developed to address the needs of this often-neglected group. Three areas of support determined as imperative in creating and/or maintaining student success are academic, emotional and social needs. These three areas of need are evaluated in this research (Allensworth, Lewallen, Stevenson & Katz, 2011; Association for Supervision and Curriculum Development [ASCD], 2015; Cross, 2004; Emerick, 1992; Jen, Wu & Gentry, 2016, Lee & Smith, 1999).

This study further explores the topic of support and evaluates types of support needed. These include opportunities for support, availability, and providers of support, and individual views on the effectiveness of support provided. To examine these support areas, three different sets of participants were questioned. The sets included alumni, teachers, and administrators (school and/or district), that provided a unique opportunity for three different views on the research topics and the various approaches to support. The over-arching theme to determine both availability and need was reviewed and analyzed. Through research evaluation recommendations were made for any improvements needed within these areas.

Resources are always a hot commodity when it comes to the educational arena. The goal of this research is to emphasize necessity of equity for the unsuccessful high-achievers. Through the equitable distribution of resources, all students will be able to realize their highest level of achievement. Recommendations for appropriate resources will be provided as well as discussion of current practices and needed revision for funding.

Unfamiliarity and unpreparedness of educators is a recurrent issue within the arena of high-ability students (Cleaver, 2011; Plucker et al., 2015; Schaps, 2005; Smarick, 2013; VanderArk, 2014; Walton, 2009). With as many as 12 grade equivalencies and an IQ range of up to 80 points in a first-grade classroom, teachers may find it necessary to focus on the lower third of the group while the others grow frustrated and bored (Cleaver, 2015; Ruf, 2005). Handling not only the educational needs of a diverse group of students but also the behavioral issues that develop due to boredom and frustration without the appropriate assistance and training creates a difficult situation (Cleaver, 2015). Including educators, as well as district and school staff, in this study provided a unique opportunity. This research is a chance to compare the perceptions of support and needs from the lenses of both students and educators.

Development of a support system that meets the academic, emotional and social needs of high-ability students is a necessary step and requires an understanding of their unique needs with a multitude of factors (Reis & McCoach, 2000). There is difficulty in creating a system of support as this group of students is often more different than alike. This research provides both the analysis of needs and the perceptions of three unique, but equally important, groups, contributing to answering the question of how to support our high-ability students.

Definitions of Terms

Academic support: A variety of instructional methods, educational services, or school resources provided to students in the effort to help them accelerate their learning (Abbott, 2014).

Acceleration: The strategy of exposing groups or populations of students to higher-level content and more challenging assignments earlier in their education; the early promotion of individual students to the next grade or higher (based on their academic achievements or readiness for higher-level work), advancing them in one or more content areas, or allowing them to work independently on more advanced work (Abbott, 2014).

Advanced academics: Rigorous academic programs provided by districts or schools which may include GATE, AP, IB and DE (Abbott, 2014).

Advanced Placement (AP): A program with course descriptions, curriculum material, and tests provided by the College Entrance Exam Board to high schools, giving students the opportunity to complete college-level studies. American colleges and universities often grant placement and course credit to students who obtain high scores on the examinations ("Dictionary," 2016).

Differentiation: A wide variety of teaching techniques and lesson adaptations that educators use to instruct a diverse group of students, with diverse learning needs, in the same

course, classroom, or learning environment; typically entails modification to practice, process, products, content, assessment, and grouping (Abbott, 2014).

Dual enrollment: Enrollment of students concurrently in two distinct academic programs or educational institutions. Generally, in reference to high school students taking college courses while they are still enrolled in a secondary school (Abbott, 2014).

Emotional needs: A psychological or mental need that usually centers on basic feelings such as love, fear, anger, sorrow, anxiety, frustration, and depression and involves the understanding, empathy, and support of one person for another (Mosby's Medical-Dictionary, n.d.).

Equality: The quality or state of being equal, especially in status, rights, and opportunities (Merriam-Webster Dictionary, n.d.).

Equity: Educational models, programs, and strategies that may be considered fair, but not necessarily equal (Abbott, 2014).

Gifted and talented (GT): Students who show evidence of high achievement capability in areas such as intellectual, creative, artistic, or leadership capacity, or in specific academic fields, and who need services or activities not ordinarily provided by the school in order to fully develop those capabilities (NAGC, n.d.a).

Gifted and talented education (GATE): Educational programs designed to fill the needs of students identified as gifted and talented (GT) (NAGC, n.d.a).

Grade point average (GPA): A number representing the average value of the accumulated final grades earned in courses over time, generally figured by combining all grades and dividing by the number of courses taken (Abbott, 2014).

High-ability students: **S**tudents who are either high-achieving and/or GT identified (Abbott (Ed.), 2014).

Higher education: Education achieved past high school (Abbott, 2014).

International Baccalaureate (IB): An international program, based in The Hague, which offers rigorous academics grades K-12 as well as culminating exams during the 11th and 12th-grade years. In the United States as well as internationally, colleges and universities often grant placement and course credit to students who obtain high scores on the examinations (NAGC, n.d.a).

Local Control Accountability Plan (LCAP): A three-year funding plan which is developed, adopted and annually updated by school districts, county offices of education and charters schools which is required by the California Department of Education (CDE) (CDE, 2016d).

*Local Control Funding Formula (LCFF)***:** A plan developed by the California State Board of Education to create accountability, flexibility, and improvement in the funding process for the California education system (CDE, 2016c).

Magnet program: Programs within a district designed around a central theme which can draw students from across normal boundaries (NAGC, n.d.a).

Professional development: A wide variety of specialized training, formal education, or advanced professional learning intended to help administrators, teachers, and other educators improve their professional knowledge, competence, skill, and effectiveness (Abbott, 2014).

Rigor: Instruction, schoolwork, learning experiences, and educational expectations that are academically, intellectually, and personally challenging (Abbott, 2014).

SAT: A test of a student's academic skills used for college admission ("Dictionary," 2016).

Social needs: Needs such as acceptance, appreciation, belonging and companionship, which are met by forging relationships with other people (Reference, n.d.).

Socioeconomic status (SES): An individual's or family's economic and social position in relation to others, based on income, education, and occupation ("Dictionary," 2016).

Student engagement: The degree of attention, curiosity, interest, optimism, and passion that students show when they are learning or being taught, which extends to the level of motivation they have to learn and progress in their education (Abbott, 2014).

Support: To help or give assistance to someone or something (Merriam-Webster Dictionary, n.d.).

Underachievement: Discrepancy between potential and performance (Merriam-Webster Dictionary, n.d.)

For the purpose of this study, the phrase *advanced academics* will be defined as rigorous academic programs provided for all students who are willing to commit to the challenges of advanced programs including AP, DE, GATE and IB which are, or were, offered within the studied school district.

Summary

As a society, and more specifically as educators, we cannot afford to forget our obligations to the very brightest and most capable students who also have the right to equal educational opportunities. Overall, the number of students participating in advanced academics has increased, but provision for support has not. Especially at risk are those from disadvantaged backgrounds (Contreras, 2011). Fetterman (1988) identified, "the gifted stand at the margins of

an educational system geared toward the mean" (p. 125). Fetterman (1988) also discussed that there is an allocation of special education provisions for those who are downward of the mean and are classified as special needs; however, addressing needs for those who are upward of the mean, and likewise have special educational needs, does not occur.

There is a vast amount of current research that focuses on the needs of gifted and talented students. Additionally, various studies focus on both the underrepresentation of students of poverty in advanced academic programs and unequal access of minority students (Conger, Long & Iatarola, 2009; NAGC, 2015b; Perna et al., 2015; Plucker et al., 2010; Plucker et al., 2013; Plucker, et al., 2015). This study focuses on supporting all who have the ability or drive to be successful in advanced academic programs, no matter their academic, socioeconomic or ethnic designation. To develop solutions to this problem facing millions of children in the United States, we must first define the problem. With its analysis of student, teacher and administrator views, this study will explore support given to students in advanced academic programs in comparison with their success. By seeking a greater understanding of this group of students, we may discover an un-tapped potential within this often-neglected cluster of students. We owe this to all students who are in our classrooms and willing to challenge themselves, often against the odds.

CHAPTER 2: REVIEW OF LITERATURE

Connectedness, interrelatedness, and integration are themes that we find in many areas of study including education. Unlike other fields, however, education appears to continually fail in utilizing this knowledge to better their pursuit of excellence (Clark, 1991). Providing a broad base of support that encompasses the needs of the whole child is necessary to facilitate greater success (Allensworth et al., 2011; ASCD, 2015; Clark, 1991).

In response to this need to support the whole child in an ever-changing world, educators and students alike are being required to make adjustments to their teaching and learning abilities (ASCD, 2015; Plucker et al., 2010). The education system, through both the federal and state government demands, has placed emphasis not only on test scores but on training for the next step in life whether it is career or post-secondary education. The focus on test scores and preparation for next steps has increased the request for student access to rigorous programs (DeBray & Blankenship, 2013). Due to the emphasis on preparation for post-secondary education, the growth of advanced academic programs such as AP, DE, and IB has been exponential over the past four decades (CollegeBoard, 2016; Lauren & Gaddis, 2012; NAGC, 2015). As a result of this push, understanding is developing in regard to the growing need for determining the best avenue of support for all students in successfully completing these courses of study. Review of research illustrates a range of information on addressing the needs of this high-ability student group as well as gaps in that information.

Research on high-ability students began in the 1920s and 1930s with Lewis Terman and Leta Hollingworth who studied exceptional children and their academic needs (Haensley, 1999; Hong & Milgram, 2008; NAGC, 2015a; Robinson & Clinkenbeard, 2008). Since that time, research mainly focuses on either the needs of students identified as gifted and talented or the

lack of access for low-income or other subgroup populations within advanced academic

programs (Haensley, 1999; Plucker et al., 2010). Current research provides some information on

the needs of students within advanced academic programs, but scant evidence on the support

needs of this unique student group (Eddles-Hirsch, Vialle, Rogers & McCormick, 2010). This

research seeks to investigate these avenues of support for all students involved in advanced

academic programs.

The first section of this review will investigate the specifics of advanced academics, such

as historical origins, to develop an understanding of the topic. Secondly, the review will cover

the aspects of the students involved in the programs discussed and the support needed to ensure

their academic success. Finally, current policies on advanced academics are studied to determine

the needs of students in advanced academics.

Discussion of Advanced Academics

To address the need for advanced academic programs, a definition of those programs is

necessary. The definition for advanced academics in K-12 education has changed over the years

and quite often depends upon the research explored (NAGC, 2015b; VanderArk, 2014). Even

the definitions of students within those programs, i.e., gifted or high-ability, are widely

inconsistent (CollegeBoard, 2003; Peters, Matthews, McBee & McCoach, 1983; VanTassel-

Baska, 2010). Most frequently, when surveying individuals, advanced academics are thought of

as programs for gifted students. The majority of results gained from searching both the

California Department of Education (2016a) and U.S. Department of Education (2017) websites

using the keywords *advanced academics definition* included either reference to the offering of

AP courses, providing opportunities for participation in rigorous coursework or GATE programs

or links to articles in the Journal of Advanced Academics. Other internet searches displayed

items such as summer camps (Johns Hopkins Center for Talented Youth, 2016) and specialty

academies (Academy for Advanced Academics at Florida International University, 2016), along

with private (Berkshire School, 2016; Eldorado Emerson Private School, 2016) and charter

schools (Advanced Math & Science Academy, 2016) with advanced academics in their title, but

no actual definition.

Outside of the state of California, there are a multitude of districts that have developed a

platform for advanced academics along with a definition (Christina School District [CSD], 2016;

Fairfax County Public School System [FCPS], 2016). This platform includes various definitions,

programs, and methods of servicing high-ability students' educational needs not only in private

school settings but, as shown below, in public school districts as well.

Fairfax County Public School (FCPS) system in Virginia stated "Advanced Academic

Programs (AAP) provide challenging learning experiences that are designed to meet the unique

learning profile of a broad range of advanced learners. Through a continuum of opportunities,

students engage in the complex subject matter, preparing them for more challenging and rigorous

classes as they advance in grade level" (FCPS, 2016, p. 2) and their programs range from

resource programs in grade K-6 to AP, IB, and Dual Enrollment in high school.

In Tennessee, the mission statement for Advanced Academics in MNPS indicated they

are providing rigorous learning options for the highly motivated student in grades Pre-K-12

(MNPS, 2016). The options include K-12 IB as well as Cambridge, AP, and Gifted programs.

Austin Independent School District (AISD) in Texas defines advanced academics as

programs "designed to move students with high-ability at a pace appropriate to their rate of

learning through studies that go beyond the age-level or grade-level expectations which include

depth and complexity, provide academic acceleration, and address the cognitive, social, and emotional needs of the students" (AISD, 2016, p. 1).

Christina School District (CSD) in Newark, Delaware is supplementing their systems already in place for their AAP through a comprehensive plan (CSD, 2016). This plan includes expanding the Talented and Gifted (TAG) programs for grade K-5, the addition of an advanced middle school curriculum based on the Cambridge Program Grades six through eight, and additional opportunities for students grades nine to twelve to take rigorous courses and possibly earn college credits (CSD, 2016).

While definitions of high-ability students or AAP may vary, the common thread appears to be that regardless of the designation of a student as gifted or not, advanced academics is about providing students with curriculum and instruction that is faster, deeper and more rigorous than they would receive within the normal academic experience (AISD, 2016; CSD, 2016; Olszewski-Kubilis & Clarenbach, 2012; Peters et al., 1983; Plucker et al., 2010).

History of Advanced Academics

The need for the modification of school practices and supplementary instruction and services to meet the needs of the high-ability student is equivalent to the needs of any other special education student (Hewitt & Forness, 1984; Gearheart, 1974; Kirk, Gallagher & Coleman, 2014). However, the history of this modification in what we today call advanced academics is limited. The definition is generally a list of current programs within a school or district which makes establishing a history difficult and the children themselves, more than the programs used to address their needs, are the usual subject of past examination (AISD, 2016; CSD, 2016; Hollingworth, 1931, MNPS, 2016; Plucker et al., 2013; Terman, 1925).

Ancient Times

In ancient history, society placed value on children with high-ability or the promise of high-ability (Chauhan, 1989; Davis, Rimm & Siegel, 2010; Smith, 1955). Focus and opportunities for these high-ability children varied, usually related to social position both within the household and society and was determined by their gender. The Tang Dynasty, in early China, sent their gifted children and youth to the imperial court where their gifts, both academic and non-academic, were recognized and cultivated. In Japan, birth, with its placement in the family or society, also dictated most opportunities for advanced education while Renaissance Europe rewarded creativity of their children. The early views of the need to foster multiple talents within children were a precursor to today's modern concepts of GT.

Early United States History

History of advanced academics within the United States most frequently focuses on the history of gifted education programs and children who test as intellectually advanced (NAGC, 2016; Robinson & Clinkenbeard, 2008). In America's past, there were compulsory attendance laws for some schooling, but accommodations and services for advanced children were sparse (Davis et al., 2010). In the late 1800s and early 1900s, new opportunities developed for advanced learning, when the Binet-Simon Scale was developed by Alfred Binet to assess mental ability in children. The Binet-Simon Scale was explicitly designed to test children as their intelligence manifests differently from adults and accordingly tests for children must reflect this difference (Becker, 2003). Lewis Terman is credited with adapting the Binet-Simon Scale, which led to the development of the Stanford-Binet Intelligence Scales that is now in its 5th edition. Since Binet and Terman first introduced intelligence tests these tools have been adapted

and revised for use in multiple arenas and with various populations (Becker, 2003; Benson, 2003; Robinson & Clinkenbeard, 2008).

Despite the understanding of intellectual testing differences and educational needs for children, it was primarily in the 1920s and 1930s when authorities recognized that current schools could not meet the needs of all students (Benson, 2003; NAGC, 2016). This realization of need created the impetus for research on these exceptional children and their particular educational needs. Two of the pioneers in this research area include Terman (1925) and Hollingworth (1931).

Terman, a psychologist at Stanford University, is considered the first of many researchers who were (and are) dedicated to the investigation of the phenomenon of giftedness and his work was responsible for contributing vast amounts of information on gifted children that were considered high-IQ (Hong & Milgram, 2008; Kirk et al., 2014; NAGC, 2016). Terman's research study followed over 1,000 subjects to test the "early ripe early rot" myth regarding children with high intelligence (Terman, 1925). "Early ripe early rot" is the theory that children who develop high intellect as children are unlikely to continue improving and in fact may be intellectual failures as adults (Indiana University Bloomington, 2013). The belief at the time was also that children with high-IQ were more likely to have problems with psychological and social adjustment along with physical weakness (Hong & Milgram, 2008). Terman chose subjects according to IQ, and all scored over 135 according to the Stanford-Binet IQ test, and the research study lasted for over six decades, contributing volumes of information on the subject of high-IQ-type gifted individuals (Hong & Milgram, 2008; Jolly, 2008; Terman, 1925).

While Terman was working on the West Coast in California, Hollingworth was a psychologist working in New York City's schools on the East Coast (Robinson & Clinkenbeard,

2008). Hollingworth's focus was on highly-gifted, IQ scores of 180 and above, and included the documentation of developmentally extraordinary cases (Hollingworth, 1931; Robinson & Clinkenbeard, 2008). She investigated the practical matters of gifted learners including their daily and educational needs. Hollingworth (1931) also studied the differences between subgroups and special adjustment problems they developed, due mostly, to the fact that they were gifted.

Little besides research developed during many of the following years and the identification process for high-ability students remained narrow in scope (Davis et al., 2010; NAGC, 2016; Ruf, 2005). Equally disturbing, a recurring finding demonstrated high-ability children were mentally advanced, but their performance on mental tests did not correlate to their performance in the educational arena (Robinson & Clinkenbeard, 2008). When would the direction of focus change to support all aspects of need within this group of students, not just their IQ?

With the advancement of Sputnik, the Russian space program in the 1950s, there was a renewed interest in gifted education (Davis et al., 2010; NAGC, 2016; Powell, 2007). Haensley (1999) hypothesized that these gifted children were going to save the United States from the security threat that was the Soviet Union.

Educators who had been berating an educational system that drastically failed to meet the instructional needs and develop the potential ability of our brightest youth were correct after all. These educators had asserted that not only had the U.S. failed to prepare students well in the natural sciences, health fields, physics, mathematics, and engineering, but also that too few gifted students were being encouraged to continue into advanced

studies. This deficit would do serious damage to the future scientific and professional

efforts of this nation (Haensley, 1999).

This impetus led to the first wide-scale involvement of the federal government in the area

of gifted education (Haensly, 1999; NAGC, 2016). In Eisenhower's message to Congress (1958)

he called for Congress to match funds for education with national defense needs. The National

Defense Education Act (NDEA) of 1958 was the result of this action (NDEA, 2016).

Unfortunately, the drive to improve all aspects of student education dwindled after the

initial push in the late 1950s (Davis et al., 2010; Haensly, 1999; Ruf, 2007). When in 1970

Congress mandated a status report regarding the education of gifted and talented children, these

results once again brought attention to the plight of gifted students. The Marland Report (1972)

introduced the conclusions that it had been confirmed by the research that the intellectual

potential of many talented children far exceeds their actual performance. This research

supported the fact that bright children are not guaranteed success without support despite the

long-held belief that they would be able to find their way on their own. The compelling finding

was that this available talent of intellect and creativity would not survive neglect and educational

apathy. In this 127+ page report, there is a discussion of the lack of adequate provisions for

student need as well as an outline of steps to be taken in response to uncovered deficiencies

(Marland, 1972).

Due to the results of the Marland Report (1972), the Office of the Gifted and Talented

was given official status in the 1970s along with the issuance to schools of a broad definition of

giftedness (Marland, 1972; NAGC, 2016). Despite these forward steps, the lack of addressing

the country's brightest and most able students continued (Clark, 1991; Plucker et al., 2013; The

National Commission on the Excellence in Education [NCEE], 1983).

At the beginning of the 1980s the report, A Nation at Risk, once again demonstrated the failure of the United States to adequately educate our brightest students (NCEE, 1983). The report revealed that this inadequate preparation was not only within our national arena but failed to prepare these students to compete in our competitive and increasingly fluid society. One positive of this report was that it also included policies and practices for implementation within the areas of need for high-ability students (Davis et al., 2010; NAGC, 2016; NCEE, 1983).

With the enactment of the Jacob Javits Gifted and Talented Students Act in 1988, as a part of the Elementary and Secondary Education Act (ESSA), the federal government had once again reasserted its presence and support into the field of gifted education (Davidson Institute, 2016; Davis et al., 2010; NAGC, 2016; Gubbins, Callahan & Renzulli, 2014). This act, with a funding amount over 9 million dollars, only provided grant monies for research in gifted education. These resources are divided between Javits projects and the National Research Center on the Gifted and Talented (NRC/GT). This funding enabled the publishing of numerous bodies of research over the next several decades, and a guiding principle of the NRC/GT has continued to be that research and dissemination align to the needs of practitioners in the field of gifted education. Further guidance ensures that the research impacts educational practices, management, and policies for gifted programs and educators.

Unfortunately, not all of the research completed since A Nation at Risk (1983) has been to report the successes of educating our high-ability students. National Excellence: The Case for Developing America's Talent (Ross (Ed.), 1994) and A Nation Deceived: How Schools Hold Back America's Brightest Students (Colangelo et al. (Eds.), 2004) both highlight how America continues to neglect its most talented youth. Additionally, both reports contain multiple recommendations for support of these students along with strategies to improve the educational

offerings for advanced learners (Colangelo et al. (Eds.), 2004; Davidson Institute, 2016; Ross (Ed.), 1994).

Recent History

As education has moved through the centuries, the focus has continued to change, but generally with the thought of progress in mind (Davidson Institute, 2016). It is imperative for improvement, that not only the research and recommendations continue, but more importantly, that action is taken (Olszewski-Kubilius & Clarenbach, 2012; Reis & McCoach, 2000; Wyner et al., 2008). Historically many steps taken did not demonstrate much success, frequently because the plans or programs introduced were instituted piecemeal instead of as a whole, thereby limiting any capability of success (Bui, Craig & Imberman, 2012; Wyner et al., 2008). Today organizations such as NAGC continue to battle to meet needs of students (NAGC, 2016). Additionally, states and district across the country have come to encompass this group of students including not only those identified as gifted but also those who demonstrate the ability to perform within advanced academic programs (AISD, 2016; MNPS, 2016, South Carolina Department of Education [SCDOE], 2016). To ensure that the students within this group have access to rigorous courses the term *advanced academics* has come to encompass not only gifted education programs but a group of programs that address the needs of all high-ability students (Cleaver, 2011; Debray & Blankenship, 2013 Driscoll, 2002; Epstein et al., 2011; Kyburg, Hertzberg-Davis & Callahan, 2007; Olszewski-Kubilius & Clarenbach, 2012; Purcell & Eckert, 2005; Wyner et al., 2008). Programs offered under this umbrella by most school districts include AP, DE, GATE, and IB (AISD, 2016; FCPS. 2016; MNPS, 2016). On the East Coast, offerings may also include the Cambridge Program (CSD, 2016). Advancement Via Individualized Determination (AVID) may also be provided as one support for students who have the capability

or drive but require additional support and instructional strategies as they pursue rigorous academic courses (FCPS, 2016; MNPS, 2016).

Overview of Specific Advanced Academic Programs

To better meet the needs of high-ability students, local school districts explore appropriate educational options (DeBray & Blankenship, 2013; Driscoll, 2002; Kirk et al., 2014; Smarick, 2013). School districts frequently characterize advanced academic programs such as AP, DE, GATE and IB as pathway programs which are designed to assist student transition from high school to post-secondary studies by offering enriched curricula and rigorous high school experiences (AISD, 2016; FCPS, 2016; Park, Caine & Wimmer, 2014).

There are many considerations when deciding the best fit for each district's specific student population. The AP program is commonly geared for students in grades nine through 12 (CollegeBoard, 2016; Sadler, Sonnert, Tai & Klopfenstern, 2010). Students may take pre-AP courses to prepare for the college-level AP subject course(s) which culminate in an external exam. Gifted and talented education programs are not generally prepackaged, and their development occurs within a district (NAGC, n.d.b). Programs include resources and requirements for both students and teachers. Dual Enrollment includes several options for districts that pair with local community college (Cassidy, Keating & Young, 2013; Purnell-Mack & Castro, 2016). This collaboration enables high school students to earn college credits by taking college courses. The IB program has three levels for students from kindergarten through grade 12 (IBO, 2015e; IBO, 2016). These levels are the Primary Years Program (PYP) for kindergarten through grade five. Middle Years Program (MYP) includes grade six through grade ten. The program culminates in the Diploma Program (DP) for grades 11 and 12 which include

subject-area external exams. More detailed descriptions of each of these AAP occur in the following sections.

Advanced Placement

In the United States, perhaps the most well-known advanced academic program is the AP program (Mattern, Marini & Shaw, 2013). This program came into existence when after World War II (WWII) a realization developed that current educational offerings for most students were not adequately preparing them for post-secondary education (Rothschild, 1999). Between the perceived crisis of the Space Race, the Cold War, and the Korean War, it was realized that the gap for high-ability students between secondary and higher education was continuing to enlarge, and the need for a bridge between the two was necessary (Rothschild, 1999). In 1951 as a response to the perceived crisis, the Ford Foundation formed a Fund for Advancement of Education (FAE) which included many initiatives (Rothschild, 1999). These initiatives included one which sent high school sophomores who were academically talented to a nearby university enabling them to achieve two years of college before they were eligible for the draft. This opportunity gave students the chance to realize their ability levels as well as get a jump-start on college. Secondary principals, however, were not pleased with this arrangement as they were losing their most promising students. In a letter to the FAE president, a change in direction was suggested which instead of moving students during their secondary years, moved them ahead after their college acceptance. At the same time, another project created by the FAE culminated in a committee report by members of three elite prep schools and three of the most prestigious colleges. This report included the recommendation for the creation of a set of college-supported achievements exams which would give entering students advanced placement in approved subject areas (Blackmer et al., 1952). As a result, the FAE focused on establishing college

freshman-level courses that would be accepted by the college faculties even if they were taught in the high schools and invited headmasters, principals, and superintendents to join the early planning sessions in 1952 (Rothschild, 1999). Immediately following the planning sessions, seven schools piloted these advanced courses. By September of 1953, another ten courses were added to the initial eleven academic subjects (Rothschild, 1999). The first common AP examinations were administered by the Educational Testing Service (ETS) in May of 1954 and the results compared with freshmen from the twelve participating colleges. These results gave evidence that the high school students had performed well (Rothschild, 1999).

The program was named the College Board Advanced Placement Program after the College Board was invited to take over the administration of the program in the 1955 – 56 school year (Rothschild, 1999). Advanced Placement provides an opportunity for exploring the rigor of college-level programs while still in high school. Additionally, AP allows students a chance to acquire college credits by taking an advanced high school course. There are currently more than 30 AP courses available through College Board although most schools only offer a small variety of them and each course offering includes a culminating external exam to test a student's knowledge of the subject area taken (Mattern et al., 2013; Reshestar & Melican, 2010). Scoring for this exam is on a scale of 1 to 5 with a score of 3 considered a passing score (About the Exams, 2015; College Board, 2016a; Reshestar & Melican, 2010). Students may include multiple subject courses during their high school career, or only one course as there is no set model of participation. More than 3,600 colleges and universities annually receive AP exam scores and most four-year colleges in the United States provide credit and/or advanced placement for qualifying scores (Chajewski et al., 2011; College Board, 2016a; Mattern et al., 2013). Additionally, nearly 300 universities outside of the United States use AP courses and

exam grades in their admissions process (Rothschild, 1999). Beginning with the 1970s, an increasing number of schools added AP courses to their academic offerings. In 1976, 75,651 students took 98,898 exams; in 1985, 205,650 students took 280,972 exams and in 2015, over 4.5 million exams were taken by more than 2.5 million students (College Board, 2016a; Rothschild, 1999).

The AP program is not without its problems as schools struggle with appropriate staffing, and ETS searches for ways to obtain more highly qualified readers for the increasing number of student exams (Carey, 2015; Reshestar & Melican, 2010). School climate has even led some teachers or schools to suggest that some students not take the end-of-course exam to keep their score averages high (Rothschild, 1999). Another concern is the possible inflation of courses offered in high schools as AP course offerings, but not completion or success, is one measurement for determining high school quality in national publications such as Newsweek or U.S. News (Sadler et al., 2010).

Today the AP strives toward its founding goal of excellence in education (College Board, 2016a; Sadler et al., 2010). The process for the course and exam development as well as the scoring process has seen many revisions and improvements over the years as well as a commitment to teacher training which began in the 1960s (College Board, 2016a; Rothschild, 1999).

While the Advanced Placement program may have originated in elite private schools, the offerings at a vast number of public schools now allow motivated high school students the opportunity to take these college-level courses in high school settings (Rothschild, 1999). Research has examined the relationships between college participation and success related to participation in AP as well as the correlation between AP exam scores and first-year grade point

average in college (Chajewski et al., 2011; Geiser & Santelices, 2004; Mattern et al., 2013).

Students who have success in the AP programs, earning an exam score of 3 or higher, are more

likely to perform well in college and maintain a higher first-year grade point average than non-

AP participants (Dodd, Fitzpatrick, DeAyala & Jennings, 2002; Mattern, Shaw & Xiong, 2009).

That same group of AP students is more likely to graduate from in a timely manner thereby

reducing the overall cost of college (Mattern et al., 2009; Mattern et al., 2013).

There is no typical type of student who chooses the AP path through high school

(Mattern et al., 2009; Sadler et al., 2010). A participant's only obstacles may be the availability

of course offerings at their school site or whether or not the school site has an open-enrollment

policy (Epstein et al., 2011; Kyburg et al., 2007; Plucker et al., 2010). With participation in AP

courses, students who are willing and able, are afforded the opportunity to take courses which

prepare them for the rigor and expectations of college (About the Exams, 2015; College Board,

2016a; Olszewski-Kubilius & Clarenbach, 2010; Plucker et al., 2010).

Dual Enrollment

Dual Enrollment, also known as dual credit or concurrent enrollment, is seen as a way to

promote college for a broader range of students as well as ease their transition from high school

into the college environment (An & Taylor, 2015; Cassidy et al., 2013). These courses offer

high school students the opportunity to earn college credit while completing college-level

courses and, depending upon the agreement between the college and the district, may be taken

either at the local college or the student's high school (Purnell & Castro, 2016; Struhl & Vargas,

2012).

Models of DE include Middle College High Schools where students earn a high school

diploma and some college credits (Cassidy et al., 2013; Purnell-Mack & Castro, 2016; Struhl &

Vargas, 2012). Early College High students achieve a high school diploma, and at least 12 college credits up to an associate degree or 60 transferable credits. Gateway to College is for students who have left the high school and gives them the opportunity to earn their high school diploma along with college credits. Pathway Aligned Programs are education/career pathways designed with a special admit for participating students. Finally, the Singletons model which involves students taking individual courses and may continue throughout their high school career.

The course offerings for DE may be academic or career/technical and may be dependent upon the model of DE a school or district is using (Cassidy et al., 2013). The specifics of credit earned are dependent upon the particular agreement situations. Dual credit courses carry the ability to earn both high school and college credit for the course while dual enrollment only allows the student to obtain college credit (Abbott (Ed.), 2014; Sadler et al., 2010).

Any student may participate in DE courses, however, must still meet any applicable minimum requirements, such as college assessment reading levels, for each course offered (San Joaquin Delta College, 2016; Santa Barbara City College, 2016). Some high schools may impose additional requirements for interested students such as being on-track with requirements for graduation or maintaining certain grade criteria in current courses.

Students gain motivation and confidence by experiencing the higher expectations and success achieved in dual enrollment programs, but it is not only the students who appreciate the benefits (Cassidy et al., 2013; Cowan & Goldhaber, 2013; Taylor, 2015). Parents are often attracted to the advantages of their student's dual enrollment opportunities as well. These benefits may include lower costs for courses and the ability to transfer the credits as well as

possibly shortening the time for their student to acquire their college degree (Carey, 2015; Haskell, 2015; Haskell, 2016).

Educational institutions are enticed to these programs as it has been shown to improve high school graduation and college success rates, increase retention rates and remove barriers to historically underserved student populations (Cassidy et al., 2013; San Joaquin Delta College, 2016). By exposing students early to the expectations of college and the academic rigor of coursework students feel less intimidated by the college environment when they enroll after high school graduation (Cassidy et al., 2013; Cowan & Goldhaber, 2013; Haskell, 2015; Taylor, 2015).

Some programs, such as the Bill and Melinda Gates Foundation's Early College High School Initiative (ECHSI) which funds the development of Early College Schools, targets students who are underachieving and have traditionally been underserved (Cassidy et al., 2013; Groark, 2014). Research within these programs has shown that the majority meets the high academic standards and frequently outperforms their peers on state assessments (Cassidy et al., 2013; Cowan & Goldhaber, 2013; Taylor, 2015). In California, the enactment of Assembly Bill 288 (2016) outlined provisions for community college districts within the state to enter into partnerships for College and Career Access Pathways (CCAP) with school district boards. This partnership would allow the expansion or offering of dual enrollment opportunities for students who may not be on a college route. There are several goals in creating this pathway from high school to community college which includes enhancing high school students' college and career readiness, increased career technical education opportunities, and preparation to transfer to a four-year university (AB 288, 2016; An & Taylor, 2015; Cowan & Goldhaber, 2013; McDonald & Farrell, 2012; Taylor, 2015).

The ability to earn college credits before even entering college is also a way for students and parents to save on the cost of higher education (Carey, 2015; Haskell, 2015). Research by Haskell (2015) and Taylor (2015) on outcomes of DE in Utah and Illinois identified monetary savings by households of a total 19 million dollars which equates to $687.00 per student.

Research on the continued effectiveness of dual enrollment is currently limited (Taylor, 2015). However, findings suggest that this is another tool to increase student success (Cowan & Goldhaber, 2013; Haskell, 2016; Struhl & Vargas, 2012). Dual enrollment has been related to increased high school graduation rates and increased college enrollment rates compared to non-participating peers. With only approximately half of all students entering post-secondary education graduating from a 4-year university within 6 years (or 2-year colleges within 3 years) (Marks and Diaz, 2009), it is important to note that not only are college enrollment rates increased for DE participants compared to non-participating peers (Cowan & Goldhaber; Struhl & Vargas, 2012), but also persistence in and time of completing a college degree is improved (An & Taylor, 2015; Cassidy et al., 2013; Cowan & Goldhaber, 2013; Marks and Diaz, 2009; Struhl & Vargas, 2012). With the current drive to improve student opportunities for advancement to both college and career, DE is a very viable option especially for the K-12 partner (Haskell, 2016; Purnell-Mack & Castro, 2016).

Gifted and Talented Education

Gifted and Talented Education programs originally were designed to meet the needs of those tested and labeled as intellectually gifted (NAGC, n.d.b; Robinson & Clinkenbeard, 2008; VanTassel-Baska, 2010). Since its inception, the definition of "gifted" has been a source of confusion and argument and has evolved over time (Peters et al., 1983). The designation of the gifted program has changed and come to allow for the inclusion of those who were not only

tested with an IQ over 130 but also those with intelligence in other areas such as creativity or leadership (Hong & Milgram, 2008; Renzulli, 1978; Robinson & Clinkenbeard, 2008).

The identification for involvement in GATE programs across the United States have commonalities, but it is not a one-size-fits-all approach (Callahan, Moon & Oh, 2014; Davidson Institute, 2016). Gifted learners exhibit their giftedness in a variety of ways, and these differences need addressing. There are no federal mandates regarding the identification of gifted and talented students and only 32 states mandate this identification process (Callahan et al., 2014; Davidson Institute, 2016; NAGC, 2015c). Of those 32 states, however, there was a variety of responsibility for the development of a method of identification of gifted learners with some required at the state level and others through the individual school districts. Typically, districts will follow a process for identifying students who need services through combining both objective and subject identification instruments. Objective identification instruments may include tests and assessments along with cumulative student records while subject instruments may consist of teacher observations, self, teacher, administrator or parent nominations as well as student portfolios.

The one constant, however, is the neglect towards the needs of students who can work above and beyond the required standards (Colangelo et al. (Eds.), 2004; Davis et al., 2010; Finn, 2012; NAGC, 2015a). The early experiments of both Hollingworth (1931) in New York City and Terman (1925) in San Diego, California centered on providing an environment where students with advanced abilities could continue to excel (Robinson & Clinkenbeard, 2008; VanTassel-Baska, 2010). Even with GATE program offerings in most school districts, there is a determined lack of continuity when it comes to the development, progress and oversight of GATE programs from state to state and even district to district (Callahan et al., 2014; NAGC,

2015c; Peters et al., 1983). In a report by the NAGC (2015c), only 28 described mandates requiring services for their GATE students and 32 states reported on services in specific categories such as academic, visual/performing arts, creativity, and leadership. This lack of continuity is due, in part, to a lack of consistent definitions, expectations, and mandates for the development and implementation of these programs (Callahan et al., 2014; NAGC, 2015c; Peters et al., 1983).

Several programming routes are shown to meet gifted student needs. These programming routes are comprised of several options including acceleration, curriculum compacting, grouping, pull-out, and specific specialized programs.

Educational acceleration is the practice of students moving through the traditional curriculum at a faster-than-typical rate and one of the most exemplary and research-supported methods of addressing the needs of high-level students (Davis et al., 2010; NAGC, n.d.a; Peters et al., 1983). Curriculum compacting allows students to move beyond the material that they have already mastered by streamlining or modifying curriculum and reducing repetition. This practice then enables acceleration or enrichment beyond what the student has already learned. Grouping, which is the practice of placing students with similar abilities together, has been determined to have a positive impact on student learning. This matching of skills and capabilities of students within one group is often the most efficient and effective manner of providing the needed access to advanced learning.

Gifted and talented education program services may be offered either in resource classes, where students are provided additional support in a separate classroom several times a week, or special day classes which provides for the needs of gifted and talented students in a fully inclusive classroom (Hong & Milgram, 2008; NAGC, 2015b; Peters et al., 1983). Whether it is

in an inclusive classroom or a separate program, the major focus on any GATE program should be the advancement of a student's academic skill (Baum et al., 1995; Hong & Milgram, 2008; Krunholz, 2011; Reis & McCoach, 2002; Ruf, 2005).

International Baccalaureate

In the 1960s a need was established in Europe for an educational program that would fill the academic necessities of the children of diplomats as they relocated, sometimes frequently, with their families (Hill & Saxton, 2014; IBO, 2015e; Krunholz, 2011; Peterson, 2003). This program needed to be rigorous and recognized by the universities where they would apply for their post-secondary schooling. The IB program originated in 1962 as the answer to this educational need. The original goal of IB was standardizing secondary programs by developing an international set of exams and qualifications which could be recognized and used anywhere in the world (Kyburg et al., 2007). In 1970, the first official IB Diploma Program examinations were taken by students in 10 countries (Hill & Saxton, 2014; IBO, 2015e; Peterson, 2003). This program came under such acclaim that other schools requested access and during the 1970s the program began its offerings worldwide.

The mission of the International Baccalaureate Organization (IBO) is the use of education to create a better world. More than 1,250,000 students ages 13-19 are enrolled in over 4,200 IB world schools which contain above 5,300 programs (IBO, 2015b). These students are involved in one of four challenging levels of IB programs (IBO, 2015b; IBO, 2015e). The four levels of IB programs include Primary Years, Middle Years, Diploma and Career-Related Certificate.

Primary Years Program (PYP), designed for ages 3-12, was first discussed in 1990 at the European Council of International Schools (ECIS) conference in Rome and was introduced the International Baccalaureate Organization (IBO) in 1997 (Hill & Saxton, 2014; IBO, 2015b;

Peterson, 2003). Within the United States, this program generally is offered to students in kindergarten through grade five (IBO, 2016). The curriculum for the PYP revolves around six transdisciplinary themes which include who we are, where we are in place and time, how we express ourselves, how the world works, how we organize ourselves and sharing the planet (IBO, 2012). As the first of the four IB programs of education, it provides an outstanding foundation for not only education in general but especially the other IB programs. Research also establishes that the PYP delivers exceptional instruction in mathematics, reading, and writing following the report that PYP students performed better than non-IB students in those subjects on the International Schools' Assessment (ISA) for the years 2009-2011 (IBO, 2014; IBO, 2015e). Additionally, a 2014 study in Australia determined that PYP students outperformed the national average on nationwide science tests. In May 2015 there were 1,266 schools with the PYP in 106 different countries and the first in the IB course of programs it provides an exceptional foundation for success within the following programs (IBO, 2016).

A Middle Years Program (MYP) discussion began in 1980 as the need to prepare for the Diploma program was established (Hill & Saxton, 2014; IBO, 2015b; Peterson, 2003). The MYP was introduced in 1994 for students ages 11-15 and in the United States generally addresses grades six through ten. The curriculum of the MYP is a five-year program which challenges students in making connections between their education and the real world as well as preparing students to embark on either the IB Diploma program or Career-related program.

MYP curriculum contains eight subject groups which provide a broad and balanced education and include language acquisition, language and literature, individuals and societies, sciences, mathematics, arts, physical and health education and design (IBO, 2015c; IBO, 2017b). Global contexts and a common humanity are also an essential part of the MYP student's

education, and exploration of this development is through identities and relationships, personal and cultural identity, orientations in space and time, scientific and technical innovation, fairness and development and globalization and sustainability.

The Approaches to Learning (ATL) are used to teach students how to learn and comprise communication, social, self-management, research, and thinking (IBO, 2015c; IBO, 2017b). Through the application of these skills MYP students are prepared to reflect on and evaluate their learning as well as developing the confidence to try new challenges which experience in both their MYP years and the Diploma or Career-related program.

The culmination of the IB program is the Diploma Program (DP), or Career-Related for ages 16 to 19 (IBO, 2015e). The DP which began in 1968 presented its first official exams in 1970 and was designed to prepare students for success in post-secondary education (Bunnell, 2008; Hill & Saxton, 2014; IBO, 2015e; Peterson, 2003). The DP has grown from 681 exam candidates at seven schools in 1971 to 135,849 exam candidates at 4,000 schools in 2014 (IBO, 2015e).

Curriculum for the DP is made up of three core elements and six required subjects (IBO, 2012; IBO, 2015c). The three core elements are Theory of Knowledge which is an exploration of the nature of knowledge and includes the process of discovering the ways of knowing, an Extended Essay which is a 4,000-word research paper and a three-pronged service project requiring creativity, action, and service (CAS). The six required subjects are language and literature, language acquisition, individuals and society, sciences, mathematics and the arts (IBO, 2012). Each subject culminates in end-of-subject exams which both internally and externally moderated tasks (IBO, 2004; IBO, 2012; IBO, 2016). Subject teachers present and evaluate the internally moderated tasks which are then externally moderated by the IBO. Grading for the

externally moderated tests is only completed by the IBO. The subject areas are grade over 45 points and permit students to acquire an IB Diploma if they have achieved the required qualifications.

At the beginning of the 2000s, IB identified a need to bring the academic and career-related programs together (IBO, 2016, IBO, 2017a). This need developed into the Career-Related Certificate Program (CRP) which supports both local vocational studies along with student's academic needs. The CRP, introduced in 2012, is also for ages 16-19 (grades eleven and twelve), focusing its educational components on an academic application of career readiness. The goal of this program is leading to either further education, employment or apprenticeships.

Research has confirmed participation within the IB program not only benefits student endeavors in pursuit of higher education, but students who participate in the IB continuum of programs also acquire skills which can support future success in multiple areas. Studies which investigated the use of IB elements within the classroom discovered that IB students were more likely to achieve self-regulatory practices, engage in strategic thinking, be on-task a higher percentage of time in class, and perform better on science performance tasks when compared to a similar study of non-IB students (Alford, Rollins, Stillisano & Waxman, 2013; Healer, 2013; Kitsantas & Miller, 2015). Outside of the classroom, IB students have been shown to be more globally minded, motivated to serve more for altruistic reasons and through the service portion of the diploma program become more open-minded, mature and caring (Billig, 2013; Billig & Good, 2013; Wade & Wolanin, 2013). Students who have success within the IB program are more likely to enroll in postsecondary institutions, demonstrate better adjustment to the demands of university coursework through time management, research and critical thinking skills, and demonstrate higher performance, persistence and completion rates (Bergeron, 2015; Conley,

McGaughy, Davis-Molin, Farkas & Fukuda, 2014; Shah, Dean & Chen, 2010). In the United States, post-secondary graduation rates are also much higher among former DP students (*79%*) than the national average (*39%*) (Bergeron, 2015).

High-Ability Students

The definition of high-ability students began with the very narrow view of those considered gifted and applied only to those with an IQ over 130 (Haensley, 1999; Hollingworth, 1940; Hong & Milgram, 2008; Renzulli, 1978). Over time, and with continued research on childhood achievement, this view has changed considerably. Often referred to as exceptional children the definition for this group of students is amazingly similar to those identified as physically or mentally disabled. Searching books on educating the exceptional child uncover authors such as Cruikshank (1958) who defines the children as deviating from the norm for intellectual growth. So much so that they cannot obtain enough benefit from regular instructional programs that they require supplemental instruction or special classes. Kirk (2005) states that these students deviate from the norm and require modification of school practices so that they may develop to their specific maximum capacity. Dunn (1979) believes that it may be determined that children who deviate in learning characteristics may be best served in special educational services rather than in a typical school program. It is interesting that these authors along with Chauhan (1989) define their exceptional children with the same characteristics, qualities, and needs as those of high-ability students.

Current views include the abilities surrounding areas including any student with extraordinary capability through intellectual and creative ability, specific academic ability, as well as leadership ability, high achievement, visual and performing arts talent or any other category that also meets standards of exception (Davidson Institute, 2016; Hong & Milgram,

2008). By expanding this definition, we can encompass the additional students who, while they may not score in the gifted IQ range, have the drive and ability to be successful in rigorous and advanced academics programs (Conger et al., 2009; Epstein et al., 2011). As student populations have grown and changed over the years, the education community realized that their needs have changed as well (Allensworth et al., 2011; ASCD, 2015; DeBray & Blankenship, 2013). Academic offerings, while important for this group of students, are not the only necessary area of support. Support areas have come to include academic, social, and emotional among others. For this paper, the term high-ability will include all students enrolled in advanced academic programs.

Belief Systems Regarding High-Ability Students

Who are high-ability students? They may be unidentified GATE students, those who are academically advanced or able but do not test high enough for GATE (Conger et al., 2009; Epstein et al., 2011; Kyburg et al., 2007). They may be students who have the motivation to work hard and be successful in advanced academic programs. Some students may be identified by their parents or by their teachers, while identification for some may not occur and they may slip through the cracks. Some are recognized when they are young and others not until later years due to their persistence and determination. Hong and Milgram (2008) give several reasons for this lack of identification, including failure to recognize potential ability, not understanding children's backgrounds or having students whose potential talent is unconventional.

No matter who the high-ability students are, or why they are in this grouping, they need support to achieve to the best of their ability (ASCD, 2015; Conger et al., 2009). Without support this group of students is subject to a lack of realization of the potential talent they demonstrated in their early years (Bui et al., 2012; Cleaver, 2011; Hong & Milgram 2008). To

realize potential talents means to do as well as one can, demonstrated by the development of real-world products and performances (Hong & Milgram, 2008). Several factors work interactively to influence the talent development of this student population (Hong & Milgram, 2008; Rudasill & Callahan, 2010). These factors include cognitive abilities, social and psychological factors and personal-psychological attributes. These factors may also inform the students own beliefs in their abilities and plans for the future.

Contributing to the misunderstanding of the high-ability student may also be the fact that the development of their mental and chronological age is often uneven (Jen et al., 2016). Due to this discrepancy, these students may experience different challenges that their non-high-ability peers. These challenges may include increased instances of bullying and difficulty in the development of friendships which additional factors in the misunderstanding of this unique group (Jen et al., 2016; Riegel-Crumb, Farkas, & Muller, 2006). High-ability students may choose their friends through the courses they take, but they may also choose their courses dependent upon their friends (Riegel-Crumb et al., 2006; Rudasill & Callahan, 2010). According to Robinson, Reis, Neihart, and Moon (2002), multiple interventions are needed to address the social and affective well-being of high-ability students and improve their levels of success (Envi, 2017). This list includes dimensions such as the degree of advancement, language and internal discrepancies in ability level (Robinson et al., 2002).

Unfortunately, research in the area of the social, emotional and psychological needs of this high-ability group lags as most research is directed to those specifically labeled gifted. Hopefully, the increased interest in this area will continue as the push in education is for all students to have access to and enroll in advanced academics and the only way to ensure success for all students is to provide the necessary support.

Support Needs of High-Ability Students

When offering advanced educational opportunities with no prior achievement and no system of support, students are being set up for failure (ASCD, 2015; Emerick, 1992). The label of gifted may come with a certain amount of stigma, but it also contains a certain degree of protection and support (Davis et al., 2010). Legislation which began in the 1970s has been continually adjusted to provide support and accountability for the education of these academically advanced students (CDOE, 2016). However, not only has this direct support for gifted students weakened but there has also been an additional population of high-ability, but unidentified students added to the mix (Eddles-Hirsch et al., 2010; Fetterman, 1988). This new group high-ability student comes with a diverse set of needs, and since students ordinarily spend over 4000 hours in school just during their secondary years, this needs to be a focus of district programs (Epstein et al., 2011; Kyburg et al., 2007).

Academic needs are most frequently the focus of support efforts for sub-groups though they are not the only area of need, yet they are often neglected for high-ability students (JKCF, 2015; NAGC, 2015b; Olszewski-Kubilius & Clarenbach, 2012). The growing consensus is that genuine efforts are needed to address children's social and emotional needs which are crucial in the quest to achieve higher developmental outcomes with students (Graczyk et al., 2000; Jen et al., 2016; Robinson et al., 2002; Suldo & Shaunessy-Dedrick, 2013). By addressing only the academic needs and not the emotional and social needs of this unique group of students, their opportunities for success are not generated. Educators need to create an environment where high-ability students are given the tools which foster resilience and achievement (Graczyk et al., 2010; Peters et al., 1983; Plucker et al., 2010; Plucker et al., 2013; Purcell, 2005).

Academic Support Needs

Academic support refers to educational services and methods provided to students to help them achieve the necessary progress in their learning environments (Abbott, 2014). Most frequently this support refers to underperforming students related to certain populations identified as special-education, dropouts and/or those with behavioral problems. Seldom is this applied to the learning needs of high-ability students. In the Professional Learning Community model for schools, addressing the needs of high-ability students would be answering their question number four on how to meet the needs of students who have already learned (DuFour, DuFour, Eaker & Many, 2010).

Where does support begin? The development of academic self-concepts starts at an early age and influences subject-matter self-concepts (Davis, Rimm & Siegel, 2010). A child who is seen as having poor academic performance in school may consider himself inadequate when it comes to other learning experiences as well (ASCD, 2015; Emerick, 1992; Verna, Campbell & Beasley, 1997). If the unpleasant experiences continue, a negative attitude may develop toward school, self, and learning in general.

Theories include the thought that high-ability students may be best served by placing them in specialized settings (Callahan & Herlberg-Davis, 2013; Eddles-Hisch et al., 2010). These settings would remove them from stresses that may appear in a regular school environment, such as feeling it necessary to adjust their language to be understood and accepted by their peers. As this may be at the expense of their emotional and social needs, it is seldom the best solution (nor is this financially feasible to a majority of school districts) (Purcell, 2005). Baum et al. (1995) and Cross (2004) hypothesized that most behavioral issues seen in gifted children were due to frustration due to unchallenging curriculum and being forced to continue

working well below their ability levels. By forcing the high-ability student to continue along this unchallenging path, we are risking damaging not only their self-efficacy but creating a way for them to work well below their true potential (Cleaver, 2011; Eddles-Hirsch et al., 2010; Purcell, 2005). This easy route created by a lack of challenge, may in turn cause students to fail in acquiring the necessary study, note-taking, and perseverance skills required. These skills, as well as self-management, are needed to be successful in high school (if this begins in elementary school) or post-secondary education (if this continues through high school). Schaps (2005) refers to the need for what he calls academic press, which equates to maintaining high norms and expectations for all students, as necessary in addition to other supports provided to students. Alone, emotional or social supports are inadequate for producing achievement gains (Davidson, 2002; Lee & Smith, 1999). Lee and Smith (1999) further stated that the only way for social support to truly influence learning is within an education system that values and supports academics.

Emotional Support Needs

The mental health of students is a growing concern and has been highlighted by the World Health Organization (WHO) (WHO, 2008). As a result, there is an increasing understanding of the need to improve a student's emotional and social development as these are critical in their developmental achievements (Allensworth et al., 2011; ASCD, 2015). Schaps (2005) contended that students are much more likely to become and remain engaged in school when their psychological needs are met. In turn, this engagement then leads to improved academic performance. In comparison, not addressing a student's psychological needs may divert them from their academic goals and they, in fact, may be less motivated and alienated from school in general. Not only does addressing the social and emotional needs of students

prepare them to learn, but according to the Collaborative for Academic, Social and Emotional Learning (CASEL) (2003) the capacity for learning increases when meeting these needs.

Emotional factors which may be detrimental to the achievement of high-ability students include loneliness, internalization of issues, depression, anxiety, perfectionism, low self-esteem, rebelliousness, nonconformity, lack of self-regulation, impulsivity, and disorganization (Baum et al., 1995; Cross, 2004; Reis & McCoach, 2002). Students who are exceptionally high-functioning, especially those with asynchronous development (difference in intellectual ability and chronological age) are at risk of placing unrealistic expectations upon themselves or having those expectations placed upon them by those who are assessing their abilities (Graczy et al., 2000; Reis & McCoach, 2002; Robinson et al., 2002). These unrealistic expectations can create chronic stress which may lead to higher risk factors for anxiety, depression, and suicide (Reis & McCoach, 2002).

Stereotype threat is another barrier to performance for many high-ability students (Walton & Spencer, 2009). This threat not only underestimates the true intellectual ability of students but may also undermine their academic attempts at quality performance. Educators must learn to respond to each student individually and not entertain stereotyped expectations (Purcell & Eckert, 2005; Schaps, 2005; VanderArk, 2014; Walton & Spencer, 2009). Figure 3 demonstrates how the effects of stereotyping and the subsequent environment affect students.

Those students who are subject to stereotyping but work in a safe environment and are not exposed to a stereotype threat such as low expectations can achieve at a high level (Picho & Brown, 2011). Comparatively, students who are subject to the same stereotyping but work under threat conditions within their academic environment may have depressed performance (Walton, 2009).
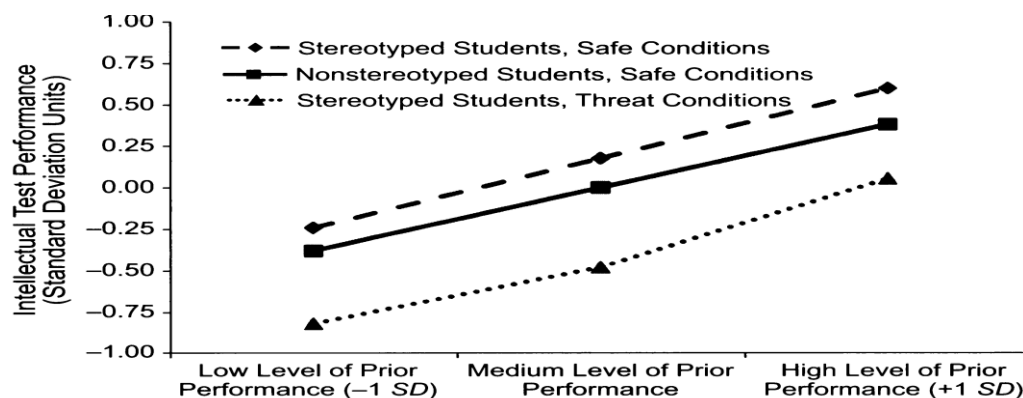
Figure 3. Intellectual Test Performance of Stereotyped and Non-Stereotyped Students as a Function of Stereotype-Threat Conditions and Prior Performance. Reprinted from *Psychology Science, 20(9), p. 1135*, by G. Walton and S. Spencer, 2009. Copyright by the Association for Psychological Science.

Social Support Needs

Peer relations are of utmost importance in a child's development, and their social needs vary not only by the type of school environment, but may also be driven by age, culture, and gender (Cornell, 1990; Cross, 2004). Interaction with peers provides a framework for cognitive development, the growth of social skills and values, as well as achievement goals (Piaget, 1965; Ryan & Shim, 2016). In a study by Eddles-Hirsch et al. (2010), it was determined that the need for an academic challenge as well as social contexts are closely linked to programs offered by the schools studied. These social contexts, as well as social gender expectations, impacted participants motivation, stress, willingness to learn and try new things as well as how much they reported enjoying school (Eddles-Hirsh et al., 2010). Females may feel the need to be involved in more extracurricular activities than males as an extension of their personality and have also been found to be more negatively impacted by having high expectations placed upon them by others. The demands high-ability students place upon themselves can develop a sense of stress as they cannot accommodate all of the items they feel are necessary to be successful and accepted (CASEL, 2003; Cornell, 1990, Cross, 2004; Eddles-Hirsch et al., 2010). When creating

a positive social context within schools, it has been shown to be more effective to introduce several different social support systems which can address the varied needs of the students (Eddles-Hirsch et al., 2010; Emerick, 1992; Gracyzk et al., 2000; Jen et al., 2016; Ladwig, 2010; Makel, Li, Putallaz & Wai, 2011; Peters, 1983).

To fit in with friends and classmates, students taking advanced courses may develop a pattern of lower achievement both on daily work and on test scores (Schaps, 2005). Other social factors which may contribute to the underachievement of high-ability students include peer pressure to conform to a preconceived belief of normal in order to be a part of the crowd, isolation from classmates, family or friends who may not follow the same academic path, family dynamics and expectations which may range from non-existent to too-rigid (Baum et al., 1995; Reis & McCoach, 2002). Students who are socially isolated frequently do not differ in measures of achievement but are affected by their social concept and academic self-esteem (Cornell, 1990; Hughes, Dyer, Luo & Kwok, 2009; Marsh, 1995). Addressing many of these factors requires a combined effort of the school, student, and parent to provide differentiated modifications for students both at school and at home (Burney, 2010; Eddles-Hirsch et al., 2010; McHugh, 2006; Reis & McCoach, 2002).

Partners in Support of High-Ability Students

Support begins at home, with parents having a significant impact on their student's attitude toward school, respect, and interaction with teachers as well as educational aspirations (Bassiri, 2016; Purcell & Eckert, 2005; Schaps, 2005; Verna et al., 1997). While family demographics may influence academic growth, it is imperative that this educational growth be supported and influenced by the student's academic environment.

Factors within the school environment may also influence the academic success of high-ability students. When strengths or potentials of students go ignored or unrecognized curiosity, and love of learning may diminish or be extinguished (Emerick, 1992; Peters et al., 1983; Purcell & Eckert, 2005). Developing a support system of people within the school environment is imperative (ASCD, 2015). Mentors who are available for student interaction are instrumental in creating the positive school environment high-ability students may be missing in their day-to-day interactions (Burney, 2010; CASEL, 2003; Driscoll, 2002; Lunsford, 2011).

Teachers are most frequently seen as the first line of support for students and can be the deciding factor when they must make a choice to continue in a rigorous program (Conner, Miles & Pope, 2014). When teachers are seen as caring individuals both within and outside the classroom, students are more likely to find academic success (Conner, Miles & Pope, 2014; Danielsen, Breivik & Wold, 2011).

Not only educational outcomes are influenced by teachers, but perceptions of student abilities may shape their intellectual engagement (Dee, 2007). By being available not only for academic needs but also being willing to respond to the questions and concerns students have about life, the needs of the whole child are addressed (ASCD, 2015). When students are motivated by a caring, supportive teacher natural high abilities and talent development can be fostered and improved (Gagne, 2011).

Current Policy Regarding High-Ability Students and Advanced Academic Programs

The present policy for high-ability students or advanced academic programs is as varied as the skills and need of the students involved (Callahan et al., 2014; Davidson Institute, 2016; Davis et al., 2010). Policies for the education of these students are left to the individual states as there are no specific requirements within federal educational mandates (Davidson Institute,

2016). These state policies vary and are frequently left up to the determination of local districts

(Davidson Institute, 2016; Fetterman, 1988; NAGC, 2015c; Plucker et al., 2010).

State Policies Outside of California

Massachusetts is one of the few states that have no mandates for either identifying or

providing services for academically advanced students (Driscol, 2002). Massachusetts

Department of Education (MDOE), in its document Promoting High Achievement: Policies and

Programs for Academically Advanced Students in Massachusetts (2002), provides information

on initiatives and funding introduced just prior to this report and address four questions:

1. How do federal and state education policies support advanced academic achievement?

2. How do local school districts' practices support advanced academic achievement?

3. What are, or should be, the qualifications of teachers of academically advanced
   students?

4. What might the Massachusetts Department of Education do to improve the education
   of academically advanced students? (p. 3).

Included in the Massachusetts report (2002) are the results of a survey conducted in 2002

by the MDOE to assess their current practices and trends. Unfortunately, in the State of the

States in Gifted Education Policy and Practice Data (2015c), compiled by the NAGC,

Massachusetts was one of the states which did not respond, so it is difficult to determine the

current standing of the academically advanced programs within Massachusetts since 2002.

In the Maryland Baltimore School District, the Policy Analysis of the Board of Education

Policy 6401(2018) renamed their gifted and talented policies to include advanced academics.

The Board stated that it is "committed to ensuring equity and excellence in education by

providing an instructional environment that recognizes and nurtures Baltimore County Public

School (BCPS) students' potential and enhances their opportunities for academic success," (p. 1). It is additionally stated that "advanced academics shall encompass all differentiated programs and services specially designed to accelerate, extend and/or enrich the regular school program for advanced, gifted and high potential learners," (Board of Education Baltimore County, 2018, p.1). BCPS further recognized that students who exhibit and/or perform at high levels of accomplishment are found in all groups of youth, and these students shall have appropriately differentiated services and programs that provide these opportunities for success (Board of Education Baltimore County, 2018).

Some policies, such as those in Texas, Florida, South Carolina, and Virginia, provide guidelines for supporting the needs of advanced academic students along with the funding to provide access (Florida Department of Education, 2016; Texas Education Agency [TEA], 2009; South Carolina Department of Education [SCDOE)], 2016). Several states and/or districts also provide reimbursement funds for teacher training within advanced programs or certification programs specific to the teaching of advanced students (SCDOE, 2016; TEA, 2009). Districts, such as Fairfax County Public Schools (FCPS) in Fairfax, Virginia, ensure that there is a trained Advanced Academics Resource Teacher staffed at each elementary school (FCPS, 2016).

California State Policies

While the California Legislature established the Mentally Gifted Minor (MGM) act in 1961 for students scoring at or above the 98th percentile on standardized intellectual ability tests, California is another one of the states that do not mandate gifted programs within the state (Davidson Institute, 2016; NAGC, 2015c). California also only partially funds those districts that do provide programs for the students within AAPs. Due to the lack of standard required reporting procedures, statistics given by the Davidson Institute for Talent Development (2016)

show that while there was a total of 6,235,520 public school students in California during the 2014-15 school year, the number of students identified as Gifted and Talented is listed as unknown. This lack of reporting also holds true for the 2013-14 and 2010-2011 school years. There is a lack of reported figures pertaining to dollars allocated to gifted and talented programming in during the 2013-14 school year (Davidson Institute, 2016).

The passage of the Local Control Funding Formula (LCFF) legislation in California, which specifies funding including shifting all aspects of allocated GATE funding to the control of local governing boards, may account for the lack of reported figures (CDE, 2016c). Education Code sections 52200-52212 which specified certain needs for the support of both school districts with GATE programs, as well as the identified students, was also rescinded with the passage of LCFF legislation (CDE, 2016b).

The LCFF requires each county office of education and school district to establish a Local Control Accountability Plan (LCAP) which itemizes the goals for each organization in the supporting of students (CDE, 2016c). The LCFF also replaces a system of general-purpose funding which specifically defined the use of funds within school districts (Los Angeles Unified School District [LAUSD], 2015; Taylor, 2013). Under the LCFF the funding of California school districts is based equally per student, but adjustments are made based on grade levels and student or district demographic characteristics (LAUSD, 2015).

The LCAP includes eight state priority areas which must be addressed in each of the plans which are: "pupil achievement, pupil engagement, school climate, parental involvement, basic services, implementation of state standards, course access and other pupil outcomes" (WestEd, 2014, p.1). The only mention of student involvement in advanced academic programs is within the Pupil Achievement priority area where one of the reporting data elements is the

number of pupils that pass Advanced Placement exams with a score of 3 or higher (WestEd, 2014).

The purpose of the school accountability report card is for the ease of parent comparison between schools. In the California Education Code 33126 discussion of the school accountability report card, it states that one of the areas of measurement to be included is "(12) The number of advanced placement courses offered, by subject." (California Legislative Information, 1988, p. 3).

Searches of the LCAP documentation of several California school districts present only the discussion of AP exams in relation to the data elements related to the assessment of pupil achievement (LAUSD, 2015; San Bernardino City Unified School District [SBCUSD], 2017; Stockton Unified School District [SUSD], 2015).

While current policies and provisions may seek, in some areas, to address the needs of students in AAPs, as seen in the example of the Baltimore School District Board Policy 6401 (2016), most students within this educational group are not addressed or supported. California, as one of the states without requirements or guidelines for access to, or support of, advanced programs demonstrates a lack of attention in this crucial area of education (Davidson Institute, 2016; NAGC, 2015c).

<div align="center">**Summary**</div>

As the push for accessibility to advanced academic programs for all students continues to gain momentum, the support for those students appears marginal at best and non-existent at worst. The belief in this access gives the impression to be that opportunities should be available to all children, regardless of whether or not they are prepared to tackle those opportunities. Add the issues of poor or minority students who may lack the information or means to understand and

use the system, coupled with the lack of support, students are set up for failure. Finn (2012) in

The Atlantic asks the question of how many high-ability students are falling by the wayside due

to lack of supports in school. Millions perhaps is his answer. How then will the education

system find the motivation to council, push and support their high-ability students who are

slipping through the cracks?

CHAPTER 3: METHODOLOGY

Students in advanced academic programs require a support system that meets their unique

academic, career, social and emotional needs (Reis & McCoach, 2000). Home, social and

academic environments all factor in the achievement process for this group of students. As their

needs are diverse, they often require individualized support to succeed. The challenge may be

creating a system to address these support needs as students are often more different than they

are alike.

The goal of this research was to evaluate the support given to students within an

advanced academic program and its impact on their academic achievement during high school.

The focus was an evaluation of support provided for students enrolled in one of the rigorous

academic programs within a large urban school. Unlike other research on academic programs

for advanced students, this study offered two unique perspectives: district personnel and high

school alumni. Both district and alumni participants were engaged in the IB program, which

allowed for exploration of any discrepancies in the realities and perceptions between students

and district personnel.

The use of a mixed-methods approach for evaluating the research questions allowed for

measurements of both quantitative and qualitative methodology. This procedure is a method of

collecting, analyzing, and integrating both the quantitative and qualitative data at some stage

within the study to gain a better understanding of the research problem (Creswell, 2005;

Tashakkori & Teddlie, 2003). This research followed a sequential explanatory mixed-methods

design which allows for the collection first of quantitative data, followed by qualitative data.

The purpose for this design is to explain further and interpret the quantitative findings (Creswell,

2013; Ivankova, Creswell & Stick 2006). Neither method of quantitative or qualitative research

is mutually exclusive and may be considered as a continuum (Best & Kahn, 2003). A more in-depth understanding was developed through this combination of mixed research methods. This approach included evaluation of quantifiable data provided by surveys of graduates and district personnel, along with individual interviews. Quantitative descriptive, as well as non-parametric, non-experimental research designs, were involved the gathering of data which was then organized and tabulated to answer the "what is" question of the study. Basic interpretive qualitative research was the method used to explore the topic of this study as the purpose was to understand the world or experience of another through the collection of data regarding the phenomenon being researched (Ary, Jacobs, Razavieh & Sorensen, 2009; Creswell, 2013).

Sequential Explanatory Mixed-Methods

Sequential explanatory mixed methods research is used to overcome the limitations of a single research design. This design seeks to coordinate and complement strengths of the chosen research while working to overcome the weaknesses that using one research method may present (Creswell 2013; Ivankova et al., 2006). By using quantitative and qualitative methods together a more robust analysis is possible also due to the ability to take advantage of the strengths of each method (Tashakkori & Teddlie, 2003).

The mixed-methods sequential explanatory design is based on two phase: quantitative which is followed by qualitative. The qualitative data is collected second as a way to analyze and assist in explaining the quantitative, or numeric results obtained in the first phase (Creswell et al., 2003). Through this approach, a more significant understanding may be established of the research problem as the participants' views are explored in more depth (Creswell, 2003; Tashakkori & Teddlie, 2003).

Setting and Participants

Research participants were obtained within a large, urban school district serving approximately 40,000 students; grades pre-kindergarten through adult education at 55 school sites. According to a 2014-2015 district survey, demographics of the student population are 93% minority, 82% qualify for free or reduced lunch, and 27% speak a language other than English (CDE, 2015). The student diversity make-up is 63% Hispanic, 11% African-American, 9% Asian, 7% Caucasian and 10% other categories. District personnel includes approximately 1,900 teachers and 114 administrators. Participants unique to this study were obtained from an advanced academic program at one of the four comprehensive high schools within the participating school district. The demographics of the advanced academic program mirror those of the school district.

The participant pool was student alumni from the graduating classes of 2001 through 2015. The participants also included district personnel who are currently or previously supervise(d) or work(ed) within advanced academic programs in the school district surveyed. District staff comprised of teachers, site administrative personnel, and district office level administration either worked or is working within or are/have been responsible for the advanced academic program.

Within the 150 survey respondents, the response rate equaled 75% for administrative personnel, 68% for teachers, and 29% for alumni with a mean response rate of 53%. The nine administrative personnel participants were comprised of one counselor, four high school principals, one program coordinator, one district director, one assistant superintendent and one retired superintendent, whose experience ranged from five to 20 years (see Figure 4). Teacher respondents (*32*) included those with experience within the advanced academic program (the

International Baccalaureate program) ranging from one to 21+ years' experience in teaching with

a mean of 20 and standard deviation of 10.49 years (see Figure 5).
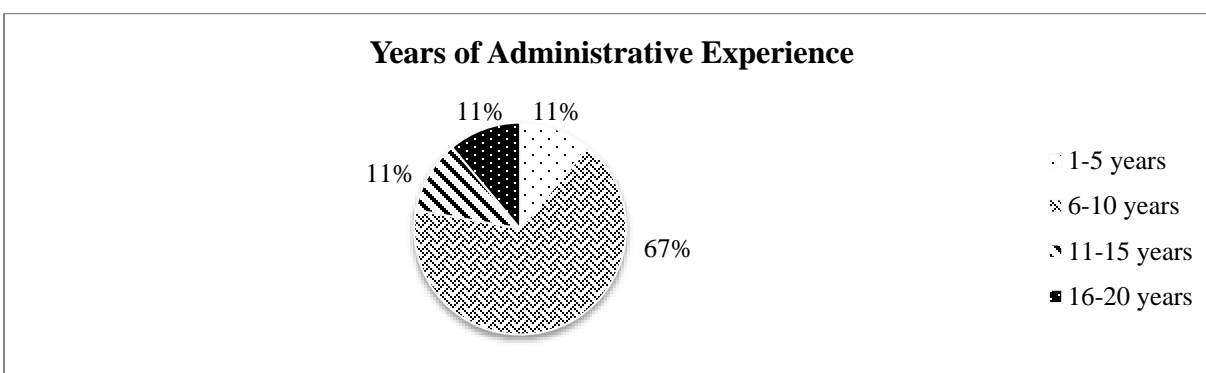
Figure 4. Years of Administrative Experience.
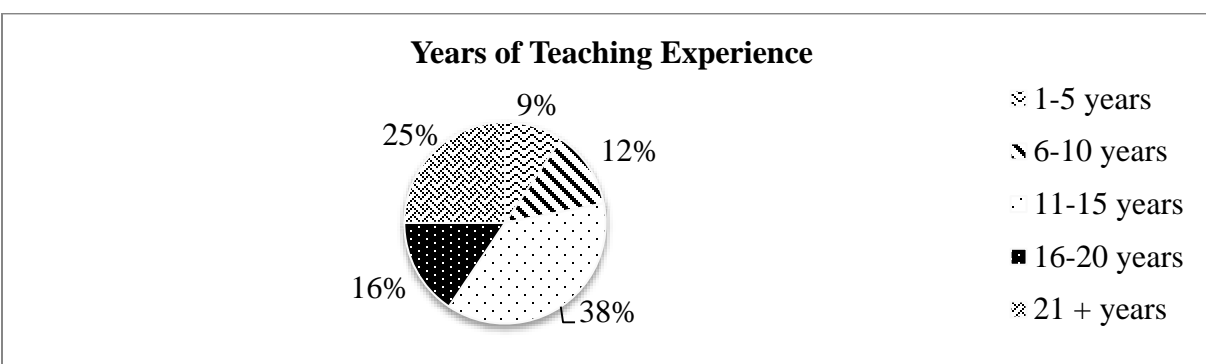
Figure 5. Years of Teaching Experience.

Alumni encompassed 109 former IB students from the graduating classes of 2001 through 2015

whose ages range from 19 to 35 with a mean age of 27.5 years and standard deviation of 18.48

(see Figure 6)
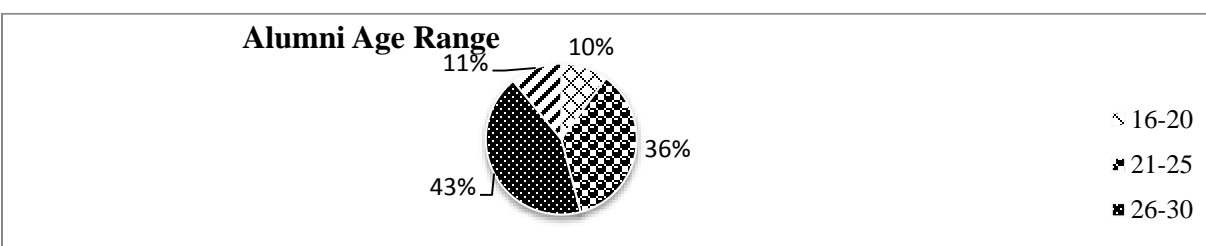
Figure 6. Alumni Age Range.

Table 1

Percentage of Graduation Year Participants

Grad years	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
% of participants	2.8	1.9	3.7	9.3	3.7	5.6	9.3	11.2	6.5	9.3	12.1	6.5	5.6	3.7	8.4

Sampling Procedures

The method of purposive sampling was used to develop the participant pool as the alumnus participant pool must have taken International Baccalaureate exams. Purposive sampling is defined as "a nonrandom sample selected because prior knowledge suggests it is representative or because those selected have the needed information" (Fraenkel & Wallen, 2011, p. 11). Participants were drawn from the pool of former IB students who graduated from 2001 through 2015. Surveys links were sent to 371 alumni, 42 teachers, and 12 administrative personnel. The number of respondents per group was 109 alumni, 32 teachers, and nine administrative personnel. There were differences in gender totals with participant groups as these figures are dependent upon enrollment within the programs, which varies on a yearly basis. District personnel participants were also gathered using purposive sampling as they were required to have experience working in, or for, the IB program. This acquisition of the sample pool was obtained through lists of site and district administrators involved in the IB program during the years of 2001 – 2015 within the school district.

Interview participants were chosen from the survey participants who communicated information in open-ended survey questions that were viewed by the researcher as having the possibility to further enhance the exploration of the research questions and had agreed to a follow-up interview. By choosing interview participants specifically related to the ability to

provide this information the researcher was able to better understand the experience of the

involved participants. Personal interviews included three alumni as well as three teachers and

three administrative personnel who had been within the IB program for a total of nine

participants. These interviews were made by appointment with individuals and lasted for

approximately 60 minutes.

The purpose of the semi-structured interviews was to gather additional information or

clarification of material and trends discovered through tabulation of the results.

Instrumentation and Measures

Research conducted used several types of instrumentation to determine the levels of

academic support and success among participants. Academic achievement was gauged through

receipt of the IB diploma. Post high-school success was assessed by the acquisition of post-

secondary education as well as employment status. Determination of support was through the

delivery of participant surveys. Participant surveys included both quantitative and qualitative

aspects to obtain a broader range of information (Blair, Czaja & Blair, 2014).

Quantitative Methods

Student success outcomes determined in the quantitative portion of this research included

receipt of the IB Diploma, which involves IB examination scores including internal and external

assessments, and quantifiable information gathered from the distributed survey. The IB Diploma

is only given with the appropriate completion of the IB assessments and a specific achieved

minimum score. Discussion of these instruments is included as their scores lead up the IB

Diploma.

Additional information on SAT results was requested in the determination of student success, but the researcher was unable to acquire this information due to the school district not having the information available.

International Baccalaureate (IB) assessments. The IB program, offered to students ages 3 through 19, is available at schools authorized by the International Baccalaureate Organization (IBO). The program culminates, within the United States, in grades 11 and 12 with a series of subject exams. The IB program allows academically prepared and willing students the ability to pursue college-level studies and gain credit and/or advanced placement for qualifying scores. Students pursuing the IB diploma must take six subject exams and complete three additional externally graded and/or moderated tasks. Students pursuing the IB certificate may take any number of the subject exams available within the school offerings.

International Baccalaureate assessments are a combination of internal assessments that are administered by the teachers and moderated through the IBO; additionally, the IBO administers and grades external assessments. Assessment types include: oral, multiple choice, short answer, portfolio, essay, exhibition, performance, and independent research (IBO, 2007). New examination papers are prepared for each exam session and are developed by a team of senior examiners and IBO staff, with input from external consultants, in a process that takes 18 months to two years before the examinations are given (IBO, 2004). The effort is equally given to the development of the mark schemes, an assigned system for awarding points for correct answers, to accompany each question paper along with marking notes that are prepared to give guidance to examiners in applying the criteria.

Reliability on the scoring of the high-stakes assessments is a priority for IB, and the aim is to "have at least 95% confidence that any final subject grade is 'correct'" (IBO, 2004, p. 2).

Determination of the results requires confirmation by subsequent remarking of candidate work. The assessment model that is used by the IBO to generate a student's subject result encompasses a variety of tasks taken in different contexts on separate occasions. Ensuring marker reliability is through the use of comprehensive training in the use of detailed mark schemes, assessment criteria, and moderation procedures. There are three main ways in which IB ensures marker reliability. First is to appoint and retain only those examiners who can mark consistently and objectively. Secondly, IB has all examiners, except the most senior one for each component, have their marking checked every examination session in a process called moderation. Lastly, IB provides examiners with comprehensive training and instruction on marking.

Participant surveys. Three mixed-method surveys were developed, consisting of one survey for each of the different participant sets: former students, teachers, and administrative personnel. These surveys addressed the topics of academic, social, emotional, and future planning support as determined by the perception of the participant. For ease of return and completion, the consent for participation was the first four items on each survey.

The design of the first survey (Support for Success: Alumni Consent and Survey) is for graduates of the district high school program (see Appendix B) with questions divided into three factors. These factors include the type of support, availability, and providers of support, and effectiveness of support. Items under "Types of Support" included questions such as: "When needed, I received academic support during my years in high school (such as tutoring)" or "Did you experience a lack of academic or personal success in high school?" (Knudsen, 2016). Questions in this section also contained follow-up questions, for example: "If so, from whom? (please note all sources)" or "If you answered "yes" to part 'a': did you receive interventions for lack of academic or personal success during your years in high school?" (Knudsen, 2016). Items

under "Availability and providers of support" included "Support was provided by my teacher(s), in class, during my high school years" with the follow-up multiple-choice questions "If so, how often was support provided?" and "If so, was support provided by:" (Knudsen, 2016). The last topic section of this survey was on "Effectiveness of Support" and included questions such as: "Support from teachers guided my success in high school and beyond" and ended with an open-ended questions which asked participants to: "Please add any additional comments about if and how support provided during your high school career assisted (or did not assist) you in attaining your future goals (college, career, etc.)" (Knudsen, 2016). Alumni surveys contained a total of 15 closed-ended questions which employed a Likert scale, 13 multiple-choice follow-up questions, two open-ended questions and seven demographic questions.

The second survey (Support for Success: Teacher Consent and Survey) was designed for teachers involved in the advanced academic programs (see Appendix C). This design contains three factors, which are types of support opportunities, personal support given to students, and perceptions on the effectiveness of support. Items under "Opportunities for Support" included questions such as: "My site provided opportunities for academic support to students within their advanced academic programs" after which were multiple-choice follow-up questions, for example: "If so, what opportunities were provided? (please note all opportunities you are aware of)" and "If so, how often was support provided? (daily, weekly, etc. Please answer for each type of support checked above)?" (Knudsen, 2016). Items under "Personal Support" included "I, personally, provided opportunities for emotional support to students within their advanced academic programs at my site" with the follow-up multiple-choice questions "If so, what opportunities were provided? (please note all opportunities)" and "If so, how often was support provided? (daily, weekly, etc. Please answer for each type of support checked above)"

(Knudsen, 2016). The last topic section of this survey was on "Effectiveness of Support" and included questions such as: "Support from teachers was effective in assisting students achieve their academic goals" and ended with an open-ended questions which asked participants to: "Please add any additional comments and thoughts regarding the support provided for students in advanced academics within your site and district" (Knudsen, 2016). Teacher surveys contained a total of 17 closed-ended questions which employed a Likert scale, 24 multiple-choice follow-up questions, one open-ended question and eight demographic questions.

One noted concern was that the perceptions of support and/or opportunities for the support provided might differ between the teaching staff and administrative personnel. Therefore, a third survey (Support for Success: Administration Consent and Survey) was designed for the use of site administrative personnel with only two factors, the types of support opportunities provided and the effectiveness of support (see Appendix D). Items under "Opportunities for Support" included questions such as: "My site/district provided opportunities for academic support to students within their advanced academic programs" after which were multiple-choice follow-up questions, for example: "If so, what opportunities were provided? (please note all opportunities you are aware of)" and "If so, how often was support provided? (daily, weekly, etc. Please answer for each type of support checked above)?" (Knudsen, 2016). The last topic section of this survey was on "Effectiveness of Support" and included closed-ended questions such as: "Support from teachers was effective in assisting students achieve their academic goals" and ended with two open-ended question which asked participants to: "Please give reason(s) for your ratings on questions 1-5 in this section" and "Please add any additional comments and thoughts regarding the support provided for students in advanced academics within your school site and district" (Knudsen, 2016). Administrative surveys contained a total

of 12 closed-ended questions which employed a Likert scale, 12 multiple-choice follow-up

questions, two open-ended questions and eight demographic questions.

The latter two surveys were an opportunity for district personnel to rate the support

systems they have either provided or that which they have given students the opportunity to

obtain. These factors were developed by the researcher to gather information that would allow

answering of the research questions (Blair, Czaja & Blair, 2014). Questions answered were on a

Likert scale of one (strongly disagree) to five (strongly agree), along with examples to check and

the other option to add any additional responses. Additionally, there was an opportunity to add

further comments through open-ended queries. These surveys were piloted with a sample of

students and school personnel to determine the validity of the survey questions. Survey

questions were utilized in analysis for both quantitative and qualitative data (see Table 2).

Table 2

Survey Question Usage in Qualitative and Quantitative Analysis

Research Question	Research Type	Corresponding Alumni Survey Questions	Corresponding Teacher Survey Questions	Corresponding Administrative Personnel Survey Questions
1. What impact do academic, social, and emotional supports have on academic success of high-ability students in advanced academic programs?	Quantitative	Support for Success: 1, 2, 3, 4. Effectiveness of Support: 1, 2, 3, 4, 5.	Opportunities for Support: 1, 2, 3, 5, 6. Personal Support: 1, 2, 3, 5, 6. Effectiveness of Support: 1, 2, 3, 4, 5	Opportunities for Support: 1, 2, 3, 5, 6. Effectiveness of Support: 1, 2, 3, 4, 5
	Qualitative	Support for Success: 6. Effectiveness of Support: 6	Effectiveness of Support: 6, 7	Effectiveness of Support: 6, 7

2. What are the beliefs among students, teachers, and administrative personnel regarding the support services provided to students in advanced academic programs?	Quantitative	Support for Success: 1, 2, 3, 4. Availability and Providers of Support: 1, 2, 3, 4, 5. Effectiveness of Support: 1, 2, 3, 4, 5.	Opportunities for Support: 1, 2, 3, 5, 6. Personal Support: 1, 2, 3, 5, 6. Effectiveness of Support: 1, 2, 3, 4, 5	Opportunities for Support: 1, 2, 3, 5, 6. Effectiveness of Support: 1, 2, 3, 4, 5
	Qualitative	Support for Success: 6. Effectiveness of Support: 6	Effectiveness of Support: 6, 7	Effectiveness of Support: 6, 7
3. What impact does support for future planning have on the success of former students of advanced academic programs in their post-high-school endeavors?	Quantitative	Support for Success: 5. Effectiveness of Support: 1, 2, 3, 4, 5.	Opportunities for Support: 4, 5, 6. Personal Support: 4.	Opportunities for Support: 4, 5 6.
	Qualitative	Support for Success: 6. Effectiveness of Support: 6	Effectiveness of Support: 6, 7	Effectiveness of Support: 6, 7

Qualitative Methods

Participant surveys were not only used to acquire quantifiable information, but the inclusion of open-ended questions allowed for the additional collection of qualitative information (Gay, Mills & Airasian, 2012). Open-ended or free-response questions were used to allow participants the opportunity to add information they felt was relevant but not explicitly asked for (Gay et al., 2012; Reja, Manfreda, Hlebec & Vehovar, 2003; Trochim & Donnelly, 2006). These questions also provided the opportunity for participants to elaborate on closed-ended questions which they felt pertained to attitudes, opinions, behaviors, and insights which were not present

(Kothari, 2004). Participant responses from the surveys were analyzed and coded, and themes guided the development of semi-structured interview questions.

Semi-structured, individual interviews were used to define further the responses gained from the open-ended questions included on the participant surveys. The semi-structured interview combines the structured and unstructured interview into an approach that provides a greater ability to respond to participant questions and gather clarifying information as well as creating a more relaxed environment where participants feel more at ease to answer inquiries (Barriball & While; 1994; Creswell, 2013; Gay et al., 2012). This process was used to explore answers in greater depth than was available using the Likert-scale responses (Bernard, 2000). Additionally, interviews were a way of refining or clarifying information obtained from survey material as is the goal of the sequential explanatory research design (Barriball & While, 1994; Gay et al., 2012; Kothari, 2004). Interview questions were developed through the analysis and coding of survey responses to add a clearer understanding of the perceptions and opinions provided by participants (see Appendix E). This clarification allowed for probing into responses that may have developed due to the varied professional, personal and educational histories of participants (Barriball & While, 1994). Examples of items which were queried in interviews included the unexpected negative views of counselor support, what was meant by a need for more support with scholarship information, as well as clarifying why it was felt that support was provided despite a lack of attainment of the IB diploma.

Validity and Reliability

For some, the concept of success is a strictly theoretical concept (An & Taylor, 2015). To successfully evaluate a student's academic success, this concept must be made quantifiable. To this extent, the values of success within this research were assessment scores, grades and

numeric gauges assigned within this study's surveys. When discussing the aspects of support

through the qualitative lens (open-ended and interview questions), however, there is a greater

degree of subjectivity in judgment (Gay et al., 2012; Kothari, 2004). To negate this subjectivity

and ensure the value of data gathering, reliability and validity must be established (Best & Kahn,

2003; Gay et al., 2012; Kothari, 2004).

The definition of reliability is the consistency or repeatability of a method with the same

continued results (Best & Kahn, 2003; Gay et al., 2012; Kothari, 2004). Validity is determined

to ensure that data is an accurate measurement of the tested data. Determination of reliability, as

well as validity, was addressed through pilot testing with an appropriate group, including alumni,

teachers, and administrators, before the use of each survey with the actual participant pool. This

piloting allowed the researcher to identify sources of measurement errors that may be detrimental

to the interpretation of data (Gay et al., 2012; Kimberlin & Winterstein, 2008). Along with

piloting of surveys, additional review by individuals with subject-area knowledge assisted in the

determination of the appropriateness of the questions.

Triangulation, which is the use of multiple methods of data collection and sources was

used to obtain a clearer, and more complete picture (Best & Kahn, 2003; Gay et al., 2012;

Kothari, 2004). Through the use of triangulation, the strength of one method can compensate for

any weakness in another (Gay et al., 2012). To facilitate this strategy, this sequential

explanatory research used semi-structured individual interviews along with surveys.

Plan for Data Collection

The procedure that was followed to complete this research was created to ensure

reliability and validity of the study results (Best & Kahn, 2003; Gay et al., 2012). Equally

important is to establish the ability to replicate this study as well as following ethical guidelines

for research (Best & Kahn, 2003; Gay et al., 2012; Oliver 2010).

Procedure

To obtain information that would answer the study's research questions, surveys were

created for participants to answer (see Appendices B, C, & D). Questions were developed using

the research questions as basis and inquired on the type of support provided the provider and

availability of support and the effectiveness of support. Survey questions were answered using a

Likert scale of one (strongly disagree) to five (strongly agree). Open-ended questions were

provided at the end of each section to allow for additional information participants wished to add

that reflected attitudes or opinions on the subject area (Kothari, 2004).

As the views of three separate groups of participants were needed the survey was

adjusted accordingly with questions appropriate for each group. The focus of the questions

remained consistent while the wording was changed, allowing for use by alumni, teacher, and

administrative personnel views. This survey was digitized for the added ease of distribution and

completion.

A Facebook page was developed to notify the participant group of the study. Cover

letters were designed for willing participants, explaining the reason for the survey, and the

research goals. A consent form was created that assured participants that individual information

would remain anonymous, any risks to participants would be monitored and removed, and

participation was entirely voluntary, and participants could discontinue at any time.

Invitations for alumni participation in the research survey were sent to individuals and

were placed on the Facebook page. The digital link to the survey was available for participants

and contained the applicable written consent form, assurance of maintained confidentiality, consent for a follow-up interview and the actual survey.

Acquisition of participant lists of both the alumni and administrative personnel from the appropriate district office involved in the IB program commenced after approval from the Institutional Review Board was completed. The participants were then contacted either through the use of social media (Facebook or Twitter), and/or email. Survey requests allowed for a response time of four weeks.

Completed survey results were received and tabulated to find themes and develop augmentation questions for use during the semi-structured interviews. Participants who had indicated on their consent forms a willingness to engage in individual interviews were contacted for follow-up questioning. This process allowed for an enriching and enlightening discussion of the results provided by the survey information. Following the interviews, tabulation of results, and further coding interpretation ensued to allow for analysis of the outcomes.

Data Collection

The measurement of success was determined using receipt of the IB diploma as well as achievement of post-secondary education and employment status. Gauging the measurement of support included analysis of participant surveys and semi-structured interviews.

A cross-sectional research approach, as well as correlational data, was used to gather student information. By utilizing the open-ended questions on the survey tool, there was an opportunity to develop further in-depth interview questions (Bernard, 2000; Kothari, 2004). As themes were uncovered, these were used within interview questions to ask for clarification or enhancement of these developing themes. As a part of the survey, participants were questioned regarding willingness to further contribute to the study by participating in individual follow-up

interviews. Evaluation of the measurements of success provided an analysis of the provided support through coding (Trochim & Donnelly, 2006). Using the understanding that an individual's environment provides them the opportunity to learn when developing questions, it was possible to garner a deeper look into the possible reasons for, and explanations of, the answers provided as well as gaining possible solutions (Hong & Milgram, 2008).

The collection of information for this survey required a combination of methods. Collection involved obtaining the archival lists of students participating in the IB program at the school district's comprehensive high school during the applicable school years, as well as district personnel who were directly involved in the IB program as a teacher or administrator during the same time period. As the contact lists of alumni contained information that was current upon their graduation but was not updated after graduation, the primary source of contact was through social media, with the use of Facebook, Twitter, and Instagram were used to gather participants willing to take the survey. Purposive sampling was used during this initial contact as all participants must have been participants in the IB program (Fraenkel & Wallen, 2011). Instructions reminded participants to answer the survey only once if contact was made through multiple means.

This collection method had benefits and drawbacks. Social media had the advantage of being a quick, easy and low-to-no-cost (Blair et al., 2014). Through social media, however, there was the possibility that individuals, mainly females, were excluded due to name changes. Social media proved to be an efficient source for contact (Blair et al., 2014). Most participants within the age-range utilized have Facebook, Instagram, or Twitter accounts, which made for ease of connection. District personnel data collection was easier as most individuals had a current email address with which they were able to be contacted.

After making contact on social media with the purposive sample from each graduating year, snowball sampling was also used to enlarge the participant pool (Crane & Hannibal, 2012; Gay et al., 2012). Alumni were asked to forward the study information to any additional classmates with which they were in contact. This type of dissemination allowed for a greater distribution of information (Crane & Hannibal, 2012; Gay et al., 2012).

Digitizing surveys using Google forms allowed participants to easily access and return their responses to the researcher. Reminders were sent three times, at one-week intervals to prompt the return of the surveys. The responses from both the closed and open-ended questions were evaluated and used to form the basis of the questions for use in the semi-structured interview sessions.

Additional data was then gathered during individual interviews with participants who had agreed to a follow-up conference. The individual one and one-half hour interview sessions were scheduled at a time convenient to the participant and conducted either in person, at an office provided by the local community college, or via phone according to the participant's preference. Each session was recorded using a flash-drive recording device to avoid any manual recording errors. Interviews were then transcribed to allow review and analysis. After transcription, interviews were coded and analyzed to support the credibility of data.

Plan for Data Analysis

To ensure completeness and increase the depth of understanding of the phenomenon being investigated in this research, triangulation was used through the combination of multiple methods of research (Yeasmin & Rahman, 2012). Triangulation allows for the researcher to overcome any weaknesses or biases one method may present by adding additional perspectives and methods (Creswell, 2003; Gay et al., 2012; Merriam & Tisdale, 2016). A further purpose of

triangulation is to confirm findings through the junction of different perspectives, and the importance of this confirmation is stated by Jakob (2001) as "the point at which perspectives converge is seen to represent reality" (p. 4).

Methodological triangulation was used for this research and included both quantitative and qualitative sources. These techniques were used to provide cross-checking for both confirmation and completeness which brought a balance between the different types of research (Yeasmin & Rahman, 2012).

Quantitative

The success of students within the IB program in the qualifying years was measured through the use of supporting IB. These scores were utilized in determining the measures of central tendency associated with success for their high school careers. Graduation rates were not used as an analysis tool as this rate is consistently 100 percent.

Quantitative surveys with closed-ended questions allowed for data collection on the support provided for alumni during their time as students within the IB program. Questions were answered using a Likert scale, and the scaled responses were converted into numerical (ordinal) expressions for statistical analysis (Sullivan, 2010). Ordinal data was used as this is the most frequent measure of non-numeric concepts or scales of satisfaction such as those included in this research's participant surveys (Sullivan, 2010). Cronbach's coefficient alpha was used to indicate average correlations among items on the Likert scale with higher values indicating greater reliability and internal consistency (Pallant, 2013). This statistical test allowed for the measurement of internal consistency within this research. Calculations were made with Likert-scale scores from participant survey instrument questions regarding the views on provisions of support.

Several nonparametric statistical tests were utilized to evaluate research findings. Nonparametric statistics were used as the data accumulated relied on ranking (Likert scale scores). Additionally, nonparametric tests were used due to the collection of ordinal data within the research study.

Analysis of the first research question regarding the views on provisions of support for students in advanced academic programs used a Kruskal-Wallis test which compared mean scores of the continuous variables between the three participant groups (alumni, teachers, and administrators) (Pallant, 2013; Sullivan, 2010). Further analysis was completed using a Dunn's Test Post-hoc with Bonferroni adjusted significance to determine statistical differences between pairs of participant groups. The impact of support on student receipt of the IB diploma (academic success) was analyzed utilizing a Chi-Square test for independence. Research question two surrounded participant beliefs and relied on qualitative research to provide its answers. Analysis for research question three which was regarding the determination of success was completed through evaluation of ranks of support and outcome of both post-secondary education and employment status and was completed using a Chi-squared test for independence.

Qualitative

To further clarify the quantifiable results of the participant survey on support, open-ended questions were used as well as individual follow-up interviews. Qualitative data analysis is the process of taking data that has been collected and transforming it into a form that can be explained or interpreted, which was completed using basic interpretive design (Ary et al., 2009; Creswell, 2013). The basic qualitative research design is used in an attempt to reveal participant experiences or the meaning ascribed to the experiences by the participants (Patton, 2002). This

analysis of data obtained from the questions and interviews required categorization and coding (Creswell, 2013).

 Basic interpretive design. Basic interpretive studies are targeted at providing descriptive accounts of information collected in various ways. This descriptive information included open-ended research questions, interviews and literature reviews. The purpose of this study design is to understand the experience or world of another person using an inductive strategy (Ary et al., 2009; Merriam, 2002). By using inductive reasoning, research can move from specific (individual responses) to a general application (impact of support) (Merriam, 2002). This interpretive research is evaluated with an understanding of the individual's subjectivity as everyday experiences have a meaning specific to them (Merriam, 2002). In this case, interpretive qualitative research was used to seek an understanding of the meaning of quantitative results and offer multiple, and at times differing, versions of the same experience (Creswell, 2005; Creswell, 2013).

 Coding. Coding is the method of examining data for themes, main ideas and categories and labeling them for easy retrieval in later analysis (Gibbs & Taylor, 2010). This data analysis began with the development of preset codes as a starting point to develop an understanding of participant responses. Highlighting was used with preset codes which were organized based on the participant reactions to questions within open-ended questions first and were later repeated with interview responses. Examples of preset codes include *support, provider, success, future goals, obstacles,* and *needs* (see Table 3).

 Analysis continued on both open-ended survey and interview responses with the development of emergent codes. Emergent codes were developed through analysis of word count through the Excel document as well as wordloud.com and included expected items such as

teachers, friends, encouragement, faith, and *challenges*, but also unexpected items such as *resilience, empowered, differences,* as well as *lacking* which created the opportunity to establish a deeper insight.

Table 3

Examples of Preset Codes

Survey sections	Determined preset codes
Support for success	Support
	Success
	Academic
	Future plans
Availability and providers of support	Teacher
	Professional
	Administrator
	Family
	Friend
Effectiveness of support	High school
	Future plans

Information was once again reviewed to include the questions "what does this represent," "what is this an example of," and "what do I see is at issue here" in order to be able to answer the bigger purpose of the research (see Table 4) (Saldana, 2016).

Further coding and analysis was completed on individual interviews which were conducted to further enhance the information obtained through the open and closed-ended questions on the surveys. Emergent codes were used as a guide to allow for additional

clarification and understanding of the personal views of participant responses (Smith, 2015).

The technique of funneling, which is the narrowing of possible views into a specific purpose and

direction, was used as a way of eliciting participants' general as well as specific views related to

concerns addressed within this study and to reach a better depth of understanding (Smith, 2015).

Table 4

Development of Emergent Themes Examples

Questions	Statements	Themes
What does this represent?	"instead of a counselor guiding me her attitude was well you can drop and do regular classes or graduate early"	Obstacles, lack of support
	"the extracurriculars (sic) that I participated in were much farther out of my comfort zone, and forced me to seek advice and support"	Social support, emotional support
	"treated me like a person instead of just a student"	Relationships
What is this an example of?	"small acts of kindness are also remembered when I had little support at home"	Relationships, emotional support
	"helped shape academic and professional goals, utilized this support throughout university"	Goals, future plans, academic success
	"I left with a feeling that I was believed in by my mentors"	Support needs, rigor
What do I see is at issue here?	"high school was fairly easy for me - although going to a #1 ranked engineering program immediately was a bit of a wakeup call"	Rigor, gaps in support
	"Support provided was more like encouragement to pursue anything I wanted and not so much guidance and what or how to pursue it"	Gaps in support, knowledge, guidance
	"My counselor was not very instrumental in my support system. She did not take the time to get to know me or invest in me"	Relationships, future support

The aim of the qualitative data analysis, which moved progressively towards greater precision as information is analyzed and evaluated, was to create a complete and detailed description of the phenomenon explored (Best & Kahn, 2003).

Data Timeline

Baseline data was developed May 2017, with survey data collected between June and August 2017. Individual interviews were conducted August 2017, with analysis completion January 2018.

Plan to Address Ethical Issues

Research maintains specific requirements for the ethical treatment of subjects (American Educational Research Association (AERA), 2011; American Psychological Association (APA), 2010). These ethical requirements are principles that govern the conduct and responsibility of researchers. Areas of ethical principles include guidelines for research planning, individual responsibility, compliance with laws and standards, gaining institutional approval, research conduct, informed consent, protection from harm, inducements, deception, utilizing and sharing data, and providing follow-up information for participants (Best & Kahn, 2003; Gay et al., 2012).

These ethical guidelines were followed when conducting this research study. Research plans were developed which were clear to avoid misleading information, and appropriate protections for the anonymity and comfort of participants were continuously maintained. Appropriate approval was obtained from the host institution prior to conducting this research. Researchers conducted research competently and understood the responsibility for ethical conduct. Informed consent was obtained from all participants ensuring their willing participation and understanding of the study (see Appendix B, C & D).

Participants were ensured freedom from harm including the guaranty of confidentiality pertaining to all information collected (see Appendix B, C & D). Gathered information was stored in a locked location allowing only the researcher access. No inducements were offered to participants, nor was deception used in the conduct of this research. Data collected was minimally invasive, and participants were given the opportunity to obtain information about the results and conclusions of this research.

Summary

In order to answer the research questions of this study, a specific methodological plan was developed. This plan included both a mixed-methods, sequential explanatory approach. This approach begins with quantitative data collection and proceeds with qualitative methods utilizing the basic interpretive approach of data collection, which enables expansion into a more thorough and well-rounded study. Several measures of data were used including IB Diploma receipt results, post-secondary education attainment and employment status, surveys which included both closed and open-ended questions, along with follow-up semi-structured individual interviews with volunteers.

Ethical guidelines for research were followed to ensure the protection of both the participants and the research itself. Information obtained from measurements of data was compiled, analyzed, and coded for themes and clarifying insights. This information allowed the presentation of discussion surrounding the effects of support provided to students in advanced academic programs.

CHAPTER 4: FINDINGS

The goal of this study was to examine the support systems provided for students in an advanced academic program by addressing the questions of how academic, emotional, and social supports impact IB high school students in an advanced academic program within a large urban school district. This study investigated the views of not only alumni regarding the supports provided but also the views of teachers and administrative personnel within the program surveyed. The research questions included:

1. What impact does academic, social, and emotional supports have on the academic success of students in advanced academic programs?

2. What are the beliefs among alumni, teachers, and administrative personnel regarding the support services provided to students in advanced academic programs?

3. What impact does support with future planning have on the success of former advanced academics students in their post-high school endeavors?

This chapter provides the analysis of both quantitative and qualitative responses to the study through closed and open-ended survey questions and interviews.

Introduction

The survey results included responses from 150 participants. The respondents included 9 administrative personnel, 32 teachers, and 109 alumni. The return rate for the electronic survey was above the expected return rate of 10 – 25% (Sauermann & Roach, 2013). Alumni (*371*), administrative personnel (*12*), and teachers (*47*) received links to the appropriate survey. The response rate for each participant group equaled 29% for alumni, 75% for administrative personnel, and 68% for teachers and a 53% mean response rate. In the promotion and collection of surveys, Nulty (2008) suggested included pushing the survey by making access simple with a

link available on all notices, providing frequent reminders, and assuring participants that their information is of value and is to be utilized. Quantitative data from the survey was robustly analyzed to provide an in-depth view of the results (see Table 5).

Table 5

Data Views on Support Provisions

Type of support	Participant group	Number	Percentage agree/strongly agree
Academic support	Administrator	9	66%
	Alumni	109	73%
	Teacher	32	66%
	Total	150	
Emotional support	Administrator	9	33%
	Alumni	109	80%
	Teacher	32	47%
	Total	150	
Future plans support	Administrator	9	67%
	Alumni	109	60%
	Teacher	32	41%
	Total	150	
Social support	Administrator	9	78%
	Alumni	109	80%
	Teacher	32	41%
	Total	150	

Qualitative interviews were conducted with nine participants; three from each participant group. Labels for each participant, both survey respondents and interviewees are provided for ease of recognition (see Table 6). This chapter provides a detailed analysis of both the open-ended responses to survey questions and the nine interviews through transcription, coding and the development of themes. This analysis delves into the impact of academic, social and emotional support of students within advanced academic programs.

Internal consistency of measurement was evaluated for this research using Cronbach's alpha and was applied to each survey instrument. Cronbach's alpha was used to measure how closely related each set of items were within the survey instruments used. Instrument questions

regarding the views on provisions of support (academic, emotional, social, and future plans) were calculated and ranged from a reliability score of .7 (acceptable) to .9 (excellent). Specifically, the administrative personnel instrument was calculated at Cronbach's alpha of .8 (good), alumni survey instrument determined at a level of .7 (acceptable), and teacher survey instrument was calculated at .9 (excellent).

Table 6

Survey Participant Response Abbreviations

Alumni participants	
ASR 1	Alumni survey response 1
ASR 2	Alumni survey response 2
ASR 3	Alumni survey response 3
	(Repeat through alumni survey response 109)
AI 2	Alumni interviewee 1
AI 2	Alumni interviewee 2
AI 3	Alumni interviewee 3
Administrative personnel participants	
APSR 1	Administrative personnel survey response 1
APSR 2	Administrative personnel survey response 2
APSR 3	Administrative personnel survey response 3
	(Repeat through administrative personnel response 9)
API 1	Administrative personnel interviewee 1
API 2	Administrative personnel interviewee 2
API 3	Administrative personnel interviewee 3
Teacher participants	
TSR 1	Teacher survey response 1
TSR 2	Teacher survey response 2
TSR 3	Teacher survey response 3
	(Repeat through teacher survey response 32)
TI 1	Teacher interviewee 1
TI 2	Teacher interviewee 2
TI 3	Teacher interviewee 3

The coding process discussed in the previous chapter was used to draw out and analyze the beliefs, assumptions and understanding of the participants. Seventy-nine percent of participants' statements fell within the preset codes (see Table 7). Statement review then

allowed for the continuation of the coding process with divulgence of emergent codes and themes which were addressed as they applied within the context of each research question.

Table 7

Manifestation of Statements within Preset Codes (See Appendix F for Detailed Coding)

Survey sections	Determined preset codes	Participant statements
Support for success	Support	
		"Support has depended upon the person. It's been hit or miss but should be systemic and not a lottery."
		"I feel as though once it was determined that I was not attending a 4-year college after high school, support was put on the back burner and given to those students who were going straight to a 4-year after high school."
	Success	
		"The maturity and work ethic that was shaped by my teachers during high school has played a large role in my success in the military."
		"Teachers guided my success through high school and prepared me for the *transition* into a new, rigorous curriculum."
	Academic	
		"There were teachers that challenged me and empowered me to succeed academically."
		"I also think my academic career would have had a much stronger outcome had I been placed elsewhere that would work for the way I learn."
	Future plans	

		"Support was consistent and impactful; helped shape academic and professional goals; utilized this support throughout university."
		"Most of the teachers were so encouraging and made sure that I had a plan for the future. They would follow up and make sure that I was always on track."
Availability and providers of support	Teacher	
		"We need more support in this area."
		"Teachers are by far the main source of support for students. They do provide support but only if the students are motivated to seek assistance."
	Professional	
		"The support I needed was more about managing my mental/emotional health and I did get that from a professional not from school.
		"Individual professional support is given 100% via teacher, counselor, or administrator,"
	Administrator	
		"The lack of support from most teachers and administration made me more independent."
		"Administration does not understand the program and does not adequately support the program."
	Family	
		"I think their [teacher] encouragement along with my family's support were so important during those years."
		"Well a family picnic occurs once a year."

	Friend	
		"My friend group in the IB program was instrumental in my success in school and as an adult."
		"We were a small group of students, and our teachers were our mentors and our friends."
Effectiveness of support	High school	
		"Our teachers were our mentors and friends. Couldn't have gotten through high school without them."
		"I feel as though once it was determined that I was not attending a 4-year college after high school, support was put on the back burner and given to those students who were going straight to a 4-year after high school."
	Future plans	
		"The MYP and DP coordinators also played an integral role in student success and contributed to student's future planning."
		"In my professional opinion students are provided with future planning daily via educators, parents, program, and stakeholders."

Research Question #1: Support Effects on Academic Success

The first research question of this study investigated the impact of academic, social, and emotional supports on the academic success of students in advanced academic programs. To answer the question on the impact of supports, a determination was needed regarding the supports that were provided for students within the advanced academic program studied. Academic support was questioned independently in the survey for all three participant groups

while social and emotional support was questioned separately for administrative personnel and teachers but was combined for alumni.

Surveys, open-ended responses, and interviews were triangulated and coded to allow for the development of themes beyond the preset codes developed within the research. Emergent themes included *support* being paired with the words *teachers (87%), friends (64%), goals (34%), encouragement (37%), impact (23%),* and *personal connections (15%).*

Academic Support

To determine the impact of academic support on students, the question was first answered on whether or not participants believed academic support was provided during high school years. According to survey results, 72.5% of alumni believe academic support was provided (agree or strongly agree) compared to 66.7% administrative personnel and 65% teacher response (see Figure 7).
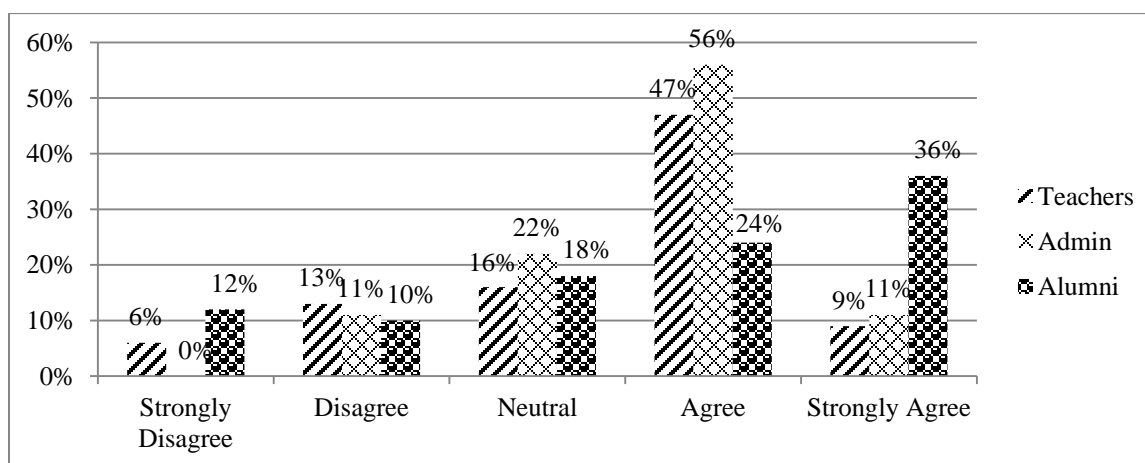
Figure 7. Participant Beliefs on Provisions of Academic Support.

Using the ordinal data provided by from the survey results, a non-parametric Kruskal-Wallis test was performed to analyze views on the academic support provided for students in advanced academic programs. The participant groups (alumni, administrative personnel, and teachers) were reported separately but analyzed as a comparison. The Kruskal-Wallis revealed a

statistically significant difference in views on academic support across the three different

participant groups ($X^2=6.08$, $p=.033$) as evidenced by the agreement with survey responses of

participants. The participant views of receiving support were: alumni; 72.5, administrative

personnel; 66.7, and teacher 65 (see Table 8).

Table 8

Participant Beliefs on Academic Support
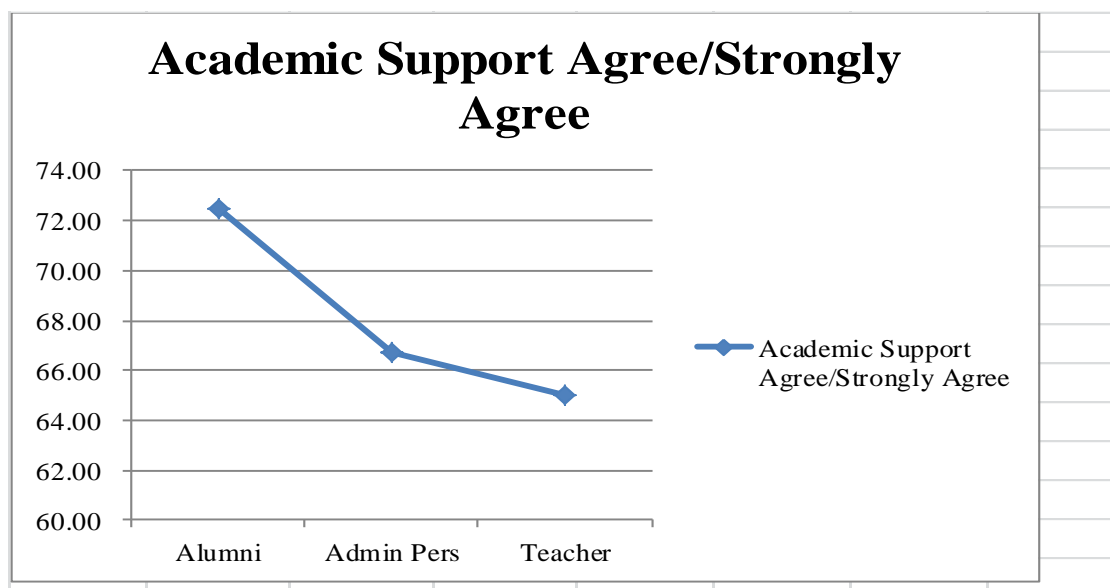
Since the Kruskal-Wallis determined a significant difference between group views in

academic ($X^2=6.08$, $p=.033$) a post-hoc analysis was completed using a Dunn's Test Post-hoc

with Bonferroni adjusted significances to determine statistical differences between pairs of

participant groups. Results from this test failed to reveal pairwise differences on academic

support, after applying the Bonferroni correction, between alumni ($Mr=80.89$) and teachers (Mr

$=61.55$, $z=19.43$, $p=.059$), alumni and administrative personnel ($Mr=59.83$, $z=21.06$, $p=.42$) or

between teachers and administrative personnel ($z=1.71$, $p=1.00$). Therefore, the researcher can

reject the null hypothesis (H_0: $\mu_1 = \mu_2 = \mu_3$) but cannot identify the specific location of the

differences. While these results established that not all of the views of all three participant

groups; alumni, administrative personnel, and teachers, were the same, the follow-up tests

performed were not sensitive enough to determine where the differences were located and

therefore appeared similar.

Impact of academic support on receipt of IB Diploma. Of the 109 alumni who

responded to the survey, 20, whose response was 3, or neutral, were removed from calculations,

as were the participants who reported as being partial IB and were therefore ineligible for the

pursuit of the IB Diploma. The remaining 80 were full IB Diploma candidates with 46 receiving

enough points on their IB exams to receive the IB diploma or 58%. A Chi-square test of

independence was performed, and no relationship was found between IB Diploma receipt and the

perceived academic support, X^2 (1, $N = 80$) $= .110$, $p =.73$. Even though support was viewed as

provided by the majority of all participant groups, attainment of the IB diploma was independent

of the students receiving academic support. In determining the impact of academic support on

the receipt of the IB diploma, it was seen that statistically the support was not related. However,

when evaluating alumni opinions of support as a determining factor, it was shown that this

support was considered a determining factor on the achievement (see Table 9).

Table 9

Academic Support and IB Diploma Receipt Counts

Survey group	Support yes	Support no
Alumni IB diploma	35	6
Alumni no IB diploma	33	6

While quantitative analysis determined there may be little or no correlation between the

academic support provided and achievement of the IB diploma, some qualitative responses felt

that there was a correlation. Additionally, qualitative analysis speaks to views of an additional

outcome of provided support. Thirty-five out of 80 alumni who received the IB diploma stated

they received academic support and six out of 80 said they did not. In contrast, 33 alumni also

felt support academically despite the fact they did not receive the IB diploma, and six believed

there was a lack of support. Therefore, it can be suggested that the support, while academically

aimed, may not have been specifically designed as a tool to support acquisition of the IB

Diploma, but created opportunities for later academic success as well. As ASR 66, who did not

receive the IB Diploma but felt that she was supported during high school stated, "I would not be

where I am today if not for the IB program" as well as another statement by ASR 64 who

achieved the IB Diploma and felt supported; "it [support] made me recognize and tap into my

full potential."

      Relationships. With relationships being a recurrent theme in both surveys and

interviews this was seen as an essential area of exploration (see table 10). Alumni was the group

with the most positive responses regarding academic support being provided with responses such

as, "we generally felt that help was available when needed, even though some sought out the

help, and others did not" (ASR 21). Additionally, as stated by ASR 60, the "success of students

was reflected in the quality and dedicated efforts of teachers who made it a priority to form a

personal connection with their students."

      When examining the alumni responses, the word *teacher* was stated in 67% of responses

when participants were asked to expand specifically on the support provider. This support took

many forms and reflected the emergent codes of *goals* and *encouragement* which were echoed in

the response from AI 2:

      The good ones [teachers] were open and honest with their feedback while being neither

      overly harsh nor admonishing. The best ones made your opinions feel valid and

      worthwhile. Being surrounded with this type of encouragement built self-confidence that

not only fostered our success in high school but also the entrance into life which was a

very scary thing at the time.

Additionally, AI 1 returned this response:

We knew that most of our teachers encouraged our goals through academic guidance,

attention, encouragement, inspiration, and when needed, tough love. I was encouraged in

more ways than just academically during my high school years, and teachers treated us

like people, instead of just students.

Table 10

Theme Statements on Relationships

Theme (Relationships)	Statement
	"My teacher helped me stay in IB."
	"Our teachers were our mentors and our friends."
	"My teacher was always someone I could go to when I was stressed out or needed to vent."
	"I had teachers who made time outside of their work schedule to be there for us."
	"Frequently some small act of kindness got me through the day and let me know someone cared." "Often times we needed to know someone cared, and teachers were there to help us in those emotional times."

The second highest recurring support provider theme was *friend* with a total repetition of

59 times. This theme was further explored and found to include emergent codes regarding *goals*

(34%), values (22%), and *understanding (56%).* Responses regarding friends included "friend

groups with similar values and goals were most helpful with both academic and emotional

support" (ASR 87) and "my friend group in the IB program was instrumental in my success in

school and as an adult" (ASR 105). Many alumni, as well as teachers, found that the support

base of friends was influential as it provided a commonality between students and an

understanding of both the difficulties and successes that they were undergoing. AI 3 contended:

> While I knew that my teachers were always there to support me if I asked, sometimes I
>
> was not comfortable asking for help. When this happened, I knew that because my
>
> friends understood how I felt, I could depend on them to either help me with my
>
> problems or at least commiserate with me while I figured it out (and finally asked for
>
> help). We had a strong base of friends who held each other up in the hard times and
>
> celebrated our victories, no matter how small, with us in the good times.

Support needs and gaps in support. An additional theme was the stated need for

support or the perceived gaps in support as well as the view that support was provided, but not

always utilized (see Table 11).

A remarkable motif to provisions of support was that the few alumni dissenting views on

academic support provisions did not necessarily say that support was not provided, but rather

that they did not need it, or as ASR 52 stated, "the lack of support from most teachers and

administration made me more independent." Some students went so far as to state that even

though they did not use any support, it was available to them: "I was primarily self-motivated

and did not seek out the support that was available very often" (ASR 11).

A smaller percentage of administrative personnel (*66.7%*) and teachers (*65%*) agreed or

strongly agreed that academic support was provided to the group in question. Although they did

posit that support was given, themes were expressed of the support having limited impact and

possibly being ineffective through most commonly recurring words of *provided, limited,* and *ineffective*. Responses to support this interpretation of data included the concerns given by API 3:

> Daily support in the form of voluntary tutoring may be provided after school, however; it is an ineffective method due to lack of structure and expectations. Along with this, teachers involved in tutoring have not been given guidelines or direction to ensure student success. Meetings with counseling happen upon request, and while goals and plans may be made, there are no benchmarks and limited check-ins to ensure there is follow-through. These short-comings have impacted not only the daily attempts at support, but it is impossible to determine its actual effectiveness in the long run.

APSR 9 felt, "teachers are, by far, the main source of support for students. They do provide support but only if the students are motivated to seek assistance which can make us feel that support opportunities provided are ineffective." TI 1 responded with a statement that exhibits frustration at these limitations:

> Too frequently the impact of any support that was provided, no matter the type, was too little, too late. By focusing only on the emergency needs of students, such as failing a course or having a meltdown due to the workload, the ability to meet the day-to-day needs of our students is limited. When classes are staffed inappropriately, staff refuses to help students outside of their contractual time, or the students are blamed for their lack of success it limits any impact support might have on students.

While the overall feeling among all participant groups was that support was provided, the division in views came when discussing the effectiveness and outcome of the support. This division was determined through the development of coded themes using both open-ended

survey responses and interviews. While teachers and administrative personnel felt that the

impact was limited, alumni felt that support was an available, and an essential aspect of their

high school career.

Table 11

Theme Statements on Support Needs/Gaps in Support

Theme (support needs/gaps in support)	Statement
	"Counselors were ineffective and unhelpful"
	"Teachers were our friends and mentors"
	"I needed help as a first-generation college student, and I felt lost."
	"Little intervention is available until you are failing and then it is hard to get back on top "
	"Counselors were only helpful when it came to taking the SAT or sometimes writing a letter of recommendation" "Having mentors available who understand what we are going through would be a huge advantage."

Emotional Support

Once again, the priority when addressing the impact of emotional support was to

determine the views on whether or not emotional support was provided to students within

advanced academic programs. The responses regarding this type of support were different with

79.9% of alumni stating emotional support was provided during their high school years. In

contrast, only 46.9% of teachers and 33.3% of administrative personnel agreed or strongly

agreed that emotional support was provided (see Figure 8).
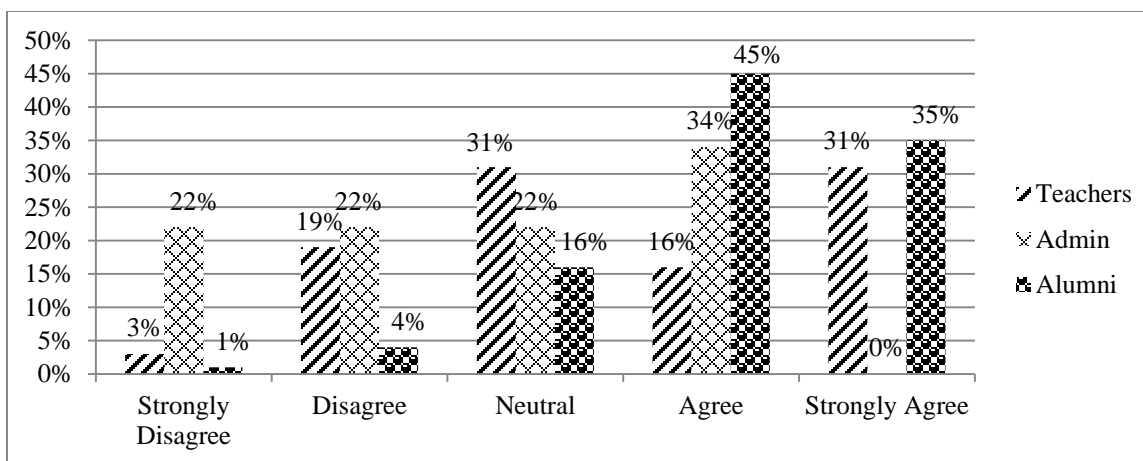
Figure 8. Participant Beliefs on Provisions of Emotional Support.

Statistical analysis on the views of emotional support provided for students in advanced academic programs included a non-parametric Kruskal-Wallis test. The participant groups (alumni, administrative personnel, and teachers) were reported separately but analyzed as a comparison. The Kruskal-Wallis revealed a statistically significant difference in views on emotional support across the three different participant groups ($X^2=15.75, p<.001$) (see Table 12). This difference is evidenced by the individual views on the provision of support. Alumni provided the view that emotional support was provided 79.9% of the time compared to a drastically different response from teachers (*46.9%*) and administrative personnel (*33.3%*).

As the Kruskal-Wallis determined a significant difference between group views in academic support a follow-up analysis was completed using a Dunn's Test Post-hoc with Bonferroni adjusted significances to determine statistical differences between pairs of participant groups. Results revealed no significant difference in view on emotional support between alumni (*Mr=82.61,*) and teachers (*Mr =62.83, z=19.78, p=0.052*) or between teachers (*MR=62.83*) and administrative personnel (*Mr=34.44, z=48.17, p=0.002*). Between the set of alumni and administrative personnel (*p=.002*) which leads the researcher to reject the null hypothesis H_0: μ_1 = μ_3 as there is a statistical difference between these two groups.

Coding was then performed to analyze open-ended survey and interview responses from each participant group. This coding was completed to emphasize any relationship to the responses with their numeric survey ratings evaluating emotional support.

Table 12

Participant Beliefs on Emotional Support
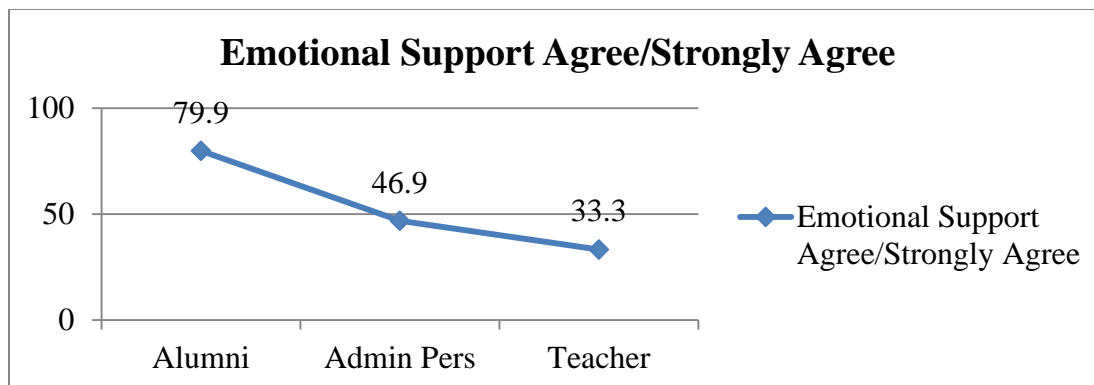
Impact of Emotional Support on Receipt of IB Diploma

Of the 109 alumni who responded to the survey, 16, whose response was 3, or neutral, were removed from calculations, as were the nine participants who reported as being partial IB and were therefore ineligible for the pursuit of the IB Diploma. The remaining 82 were full IB Diploma candidates with 35 receiving enough points on their IB exams to receive the IB diploma or 43%. A chi-square test of independence was performed, and no relationship was found between IB Diploma receipt and the perceived emotional support, X^2 (2, $N = 82$) = .610, $p =$.44. These results indicate that the variables of emotional support and IB Diploma attainment are independent of one another (see Table 13).

While the quantitative analysis provided makes the determination that there may be little or no relationship between emotional support provided and achievement of the IB diploma, qualitative analysis additionally speaks to the views that support, while provided, may not have

contributed directly to acquiring the IB Diploma, but served another purpose as well (see Table

14).

Table 13

Emotional Support and IB Diploma Receipt

Survey group	Support yes	Support no
Alumni IB diploma	33	2
Alumni no IB diploma	41	6

Table 14

Emotional Support Statements

Diploma receipt	Statements	Support view
No	"An adult conversation about what life will throw your way during college would also have been very useful."	No
	"Most of my teachers were extremely supportive except for one. I felt betrayed, and after that incident, I just felt like I was on my own and did not trust any of my teachers.	
Yes	"Little things stick in your mind and can get you through some really bad days."	No
Yes	"I took the support I received for granted but learned later not only how much it meant, but how rare it can be."	Yes
	"I received guidance, attention, encouragement, inspiration, and when I needed it, tough love."	
No	"I was encouraged in more ways than just academically during my high school years."	Yes
	"There was one person who went above and beyond to help us through our emotional teen years!"	

Above and beyond. Alumni had a considerably higher view of provisions for emotional support during their high school years than administrative personnel and teachers. Despite the high quantitative response to emotional support questions, the word *emotional* only appears four times, or 10%, in the 39 open-ended responses provided by alumni concerning provided support. Reviewing responses, emergent themes are shown that the emotional support would include supportive words or phrases such as *friends* 12 times (*31%*), *safe spaces* 2 times (*.5%*), *places to vent* 3 times (*.8%*), *counselor* 11 times (*28%*) and *mentor* 9 times (*23%*).

Examples of these views were seen in the open-ended statements from the survey tool (see Table 15).

Table 15

Theme Statements on Emotional Support

Theme (emotional support)	Statement
	"Friend groups with similar values and goals were most helpful with both Academic and emotional support."
	"However, there was one teacher who did know about my depression and anxiety, and she provided emotional support from time to time."
	"The biggest forms of support we were provided were emotional and educational"
	"When I checked the teacher box, I was referring to really only one specific teacher. Even though most of our teachers helped this persons went above and beyond to help us through school and through our emotional teen years!"
	"They helped me understand the path to college and helped keep me emotionally strong so that I was able to achieve those goals."

	"The extra-curriculars that I participated in were much farther out of my comfort zone, and forced me to seek advice and support from peers and mentors, both emotionally and logistically."

Also, according to AI 1:

> We were fortunate to have very involved teachers who would challenge us both during class and when we were having teenage meltdowns. Venting to a safe person was important during those years. We were a small group of students, and our teachers were our mentors and friends who guided us into becoming not just good students, but better people. We could not have gotten through those emotional high school years without them.

> **Lacking in support.** Both administrative personnel and teachers viewed the emotional area as lacking in the support system provided for students in advanced academic programs with response rates for disagree or strongly disagree at 44.4%, and 21.0% respectively when asked if support was provided. Despite the views that emotional support was not available, there was a lack of open-ended responses addressing this shortcoming which made establishment of any themes in this area difficult. It might appear as a general lack of concern within administrative personnel and teachers regarding this deficiency. The only open-ended response statement from administrative personnel regarding this support was "it is necessary to establish systems in all needed areas of support, including emotional, and this is a leadership responsibility" (APSR 6). Of the teacher respondents, the only statement regarding emotional support was from TSR 11 "we have significant emotional support" which is in contradiction to both the Likert scoring of survey questions and open-ended responses. When questioned regarding this lack of response, AI 3 had this statement of concern:

There is a stigma or perception about IB students not having emotional dilemmas because of their intelligence. What needs to take place is an effective system to identify and ensure support is being provided, documented, and follow-up. Some emotional counseling has become available to some students, but there are not enough resources allocated or available to help them cope with the stressful situations and the rigor of an advanced academic program. What we have to remember is that just because it exists and it is offered, does not mean students are being referred to or taking the initiative or advantage of the support.

Within this group of responses, it appears that not only is there a feeling that there is a lack of emotional support, but there may also be a lack of information regarding student needs and the actual tools available.

Social Support

As with the previous two types of support surveyed, it was first essential to determine the views of whether or not social support was provided before analyzing their impact on the academic success of students within advanced academic programs. This area of support showed a difference in group views with alumni and administrative personnel having similar high views regarding this support, while teacher response was substantially lower. Alumni responded with 79.9% agreeing or strongly agreeing that social support was provided along with 77.8% of administrative personnel. Contrasting this view was the response of teachers with only 40.6% of participants agreeing or strongly agreeing that social support was provided for this group of students (see Figure 9).

According to the between groups non-parametric Kruskal-Wallis test, which was used for statistical analysis of views on the social support provided to students within advanced academic

programs, there was a significant difference between three participant groups in their views

concerning social support provisions ($X^2=15.75$, $p<.001$). This statistical analysis used a

comparison of the three participant views of emotional support provided for students in advanced

academic programs. The participant groups (alumni, administrative personnel, and teachers)

were reported separately but analyzed as a comparison. The Kruskal-Wallis revealed a

statistically significant difference in views on emotional support across the three different

participant groups (Alumni; $n=109$, Teacher; $n=32$, Administrative personnel $n=9$) with $p=.001$

(see Table 16). This difference is evidenced by the individual views on the provision of support.

Alumni provided the view that emotional support was provided a significant portion of the time

at 79.9% compared to a drastically different response from teachers (*46.9%*) and administrative

personnel (*33.3%*). This discrepancy would lead to the understanding that the feeling of support

was evident for students, but not for educational staff.
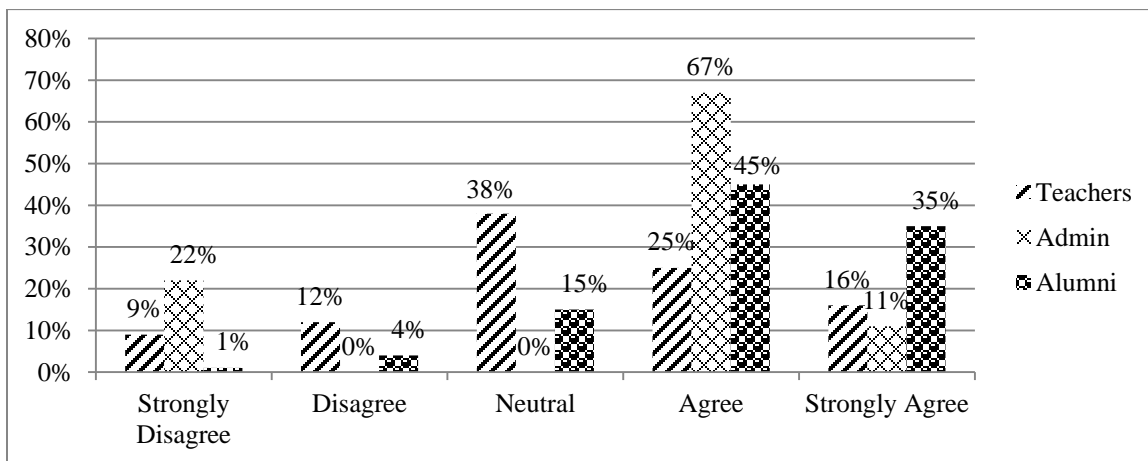
Figure 9. Participant Beliefs on Provisions of Social Support.

As the Kruskal-Wallis determined a significant difference between group views in social

support further analysis was completed using a Dunn's Test Post-hoc with Bonferroni adjusted

significances to determine statistical differences between pairs of participant groups. Results

revealed a statistical significant statistical difference between alumni (*Mr*=83.45) and teachers

(*Mr*=51.34, *z*=32.11, *p*<.001). No significant difference in views on social support was determined between alumni (*Mr*=83.45) and administrative personnel (*Mr* =65.06, *z*=32.11, *p*=0.59) or between teachers (*MR*=51.34) and administrative personnel (*Mr*=65.06, *z*=13.71, *p*=1.00). These results establish there is a difference in views between participant groups with alumni as the group viewing social support being provided by the highest amount. Views are evidenced by survey responses at 79.9% for alumni, compared to response from teachers (*46.9%*) and administrative personnel (*33.3%*). By coding open-ended and interview participant responses themes were established to further enhance the quantitative analysis regarding with qualitative investigation on social support.

Table 16

Participant Beliefs on Social Support
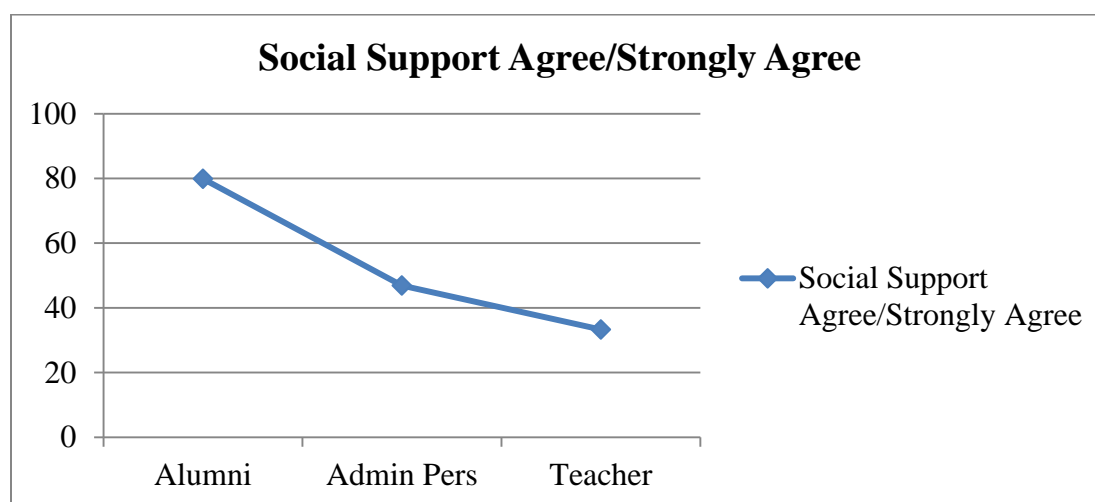
Impact of Social Support on Receipt of IB Diploma

When asked to rate the provisions of social support during their high school career, social and emotional support were combined in the same question for alumni. This combination was inadvertent and led to the results of the impact of emotional support and social support on the receipt of the IB diploma identical. Of the 109 alumni who responded to the survey, 16, whose

response was 3, or neutral, were removed from calculations, as were the nine participants who

reported as being partial IB and were therefore ineligible for the pursuit of the IB Diploma. The

remaining 82 were full IB Diploma candidates with 35 receiving enough points on their IB

exams to receive the IB diploma or 43%. A Chi-square test of independence was performed, and

no relationship was found between IB Diploma receipt and the perceived emotional support, X^2

$(2, N = 82) = .610, p = .44$. Even though support was viewed as provided by the majority of all

participant groups, the variables of Social Support and receipt of an IB Diploma are independent.

Statistical analysis does not determine a link between social support and academic

success. However, qualitative analysis and anecdotal evidence provided that while views of

social support given during their high school career were not significantly correlated, it may have

been a contributing factor in their academic success.

Absence of support. With both alumni and administrative personnel viewing social

support as being actively provided, the word *social* appears remarkably few times within open-

ended comments. Alumni use of the word *social* is only once in 36 comments which equates to

.3%, while administrative personnel use the word four times in six responses for 67%. Within

administrative personnel responses, the recurrent theme is *school activities* which were

considered the social support provided as it is mentioned eight times in their responses.

The type of social support viewed by the administration surrounds sports, social media

and other school events (see Table 17).

However, when API 2 was questioned about this limited view of social support the

following statement was given:

The school provides the social support via school-wide functions such as sports,

activities, and events. Additional social support, for advanced programs, is provided to

students through activities that help their emotional, and moral support. Some of those

activities are outside of the school boundaries to where students have the opportunity to

bond socially, emotionally, and simply have fun. These activities are provided by an

outside entity (Boosters) and with support from the school. Imagine if there was no

booster support, students would rely on school-wide practices and that would be a

problem. Even with both supports, there is a need for additional social support.

There was a recurrent theme within both administrative personnel and teachers that little was

done for students in regard to social support. In fact, the word *little* was paired with *social* in

32% of the responses discussing social support, as well as this comment by TSR 22; "Sports, as

well as most school events, are just activities, not a form of support, even though they are often

touted as such."

Table 17

Theme Statements on Social Support

Theme (social support)	Statement
	"To be honest, I didn't really look for that much support as I was fairly socially adept and academically strong (Valedictorian, IB Diploma recipient)."
	"It is necessary to establish systems in all areas of needed support to ensure that people are not the only ones providing emotional, academic, and social support."
	"To my knowledge, sports opportunities and school events are the only forms of support available to students in this regard. Outside of

	school, teachers volunteering their time and parent boosters financing events provide specific social support."

With the views on the provision of social support being so low at only 40.6%, it was not surprising to establish that the word *social* only appears twice when coding all teacher comments and responses. One open-ended response by TSR 14 listed social support as "students were encouraged to be a part of sports teams, JROTC; band; drama; and social dancing events" and TSR 4 felt that "they are attempting a cookie cutter approach to support and it is not working." These responses, however, besides demonstrating a lack of social support, may also demonstrate a lack of understanding of the meaning of social support, as stated by TSR 15 when in their open-ended comment they asked the question "what is meant by social support?" To explore this belief in lack of social support, TI 3 was questioned and answered:

> I believe that too many of our staff are unaware not only of the support available but more importantly, what the social needs of our students are. We have a group of students who have very high demands placed on them daily, yet they are still kids. We need to be able to address the facts that they need to have downtime, to have fun, just to be kids sometimes and interact at an appropriate level with others. Too frequently they are seen as misfits in the school, but nothing is done to assist them in how to *belong* to the bigger group.

Friends and support. Within the alumni group, however, the greatest theme of mentioned support was *friend*, which occurs through all comments of support 201 times or 67% of the time. According to Procidano and Heller (1983), as well as Helsen, Vollebergh, and Meeus (2000), perceived social support from friends was closely related to social confidence.

This research would support the explanation for the perception among alumni that social support was widely provided during their high school years. Along with this research, the open-ended comments from ASR 87 "friend groups with similar values and goals were most helpful" and ASR 105 "my friend group in the IB program was instrumental in my success" are examples of the alumni beliefs in social support of friends during their high school years. AI 3gave the following insight when questioned about social support during high school:

> I had adult support through my family, teachers, and counselor, but never felt that they really understood our social problems as IB students. To them, it was important to be smart, but not so much to the students outside IB, which was a large part of our school. It was difficult to fit in when your priorities are different from the people around you, and ours definitely were. In high school, you just want to belong, and to belong you have to be the same. It is not until you are older that you understand that it is okay to be different. By encouraging us to develop a strong support system within our IB groups, we were able to find a place to belong and be accepted, socially. This social acceptance was important during high school.

Coding for themes beyond the preset codes for social support views of administrative personnel and teachers was difficult as there were few open-ended responses providing further information. Interview responses, however, shed some light on both the lack of social support and the emergent codes regarding needs and definitions of this type of support. Alumni views were coded as having a strong support system maintained mainly through friendships. Overall, social support for students in advanced academic programs is an issue that coded results revealed needs to be addressed.

Summary

Research question number one asked; "What impact does academic, social, and emotional support have on the academic success of students in advanced academic programs?" While quantitative analysis determined that supports did not have a significant impact on academic success qualitative responses varied dependent upon participant group. A portion of alumni believed that support was provided in all areas, academic, emotional, and social, and impacted their academic success while administrative personnel were in agreement concerning social support. Teacher responses were lower in all areas with the view that there was little impact of support. Administrative personnel views joined those of teachers in the provisions of on social and emotional support.

The statistical analysis completed on the difference and independence of these supports on academic success of students within advanced academic programs determined that there was no significant dependence between any type of provided support and academic success using the acquisition of the IB diploma as academic success.

Research Question #2: Beliefs on Provisions of Support

The second research question of this study focused on beliefs among alumni, teachers, and administrative personnel regarding the types and frequency of support services provided to students in advanced academic programs. These questions differed slightly between the alumni and teacher/administrative personnel surveys. The difference in questions being that alumni were questioned on what services were provided, and by whom, while teachers and administrative personnel were questioned on what services they provided or knew was available for students. This question was answered by each group through inquiry into ratings of

frequency, open-ended survey questions, and follow-up interviews on the provisions of this support.

Provisions of Academic Support

The over-arching theme in participant responses was the provision of academic support. While this was a predefined theme in the survey questions, it was also a concept that continued within the perceptions of participants. It was previously stated that 72.5% of alumni indicated they received academic support during their high school career while 65.7% of teachers and 66.7% of administrative personnel agreed or strongly agreed that support services were provided. To analyze these provisions of support, further analysis was required including determination of recurrent themes surrounding the belief statements of participants. Themes encompassed by whom the support was provided, how frequently it was available, the actual type of support and negative aspects regarding support. These views also varied depending on the participant group. The emergent codes and recurrent themes were used as a guide in acquiring a greater understanding of the personal views of participants.

Dependent upon availability. Provisions for support were viewed as determined by several factors, of which the main factor was availability. Frequency-related words which were provided by participant responses included: *available, daily, as needed, weekly, as requested, and monthly.* Survey responses, when analyzed as a whole, revealed the most recurring themes within the responses of frequency from all participant groups as support being *available* 178 times (*85%*), or *as requested* 154 times (*73%*).

Alumni. Alumni viewed support as most frequently provided as *requested* at 129 times. Statements such as, "I felt that help was available when needed" (ASR 19), and "whenever I did need assistance, it was not hard to find" (ASR 50) further pointed to the views that support was

available when requested. An examination into the responses of *upon request* also revealed that

most (*57%*) or *some* (*48%*) teachers were the most frequent responses to the question of

providers, but that was only when the support was provided outside of the classroom. When

support was provided within the classroom, however, the word frequency changed to *daily* with

61 repetitions (*55%*) and *upon request* fell to 52 (*48%*). The second highest word use was *daily*

with 76 incidences. Daily support was then said, by 95% of participants, to have been provided

in class by teachers.

Administrative personnel. When answering open-ended questions on frequency of

support, most administrative personnel maintained their views that although support was

provided, it was mainly on an *as-needed, weekly*, or even *monthly* basis rather than as a

continuous offering for students. Thirty-three percent of respondents felt that this was an

ineffective way to provide support; as stated by APSR 4, "just because it exists and is offered, it

does not mean students are being referred to or taking initiative or advantage of the support."

Administrative personnel viewed the opportunities quite differently from alumni with 77.8%

determining meetings and other out-of-class opportunities as the most frequently available form

of support. Additionally, 67% of administrative personnel responses who thought that support

was available added a qualifier to that availability. The qualifying statements included

"dependent upon the teacher" (APSR 2 & 4), "depending upon the school site" (ASPR 10), and

"it is up to the students to take advantage of it (APSR 3).

Teachers. Teachers most frequently viewed provided support opportunities as including

as available 169 times (*80%*), *as needed/requested* 105 times (*50%*), and *daily* 54 times (*26%*).

Teachers also viewed *in-class* as the most frequent area of support (*90%*) and *online* (*26%*) as

the support area least used (see Figure 10). The discrepancy between alumni and teachers

regarding the theme of daily provision of support was noted and explored in both open-ended statements as well as interview questions, especially since both groups responded that *in-class* was the most frequent place for provided support. While alumni felt that they were supported, 87% of the teachers felt they were too often unable to provide an adequate amount of support, especially due to other in and out of class demands. TSR 12 contended "the teacher's influence on the student often has the highest impact on student success and it is imperative that we have more consistent outreach and support." TSR 27 summed up the recurring theme of the need for support; "all relevant stakeholders should be making every attempt to assist students in achieving their individualized academic goals."
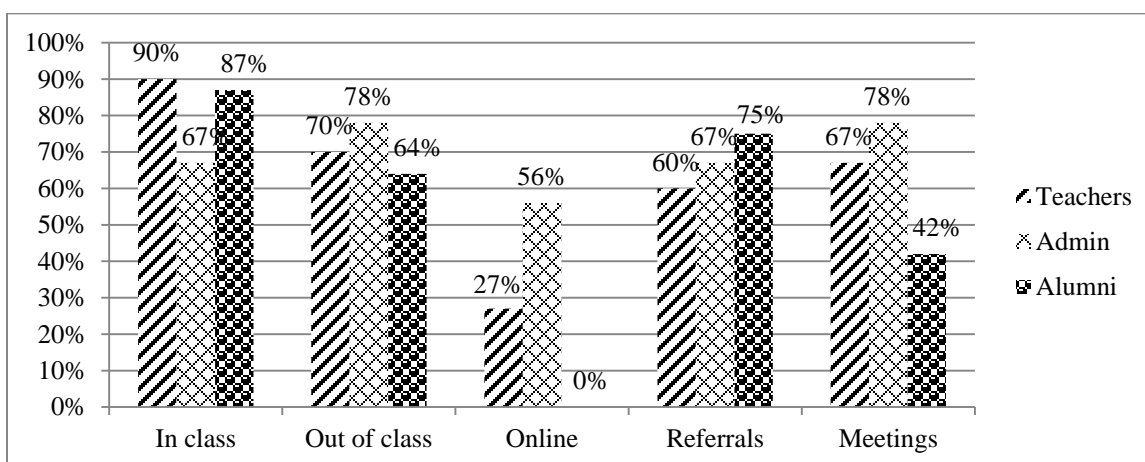
Figure 10. Participant Beliefs on Location of Support Provisions.

In general, alumni determined that while they "felt under-supported by administration, counselors, and IB coordinators" (ASR 74) many shared stories about particular teachers, mentors or other resources that supplied them with the support they were lacking.

Teachers as support providers. When all responses to questions on support were combined, the most recurrent theme was teachers, with word *teacher* (or some variation) was repeated 634 times. Alumni cited teachers as the greatest provider of academic support (*90%*), emotional or social support (*86%*), and support with future plans (*85%*). Further examination

within this predefined theme led to deeper beliefs regarding this support. Forty-nine percent of participants who provided open-ended responses concerning support listed *teacher* as a positive and influential part of their academic career. ASR 4 stated; "we were a small group of students, and our teachers were our mentors, friends and support system. We could not have gotten through high school without them." ASR 46 was more specific in their comment on support; "When I checked the *Teacher* box, I was referring to really only one specific teacher. Even though most of our teachers helped, this person went above and beyond to help us through school and through our emotional teen years!"

Other recurrent themes combined *teacher* with *supportive* (*59%*), *encourage* (*42%*), and *guidance* (*38%*). Even the term *tough love* is given as a type of support by ASR 64 along with; "our teachers provided us guidance, attention, encouragement, tough love, and inspiration which I am grateful for because as a first-generation college student, this was not available at home." AI 2 had the following statement regarding their views on teacher support:

Most of my support came from teachers; however, because I was in the IB program there was a level of expectation that developed this inherent level of support. The support was most effective when the student also had the desire to strive. Sometimes that support was highly selective dependent upon the faith and commitment of the teachers. In retrospect, I was highly determined to leave behind my unhealthy home situation and so sought educational success as my opportunity. There were three teachers who truly challenged me and empowered me to succeed academically.

Teacher ratings of their levels of support show a belief that they do provide needed support to students when the opportunity presents itself. Seventy-five percent of teachers apprised that they provided academic support, 66% provided emotional support, and 53%

provided social support. Statements by teachers such as; "I am probably biased, but I think that the teachers have the most effect on student achievement. Teachers are with them every day" (TSR 7) demonstrate the feeling that teachers have towards their effectiveness as well as "our support is essential. Students respond positively when a teacher shows interest" (TSR 26).

While administrative personnel views demonstrate their feeling that support comes from places other than inside the classroom "discussions outside of class are a prevalent source of support which comes from teachers, parents, coordinators or administrators" (APSR 6). The interview response from administration reveals their beliefs that teachers are a main source of support but have concerns regarding other avenues which need to be reviewed for effectiveness.

Counselors provide support, but only if the students are motivated to seek assistance, if they are failing or falling behind, or if parents press for meetings. Administrators do support students, but to be honest, this support is barely visible and probably the last line of support. However, teachers are by far the main source of support for students. To my knowledge, they all spend time discussing college, being successful both in and out of the classroom, and generally preparing students for life after high school" (API 1).

Many alumni expressed strong feelings regarding support provided by teachers, and while they may not fit in the overall themes, they move in the same current. Revealing statements were made by many; "most of my IB teachers treated me like a person" (ASR 89), "My teachers were beyond amazing. They did above and beyond what was required to make sure I was successful" (ASR 105), and "my teachers made me recognize and tap into my full potential" (ASR 64).

College and career readiness. College counseling was a recurrent theme for support among all participant groups. The word college was repeated 254 times in response to questions

on what support was provided to students. College was also paired with the words *requirements* 91 times (*61%*), and *entrance/preparation/exams* 74 times (*49%*). Additional responses included *transcripts* 71 times (*47%*), and *goals* 64 times (*43%*). Analysis of these continuing themes revealed that all groups felt that college, and career to a lesser degree, was addressed in support opportunities for high school students. Teachers, once again, were the main providers of this support and preparation with *teacher* being paired positively with college preparation in 45% of responses. This support was deemed by first-generation college students as an especially important aspect of their high school support. Other support included IB exam preparation (*22%*), social activities (*12%*), and work ethic (*10%*).

      Gaps in support. There were several recurring themes that revealed gaps in provided support for students. All participant groups determined areas which were either not covered, covered inadequately, or were ineffective. ASR 86 argued; "There is a big assumption that first-generation students know what they are doing, but they are honestly just learning as they go. More support is needed for this group," and this statement points to one specific area of inadequacy. One occurrence which was not expected, but was a repeated theme, included *counselor* being referred to in a negative light 67% of the time the word was used. It was pair negatively with the phrases; *unable to get support, lack of trust, no guidance, useless, not doing their job,* and *negative attitude*. Alumni statements that supported this theme included "instead of a counselor guiding me, the attitude was that I could always drop IB and just do regular classes" (ASR 16), "the counselors were useless when I needed help, except when it came time for the SAT exams" (ASR 69), and "I felt like the teachers were doing their jobs, but the counselor did not do theirs since I could not get any support in regards to my problems" (ASR 33).

Another recurrent negative theme surrounding support was the lack of administrative and district understanding and support of the program and its student's needs. These responses regarding support in general included "the administration and school district were not helpful or engaged, so the students lacked certain areas of support" (TSR 2), "teachers helped where they could despite lack of administrative support" (TSR 11), and "I did not feel very supported by administration which, along with counseling, seemed to put out fires more than anything" (TSR 12). The terms *administration* and *lack of* or *not* were included in 35% or 9 of the 26 open-ended responses by teachers. Another theme of concern surrounded the need for systems to be put in place for support. These comments ranged from the very simple "we need a system of outreach" (TSR 13), to "too frequently students would get discouraged and drop out of IB, and we need a system in place that understand the specific needs of our students" (TSR 22).

Summary. When analyzing the provisions for support and developing systems, it is important to take into consideration all stakeholders as demonstrated through the responses given in the sections on provision and frequency of support. Views are demonstrably different with alumni seeing a specific set of providers more frequent and effective than others. In contrast, administrative personnel and teachers are torn between support being somewhat provided but lacking in systems and effectiveness. These discrepancies in views along with concerns regarding the lack of support demonstrate what may need to be considered when putting actual systems and planning into place.

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Research Question #3: Impact of Support on Future Success

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The last research question of this study surrounded the impact of various types of support on the future success of students within advanced academic programs. The questions posed to alumni centered on their views of whether or not support was provided as well as from whom the

support was gained. A theme was revealed that guided the determination of success when a secondary question was asked about why participants felt the adult figure that had mentored them was successful. The response to this question determined that success was viewed through the theme of *influence* (*80%*), *education* (*71.8%*) and *occupation* (*48.2*) while *income* only factored in as a response for 8.2% of participants.

Although *influence* was the most recurrent theme, it was also the hardest to measure. Instead, the recurrent themes of *education* and *occupation* were used to determine future success through evaluation of post-secondary education as well as employment status. These two factors which were included in alumni participant demographic information were analyzed against the rating of support provided. Statistical analysis was completed for support along with additional qualitative input from alumni regarding their beliefs on how this support may have affected their future.

Success in Post-Secondary Education

Determination of the support provided on the future plans of alumni was judged through the use of statistical tests on whether or not there was a belief that support was provided compared to the level of success achieved. While participants were not queried on beliefs regarding views of their success, there were frequent responses about this topic included in the open-ended responses and inquiries about these statements were made of alumni participants during their interviews. See Table 18 for example statements regarding college preparation and success.

Table 18

Example Statements on College Preparation

Survey sections	Participant statements
Post-secondary education	"I could have used more help preparing college applications."
	"Connecting students with community members that could help them with college acceptance and scholarship programs."
	"I was available to talk in person, referrals to other providers (counselors, etc), meetings (students, parents, etc.), scheduled college reps to talk to classes."
	"I had family support and a few teachers supported me."
	"Generally, I think the IB program has many strict requirements that help students prepare a successful college application. The requirements also help students be more well-rounded when they go to college. Also, the coordinator and several teachers seemed invested in our success. ."
	"Teachers are by far the main source of support for students. To my knowledge, they all spend time explaining how college works, how to be successful in and out of classroom setting. Second in line are counselors. They do provide support but only if the students are motivated to seek assistance."
	"Help with college applications and all the paperwork/exams was very helpful."
	"Mentors helped lead the way to college, and once I entered college, I became a mentor for high school kids and wished there were programs in place for Franklin High School."

College, requirements, and exams. Coding for future plans provided emergent themes

of *college* 215 times and was most frequently combined with *requirements* (*41%*), *preparation*

(*34%*), *exams* (*34%*), *scholarships* (*26%*), and *goals* (*25%*). Not all comments were positive, however, with 10% of *scholarship* comments stating that not enough information was provided, such as this comment by ASR 18 "Financial aid and scholarship education was not something we were provided, and this was disappointing. Had I been informed about deadlines and other time-sensitive information, I feel that I would have better been able to afford school."

Comments specifically related to *college* themes included; "teachers being available for questions or advice allowed me to think critically about my future goals. I was able to take their advice, and guidance with me to college" (ASR 94), as well as "support of teachers in preparation for college really helped me excel at the next level" (ASR 70). Another view, however, stated the feeling of a lack of support in these areas:

> While there was encouragement, there was little actual assistance with technical things
> like scholarships or goal setting. We would frequently be told to 'go to' a website, or
> 'look this up,' but seldom was there practical application which would have really helped
> (ASR 72).

While there were more positive than negative comments regarding these themes, it was evident that some alumni felt that the support in these areas during high school had been less than adequate.

Guidance and support. When queried on the provider of support for future plans, the highest recurrent theme was *teacher* with a total of 85 repetitions (*78%*) within the secondary question regarding from whom support was provided. This theme matches with the participant response from 72.5% alumni that support from teachers guided their success in high school and beyond. ASR 89 stated this about the support provided by teachers:

While I was accepted to two out of the three colleges I applied to; I joined the Navy. The maturity and work ethic that was shaped by my teachers during high school has played a large role in my success in the military.

When alumni interview participants were asked how support during high school had affected their future success AI 2 had this to say:

Most of my support came from teachers, however, because I was in the IB program, there was a level of expectation that developed with this inherent level of support. I was blessed to have received the commitment and faith of my teachers and so sought educational success as an opportunity to be seized. As a result, I developed a sense of resilience in high school, where teachers challenged me which not only empowered me to succeed academically in high school, but this carried into my post-secondary education and my career.

Additional themes for support providers were *family* 63 times (*58%*) and, surprisingly, *counselor* with 55 repetitions (*51%*). The positive combination of *counselor* with *future support* was an unexpected theme as most views given in both open-ended statements, as well as interview responses, stated that counselors were not a positive source of support. Open-ended responses that referred to the lack of counselor contributions included comments such as; "I feel like the teachers were doing their job, but the counselors did not do theirs" (ASR 33) and "counselors gave us paperwork, but not so much guidance or how to pursue our goals" (ASR 42).

Perhaps one of the most telling statements regarding guidance and support was made by ASR 44, "I left with the feeling that I was believed in by my mentors, that, no matter where I was off to, I had the obligation to make something of myself because I had the potential to."

Planning and success. By far the most recurrent theme in the type of future planning support was *college*. The word *college* was used in 99 of 109 responses (*91%*) to the question regarding what future plans were included in support you received. Even respondents who did not necessarily feel support was provided gave answers that it was available if they had chosen to participate. The types of college planning included *requirements* (*85%*), *transcripts* (*67%*), and *preparation* (*58%*).

ASR 15 had this to say about their experience with lack of preparation support for future planning:

> I feel as though once it was determined that I was not attending a 4-year college after high school, support was put on the back-burner for me and given to those students who were going straight to a 4-year college after high school.

While this feeling was echoed to a small extent, the recurrent theme which ran through the survey open-ended questions was that *support* was consistently provided during *high school* by *teachers* who contributed to the participant's *success*. ASR 56 stated, "I do not think I ever had a teacher in the IB program that discouraged my plans or made me feel like I could not go to college" along with "support of teachers in preparation for college really helped me excel at the next level" (ASR 70), and according to another participant:

> I had a teacher who would constantly support me and other students by telling us how important it is to go to college. He would push for us to get there and do well. He would remind us about dates and deadlines and did whatever he could to help us such as writing recommendation letters (no matter how many people asked for one). He gave so much support and care which made everyone love going to him for any questions or concerns about the future (ASR 75).

When asked about how the support provided during high school helped in setting students up for future success AI 3 gave the following insight:

My teachers during high school did their best to motivate and support their students. They cared deeply about the success of their students, which reflected in the quality and dedication of their efforts. The good ones were open and honest with their feedback while being neither overly harsh nor admonishing. The best ones made your opinions feel valid and worthwhile. Being surrounded with this type of attention-built self-confidence that smoothed the entrance to life beyond high school.

Responses were that teachers were the group that provided the most support, daily, and as need developed, to students in planning for their post-secondary education.

Success as measured by post-secondary education. In answering research question three, statistical analysis was to be completed using Chi-squared test for independence to analyze impact of future support on the success of students in advanced academic programs as gauged by those who have achieved some type of post-secondary education. This post-secondary education includes current college students as well as those who have pursued vocational education or training.

Twenty participants who answered 3, or neutral, on the corresponding survey question were subtracted from a total number of 109 alumni participants leaving a total of 89 who agreed or disagreed that support was provided. Of this remaining number, it was determined that 24 (*22%*), felt they did not receive support for future planning.

The two factors, alumni view of support, and achievement of post-secondary education were to be used for analysis purposes. However, statistical testing on this concept could not be performed as the entire body of both participant groups, those who viewed themselves as

supported and those who did not view themselves as supported had achieved at least some measure of post-secondary education. This result possibly indicates that with or without the future planning support, students were able to continue into post-secondary education.

Success as measured by employment status. In answering research question three, statistical analysis was completed using Chi-squared test for independence was conducted to analyze impact of future support on the success of students in advanced academic programs as gauged by those who are employed. This employment status includes current college students as a considered current occupation.

Twenty participants who answered 3, or neutral, on the corresponding survey question were subtracted from a total number of 109 alumni participants leaving a total of 89. Of this remaining number, it was determined that 24 (*22%*), felt they did not receive support for future planning.

The two factors, alumni view of support, and employment status were used for analysis purposes. A chi-square test of independence was performed, and no relationship was found between receipt of future planning support and current employment status, X^2 (1, $N = 89$) = .78, $p =$.37. There is no statistically significant relationship regarding the impact of future planning support and current employment status (see Table 19). The variables of future planning support and employment are independent.

Table 19

Future Plans Support and Employment Status

Employment status	Support yes	Support no
Employed	63	18
Unemployed	4	4

Quantitative data within this study offers the determination that success, as defined by the researcher, post-high-school is not dependent upon the receipt of future planning support in high-school. Additionally, the researcher was unable to evaluate the contributions of future planning on the achievement of post-secondary education, since all alumni participants had completed some level of post-secondary education. However, in contrast with these two views, alumni participants repeatedly stated, in both open-ended survey questions and interviews, that support during their high school years was a large contributing factor to their success after high school. It was put very succinctly by ASR 65 "I would not be where I am today if it were not for the support given by the IB program."

Summary

Overall, the views on provisions for support be it academic, emotional or social, varied depending upon the reporting group. The use of open-ended questions on a confidential survey allowed for respondents to provide views that otherwise might not have been given. This is true especially for administrative personnel or teachers. While alumni surveyed opinioned that support was available, whether they took advantage of it or not, teacher and administrative surveys stated a much more negative view on both the support provided and the subversion of its possible impact. Administrative personnel and teachers both stated that the lack of support impact was due to district-wide issues such as staffing (*23%*), commitment (*33%*), protocols (*10%*), and program support (*42%*). Additionally, by conducting individual interviews, participants were allowed to express their beliefs and concerns without the influence or discomfort that can accompany group interviews and discussions.

Responses included views regarding support and success in future life goals "support was consistent and impactful which helped shape my academic and professional goals, and I utilized

this support throughout my university experience" (ASR 109). While the statistical significance

of the studied support was mixed, the views of alumni overwhelmingly stated that support that

was provided allowed them, at least partially, to pursue their academic and career goals due to

"encouragement and support which made me recognize and tap into my full potential" (ASR

64).

CHAPTER 5: DISCUSSION

The impetus behind this study was the need to provide necessary support which fosters success for students within advanced academic programs. The three areas of support which are addressed are academic, emotional and social. By providing this support, students are given the opportunity to engage in an educational environment geared towards allowing those whose objective is to learn, the best possible chance for success. To explore the support needs of these high-ability students in an advanced academic program, this study addressed three research questions:

1. What impact does academic, emotional, and social supports have on the academic success of high-ability students in advanced academic programs?

2. What are the beliefs among students, teachers, and administrative personnel regarding the support services provided to students in advanced academic programs?

3. What impact does support for future planning have on the success of former students of advanced academic programs in their post-high-school endeavors?

Summary of the Study

This study focused on participant views on provisions of support for students within an advanced academic program. The determination of views on support was contained within survey questions and interviews that addressed the concepts of academic support, emotional support, social support, and support for future plans. Qualitative inquiry provided answers that presented an array of views not only on the needs of students within these programs but also on the beliefs surrounding what support they felt was provided during the years surveyed.

This chapter addressed the research findings of this study through analysis and interpretation. Additionally, the research results in light of previously discussed literature are

communicated to reinforce findings as well as areas for improvement. Recommendations for action as well as future research are also addressed.

Research Question 1

Research question one asked: "What impact does academic, social, and emotional supports have on the academic success of high-ability students within advanced academic programs?" Evaluation of the average of participants' views showed that academic support was provided at greater than 65%, while emotional support was said to have been provided on average 53% and social support averaged at 66%. In all three categories alumni felt that they were supported with academic at 73%, emotional and social both at 80%. Administrative personnel also felt that support was provided for academics at 66%, as well as social at 78% but felt that emotional support was lacking at 33%. Teachers viewed academic support as provided at 66% but felt that support was lacking in both emotional at 47% and social at 41%.

Quantitative analysis revealed statistically significant difference in views of support in all three areas, academic, emotional, and social, across the three different participant groups. These results revealed that generally alumni felt supported, even when teachers and/or administrative personnel had doubts about this support. Within academic support, an additional statistical analysis was performed, but tests were not sensitive enough to determine where specific differences were located. Statistical analysis of emotional support views determined there was a significant difference between groups with alumni as the group with the highest view of emotional support being provided. Social support, as with other types of support surveyed, was shown to have a significant difference between the three participant groups in their views. As alumni provided the view that social support was provided at 79.9% compared to teachers at

46.9% and administrative personnel at 33.3%, it would lead to the understanding that the feeling

of support was evident for students, but not for educational staff.

Statistical analysis was also performed on the specific impact of support on the

achievement of the IB Diploma for the years surveyed. Through the use of a Chi-square test of

independence, no relationship was found between IB Diploma receipt and perception of neither

academic, emotional, nor social support. This finding would indicate that receipt of the IB

Diploma was not dependent upon support, whether academic, emotional or social, that may or

may not have been given to students.

Qualitative responses gave each group an opportunity to expand on their numeric answers

and assortments of sentiments were given. Possible and interesting explanations for the varying

views were given by participants in interview statements. On administration:

"It is possible that administration feels that support is given, at least academic and social,

because those are things they feel responsible for as the leader of the school. I mean,

would you want to admit that you are failing an entire sub-group of students if it were

your school?" (TI 1)

On teachers:

"We each have an area of expertise, and teachers are on the front lines when it comes to

support. Their views on support may demonstrate the areas where they are strong, so it

would be normal that academic support would be the highest. With emotional and social

support they would still be the first line of defense, and may see the problems, but not

have the resources or know-how to help." (AI 3)

"The support I received during my high school career definitely made a difference in my

success. We, as a group, were guided, and often pushed, to strive for success. We were

constantly reminded that there was a purpose for what we were doing and how it would influence our later achievement." (API 2)

On alumni:

"While it makes me feel good that a large group of alumni stated that they felt support in all areas during their high school years it also makes me wonder if they are recollecting accurately. We all tend to remember the good parts of the past and let go of the others. It would be great to be able to track groups through these years and into the future for possibly more accurate information." (API 3)

While these are statements of only three individuals, some of these sentiments were echoed within the open-ended statements of all participant groups. The researcher found that alumni, with the ratings above 70% for all three support areas, overwhelmingly commented positively regarding the teachers and the help that was provided for them both in and out of class. However, there were minimal responses that included specifics, even when requested. Teachers might perceivably have been stated as providing the majority of support since this is the staff member with whom the students have the largest amount of interaction (Conner, Miles & Pope, 2014). Conversely, it may have been the quality interaction between teachers and alumni, and not any actual support that resulted in greater success (Conner, Miles, & Pope, 2014; Danielsen, Breivik, & Wold, 2014).

Further evaluation for each type of support was completed in relation to the alumni's receipt of the IB diploma. Within the research participants, 45% of alumni received the IB diploma compared to the average receipt percentage for the surveyed program during the years 2001 to 2015 which was 36% (IBO, 2016), indicating a certain amount of success within the

school's program. This success would support the positive views of support given by survey respondents.

It was determined that although qualitative data provided evidence that alumni viewed support as present, analysis using a Chi-Squared statistical test showed no difference between the provision of support and acquisition of the IB diploma. Through revisiting participant responses, it is felt that at least some portion of success was possibly facilitated through the establishment of personal mentor-type relationships between teachers and students. Alternatively, it is felt that administrative personnel appear to have little effect on, or interaction with students, as evidenced by comments from all participant groups. The researcher also notes that a greater percentage of respondents received the IB diploma (*49%*), compared to the school program's average total of diplomas for the surveyed years (*36%*). It is, therefore, felt that within qualitative analysis, one of the reasons for the positive responses regarding support is that a large portion of alumni participants in the current study were successful in IB.

The open-ended questions and interviews used in the qualitative portion of this research provided a much richer picture of the research results as qualitative research focuses on the interpretations of interactions (Pope & Mays, 2006). However, much of the anecdotal evidence was seen by the researcher as possibly driven by feelings and not data driven responses, which led to the difference in views of support given and its quantitative impact on success.

Research Question 2

Research question two asked: "What are the beliefs among alumni, administrative personnel, and teachers regarding the support services provided to students in advanced academic programs?" In the first question, it was determined that all participant groups viewed support as being provided, albeit to various extents. The views regarding the actual provisions of

support that were provided varied as well. Determination of whether or not support was viewed as provided was straight-forward when assessing quantitative data. However when provided support was assessed in combination with *effectiveness* there is a concern regarding the differing interpretations for the meaning of effective (Ko, Sammons, & Bakkum, 2014). The researcher believes self-concepts of the group of alumni participants, many of whom achieved the IB diploma, may have played a factor in their evaluation of effectiveness of support (Huang, 2011). The lower percentages on the part of the teachers and administrative personnel may be due to a number of factors which were stated within survey and interview statements. Problems such as a lack of consistency within the school environment studied, lack of teacher preparation and familiarization of needs of this unique population, and lack of instructor skill was felt among staff to create an environment that, while it may be supportive in a broad sense of the term, it is not effective in provisions of support (Kyburg, Davis, & Callahan, 2007; Park, Caine, & Wimmer, 2014; Ritchotte, Suhr, Alfurah, & Graefe, 2016; Schaps, 2005; VanTassel-Baskel, 2010). This is in stark contrast to the alumni views that support was provided and effective during their high school career and they are generally happy with its outcomes.

Alumni provided the most depth when answering follow-up questions regarding the support provided during their high school years. They felt that the majority of their support was provided by either a teacher or friend and that this person was instrumental in their success. It is not surprising that friends, as providers of support (with 59 repetitions), would be part of a student support system due to the fact that friends are frequently chosen by high-ability students through the courses they take and that friends are used as a support system to accommodate the stress of what they consider necessary to be successful (CASEL, 2003; Eddles-Hirsch et al., 2010; Riegel-Crumb et al., 2006; Rudasill & Callahan, 2010). By evaluating responses of

alumni, the researcher developed the belief that while teachers are viewed as providing the most

academic support, friends are seen as the greatest factor in attaining social and emotional

support. One contributing factor to consider is that high school students are at an especially

vulnerable age of needing to fit in, and by surrounding themselves with like-minded friends they

are able to maintain not only support, but also their academic and future goals (Eddles-Hirsch et

al., 2010; Jen et al., 2016; Makel et al., 2011).

Teacher was the most frequent answer for provider of support (*90% academic*, *86%*

social, and *86% emotional*) from alumni, which was a theme that continued in open-ended

statements and interviews. Teachers were seen as the first line of support as they were easily

accessible and as one respondent stated; "Our teachers were always there for us, through good

and bad we knew we could depend on them" (ASR 68). This ability to motivate increases when

it is known that teachers have taken the time to learn student's goals and interests as well as build

personal relationships with their students (Garn & Lolly, 2014).

To a lesser extent, teachers and administrators believed that teachers were the most

frequent, and effective provider of support for students with teachers choosing "agree" or

"strongly agree" at 62.5% and administrators at 55.5%. The contrasting views given by staff in

qualitative research touch upon the lack of ability, training, understanding, and interest as

reasons for support not being effective. While these views may be seen as possible gaps in the

approach of educators when supporting students; alumni, once again in contrast, felt they

received the necessary support to facilitate their achievement during high school.

The family was not considered by alumni as a great contributor to support at 29.4%.

Within qualitative responses alumni contained citing of a lack of parental schooling beyond high

school as a possible limiting factor in their household, and these family demographics of being a

first-generation college student may be seen as an influence on academic growth (Bassiri, 2016).

However, this was generally stated as compensated for by the support and direction acquired at

school. In this case, support is given a broader sense for *family* as it was paired with statements

regarding being a *first-generation college student* and *supported and pushed me [toward*

college].

It was interesting to note that when counselors were discussed in comments from alumni,

it was most frequently in a negative light with statements including the words *ineffective, useless,*

and *uninformed.* Evaluation of the qualitative comments related to counselors led the researcher

to believe that students felt let-down and neglected by their school counselors. Statements

inferred that counselors were not available for anything except answering questions about tests

(SAT, PSAT, etc.) and did not provide any intervention when students felt overwhelmed,

confused or unsuccessful. According to alumni, even when students were failing and came to

counselors for assistance the solution that was frequently given was; "you can drop and take

regular classes" (AI 16). This may be due to a lack of training, understanding, and unfamiliarity

of the needs of students within the advanced academic programs. Conversely, teachers and

administrative personnel most frequently paired *overwhelmed* with the word *counselor* which

denotes a definite difference in views and provides a further area to be explored.

While the general consensus was that support was provided and that teachers were the

greatest provider, qualitative responses varied in their interpretation of this support. Comments

from alumni ranged from *pushed to excel* to *help was available when needed,* and even *only last-*

minute intervention was provided. Teachers and administration both interpreted support as being

in the form of *tutoring, discussions* and *being available*. However, there was no discussion of

educational supports beyond tutoring. This is in contrast to the literature, which contends

consistent, broad-based instruction and assessment are the key tools to academic support (Kyburg et al., 2007; VanTassel-Baskel, 2010). The researcher believes that within the advanced academic program studied, an in-depth evaluation of the needs of all stake-holders regarding the provisions and effectiveness of support could be useful as the educators are the guides which can lead students to success or failure.

Research Question 3

Research question three asked: "What impact does support for future planning have on the success of former students of advanced academic programs in their post-high-school endeavors?" A determination was first made regarding views on support provided as well as the meaning of success. Responses by alumni determined that success was viewed through the lens of *influence* (*80%*), *education* (*71.8%*) and *occupation* (*48.2%*) and it was interesting to note that *income* only factored in as a response for 8.2% of participants. *Education* and *occupation* were used to determine future success through evaluation of post-secondary education as well as employment status.

A Chi-Squared statistical test which was to be performed as a part of quantitative analysis on success as measured by post-secondary education. However, the outcome was that the testing could not be performed due to the fact that all participants, whether they felt they had received support for future planning or not, had achieved at least some measure of post-secondary education. The Chi-squared test for independence was able to be conducted analyzing the impact of future support on success of students as gauged by those who are employed. This test determined that no relationship was found between the receipt of future planning support and current employment status with reported values relatively low.

Generally, students within advanced academic programs are determined and driven (Reis & McCoach, 2000). These attributes can be both positive and negative when it comes to future planning. The feeling that the future needs to be decided now can contribute unneeded stress onto an already stressed-out teenager (Olszewski-Kubilius & Clarenbach, 2012). Fortunately for these students, advanced academic programs are considered a pathway to post-secondary education and they are being prepared on multiple levels (Park et al., 2014).

The researcher believes that one concerning factor, in light of the views of counseling support within the surveyed program, is that studies have shown that high-ability students' transition to college can be disrupted if they are subjected to poor academic advising (Park et al., 2014). It would be recommended to explore this short-coming as stated by participants by evaluating the training and support provided to counselors in regard to students' future planning. By investing in counselors, student success can be further supported.

While statistical tests determined no relationship existed between future planning support and employment status, no tests could be completed regarding planning support and post-secondary education. These statistics were unable to be completed due to the fact that all participants had achieved some level of post-secondary education – whether college or vocational training. Research has shown that students within advanced academic programs (AP, DE, and IB) are more likely to enroll, perform well, and complete their college education (An & Taylor, 2015; Bergeron, 2015; Cassidy et al., 2013; Conley et al., Cowan & Goldhaber, 2013; 2014; Dodd et al., 2002; Mattern et al., 2009; Mattern et al., 2013; Shah et al, 2010). Evaluating the current study results led the researcher to the belief that even statistical tests were not able to be performed, the qualitative data, along with the fact that all survey participants have achieved

some level of education past high school, shows future planning, whether explicit or implied, to be effective.

No one factor is marked as the main contribution to student success (Olszewski-Kubilius & Clarenbach, 2012; Park et al., 2014). Through a combination of effective research-based supports and invested support providers, students are able to garner a much greater level of success. So, while the relationships between support and success could not be quantitatively determined, the fact that most participants commented positively on the support system within the advanced academic program studied, the results define they are heading in the right direction. With appropriate additions, students would likely be able to enjoy even greater success in their academic career.

Implications for Practice

To create a successful environment that fosters student growth and achievement, it is necessary to address the needs of the whole child (ASDC, 2015; Plucker et al., 2010). With the current emphasis on providing advanced educational opportunities to all students, it is imperative that a support system is developed that that provides this group of students with the tools to be successful (Allensworth et al., 2011; ASCD, 2015). The development of a system of support for high-ability students first requires an understanding of their unique needs (Reis & McCoach, 2000). By evaluating program effectiveness, student populations can be better served, and growth facilitated, not only for students but also for staff (ASCD, 2015; Fullan, 2001; Reeves, 2009; Senge et al., 2013).

The present study focused on the support needs of students in an advanced academic program and sought to determine the effect of provided support on the success of students within this program. With a large contingent of alumni viewing support as being provided, it was

determined not that support was lacking in provision, but possibly in type and availability. This is highlighted in the opinions of teacher participants that there are short-comings in the systems in place, or in some cases, absent.

The mentor-type relationship between teachers and students may point to a different type of support that was explored in this study. The personal aspect of support was repeatedly shown in comments from alumni participants and may have pointed towards a different, and important, student need. While this more personal support has been seen as provided, it may be that more academic support is needed to develop a greater academic success as this was shown as a short-coming, to a varying extent, within all groups.

A key point within all provided responses provided the researcher with the view that there was a need for systems of support provided to be analyzed for use and effectiveness. The view was also constructed that not all teachers are suited to the teaching of advanced courses (Park et al., 2014). This determination was given as both alumni and teachers commented on the ineffectiveness and nonchalant attitudes of teachers toward student success had negatively affected some students. This view of support needs is reinforced by research into school practices (Hewitt & Forness, 1984; Gearheart, 1974; Kirk et al., 2014). These needs include differentiation, individualization, and supplementary instruction for both those students who have learned and are ready to move on, and those who are struggling and need extra help (Hong & Milgram, 2008). To facilitate improvement in these areas, intervention systems must be developed for all areas of support, beyond tutoring for academics and sports for social. Additionally, teacher preparation is needed to increase effectiveness and understanding of the students in advanced academic programs and their educational needs. Administrative personnel,

counselors, and teachers all need training in proper use and interpretation of data along with the need for clarity on guiding educational aspirations (Marsh et al., 1995).

The emphasis by all participant groups is on growth opportunities and challenges to continually improve programs. This emphasis follows recommendations in current research which places importance on students' need for differing levels of opportunity and challenge as well as support (Hong & Milgram, 2008; Piirto, 1998; Subotnik et al., 2011). To institute change, a culture-shift is needed to have buy-in from all stakeholders (DuFour et al., 2010; Reeves, 2009). Investing in program-wide change and enrichment allows educators more time to focus on the needs of the student that is in the room (Reis & McCoach, 2002). Student future success was seen within the participant group of both IB Diploma recipients and non-recipients. This points to the effectiveness of different aspects of support for students and most noticeably the interpersonal support. Through providing empirical evidence, however, as well as support to address possible changes discussed within this research, program and student needs may not only be addressed, but changes may be embraced as students, along with programs and staff, are taken to the higher levels of success.

Limitations and Delimitations

Limitations. Limiting factors that may have influenced this study but are not under the researcher's control include survey response rate, difference in participant numbers, knowledge of participants, lack of open-ended responses for some participant groups, and differing lengths of time since attendance in the studied program. These factors, along with their justifications are discussed below.

The survey response rate, while within acceptable parameters, was a limiting factor. The differing group response rates were problematic and required an adjustment in statistical

analysis. The differences in participant pool numbers were a possible limiting factor, however, were necessary as the numbers varied greatly due to the number of applicable contributors. For example, the number of teachers who have taught within the IB program is much smaller than the number of Alumni who were enrolled in the IB program during the 15 years studied, thus the participant pools of both groups varied.

While alumni participants contributed many open-ended responses the administrative personnel and teacher groups provided little expansion on responses provided on the survey questions. This meant that the researcher was dependent upon interview responses which may have been a limitation.

The length of time since completion of the studied program may have been a limitation. Using memory of programs, assistance and strategies discussed within the survey may have been affected by this time difference. The evidence that was given to support the data was more frequently slanted towards positivity, but without specific examples, which leads the researcher to question whether or not the length of time that had passed since alumni participants left the program may have contributed to this outcome. As the administrative interviewee remarked, it is much easier to forget about the bad stuff over time and only remember the good, and 15 years is a long time (for some it is nearly half their lifespan). Not only is time a contributing factor to remembering, but the frame of reference and perspective are as well (Crane & Hannibal, 2012). Some things were much more important as a teenager than they are now as an adult who could be an additional area of further exploration. However, to develop a pool of participants, it was a necessary limitation. Since participants were known to the researcher, this may have been a limitation. This may have limited responses and participation if individuals did not feel comfortable disclosing personal information and views to the researcher. Additionally, the

Hawthorne effect may have contributed to participant responses in the research instruments and interviews (Cambridge, Whitton & Elbourne, 2014). The Hawthorne effect is characterized by participants acting differently simply because they are involved in an experiment, and they may also guess what the aim of the study is so that they can act accordingly (Cambridge et al., 2014; Crane & Hannibal; 2012). Both circumstances have the possibility of skewing the acquired data.

When effectiveness of support gained or given was explored, again information was scarce as specific details were not supplied. Classroom methodologies, teacher pedagogy, and instructional practices, to name a few, were areas of educational support that were not specified in questions, or responses, which may have led to an inability to determine the relationship of support versus needs for students surveyed (Eddles-Hirsch et al., 2010). The same dilemma was encountered with the evaluation of emotional and social support.

Delimitations. There are several delimitations regarding the conducting of this study. One delimitation was that the participant pool did not include participants from other advanced academic programs besides one high-school IB program. This delimitation developed due to the inability to acquire AP scores and alumni for the surveyed years from school district personnel. While this provided less comparison data, it allowed for the researcher to focus on the IB program participants. Another delimitation was the use of only one form of delivery for the research survey. The postal system was not used as a delivery method for surveys as it was determined it would not be cost or time-efficient. Instead, the researcher utilized social media which provided for ease of notification and collection. An additional delimitation the choice to not include other than IB scores as a measurement of success. While IB scores were the only measure used to gauge academic success, this standardized test allowed for an expedient point of analysis; due to the fact that the IB exams are the culmination of the program, it was deemed

appropriate. The researcher was conscious of and provided for the delimitations that occurred within this study

Recommendations for Further Research

Findings from the current research study suggest the need for several areas of further research. The first recommendation for further research would be to obtain recommendations and perceptions of participants on how to enhance support and increase success. As the participants have demonstrated within the current research, they are conscious of which support provisions given were effective when provided by individuals. As a resource, this information could prove invaluable in the development of an effectual program-wide support system (Emerick, 1992). These program-wide supports should include the needs of all stake-holders within the system and not just student needs.

Next, a study on the implementation of a specified system of support using a mixed-methods analysis could be completed. Implementation would include monitoring with pre-test and post-tests of the specific areas of expected improvement as a tool for evaluating its effectiveness (Matters, 2006). By evaluating these specific areas of improvement, empirical data would be collected which could allow for not only research exploration but also assessment of value of the support for all stakeholders (Reis & Morales-Taylor, 2010).

The current research contained participant responses regarding the need for teachers to have an appropriate skill level commensurate with the level of courses they are teaching (VanTassel-Baskel, 2005). It would be advantageous to evaluate teacher effectiveness dependent upon educational training level (Milsom, 2004; Park et al., 2014). Determination of effectiveness could be evaluated through student outcomes on the standardized assessments given in the AP and IB programs.

Additionally, it was determined in the current research that training was needed in the areas of data interpretation and use (Park et al., 2014). This training should address not only the academic needs of providers, but also how to support educational staff in order to increase their daily effectiveness and planning. A study on the implementation and success of an in-depth professional development system to use data in improving student outcomes could be conducted. Effectiveness could be evaluated through pre- and post-tests on academic success of students.

Due to the repeated commentary within the current research on the lack of support provided from administration, both at school and district levels, it would be advantageous to analyze the level of collaboration between teachers and administration. This could be conducted with an evaluation of collaboration's impact on levels of support (Olszewski-Kubilius & Clarenbach, 2012). Both surveys and interviews could be utilized in order to develop a more complete view of beliefs.

Lastly, a longitudinal study on success of students within comparative advanced academic programs (AP & IB) could provide pertinent information on the possible long-term effects of support provided within programs in high school (Reis & Morales-Taylor, 2010). This could be accomplished using an instituted system of support with an experimental and control group of students. By continuing the study past the high school years, it affords a stronger picture of the effectiveness of an implemented support system.

Summary

Today's educational scene is changing as educational leaders are increasing the push for students to be engaged in rigorous academic courses, oftentimes without appropriate support for either the students or staff (Cleaver, 2011; Plucker et al., 2015; Schaps, 2005; Smarick, 2013; VanderArk, 2014; Walton, 2009). To address this push, school districts are seeking appropriate

educational options, and adjustments since traditional methods of instruction and support are not enough to ensure success for students in the 21st century (Carneiro & Draxler, 2008; DeBray & Blankenship, 2013; Driscoll, 2002; Griffin, 2015; Kirk et al., 2014; Riddell, 2005; Smarick, 2013). In alignment with established research, this study sought to measure perceived support given to students within the advanced academic program studied. As was discussed throughout this research, current support systems were a medley of success. Some areas of support such as mentor-types are seen as supportive and helpful as discussed in the responses of alumni. Other areas, such as academic supports are viewed as less successful through teacher and administrative personnel reports. While this study sought to determine the impact of academic, emotional and social support systems for IB students within one high school program it led to deeper questions on specifics within the explored areas of support. Questions arose such as how support provided could have a greater impact on academic success which was defined through receipt of the IB diploma, post-secondary education, and employment status.

The participants' view of support varied along with the perceived provision, but quantitative analysis established that there was little or no dependence between the support provided and student academic success. When a lack of support was discussed in the qualitative analysis, limitations such as time, resources, knowledge, and training were given. If greater success within the advanced academic program studied is the goal, several suggestions were given through participant feedback. First, a determination needs to be made of what systems are already in place as well as who is using them and how they are being used. Measures of effectiveness must then be established and utilized for evaluation of these systems. Also, to encourage improved success, the information gathered from the evaluation must be utilized with

adjustment being made to support not only the students but those who are providing the support as well.

By developing and evaluating research, we are better able to know and address the support needs of students within advanced academic programs. It was suggested that through increased administrative emphasis and policy actions on the importance of student achievement within advanced academic programs, schools would be able to incorporate planning and professional development into their school structure. With this concerted effort by all stakeholders, programs and systems can be provided, and students in advanced academic programs can succeed at the highest levels.

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APPENDIX A

Table 1

Types of State and District Requirements for Kindergarten Entrance and Attendance, by State: 2014

State	Compulsory school age [1]	Kindergarten entrance age	State requires district to offer full-day kindergarten program	State requires district to offer half-day kindergarten program	State requires kindergarten attendance
United States[2]	†	†	12	34	16
Alabama	6	5 on or before 9/01	Yes	No	No
Alaska	7	5 on or before 9/01	No	No	No
Arizona	6	5 before 9/01	No	Yes	No
Arkansas	5	5 on or before 8/01	Yes	No	Yes
California	6	5 on or before 9/01	No	Yes	No
Colorado	6 on or before 8/01	5 on or before 10/1	No	Yes	No
Connecticut	5	5 on or before 1/01 [3]	No	Yes	Yes
Delaware	5	5 on or before 8/31	Yes	No	Yes
District of Columbia	5	5 on or before 9/30	Yes	No	Yes
Florida	6	5 on or before 9/01	No	Yes	No
Georgia	6	5 by 9/01	No	Yes	No
Hawaii	6 by 1/01	5 on or before 7/31	No	Yes	No
Idaho	7 by first day of school	5 on or before 9/01	No	No	No
Illinois	6 on or before 9/01	5 on or before 9/01	No	Yes	No
Indiana	7	5 on 8/01	No	Yes	No
Iowa	6 by 9/15 [4]	5 on or before 9/15	No	Yes	No
Kansas	7	5 on or before 8/31	No	Yes	No
Kentucky	6 by 10/01 [5]	5 by 10/01	No	Yes	No
Louisiana	7	5 on or before 9/30	Yes	No	Yes
Maine	7	5 on or before 10/15	No	Yes	No
Maryland	5	5 on or before 9/01	Yes	No	Yes
Massachusetts	6	Local education agency (LEA) option	No	Yes	No
Michigan	6 by 12/01	5 by 10/01 [6]	No	Yes	No
Minnesota	7	5 on or before 9/01 [7]	No	Yes	No
Mississippi	6 by 9/01	5 on or before 9/01	Yes	No	No
Missouri	7	5 before 8/01	No	Yes	No
Montana	7	5 on or before 9/10	No	Yes	No
Nebraska	6 by 1/01	5 on or before 7/31	No	Yes	No
Nevada	7	5 on or before 9/30	No	Yes [8]	Yes
New Hampshire	6	LEA option	No	Yes	No
New Jersey	6	LEA option [9]	No [10]	No	No [11]
New Mexico	5 by 9/01	5 before 9/01	No	Yes	Yes
New York	6	LEA option [12]	No	No	No

State					
North Carolina	7	5 on or before 8/31	Yes	No	No [13]
North Dakota	7	5 before 8/01	No	Yes	No
Ohio	6	LEA option [14]	No	Yes	Yes
Oklahoma	5	5 on or before 9/01	Yes	No	Yes
Oregon	7 [15]	5 on or before 9/01	No	Yes	No
Pennsylvania	8	LEA option [16]	No	No	No
Rhode Island	6	5 on or before 9/01	No	Yes	Yes
South Carolina	5	5 on or before 9/01	Yes	No	Yes
South Dakota	6	5 on or before 9/01	No	Yes	Yes [16]
Tennessee	6	5 on or before 8/15	Yes	No	Yes
Texas	6	5 on or before 9/01	No	Yes	No
Utah	6	5 before 9/02	No	Yes	No
Vermont	6	LEA option [18]	No	Yes	No
Virginia	5	5 on or before 9/30	No	Yes	Yes
Washington	8	5 by 8/31	No [18]	Yes	No
West Virginia	6	5 by 9/01	Yes	No	Yes
Wisconsin	6	5 on or before 9/01 [20]	No	Yes	No
Wyoming	7	5 on or before 9/15	No	Yes [19]	No

† Not applicable.

[1] Specific date at which compulsory age is reached is included only if specified in statute.

[2] The total reflects the number of "Yes" responses in the column.

[3] In Connecticut, children must be 5 years of age on or before January 1 of the current school year.

[4] In Iowa, children enrolled in preschool programs (4 years of age on or before September 15) are considered to be of compulsory school attendance age.

[5] By August 1, 2017, Kentucky's compulsory school age will change to 6 years of age and kindergarten entrance date will change to 5 years of age.

[6] Michigan's kindergarten entrance date will change to 5 years of age by September 1 in 2015–16.

[7] School boards may adopt an early admissions policy.

[8] In certain school districts, the lowest performing schools with the highest numbers of limited-English-proficient students will start offering full-day kindergarten and free prekindergarten programs.

[9] New Jersey schools may admit children aged 4–5, and they must admit children aged 5–6. The cut-off date must be after October 1.

[10] The Abbott district is required to offer full-day kindergarten.

[11] Children are required to attend full-day kindergarten in the Abbott district.

[12] New York students must be between the ages of 4–6.

[13] The initial point of entry into the school is kindergarten, but a principal may override this for an exceptionally mature student and place the child in first grade.

[14] Districts in Ohio may choose to set the cut-off date for August 1 or September 30, or by the beginning of a school term (if it starts after September 30).

[15] The compulsory school age in Oregon is 5-6, if the child has been enrolled in public school.

[16] Students in Pennsylvania may not be younger than 4 for Kindergarten-4 (K-4) and not younger than 5 for Kindergarten-5 (K-5).

[17] All children in South Dakota must attend kindergarten before age 7.

[18] Local education agencies in Vermont may choose to set the kindergarten entrance date between August 31 and January 1.

[19] In Washington, full-day kindergarten was phased in beginning in the 2012–13 school year, starting with the highest-poverty schools. Statewide implementation will be achieved by 2017–18.

[20] Wisconsin kindergarten entrance age is 5 on or before September 1, or age 4 on or before September 1 for 4-year-old kindergarten.

[21] Wyoming statute requires one full-day program per district. SOURCE: Education Commission of the States, Kindergarten Online Database: State Kindergarten Policies, retrieved January 8, 2015 from Data Source.

APPENDIX B

Participant Survey (alumni)

Got Support? A Dissertation Study
Support for Success – Alumni Consent and Survey

Greetings from Sondra Knudsen, previous IB Psychology instructor and current instructional coach at Franklin High School, Stockton. I would like to thank you for considering participation in my doctoral research. This study is being conducted on the academic, emotional and social support which may or may not have been provided during your high school years in order to better understand the support needs of students in advanced academic programs (in this case IB). As an educator, this has always been a topic which is very important to me and I appreciate the opportunity to uncover significant information and possibly enhance our students' educational success.

Please be assured that all information will be remain confidential and your feedback is appreciated on not only questions, but also the process for gathering this research. Should you wish to participate, please fill out the consent questions requesting your participation and signature. Then you may proceed to the survey on support needs. Feel free to forward the page information to others you are still in contact with from the IB program.

Thank you again for your time and assistance. Best Regards,
Sondra L. Knudsen Concordia University, Irvine

* Required

1. Email address *

Adult Informed Consent Form

Your participation is requested in a study to determine the effect of support, or lack of support, on a student's academic success in high school advanced academic programs. Your answers to the survey will be used to evaluate trends in student support during your participation in the advanced academic program in which you were enrolled (Advanced Placement or International Baccalaureate).

Your answers will be kept confidential and the researcher will not designate any participant to a specific set of responses. If you have any questions please contact the researcher, Sondra L. Knudsen, Sondra.knudsen@eagles.cui.edu or Dr. Kellie Albrecht, the supervising faculty for this research at Kellie.albrecht@cui.edu.

Your participation in this research is voluntary and you can discontinue at any time. It is not expected that this survey will cause distress or discomfort; however, if at any time you feel uncomfortable, please feel free to stop responding to the survey and return it to the researcher.

Your participation will provide data for a research study to determine the need for student support within advanced academic programs. The hope is that this research will help the educational community better understand the importance of varied types of support which are necessary for students. The results of this study will be published in the researcher's doctoral dissertation at Concordia University Irvine

Once again, please note that your responses are confidential. Follow-up interviews will be conducted and your participation would be greatly appreciated. If you are willing to participate in a follow-up interview, please fill out the appropriate responses to the questions on interviews.

Thank you,
Sondra L. Knudsen

2. I agree to participate in the research study described. * *Mark only one oval.*

◯   Yes

◯   No

3. Please type your name on the
    line below to indicate
    agreement to participate in
    this study. *

    _____

4. I am willing to participate in a short follow-up
    interview at a later date. * *Mark only one oval.*

    ◯   Yes

    ◯   No

    ◯   Maybe

Audio Use Informed Consent form

During your participation in this research interview, an audio tape recording will be made.
This audio recording will be anonymous and used only for research purposes within this
study. Please indicate your consent by signing below.
I have read the above description and give my consent for recording of the interview
and use of the audiotape as indicated above.

5. Please type your name and
    email on the line below to
    indicate agreement to
    participate in a follow-up
    interview.

    _____

Support for Success

Thank you for your participation in this survey. Support is defined as "to help or give assistance to" and
the purpose of this questionnaire is to examine the support provided during high school years as well as
the general beliefs on whether this support was effective and assisted in student success. Questions
cover the topics of academic, social and emotional support. Answers are on an agree/disagree scale with
an open-ended response option for any additional comments you may wish to include.
    For each statement please circle the number that corresponds most closely to your desired

Response: 1	2	3	4	5
Strongly disagree	Disagree	Neutral	Agree	Strongly agree

Types of Support

The following questions are related to the type of support you may have received during high
school. This may include social, emotional or academic support from counselors, teachers,
clergy, coaches or others (such as other students).

1. I received social and/or emotional support during my years in high school. * *Mark only one oval.*

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

If so, from whom? (please note all sources) *Check all that apply.*

☐ teacher

☐ counselor

☐ family

☐ coach

☐ friend

☐ Other:

2. When needed, I received academic support during my years in high school (such as tutoring, etc). *
   Mark only one oval.

1	2	3	4	5
◯	◯	◯	◯	◯

_____

If so, from whom? (please note all sources) *Check all that apply.*

☐ teacher

☐ counselor

☐ family

☐ coach

☐ friend

☐ Other:

3. I received support for my future plans during my years in high school * *Mark only one oval.*

	1	2	3	4	5	
Strongly agree	◯	◯	◯	◯	◯	Strongly disagree

If so, from whom? (please note all sources) *Check all that apply.*

- [ ] teacher
- [ ] counselor
- [ ] family
- [ ] coach
- [ ] friend
- [ ] Other

What future plans were included?
Check all that apply.

☐ college requirements

☐ college entrance preparation/exams

☐ transcripts

☐ college related to career goals

☐ scholarships

☐ other(s) _____

4. (a) Did you experience a lack of academic or personal success in high school? * *Mark only one oval.*

◯ Yes

◯ No

4. (b) If you answered "yes" to part 'a': did you receive intervention for lack of academic of personal success during your years in high school?
Mark only one oval.

◯ Yes

◯ No

5. I was mentored by a successful adult figure during my years in high school * *Mark only one oval.*

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

If so, from whom? (please note all sources) *Check all that apply.*

☐ teacher

☐ counselor

☐ family

☐ friend

☐ coach

☐ Other:

Why do you feel this was a successful adult figure? *Check all that apply.*

- ☐ income
- ☐ education
- ☐ occupation
- ☐ influence
- ☐ Other:

6. Please add any additional comments about the types of support provided during your high school career:

_____

_____

_____

Availability and providers of support

The following questions are related to the frequency of support you may have received during high school and whether this support was on campus (such as counselors) or provided by an outside agency (such as a church) and may include individuals or organizations.

1. Support was provided by my teacher(s), in class, during my years in high school
Mark only one oval.

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

If so, how often was support provided? *Check all that apply.*

- ☐ daily
- ☐ weekly
- ☐ when requested
- ☐ Other:

If so, was support provided by *Check all that apply.*

- ☐ all teachers
- ☐ most teachers
- ☐ some teachers

| | one teacher |
| | other(s) _____ |

2. Support was provided by my teacher(s), outside of class, during my years in high school * *Mark only one oval.*

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

If so, how often was support provided? *Check all that apply.*

	daily
	weekly
	when requested
	Other:

If so, was support provided by: *Check all that apply.*

	all teachers
	most teachers
	some teachers
	one teacher
	other(s) _____

3. Support was provided by an outside professional during my years in high school * *Mark only one oval.*

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

If so, was support provided by: *Check all that apply.*

	tutor
	college professor
	online teacher
	other(s) _____

4. Support was provided by an agency outside of school during my years in high school. * *Mark only one oval.*

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

If so, was support provided by: *Check*
  all that apply.

☐ church

☐ online agency

☐ counseling service

☐ clubs

☐ other(s) _____

5. I feel there was little/no (circle one) support provided for students during my years in high school. *
  Mark only one oval.

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

Effectiveness of Support

The following questions are related to how you feel the support you received during high school may have assisted you in achieving your academic and/or career goals.

1. Support from teachers guided my success in high school and beyond. * *Mark only one oval.*

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

2. Support from school administration guided my success in high school and beyond. * *Mark only one oval.*

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

3. Support from outside agencies guided my success in high school and beyond. * *Mark only one oval.*

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

4. Support from an adult mentor (not family) guided my success in high school and beyond. * *Mark only one oval.*

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

5. Support from a family member guided my success in high school and beyond. * *Mark only one oval.*

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

6. Please add any additional comments about if and how support provided during your high school career assisted (or did not assist) you in attaining your future goals (college, career, etc.):

Demographics

Please fill out the following demographic information. These questions are for comparison purposes only and no individual information will be shared.

For each question, please choose the appropriate response.

1. Age
   Mark only one oval.

   ◯ 16 - 20
   ◯ 21 - 25
   ◯ 26 - 30
   ◯ 31 - 35

2. Ethnicity
   Mark only one oval.

   ◯ Caucasian
   ◯ African American
   ◯ Native American
   ◯ Asian
   ◯ Pacific Islander
   ◯ Hispanic
   ◯ Other

3. Total household income of parents during your high school years *Mark only one oval.*

- ( ) Less than $10,000
- ( ) $10,000 to $19,999
- ( ) $20,000 to $29,999
- ( ) $30,000 to $39,999
- ( ) $40,000 to $49,999
- ( ) $50,000 to $59,999
- ( ) $60,000 to $69,999
- ( ) $70,000 to $79,999
- ( ) $80,000 to $89,999
- ( ) $90,000 to $99,999
- ( ) $1000,000 to $149,999
- ( ) $150,000 or more
- ( ) Unknown

4. Educational level you have achieved: *Mark only one oval.*

- ( ) No post-high school experience
- ( ) Some college credit, no degree
- ( ) Trade/technical/vocational training
- ( ) Associate degree
- ( ) Bachelor's degree
- ( ) Master's degree
- ( ) Professional degree
- ( ) Doctorate degree

5. Current employment status: *Mark only one oval.*

- ( ) Not employed for wages
- ( ) Self-employed
- ( ) Out of work and looking for work
- ( ) Out of work but not currently looking for work
- ( ) Homemaker/stay-at-home Mom/Dad
- ( ) Student
- ( ) Unable to work
- ( ) Employed full time

6. Year of high school graduation: *Mark only one oval.*

- ( ) 2001
- ( ) 2002
- ( ) 2003
- ( ) 2004
- ( ) 2005
- ( ) 2006
- ( ) 2007
- ( ) 2008
- ( ) 2009
- ( ) 2010
- ( ) 2011
- ( ) 2012
- ( ) 2013
- ( ) 2014
- ( ) 2015

7. IB program participation * *Mark only one oval.*

- ( ) Full IB
- ( ) Partial IB

Thank you - your participation in this survey is greatly appreciated

For more information on this survey and/or the compiled results, please contact Sondra L. Knudsen at
sondra.knudsen@eagles.cui.edu

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APPENDIX C

Participant Survey (district personnel-teacher)

Got Support? A Dissertation Study
Support for Success – Teacher Consent and Survey

     I would like to thank you for considering participation in my doctoral research. This study is being conducted on the academic, emotional and social support which may or may not have been provided during your high school years in order to better understand the support needs of students in advanced academic programs (in this case IB).

     As an educator, the topic of support ha always been very important to me and I appreciate the opportunity to uncover significant information and possibly enhance our students' educational success.

     Please be assured that all information will be remain confidential and your feedback is appreciated on not only questions, but also the process for gathering this research. Should you wish to participate, please fill out the consent questions requesting your participation and signature. Then you may proceed to the survey on support needs. Feel free to forward the page information to others who have been involved with the IB program.

     Thank you again for your time and assistance.
Best Regards,
Sondra L. Knudsen Concordia
University, Irvine

*Required

Adult Informed Consent Form

Your participation is requested in a study to determine the effect of support, or lack of support, on a student's academic success in high school advanced academic programs. Your answers to the survey will be used to evaluate trends in student support during your participation in the advanced academic program in which you were involved (Advanced Placement or International Baccalaureate).

Your answers will be kept confidential and the researcher will not designate any participant to a specific set of responses. If you have any questions please contact the researcher, Sondra L. Knudsen, Sondra.knudsen@eagles.cui.edu or Dr. Kellie Albrecht, the supervising faculty for this research at Kellie.albrecht@cui.edu.

Your participation in this research is voluntary and you can discontinue at any time. It is not expected that this survey will cause distress or discomfort; however, if at any time you feel uncomfortable, please feel free to stop responding to the survey and return it to the researcher.

Your participation will provide data for a research study to determine the need for student support within advanced academic programs. The hope is that this research will help the educational community better understand the importance of varied types of support which are necessary for students. The results of this study will be published in the researcher's doctoral dissertation at Concordia University Irvine

Once again, please note that your responses are confidential. Follow-up interviews will be conducted and your participation would be greatly appreciated. If you are willing to participate in a follow-up interview, please fill out the appropriate responses to the questions on interviews.

Thank you,
Sondra L. Knudsen

1. I agree to participate in the research study described. * *Mark only one oval.*

     Yes

     No

2. Please type your name on the line below to indicate agreement to participate in this study. *

_____

3. I am willing to participate in a short follow-up interview at a later date. *
Mark only one oval.

◯ Yes

◯ No

◯ Maybe

Audio Use Informed Consent

During your participation in this research interview, an audio tape recording will be made. This audio recording will be anonymous and used only for research purposes within this study. Please indicate your consent by signing below.
I have read the above description and give my consent for recording of the interview and use of the audiotape as indicated above.

4. Please type your name and email on the line below to indicate agreement to participate in a follow-up interview.

_____

Support for Success

Thank you for your participation in this survey. Support is defined as "to help or give assistance to" and the purpose of this questionnaire is to examine the support provided for students in advanced academics (IB) during high school years. Additionally, the general beliefs on whether this support was effective and assisted in student success are explored. Questions cover the topics of academic, social and emotional support. Answers are on an agree/disagree scale with an open-ended response option for any additional comments you may wish to include.

For each statement please choose the number that corresponds most closely to your desired response:

1	2	3	4	5
Strongly disagree	Disagree	Neutral	Agree	Strongly agree

Opportunities for Support

The following questions are related to the type of support, or opportunities for support your site may have provided for students in advanced academic programs during their high school career. Opportunity means that the support was made available and that you may or may not have been directly involved. This opportunity could include academic, social, and/or social support. If support opportunities have been provided there are additional questions regarding the: a) type, and b) frequency of the support provided.

1. My site provided opportunities for academic support to students within their advanced academic programs. *
Mark only one oval.

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

If so, what opportunities were provided? (please note all opportunities you are aware of) *Check all that apply*

- ☐ discussion in class
- ☐ discussion outside of class
- ☐ online
- ☐ referrals (counseling, etc.)
- ☐ meetings
- ☐ Other:

If so, how often was support provided? (daily, weekly, etc. Please answer for each type of support checked above)

_____

2. My site provided opportunities for emotional support to students within their advanced academic programs. *

Mark only one oval.

    1   2   3   4   5
    ◯   ◯   ◯   ◯   ◯

If so, what opportunities were provided? (please note all opportunities you are aware of) *Check all that apply.*

- ☐ discussion in class
- ☐ discussion outside of class
- ☐ online
- ☐ referrals (counseling, etc.)
- ☐ meetings
- ☐ Other:

If so, how often was support provided? (daily, weekly, etc. Please answer for each type of support checked above)

_____

3. My site provided opportunities for social support to students within their advanced academic programs. *

Mark only one oval.

1	2	3	4	5

If so, what opportunities were provided? (please note all opportunities you are aware of) *Check all that apply.*

- [ ] discussion in class
- [ ] discussion outside of class
- [ ] online
- [ ] referrals (counseling, etc.
- [ ] meetings
- [ ] Other:

If so, how often was support provided? (daily, weekly, etc. Please answer for each type of support checked above)

_____

4. My site provided opportunities for support with planning for the future to students within their advanced academic programs. *

Mark only one oval.

	1	2	3	4	5	
Strongly agree	◯	◯	◯	◯	◯	Strongly disagree

If so, what opportunities were provided? (please note all opportunities you are aware of) *Check all that apply.*

- [ ] discussion in class
- [ ] discussion outside of class
- [ ] online
- [ ] referrals (counseling, etc.)
- [ ] meetings
- [ ] Other:

If so, how often was support provided? (daily, weekly, etc. Please answer for each type of support checked above)

_____

5. My site provided intervention opportunities for students within advanced academic programs demonstrating a lack of academic or personal success. *
Mark only one oval.

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

If so, what opportunities? (please note all opportunities you are aware of) *Check all that apply.*

- [ ] voluntary tutoring
- [ ] mandatory tutoring
- [ ] referrals (counseling, etc.)
- [ ] student and/or parent meetings
- [ ] Other:

19. If so, was support provided by:
Check all that apply.

- [ ] teacher(s)
- [ ] counselor
- [ ] outside agency
- [ ] administration
- [ ] Other:

6. My site provided opportunities for mentoring by a successful, professional or authorized adult to students within their advanced academic programs. *
Mark only one oval.

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

If so, what opportunities? (please note all opportunity of which you are aware) *Check all that apply.*

- [ ] teacher mentoring

☐ administration mentoring

☐ referrals within the district

☐ referrals outside the district

☐ parent groups

☐ Other:

If so, how often was support provided? (daily, weekly, etc. Please answer for each type of support checked above)

Personal Support

The following questions are related to the support you may have personally provided for students in advanced academic programs during their high school career. This opportunity could include academic, emotional, and/or social support. If support opportunities have been provided there are additional questions regarding the: a) type, and b) frequency of the support provided.

1. I, personally, provided opportunities for academic support to students within their advanced academic programs at my site. *

    Mark only one oval.

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

    If so, what opportunities were provided? (please note all opportunities) *Check all that apply.*

    ☐ available to talk in person

    ☐ available online

    ☐ referrals to other providers (counseling, etc.)

    ☐ meetings (student, parent, etc.)

    ☐ Other:

    If so, how often was support provided? (daily, weekly, etc. Please answer for each type of support checked above)

2. I, personally, provided opportunities for emotional support to students within their advanced academic programs at my site. *

    Mark only one oval.

    1   2   3   4   5

If so, what opportunities were provided? (please note all opportunities) *Check all that apply.*

- [ ] available to talk in person
- [ ] available online
- [ ] referrals to other providers (counseling, etc.)
- [ ] meetings (student, parent, etc.)
- [ ] Other:

If so, how often was support provided? (daily, weekly, etc. Please answer for each type of support checked above)

3. I, personally, provided opportunities for social support to students within their advanced academic programs at my site. *

   Mark only one oval.

1	2	3	4	5
◯	◯	◯	◯	◯

If so, what opportunities were provided? (please note all opportunities) *Check all that apply.*

- [ ] available to talk in person
- [ ] available online
- [ ] referrals (to outside providers (counselors, etc.)
- [ ] meetings (students, parents, etc.)
- [ ] Other:

_____

If so, how often was support provided? (daily, weekly, etc. Please answer for each type of support checked above)

_____

4. I, personally, provided opportunities for support with planning for the future to students within their advanced academic programs at my site. *

   Mark only one oval.

	1	2	3	4	5	
Strongly agree	◯	◯	◯	◯	◯	Strongly disagree

If so, what opportunities were provided? (please note all opportunities you are aware of) *Check all that apply.*

☐ available to talk in person

☐ available online

☐ referrals to other providers (counselors, etc)

☐ meetings (students, parents, etc.)

☐ Other:

If so, how often was support provided? (daily, weekly, etc. Please answer for each type of support checked above)

5. I, personally, provided intervention opportunities for students within advanced academic programs at my site demonstrating a lack of academic or personal success. *

Mark only one oval.

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

If so, what opportunities? (please note all opportunities) *Check all that apply*

☐ voluntary tutoring

☐ mandatory tutoring

☐ referrals (counseling, etc.)

☐ student and/or parent meetings

☐ Other:

_____

If so, how often was support provided? (daily, weekly, etc. Please answer for each type of support provided)

Check all that apply.

☐ daily

☐ weekly

☐ when requested

☐ Other:

_____

6. I, personally, provided opportunities for mentoring by a successful, professional or authorized adult to students within their advanced academic programs at my site. *

Mark only one oval.

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

If so, what opportunities? (please note all opportunities) *Check all that apply.*

- [ ] myself
- [ ] a friend or coworker
- [ ] referrals within the district
- [ ] referrals outside the district
- [ ] parent groups
- [ ] Other: _____

If so, how often was support provided? (daily, weekly, etc. Please answer for each type of support checked above)

_____

Effectiveness of Support

The following questions are related to how effectively you feel the support given within y our district assisted students in achieving their academic and/or career goals. (Use "3" for any "neutral" or "non-applicable" responses)

1. Support from teachers was effective in assisting students achieve their academic goals. * *Mark only one oval.*

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

2. Support from administration was effective in assisting students achieve their academic goals. * *Mark only one oval.*

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

3. Support from counselors was effective in assisting students achieve their academic goals. * *Mark only one oval.*

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

4. Support from an adult mentor was effective in assisting students achieve their academic goals. * *Mark only one oval.*

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

5. Support from an outside agency was effective in assisting students achieve their academic goals. *

   Mark only one oval.

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

6. Please give reason(s) for your ratings on questions 1-5 in this section.

   _____

7. Please add any additional comments and thoughts regarding the support provided for students in advanced academics within your school site and district.

   _____

Demographics

Please fill out the following demographic information. These questions are for comparison purposes only and no individual information will be shared.

For each question, please choose the appropriate response.

1. Age

   Mark only one oval.

   - ◯ 21 - 30
   - ◯ 31 - 40
   - ◯ 41 - 50
   - ◯ 51 - 60
   - ◯ 60 +

2. Ethnicity

   Mark only one oval.

   - ◯ Caucasian
   - ◯ African American
   - ◯ Native American
   - ◯ Asian
   - ◯ Pacific Islander
   - ◯ Hispanic
   - ◯ Other

3. Years working in teaching: *Mark only one oval.*

    ◯ 1 - 5

    ◯ 6 - 10

    ◯ 11 - 15

    ◯ 16 - 20

    ◯ 21 +

4. Years working in administration: *Mark only one oval.*

    ◯ 0

    ◯ 1 - 5

    ◯ 6 - 10

    ◯ 11 - 15

    ◯ 16 - 20

    ◯ 21+

5. Years working in other aspects of education: *Mark only one oval.*

    ◯ 0

    ◯ 1 - 5

    ◯ 6 - 10

    ◯ 11 - 15

    ◯ 16 - 20

    ◯ 21+

If "other" please explain

_____

6. Current position

_____

7. Level of Education

Mark only one oval.

    ◯ Bachelor's degree

    ◯ Bachelor's degree - subject specific

    ◯ Master's degree

    ◯ Master's degree - subject specific

    ◯ Doctoral degree

    ◯ Professional degree

8. School years involved in advanced academic programs (check all that apply *Check all that apply.*

- [ ] 2001-02
- [ ] 2002-03
- [ ] 2003-04
- [ ] 2004-05
- [ ] 2005-06
- [ ] 2006-07
- [ ] 2007-08
- [ ] 2008--09
- [ ] 2009-10
- [ ] 2010-11
- [ ] 2011-12
- [ ] 2012-13
- [ ] 2013-14
- [ ] 2014-15

Thank you - your participation in this survey is greatly appreciated

For more information on this survey and/or the compiled results, please contact Sondra L. Knudsen at sondra.knudsen@eagles.cui.edu

APPENDIX D

Participant Survey (district personnel-administration)

Got Support? A Dissertation Study
Support for Success – Administration Consent and Survey

I would like to thank you for considering participation in my doctoral research. This study is being conducted on the academic, emotional and social support which may or may not have been provided during your high school years in order to better understand the support needs of students in advanced academic programs (in this case IB).

As an educator, the topic of support has always been very important to me and I appreciate the opportunity to uncover significant information and possibly enhance our students' educational success.

Please be assured that all information will be remain confidential and your feedback is appreciated on not only questions, but also the process for gathering this research. Should you wish to participate, please fill out the consent questions requesting your participation and signature. Then you may proceed to the survey on support needs. Feel free to forward the page information to others who have been involved with the IB program.

Thank you again for your time and assistance. Best Regards,
Sondra L. Knudsen Concordia University, Irvine

* Required

Adult Informed Consent Form

Your participation is requested in a study to determine the effect of support, or lack of support, on a student's academic success in high school advanced academic programs. Your answers to the survey will be used to evaluate trends in student support during your participation in the advanced academic program in which you were involved (Advanced Placement or International Baccalaureate).

Your answers will be kept confidential and the researcher will not designate any participant to a specific set of responses. If you have any questions please contact the researcher, Sondra L. Knudsen, Sondra.knudsen@eagles.cui.edu or Dr. Kellie Albrecht, the supervising faculty for this research at Kellie.albrecht@cui.edu.

Your participation in this research is voluntary and you can discontinue at any time. It is not expected that this survey will cause distress or discomfort; however, if at any time you feel uncomfortable, please feel free to stop responding to the survey and return it to the researcher.

Your participation will provide data for a research study to determine the need for student support within advanced academic programs. The hope is that this research will help the educational community better understand the importance of varied types of support which are necessary for students. The results of this study will be published in the researcher's doctoral dissertation at Concordia University Irvine

Once again, please note that your responses are confidential. Follow-up interviews will be conducted and your participation would be greatly appreciated. If you are willing to participate in a follow-up interview, please fill out the appropriate responses to the questions on interviews.

Thank you,
Sondra L. Knudsen

1. I agree to participate in the research study
   described. * *Mark only one oval.*

     Yes

     No

2. Please type your name on the line below to
   indicate agreement to participate in this study. *

3. I am willing to participate in a short follow-up interview at a later date. * *Mark only one oval.*

◯   Yes

◯   No

◯   Maybe

Audio Use Informed Consent

During your participation in this research interview, an audio tape recording will be made. This audio recording will be anonymous and used only for research purposes within this study. Please indicate your consent by signing below. _____
of the audiotape as indicated above.

I have read the above description and give my consent for recording of the interview and use

4. Please type your name and email on the line below to indicate agreement to participate in a follow-up interview. _____

Support for Success

Thank you for your participation in this survey. Support is defined as "to help or give assistance to" and the purpose of this questionnaire is to examine the support provided for students in advanced academics (IB) during high school years. Additionally, the general beliefs on whether this support was effective and assisted in student success are explored. Questions cover the topics of academic, emotional and social support. Answers are on an agree/disagree scale with an open-ended response option for any additional comments you may wish to include.

For each statement please choose the number that corresponds most closely to your desired response:

1	2	3	4	5
Strongly disagree	Disagree	Neutral	Agree	Strongly agree

Opportunities for Support

The following questions are related to the type of support, or opportunities for support your site or district may have provided for students in advanced academic programs during their high school career. Opportunity means that the support was made available and that you may or may not have been directly involved. This opportunity could include academic, social, and/or social support. If support opportunities have been provided there are additional questions regarding the: a) type, and b) frequency of the support provided.

1. My site/district provided opportunities for academic support to students within their advanced academic programs. *

Mark only one oval.

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

If so, what opportunities were provided? (please note all opportunities of which you are aware)

Check all that apply.

☐　　discussion in class

☐　　discussion outside of class

☐　　online

☐　　referrals (counseling, etc.)

☐　　meetings

☐　　Other: _____

If so, how often was support provided? (daily, weekly, etc. Please answer for each type of support checked above)

_____

2. My site/district provided opportunities for emotional support to students within their advanced academic programs. *

Mark only one oval.

1	2	3	4	5
◯	◯	◯	◯	◯

If so, what opportunities were provided? (please note all opportunities of which you are aware)

Check all that apply.

☐　　discussion in class

☐　　discussion outside of class

☐　　online

☐　　referrals (counseling, etc.)

☐　　meetings

☐　　Other: _____

If so, how often was support provided? (daily, weekly, etc. Please answer for each type of support checked above)

3. My site/district provided opportunities for social support to students within their advanced academic programs. *

Mark only one oval.

	1	2	3	4	5
	◯	◯	◯	◯	◯

If so, what opportunities were provided? (please note all opportunities of which you are aware)

Check all that apply.

- [ ] discussion in class
- [ ] discussion outside of class
- [ ] online
- [ ] referrals (counseling, etc.)
- [ ] meetings
- [ ] Other:

13. If so, how often was support provided? (daily, weekly, etc. Please answer for each type of support checked above)

4. My site/district provided opportunities for support with planning for the future to students within their advanced academic programs. *

Mark only one oval.

	1	2	3	4	5	
Strongly agree	◯	◯	◯	◯	◯	Strongly disagree

If so, what opportunities were provided? (please note all opportunities of which you are aware)

Check all that apply.

- [ ] discussion in class
- [ ] discussion outside of class
- [ ] online
- [ ] referrals (counseling, etc.)
- [ ] meetings
- [ ] Other:

_____

If so, how often was support provided? (daily, weekly, etc. Please answer for each type of support checked above)

_____

5. My site/district provided intervention opportunities for students within advanced academic programs demonstrating a lack of academic or personal success. *
Mark only one oval.

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

If so, what opportunities? (please note all opportunities of which you are aware) *Check all that apply.*

☐ voluntary tutoring

☐ mandatory tutoring

☐ referrals (counseling, etc.)

☐ student and/or parent meetings

☐ Other:

_____

If so, was support provided by: *Check all that apply.*

☐ teacher(s)

☐ counselor

☐ outside agency

☐ administration

☐ Other:

_____

6. My site provided opportunities for mentoring by a successful, professional or authorized adult to students within their advanced academic programs. *
Mark only one oval.

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

If so, what opportunities? (please note all opportunity of which you are aware) *Check all that apply.*

☐ teacher mentoring

☐   administration mentoring

☐   referrals within the district

☐   referrals outside the district

☐   parent groups

☐   Other:

If so, how often was support provided? (daily, weekly, etc. Please answer for each type of support checked above)

Effectiveness of Support

The following questions are related to how effectively you feel the support given within y our district assisted students in achieving their academic and/or career goals. (Use "3" for any "neutral" or "non-applicable" responses)

1. Support from teachers was effective in assisting students achieve their academic goals.
   * *Mark only one oval.*

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

2. Support from administration was effective in assisting students achieve their academic goals. *
   Mark only one oval.

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

3. Support from counselors was effective in assisting students achieve their academic goals. *
   Mark only one oval.

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

4. Support from an adult mentor was effective in assisting students achieve their academic goals. *
   Mark only one oval.

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

5. Support from an outside agency was effective in assisting students achieve their academic goals. *

   Mark only one oval.

	1	2	3	4	5	
Strongly disagree	◯	◯	◯	◯	◯	Strongly agree

6. Please give reason(s) for your ratings on questions 1-5 in this section.

7. Please add any additional comments and thoughts regarding the support provided for students in advanced academics within your school site and district.

Demographics

Please fill out the following demographic information. These questions are for comparison purposes only and no individual information will be shared.
For each question, please choose the appropriate response.

1. Age

   Mark only one oval.

   ◯   21 - 30

   ◯   31 - 40

   ◯   41 - 50

   ◯   51 - 60

   ◯   60 +

2. Ethnicity

   Mark only one oval.

   ◯   Caucasian

   ◯   African American

   ◯   Native American

   ◯   Asian

   ◯   Pacific Islander

   ◯   Hispanic

   ◯   Other

3. Years working in teaching: *Mark only one oval.*

   ◯   0

   ◯   1 - 5

○ 6 - 10

○ 11 - 15

○ 16 - 20

○ 21 +

4. Years working in
    administration: *Mark
    only one oval.*

○ 1 - 5

○ 6 - 10

○ 11 - 15

○ 16 - 20

○ 21 +

5. Years working in other aspects of
    education: *Mark only one oval.*

○ 0

○ 1 - 5

○ 6 - 10

○ 11 - 15

○ 16 - 20

○ 21 +

If "other" please explain

_____

6. Current position

_____

7. Level of Education *Mark only one oval.*

- ( ) Bachelor's degree
- ( ) Bachelor's degree - subject specific
- ( ) Master's degree
- ( ) Master's degree - subject specific
- ( ) Doctoral degree
- ( ) Professional degree

8. School years involved in advanced academic programs (check all that apply *Check all that apply.*

- [ ] 2001-02
- [ ] 2002-03
- [ ] 2003-04
- [ ] 2004-05
- [ ] 2005-06
- [ ] 2006-07
- [ ] 2007-08
- [ ] 2008--09
- [ ] 2009-10
- [ ] 2010-11
- [ ] 2011-12
- [ ] 2012-13
- [ ] 2013-14
- [ ] 2014-15

Thank you - your participation in this survey is greatly appreciated

For more information on this survey and/or the compiled results, please contact Sondra L. Knudsen at sondra.knudsen@eagles.cui.edu

APPENDIX E

Qualitative Interview Questions

General Support

1. Who do you feel provided you with the most support while in the IB program?

    a. How was that support given?

    b. Conversely, who do you feel you could not / did not receive support from?

2. What do you feel are weaknesses in the support system at school?

3. Were there any types of support that you felt were not available?

4. Why would students not take advantage of offered support?

5. In what way did you provide individual support?

Academic support

6. How well do you feel support is provided for academics?

Emotional support

7. Do you feel that asking for emotional support was a problem?

8. How effective was emotional support?

Social support

9. Where do you feel social support was provided the most?

    a. In what form was social support?

10. How effective was social support?

Providers of support

11. How are friends included in a support system?

12. How are teachers included in a support system?

13. How are administrative personnel included in a support system?

14. How are counselors included in a support system?

15. Who do you feel was the most effective provider of support?

    a. Academic

    b. Emotional

    c. Social

    d. Future planning

16. How do you feel administrative staff supported you (or not)?

    a. Program

    b. School

    c. District

17. How do you feel counseling staff supported you (or not)?

18. How do you feel teaching staff supported you (or not)?

19. In what way did you receive support as an individual from:

    a. Teachers

    b. Counselors

    c. Administrators

    d. Friends

    e. Family

Future planning support

20. Did you feel you received support for future planning?

    a. Scholarships

    b. College applications and selection

    c. Career choices

APPENDIX F

Table 7

Manifestations of Statements within Preset Codes

Survey sections	Determined preset codes	Participant statements
Support for success	Support	
		"Support has depended upon the person. It's been hit or miss but should be systemic and not a lottery."
		"I feel as though once it was determined that I was not attending a 4-year college after high school, support was put on the back burner and given to those students who were going straight to a 4 year after high school."
		"I had family support and a few teachers supported me."
		"Expectations were either too high or too low whenever I met anyone who would potentially assist or support me. I really just couldn't connect to anyone who understood me at the level that I was in at life at the time."
		"Support varied depending on individual teachers, administrative support and quality of IB coordinators."
		"The lack of support from most teachers and administration made me more independent."
		"My teachers during high school did their best to motivate and support their students."
	Success	

		"The maturity and work ethic that was shaped by my teachers during high school has played a large role in my success in the military."
		"Teachers guided my success through high school and prepared me for the *transition* into a new, rigorous curriculum."
		"Students do not use the time [tutoring] effectively. Teachers have not been given guidelines or direction to insure student success."
		"As long as we do not have effective hardworking teachers in every class the IB student will find success across all disciplines elusive."
		"My parents played a huge role in my success during high school. They allowed me to explore my interests while providing me support in all areas - they made sure I always had everything I needed for school."
	Academic	
		"There were teachers that challenged me and empowered me to succeed academically."
		"The district also did not support the necessary program improvements to maintain adequate access, support, and advancement for student academic and career success. ."
		"I also think my academic career would have had a much stronger outcome had I been placed elsewhere that would work for the way I learn."
		"I feel like I was fairly independent in high school, and often didn't need/seek much support for academics."
		"I received academic guidance, attention, encouragement, tough love, and inspiration."

		"Students in advanced academics that are unsuccessful do not get as much attention as those struggling academically. I feel that we needed to do a better job for all students and provide equitable support."
	Future plans	
		"Support was consistent and impactful; helped shape academic and professional goals; utilized this support throughout university."
		"Most of the teachers were so encouraging and made sure that I had a plan for the future. They would follow up and make sure that I was always on track."
		"I had a teacher who would constantly support me and other students by telling us how important it is to go to college. He would push for us to get there and do well. He would remind us about dates and deadlines and did whatever he could to help us such as writing recommendation letters (no matter how many people asked for one). He gave so much support and care which made everyone love going to him for any question or concerns about the future."
		"The support my family provided me was crucial to my success in attaining my future goals."
		"I teach elementary school students, so there isn't much planning for the future discussed on a regular basis."
		"Teachers being available for questions or advice allowed me to further think critically about my future goals. I was able to take their advice and guidance with me to college."

Availability and providers of support	Teacher	
		"We need more support in this area."
		"Teachers are by far the main source of support for students. They do provide support but only if the students are motivated to seek assistance."
		"We were fortunate to have very involved teachers who would challenge us. Our teachers were our mentors and our friends."
		"Most of my support came from teachers, however, because I was in the IB program, there was a level of expectation that developed this inherent level of support. The support felt it was most effective when the student also had a desire to strive."
		"Some teachers provide after-school tutoring, but there is no consistent method or accountability so it is often an ineffective use of both student and teacher time."
		"Sometimes teachers volunteer their time."
	Professional	
		"The support I needed was more about managing my mental/emotional health and I did get that from a professional not from school.
		"Individual professional support is given 100% via teacher, counselor, or administrator,"
	Administrator	
		"The lack of support from most teachers and administration made me more independent."

		"The school administration was also not supportive."
		"As for administration, all administrators at the school site do support students, however, as we move up the tier of administration from the site to the district level, the support is barely visible." "Administration and outside agencies did not play a big role in the support given to students."
		"Administration does not understand the program and does not adequately support the program."
		"Support varied depending on individual teachers, administrative support, and quality of IB coordinators."
	Family	
		"I think their [teacher] encouragement along with my family's support were so important during those years."
		"I received support from family, friends and teachers throughout my high school years."
		"Strong family support and a strong faith were the most important factors during my formative years."
		"When I first entered high school, my family forced me to join the IB program."
		"Surrounded by a wealth of knowledge and encouragement, specifically from teachers an family who sought to see me reach my educational and personal goals."
		"Well a family picnic occurs once a year."
	Friend	

		"My friend group in the IB program was instrumental in my success in school and as an adult."
		"We were a small group of students and our teachers were our mentors and our friends."
		"I received support from family, friends and teachers throughout my high school years."
		"Friend groups with similar values and goals were most helpful with both academic and emotional support."
		"My friend group in the IB program was instrumental in my success in school and as an adult."
Effectiveness of support	High school	
		""Our teachers were our mentors and friends. Couldn't have gotten through high school without them."
		"I feel as though once it was determined that I was not attending a 4-year college after high school, support was put on the back burner and given to those students who were going straight to a 4-year after high school."
		"After high school I applied to U.O.P. and was denied and my counselor never tried to assist me with other options."
		"The support differs from school to school. Some schools, especially small high schools, give more support."
		"I almost flunked out of high school. The counselors were useless for anything unrelated to SAT exams."
		"The teacher's influence on the student had the highest impact on student high school success."

	Future plans	
		"The MYP and DP coordinators also played an integral role in student success and contributed to student's future planning."
		"In my professional opinion students are provided with future planning daily via educators, parents, program, and stakeholders."
		"I teach elementary school students, so there isn't much planning for the future discussed on a regular basis."