The Advanced Placement and International Baccalaureate Programs: The Graduates' Perspective

Shannon Saxby Smith
University of Southern Mississippi

Follow this and additional works at: https://aquila.usm.edu/dissertations

Part of the Educational Assessment, Evaluation, and Research Commons, Educational Leadership Commons, Higher Education Commons, and the International and Comparative Education Commons

Recommended Citation
https://aquila.usm.edu/dissertations/1097

This Dissertation is brought to you for free and open access by The Aquila Digital Community. It has been accepted for inclusion in Dissertations by an authorized administrator of The Aquila Digital Community. For more information, please contact Joshua.Cromwell@usm.edu.
COPYRIGHT BY

SHANNON SAXBY SMITH

2009
The University of Southern Mississippi

THE ADVANCED PLACEMENT AND INTERNATIONAL BACCALAUREATE
PROGRAMS: THE GRADUATES' PERSPECTIVE

by

Shannon Saxby Smith

Abstract of a Dissertation
Submitted to the Graduate School
of The University of Southern Mississippi
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy

December 2009
ABSTRACT

THE ADVANCED PLACEMENT AND INTERNATIONAL BACCALAUREATE PROGRAMS: THE GRADUATES’ PERSPECTIVE

by Shannon Saxby Smith

December 2009

This study was designed to solicit the perspectives of AP and IB graduates who have completed at least one semester of postsecondary education about their experiences while in their respective programs. This study was also conducted to determine whether these IB graduates report that they were better prepared for postsecondary studies than students who participated in the AP program. The researcher was also able to determine whether AP and IB graduates believed they experienced any long-term benefits or detriments by having been in their programs and whether they believed their experiences were worthwhile. Lastly, the researcher was able to determine if the AP and IB graduates were satisfied with their overall high school experience in their respective programs.

It was the researcher's goal to determine whether there were differences in the perceptions of AP and IB program participants regarding their programs' stress levels, long-term benefits and detriments, ACT scores, levels of college preparation, and satisfaction within their program. With the increase in the number of students enrolling in these advanced programs, students and parents should be knowledgeable about the long-term impact of program participation.
The researcher’s goal for this study was to add to the existing literature pertaining to these programs and believes the findings offer administrators, teachers, and parents a detailed look into these advanced curricula so as to enhance their school’s performance and choose the best program for each student.

To investigate the perceptions of the AP and IB graduates, the researcher modified an existing qualitative survey into a Likert scale quantitative survey. The surveys were used to examine the five constructs: stress, college preparedness, long-term benefits and detriments of program participation, ACT scores, and overall satisfaction with their respective program.

Data were collected from the surveys, independent sample t-tests were used, and the researcher found there was not a significant difference between perceived levels of stress by AP and IB graduates; however, both groups of participating graduates did report experiencing high levels of stress. The researcher found there to be significant difference between AP and IB graduates with regard to college preparedness, long-term benefits and detriments, ACT scores, and overall program satisfaction. IB graduates reported a higher sense of college preparedness, more long-term benefits and more long-term detriments from having participated in their program, higher ACT scores, and a higher overall satisfaction rate from their high school experiences.
ACKNOWLEDGEMENTS

I would like to thank my husband, Isaac Smith, for understanding the time commitment that was necessary for me to come this far. You pushed me to work hard and offered words of encouragement during the times that I needed to hear them. I am grateful to have you in my life, I love you.

I would also like to thank my parents, Ski and Barbara Saxby, for being supportive and loving parents. You instilled in me a strong work ethic and the desire to always want to achieve more. I love you both.

To my committee members, Dr. Mike Ward, Dr. J.T. Johnson, Dr. Kyna Shelley, and Dr. Gary Peters, thank you for your encouragement, support, and help throughout this process. A special thank you to my committee chair Dr. Ward, for your astute knowledge of the dissertation process. You set the standards high and I have the utmost respect for you, thank you.

To my friends, Kimberly Walker and Phillip Herring, what a ride! Without the support of the two of you, this experience would not have been enjoyable. The hours upon hours we spent in the car driving to Mississippi offered me a special friendship with the two of you that I am extremely grateful for.
# TABLE OF CONTENTS

**ABSTRACT** .......................................................................................................................... ii

**ACKNOWLEDGEMENTS** ........................................................................................................ iv

**CHAPTER**

I. **INTRODUCTION** .................................................................................................................. 1

   - Purpose of the Study
   - Statement of the Problem
   - Research Questions
   - Research Hypotheses
   - Definition of Terms
   - Delimitations
   - Limitations
   - Assumptions
   - Justification
   - Summary

II. **LITERATURE REVIEW** ....................................................................................................... 12

   - Introduction
   - Theoretical Framework
   - Review of Literature Addressing Research and Expert Perspectives
   - Summary

III. **METHODOLOGY** ............................................................................................................... 44

   - Research Design
   - Participants
   - Procedures
   - Data Analysis
   - Summary

IV. **DATA ANALYSIS AND RESULTS** .................................................................................... 51

   - Statistical Analyses
   - Ancillary Findings
   - Summary
V. DISCUSSION AND RECOMMENDATIONS.................................68

Purpose
Discussion of Statistical Findings
Limitations of the Study
Recommendations for Policy and Practice
Recommendations for Future Studies
Conclusion

APPENDIXES..................................................................................80
A. IB SUBJECTS AREA
B. LETTER TO COORDINATORS
C. PERMISSION TO USE SURVEY INSTRUMENT
D. SURVEY
E. VALIDITY QUESTIONNAIRE
F. LETTER TO GRADUATES
G. IRB APPROVAL

REFERENCES..................................................................................91
LIST OF TABLES

Table
1. Race and Program Comparison for Survey Respondents........................53
2. Race and Program Comparison for Pilot Study Participants..................53
3. Survey Items by Construct...............................................................54
4. Descriptive Data Measuring Stress.....................................................55
5. Means for Item Responses Used for Research Question 1: Stress.........56
6. Descriptive Data Measuring College Preparedness..............................57
7. Means for Item Responses Used for Research Question 2: College Preparedness...............................................................58
8. Descriptive Data Measuring Long-term Benefits.................................59
10. Descriptive Data Measuring Long-term Detriments.............................61
12. ACT Scores for AP and IB Students...................................................63
13. Descriptive Data Measuring Overall Satisfaction................................64
14. Means for Item Responses Used for Research Question 5: Overall Satisfaction...............................................................65
15. Course Exemption Comparison..........................................................66
CHAPTER I

INTRODUCTION

Purpose of the Study

There is some research that indicates that, while many students are actively involved in the International Baccalaureate (IB) Diploma Program they often question its value (Taylor & Porath, 2006). The stress levels the students encounter are a cause for concern for most parents and for some teachers. This study was designed to solicit the perspectives of IB and Advanced Placement (AP) graduates who have completed at least one semester of postsecondary education about their experiences while in their respective programs.

A second goal of this study was to determine whether these students believe they were better prepared for postsecondary studies than students who participated in the AP program. Panich's research (2001) states that IB graduates earn a higher mean grade point average during the first year of postsecondary studies than students who did not graduate with an IB diploma. Descriptive statistics aside, the researcher determined if these graduates believed that they were better prepared for postsecondary studies.

The researcher was also able to determine whether AP and IB graduates believed they experienced any long-term benefits or detriments by having been in the program and whether they believed their experience was worthwhile. The rewards which are often associated with the AP and IB programs--scholarships, postsecondary preparation and admission, and specifically in the IB program the appreciation of an internationally recognized education--are often seen as
unattainable (Taylor & Porath, 2006). Comparing the efforts to the rewards, the researcher investigated whether the graduates were satisfied with their overall high school experience.

Many authors assert that students in the United States are quickly falling behind students in other countries in the areas of math, geography, basic literacy, and science (Rhodes, 2007). Due to this perceived decline, McGill (2007) claims that in order to be competitive with other countries, a change should occur. The federal, state, and local governments are calling for more schools to implement an advanced curriculum in which all students can participate (Oxtoby, 2007).

Some take issue with assertions of a decline in the status of American students relative to their international peers. A study conducted by Gary Phillips at the American Institute for Research contradicts, in part, Rhode’s statement that the nation’s students are falling behind globally (Toppo, 2007). Phillips found that most students across the United States perform as well as their peers in other foreign countries. The United States fell short behind Singapore, Hong Kong, South Korea, and Japan (Toppo). Phillips, on the other hand, points out that there is a large gap between the high performing states and the low performing states. The low performing states are comparable to countries such as Bulgaria, Moldova, and Macedonia. Phillips is quoted as saying “We’re kind of in the middle of the pack. Being in the middle of the pack is really a mediocre place to be” (Toppo, 2007, p. 1).
The AP and IB Diploma Programs have been incorporated into curricula for over 50 years in the United States. The AP program is growing across the nation and claims to be a predictor of postsecondary success (College Board, 2007). The IB Diploma Program, while not as popular in the United States as the AP program, is quickly solidifying its role in the advanced curriculum across the country.

Researchers from the University of Texas conducted a study and found students who were able to place out of introductory college courses due to successful AP examination grades had higher grade point averages and took more credit hours in their subject area than non-AP students (College Board, 2007). The National Science Teachers Association (NSTA) suggests that successful AP students, those who pass an AP examination, may be better prepared for college and are more likely to earn a bachelor's degree (2007).

While the AP program is broadly seen as demanding, the IB program is reputed to have the most rigorous curriculum in the high school setting. Vanderbrook (2006) asserts that the curriculum in this program is intellectually advanced and offers the strongest form of college preparation available to high school students. According to Vanderbrook, the AP program may be just as demanding as the IB program, is more popular in the United States, and has much research to document its success, but is not as internationally recognized as the IB program. Many studies have examined the AP program, but very few have researched the IB program.
Rhodes (2007) cites three rationales for participation in the IB program: college preparation, course exemptions in college, and competitiveness in the job market after postsecondary graduation. Honors students, those in either AP or IB programs, have a higher grade point average than students who are not in Honors classes. Honors program graduates are also more likely to graduate from college within four years (American School Board Journal [ASBJ], 2007b).

The AP program, “whose mission is to connect students to college success and opportunity,” is “committed to the principles of excellence and equity, and that commitment is embodied in all of its programs, services, activities, and concerns” (College Board, 2008). The IB program adheres to its mission through acceleration, allowing students to learn an abundance of advanced content and skills at a much earlier age. IB students share many characteristics ranging from self-motivation, high expectations for themselves, and a strong desire to succeed (Mercer, 2008).

Ironically, most IB students experience some form of test anxiety while in school (Shaunessy, Suldo, Hardesty, & Shaffer, 2006). Porter (2007) believes stress invades all aspects of a student’s life while in school, which suggests to the researcher that the majority of the graduates studied will have endured a high level of stress.

Statement of the Problem

The IB organization boasts of the postsecondary success of the program’s graduates; however, there is limited research to support this claim. The AP program offers college credit for passing AP examinations, but the literature
specifically pertaining to the graduate’s level of college preparation is minimal. The rigors and potential of these programs may or may not outweigh the rewards if these programs are not producing graduates who are satisfied with their overall experience while in their respective programs, and with the post-secondary benefits of participation.

Research Questions

This study attempted to answer the following questions:

1. To what degree do AP and IB graduates report they encountered stress while they were in their respective program? Are there differences between the ratings of AP and IB participants?

2. Is there a difference between the perceptions of IB and AP graduates regarding the degree to which they believe they were prepared for postsecondary studies?

3. What are the perceptions of AP and IB graduates relative to long-term benefits/detriments of participation in their respective programs? Are there differences between the ratings of AP and IB participants?

4. Are there differences between the ACT scores of graduates of the IB program and graduates of the AP program?

5. What is the level of satisfaction of graduates with their overall experience in their respective programs? Are there differences between the ratings of AP and IB participants?
Research Hypotheses

1. There is no significant difference between levels of stress experienced by graduates from the AP and IB programs.

2. There is no significant difference between perceived levels of college preparedness of graduates from the AP and IB programs.

3. Graduates of the IB program will perceive more long-term benefits of program participation than graduates of the AP program. Graduates of the IB program will also perceive more detriments of program participation than graduates of the AP program.

4. IB graduates score significantly higher on the ACT than graduates of the AP program.

5. Graduates of both the AP and IB programs will be satisfied with their overall experience while in their respective programs. There will be no significant differences between the satisfaction ratings of students in the AP and IB programs.

Definition of Terms

The following terms will be used frequently in this text:

1. Advanced Placement Program- A program created by the College Board in 1955 which allowed for a more difficult curriculum to be implemented throughout the nation. The program is designed for high school students that allow them to earn college credit by scoring a 3 or higher on the academic subject tests.
2. Creativity, Action, and Service (CAS)- A requirement of the IB program that requires student participation in extracurricular activities related to the local community or school, environment, or international community.

3. Extended Essay- A 4,000 word research paper addressing a subject area from the IB curriculum.

4. Grade Point Average- An average of a student's grade in all courses taken each semester. Grades are based on a 0-4 point scale.

5. Honors Program- The IB and AP programs collectively.

6. IB Certificate- The documentation for students who satisfy all the requirements of the IB Diploma Program, but did not receive a collective passing grade of 24 on the IB exams.

7. IB Diploma Program- A program designed for 11th and 12th grade students who must pass a comprehensive exam in six core subjects, write an extended essay, and complete 150 CAS hours.

8. IB Diploma- The documentation for students who satisfy all requirements of the IB Diploma Program, including a passing score on the IB examinations.

9. IB Graduates- Those who graduated from high school and earned an IB Diploma.

10. Normal Students– Those who are not enrolled in the AP or IB programs.
11. Postsecondary education- Education secured at a two or four year college or university.

12. Theory of Knowledge- A course aimed towards students’ critical reflection of knowledge and experience.

**Delimitations**

The following delimitations have been identified for this study:

1. Only the AP and IB students in IB schools in the state of Alabama will be studied.

2. Only students who completed the IB Diploma Program and earned an IB diploma will be considered IB students.

**Limitations**

This study will be limited in the following ways:

1. This study is limited by the honesty of the students responding to the interview questions.

**Assumptions**

The following assumptions will be generated for the completion of this study:

1. All participants will answer survey questions truthfully.

**Justification**

Despite the abundance of literature that profiles the effectiveness of the AP program, little research exists on the IB program and its effectiveness. The goal of this study is to gain insights from high school graduates as they reflect on their experiences in the AP and IB programs.
An overwhelming amount of statistical data is available to confirm the advantages of participating in an advanced curriculum; however, examining the studies closely, one will notice there is little data that reflects on the students’ opinion of the program’s effectiveness. Vanderbrook (2006) clearly states that the research on gifted students fails to examine the students’ perceptions of the AP or IB experiences. He urges researchers to undertake the task of examining the beliefs of these graduates to determine how successful these advanced programs really are.

It is anticipated that the results of this study will be valuable to IB Coordinators and administrators. As evidenced in the literature, the AP and IB programs offer students challenging curricula; however, the participants will be asked to what extent they agree with various statements about the programs’ rigor. This study will also be used to determine whether the graduates of the AP and IB Programs report they were prepared for college and whether they believed any sacrifices they may have encountered along the way were outweighed by any rewards.

Administrators are constantly searching for ways in which to improve their students’ academic performance; the results of this study will provide administrators with additional tools through which to determine the effectiveness of their AP and IB programs more popular amongst their students. The perspective of the AP and IB graduates will contribute to what administrators know about and the means by which to improve student achievement, increase
student morale, and gain an understanding of the experiences of AP and IB students.

Most importantly, it is hoped that this study will be useful to potential AP and IB students as they make decisions regarding the program that is more appropriate for them. Due to the amount of work required to successfully pass an AP examination or earn the IB diploma, the perspectives of students who have completed these programs will be useful in evaluating the decision to enroll in one of these programs.

The responses from the graduates of these programs could impact the impressions of others regarding the programs, and could raise awareness of the challenges of teaching gifted students and the stress they encounter. The study could also educate parents on the appropriate choice of curriculum for their children and help determine if the demands they are about to encounter are beneficial once they are in college.

Summary

Chapter I introduced the study. Various studies assert the positive effects of the AP and IB programs; however, a study from the perspective of graduates is largely unprecedented. It is believed that the perspectives of those who have experienced these programs and can offer feedback on the trials, tribulations, and moments of joy they encountered along the way will benefit future students to the AP and IB programs. Chapter II will examine a theoretical framework and literature pertinent to the study.
CHAPTER II
LITERATURE REVIEW

This chapter contains the review of literature related to the themes in this research study. The different areas of literature discussed are adolescent stress, college preparation, Tinto's longitudinal model of instructional departure, cognitive theory, self-actualization, and cooperative learning. The AP and IB programs will be examined in detail with respect to their histories, curricula and testing, and the benefits and detriments of the programs.

Introduction

America's students trail other students in a number of other nations around the world, primarily in the areas of math, geography, science and basic literature (Rhodes, 2007). Phillips believes the United States has reached a state of mediocrity compared to other high performing countries such as Singapore, Hong Kong, South Korea, and Japan (Toppo, 2007). McGill (2007) claims a drastic change is in order if future leaders are expected to compete in a global society.

Nearly 40% of high school graduates report that they were not prepared for postsecondary studies (Levine, 2007). It is because of this that Rhodes (2007) cites three primary rationales for increased emphasis on accelerated educational progress: students will be better prepared for college, will graduate from college quicker, and will be able to compete internationally with other graduates.
The AP and IB programs are quickly solidifying their roles in the American classrooms. The number of programs in the United States is rapidly increasing and schools that embrace these programs are considered more effective than those that do not (Kyburg, Hartberg-Davis, & Callahan, 2007).

Federal and state education leaders increasingly support policies to implement the AP and IB programs. Initiatives such as The No Child Left Behind (NCLB) Act are directing efforts towards these advanced programs because it is believed they are capable of closing the achievement gaps between American and international students (Kyburg et al., 2007). It is because of these educational initiatives that the programs are gaining popularity at a very fast rate.

Andrews (2003) prepared a case study pertaining to the increases implementation of AP and IB programs in the Southern Regional Education Board (SREB) states. The researcher found that SREB states lead the nation in public high schools offering the AP program (mean of 74%), while the national average is 65%. The number of schools offering the IB program in SREB states has more than doubled between 1997 and 2002; IB students in SREB states account for approximately half of the IB participants in the nation (Andrews).

More than one-third of all White students, more than one-third of Hispanics, and more than half of Black students who passed AP exams nationwide in 2002 lived in SREB states. Every SREB state has at least one IB school, except for Delaware and Tennessee. Florida has encouraged the growth of the IB program by offering the Florida Bright Futures Scholarship, which is a full
tuition scholarship to any state university in Florida for students earning the IB diploma (Andrews, 2003).

One of the frequently cited benefits of the AP and IB programs is that participants will acquire the study skills necessary to complete college (Kyburg et al., 2007). College level courses provide a challenge to high school students to work harder and gain more knowledge. Students will have an idea of what to expect in college and are more likely to approach post-secondary studies with confidence (College Entrance Examination Board [CEEB], 2000).

While Kyburg et al. (2007) assert that a potential benefit of the AP and IB programs is the opportunity to complete a bachelor’s degree in a shorter period of time; the researchers were unable to find any research reports to verify the percentage of AP and IB students who complete college in less than the traditional four years. On the other hand, the CEEB (2000) claims that students participating in the AP program have a higher college graduation rate than non-AP graduates. Seniors who did not take any AP courses graduated from college at a rate of 33% by the age of 30. Students who took one AP course had a graduation rate of 59% and students who took two or more AP courses more than doubled the likelihood of graduation to 76%. These numbers are strong evidence that increasing the number of AP and IB courses can increase the percentage of students who graduate from college (CEEB, 2000).

Theoretical Framework

It is important to explore the theoretical frameworks that are associated with advanced curricular initiatives like the AP and IB programs. Stress is
prevalent in most students' lives; the framework specifically addresses the stress associated with student giftedness. The success of students during their post-secondary studies is often determined by their preparation during high school. With this in mind, Tinto's longitudinal model of instructional departure will be examined with regard to college preparation. Lastly, the AP and IB programs require students to possess higher-order thinking skills in order to be successful; therefore; cognitive theory, self-actualization, and the merits of cooperative learning are discussed.

Adolescent Stress

Megalis (2002) believes adolescence is a trying time in ones life due to all of the changes that are occurring. During this stressful time in their lives, adolescents are experiencing social, biological, and environmental changes. Research shows that stress has become one of the most significant health issues of our culture. Young people are not immune and often voice concern about an increasing build-up of their own daily stresses. Although many of these stresses are typical of adolescents in any generation, many are indicative of rapidly changing lifestyles. (Credit & Garcia, 1999, p. 12)

The stress surrounding students on a daily basis begins to invade their school setting, affecting their academic performance (Credit & Garcia, 1999). Added to the stress of performing well academically is the pressure to maintain the scholarly grades that are related to group acceptance and self-esteem issues (Taylor, Pogrebin, & Dodge, 2000). For scholarly students, academic
achievement determines one’s social group, and in most cases, acceptance into
the group of students perceived to be popular.

Credit and Garcia (1999) conducted a study with the purpose to raise
awareness of stress and help reduce stress levels while improving learning.
Student stress levels and coping mechanisms were studied through stress logs,
students’ surveys, a stress level inventory, and teacher documents. The
researchers found that 18% of the time, the stress students were experiencing
was home-related. Forty-five percent of the time, the stress was school-related,
usually pertaining to tests, projects, and presentations (Credit & Garcia).

Once the researchers were able to determine the types of stress the
students were experiencing, they were able to determine seven probable causes
of adolescent stress. The first probable cause of stress could be developmental
factors, such as puberty. Peer pressure is another strong probable cause for
stress. “The primary influence of peer groups seems to be in the area of
acceptance, approval, and mutual support, rather than in any acceptance of peer
group standards” (Credit & Garcia, 1999, p. 10).

Another probable cause of adolescent stress is their new-found
independence; it is difficult for teens to express their independence while
remaining financially dependent on their parents. At this stage in their life,
teenagers shift from desiring to please their parents, to desiring to please their
friends (Credit & Garcia, 1999).

Family issues can be stressful for anyone, but as an adolescent the stress
is unavoidable since they continue to live at home. An overwhelming 100% of the
students surveyed reported stress from some sort of family matter; 42% of the students listed their parents as a cause of the stress (Credit & Garcia, 1999).

A significant cause of adolescent stress is parental pressure to achieve, especially for gifted and high-achieving students. Many parents set unrealistic and unattainable goals for their children, which often sets the student up for failure. This stress is often more than the child can bear and frequently occurs before they are mature enough to handle this stress (Credit & Garcia, 1999).

Credit and Garcia (1999) cite school structure as a probable cause of adolescent stress. School structure can range from moving from junior high to high school, homework, teachers, or grade point averages. 100% of the sample studied reported school structure as some form of their stress. Not surprising, 81% reported homework as a major stressor. Other stressors mentioned by 46% of the respondents were new or different surroundings to adapt to, poor relationships with teachers, and tests (Credit & Garcia).

The last probable cause of stress determined by Credit and Garcia (1999) was over-commitment; usually this over-commitment pertains to extracurricular activities. Little time to study or complete homework, and having too many things to do was reported as a cause of stress of 60% of the students studied.

Smith and Sinclair (1998) found that 31% of 12th grade students and 25% of 11th grade students reported signs of depression, anxiety, or both. More females than males reported these symptoms. The fear of academic failure is a chronic stressor that is associated with disorders such as depression, attention-deficit hyperactivity disorders, and conduct disorders (Megalis, 2002). This may
explain parental concern over the participation of children in the AP or IB program, and the stress that is associated with these programs (Gazda-Grace, 2002).

Credit and Garcia (1999) estimate that 10 to 30% of students experience school-related stress severe enough to interfere with their academic performance. Wrzesniewski and Chylinska (2007) found that the most common form of adolescent stress, as reported by 100% of females and 96% of males, was school-related. Many sources predict that the stress these students experience in high school will only increase and that the next generation will encounter more severe emotional and physical problems than any previous generation (Scott, 1998).

*Gifted students and stress.* Research shows that gifted and high-achieving adolescent students do experience stress. While gifted children are said to manage the stress and recover from it quicker than non-gifted students, their giftedness does not protect them from stress (Megalis, 2002). There are demands placed on gifted students that non-gifted students do not always encounter. The sources of these stressors include, but are not limited to, the knowledge of being gifted, failing to meet others’ expectations, poor peer relationships, perfectionist goals, and being concerned with issues they have little influence over (Credit & Garcia, 1999). It has been documented that some gifted children participate in self-criticism as young as two years old, especially when they feel they have let others down (Megalis).
Many gifted children have difficulty coming to terms with their giftedness. This is a result of the negative stereotype associated with being gifted (Manaster, Chan, Watt, & Wieche, 1994). Two obstacles face gifted children that non-gifted students are usually able to avoid: the knowledge of being different from their peers, and attempting to live up to the high expectations with which others have burdened them (Megalis, 2002).

Interestingly, the higher the intelligence of gifted children, the more likely they are to deny that they are gifted (Megalis, 2002). On the other hand, "the fear of being perceived as not very intelligent places a burden on elite students to do well in their courses" (Taylor, Pogrebin, & Dodge, 2000, p. 411). Megalis identifies ways in which gifted students deal with the stress associated with their giftedness: exhibiting their non-academic talents, minimizing their visibility, and denying any concerns of social rejections.

The social rejections, coupled with their minimal visibility, leads to loneliness. Loneliness begins to affect their academic achievement and leads to depression, anger, and stressful life changes (Wrzesniewski & Chylinska, 2007). It is reported that the brighter the child, the more likely they are to suffer feelings of loneliness and isolation (Megalis, 2002).

Gifted children are often associated with perfectionism, which can have positive or negative affects. Their perfectionism could push students to achieve more, or it could have a negative effect, leading to frustration and stress. "Perfectionism is a result of social learning that occurs during childhood. Family pressure, self-pressure, social pressure, media pressure, and unrealistic role
models combine in a Big Push that propels you into a lifetime of worrying, feeling guilty, and working too hard" (Megalis, 2002, p. 32).

High achieving students encounter double pressures (Taylor et al., 2000). The pressure to remain a top student in a competitive curricular program and acceptance into a top school is hard enough. Couple this with the financial burden of obtaining scholarships in order to afford college and the stress levels experienced by students is overwhelming (Taylor et al.).

Vanderbrook (2006) conducted a qualitative study of gifted females and their perspectives of the AP and IB programs while still in high school. This study addressed the curricular and instructional aspects of their perception of their education, in addition to the psychological and social aspects related to their giftedness. Data was gathered in interviews with the participants.

Many of the participants felt the transition from their easier courses to AP and IB courses was difficult; they had a hard time adjusting to their new workloads. It is notable that these participants did not indicate the workload was substantially more challenging, just that it was more time-consuming (Vanderbrook, 2006).

Sixty percent of the participants discussed the challenges associated with preparing for the examinations in the AP and IB programs. Of the sixty percent, the IB students discussed their struggle with the examinations at the end of the year; however their struggles were not with comprehending the content, but memorization of the content. The AP respondents said the memorization for the
AP examinations was the most challenging, not the material itself (Vanderbrook, 2006).

Participants in the Vanderbrook study mentioned that their intellectual peers were an important part of their AP and IB experience. Being surrounded by their intellectual equivalents provided a sense of security for them as they were able to offer each other both academic and emotional support throughout the programs (Vanderbrook, 2006).

Many of the participants, AP and IB, discussed the importance of study groups as a means of socialization for them. The IB students, in particular, expressed how different the IB program was than the other programs; as a result of this experience, the IB students rely heavily on each other for support (Vanderbrook, 2006).

Stress prevention. While conducting their research, Credit and Garcia (2007) developed suggestions for preventing or limiting the amount of stress adolescents encounter. Time management, organizational skills, stress management (Megalis, 2002), relaxation techniques, problem solving, and goal setting are all suggested techniques the students can employ on their own.

Credit and Garcia (1999) offer suggestions for how others can help curb and prevent stress, especially in the school setting. Teachers can implement the use of stress logs in the classroom, which allow the students to express their frustrations throughout the school day and provides insight to their teachers without face to face interactions. Schools could educate parents on stress prevention and keep them up to date on what their child is experiencing at school
through weekly or monthly newsletters. Lastly, the researchers recommend educating students on proper relaxation techniques that they can use throughout the day. This form of intervention proved to be most successful out of all the recommendations (Credit and Garcia).

Some researchers believe that the ability to cope with stress improves with age (Megalis, 2002). Learning how to handle stress is a necessity for a healthy lifestyle. Researchers hypothesize that developing school-related stress and not being able to cope with that stress leads to chronic fatigue syndrome (Wrzesniewski & Chylinska, 2007).

Megalis (2002) recommends that high school health classes spend more time on handling the pressure of stress, and on exercise, visualization, sleep, good nutrition, and relaxation techniques to attain that goal. Research has found that females are more likely to seek support for their stress than males because they are taught to be more expressive and are encouraged to seek comfort from others (Plunckett, Radmacher, & Moll-Phanara, 2000).

Cognitive Theory

According to Cunia (2007), cognitivism focuses on one’s change in knowledge. Application of cognitive theories can be regularly found in the AP and IB classrooms. Cunia states that cognitive processes greatly influence learning, people can control their own learning, and they organize what they have learned. The greatest implication of cognitive theory is that as students’ knowledge expands, they are capable of more sophisticated thought (Cunia).
Vygotsky also contributed to cognitive theory by suggesting that children could complete more difficult assignments if they are surrounded by educated individuals who could offer assistance (Kozulin, 1999). Vygotsky believed children need social interaction for learning to take place, and he was able to find a link between children interacting socially with the development of higher order cognitive processes in writing (Ferguson-Patrick, 2007).

**Social learning theory.** Albert Bruner originally described the term social learning theory, now known as social cognitive theory, as the way in which social settings can impact how a student is able to learn (Malone, 2002). The premise of this theory is that students learn through observing others. This type of learning is known as observational learning and can be a tool for describing different behaviors (Wagner, 2008).

Social cognitive theory is also described as the process of acquiring knowledge through observed behavior and Bandura (1986) believes this learning is directly related to the observation of models. The model and the learner play an important role in whether the social learning taking place is deemed successful (Wagner, 2008). The ability of the learner to identify with the model is dependent upon different situations and whether or not the learner has a positive sense of self-worth (Bandura). Bandura's theory also points toward a personal connection between the learner and the model that allows for learning to occur.

**Self-Actualization**

Maslow created a hierarchy of human needs, which are broken into two groups: deficiency needs and growth needs (Huitt, 2004). In this hierarchy, the
deficiency needs must be met before the growth needs can be addressed. The
deficiency needs, from the bottom up, are physiological, safety and security,
belongingness and love, and esteem. The growth needs include cognitive,
aesthetic, self-actualization, and self-transcendence (Huitt). When the deficiency
needs are met, the motivation for fulfilling these needs decreases and the person
is better able to focus on the higher levels of growth needs (Perks, 1999). On the
other hand, if the deficiency needs were not met, a person would focus on having
those needs met first and would not have any motivation to reach the growth
needs (Perks).

Maslow's original conceptualization consisted solely of self-actualization.
Kiel (1999) defines self-actualization as "being a mature, fully human person in
whom the human potentialities have been realized and actualized" (p. 167). This
definition can be compared to the mission of the IB program, and places its
students in the top tier of Maslow's hierarchy. Huitt (2004) describes self-
actualized people as being problem-focused, having an appreciation of life and a
concern about personal growth.

Kiel (1999) also describes self-actualization as "the process of
development which does not end" (p. 167); it is this interpretation of the word that
has caused Kiel to reshape Maslow's hierarchal triangle, calling it the Open
Triangle model. Kiel's argument is that if the developmental process is never-
ending, then the triangle should not close, it should remain open. In a world that
asserts the importance of continued learning, Kiel contends that this
"boundlessness" (p. 167) is representative of the open triangle that allows for
new endeavors to be pursued everyday and for students to find self-fulfillment and realize their own potential (Huitt, 2004).

Cooperative Learning

"One of the perceived benefits of the IB program is that gifted and high-achieving learners have the opportunity to learn with others who have similar abilities and motivations" (Van Tassel-Baska, 2003, p.97). It is this type of learning arrangement that supports high achievement, develops thinking skills, and helps evolve deeper understanding (Ferguson-Patrick, 2007). Cooperative learning allows the learning process to be more enjoyable; it also allows for student leaders to emerge, builds self-esteem, and provides a sense of belonging (Ferguson-Patrick).

Students have different qualities that make them unique; cooperative learning promotes these strengths while students contribute collaboratively. Shaunessy et al. (2006) found that gifted students who were not grouped with their intellectual peers, had an increase in self-criticism and their self-worth declined. Cooperative learning promotes positive views about others as well as their self (Ferguson-Patrick, 2007).

College Preparation

It is believed that the more rigorous the coursework in high school, the better prepared for college students will be (Nugent & Karnes, 2002). Whelan (2007) asserts that high schools are not preparing students well enough for postsecondary success, and that the reason for this is twofold: more than half of the states in this country do not require certain core courses in mathematics and
science in order to graduate, and if the students do take these courses, the quality of the courses is poor. This is the reason Rhodes (2007) calls for a more challenging and rigorous curriculum for college preparation. According to the ACT, Inc. students are considered ready for college if they have a 75% chance of making a B or better in four of their first-year college courses.

Tinto's Longitudinal Model of Instructional Departure

Tinto's model is based on the assumption that students entering college are fully prepared for success and have certain expectations for themselves. If the students are unable to meet these expectations, a sense of disappointment invades their social and academic environment (Duevel, 1999). This disappointment often leads to a negative attitude towards their surroundings, which leads to what Tinto calls departure.

Departure from the university setting could be viewed as a pathway between the student's social life and academic life while at the university. If the student is not doing well academically, then they will be prone to demonstrate characteristics of anxiety and depression (Tyler-Smith, 2006). These feelings eventually invade the social life of the student, and when both areas of his or her life are out of their control, he/she tends to depart the university setting all together (Duevel, 1999).

Tinto contends that his longitudinal model will help decrease the departure of college students. If students are able to integrate themselves into the social and academic environment of the college, then their commitment towards graduation will improve. The more aware an incoming freshman is of the hurdles
they are likely to face, the better their chances of persevering towards graduation (Duevel, 1999).

Some research indicates a student’s level of preparedness for post-secondary education is a predictor of their persistence. Tinto’s longitudinal model of instructional departure is based upon the assumption that students believe they are prepared for post-secondary education, when in most cases they are not (Davis & Murrell, 1993).

Review of Literature Addressing Research and Expert Perspectives

The Advanced Placement Program

History of the program. Advanced Placement began in 1952 as an innovative program introduced by the Ford Foundation (Kyburg et al., 2007; Nugent & Karnes, 2002) to offer college scholarships to highly able secondary students. It was believed that college material was repetitive to students (Andrews, 2003); therefore many were graduating from high school early in order to begin college. By offering college credit, school officials were hoping to keep students enrolled in high school longer (Nugent & Karnes).

In the 1955-1956 school year 104 schools participated in the AP examinations and 2,199 tests were taken. It was at this time the College Board was asked to take over administration of the examinations. The College Board is a non-profit organization that was founded in 1900 in order to help high school students make a successful transition from high school to college (College Board, 2007).
The College Board expanded the program and began to offer professional development to teachers and assistance with college admissions and financial aid to students (College Board, 2007). The AP program began to grow faster, in 1998 over one million AP tests were administered which was a major milestone in its history (Nugent & Karnes, 2002). By May of 2006, more than 2.3 million exams were given to more than 1.3 million students, an increase of 105,066% from 1956. In 2007 there were 23,000 high schools in the United States offering AP courses (College Board).

Curriculum and testing. The AP program allows students to take course examinations in order to receive college credit. Scores range from 1 to 5 and a score of 3 or higher is generally required in order to award college credit; however, some colleges and universities require higher scores (Andrews, 2003). In 2008, more than 3,600 colleges and universities around the world recognized the AP program for college credit; this included more than 90% of United States and Canadian colleges and universities (College Board, 2008).

Competition to get into top colleges is intense, which means students are signing up for AP examinations faster than ever (ASBJ, 2007a). Schools that offer AP courses are now encouraging freshmen and sophomores who intend to take AP classes to enroll in accelerated or honors classes. It is believed these classes will prepare them for the AP classes as juniors and seniors; however, there are some schools that allow freshmen and sophomores to enroll in AP courses (Vanderbrook, 2006).
Rhodes (2007) cites three reasons to enroll in the AP program: “to gain the edge in college preparation, to stand out in the college admissions process, and to broaden your intellectual horizons” (p. 10). Many schools that offer the AP program allow students to boost their grade point average by using a weighted 5-point scale rather than the normal 4-point scale (Oxtoby, 2007).

As the popularity of the AP program has increased, many schools have allowed students to sit for AP examinations without enrolling in the classes (Nugent & Karnes, 2002; Rhodes, 2007). Seventy five percent of the graduating class of 2007 in the United States entered college; more than 15% of the public high school class achieved at least one AP examination grade of 3 or higher. Less than 12% of the 2006 class attained this goal (College Board, 2008).

Diversity in the AP classrooms has always been a concern for the College Board; however, diversity has been increased, with an accelerated rate of enrollment among Latino students. African American and American Indian/Alaska Native students are still underrepresented in the AP classrooms (College Board, 2007).

Benefits and detriments of the AP program. Since its origins in the 1950s, the AP program has become synonymous with success and rigor (McGill, 2007). Rhodes (2007) found that AP courses and examinations have a positive impact on students and their postsecondary performance. A study conducted by Dounay (2006) found that enrollment in the AP program prepares students for college-level coursework, saves students money by exempting out of college courses through AP credit, and allows them to complete college quicker due to these
credits. It has been documented that students in the AP program have higher test scores on college entrance examinations such as the ACT and SAT (Chenoweth, 1996). Casement (2003) has even found that students not enrolled in AP courses, but attending a school that offers them, performed better in college than their test scores would have predicted.

The ASBJ (2007b) published conclusions that little more than 40% of students who graduated from high school in 2001 and who took AP English Language completed college in four years. Slightly less than 20% of students who were only in the standard high school curriculum finished college within four years. This study is consistent with Rhodes’ aforementioned beliefs that the AP program has a positive impact on a student’s college performance.

Researchers at the University of Texas found that students who placed out of introductory college courses as a result of successful AP exam grades earned higher college grade point averages (College Board, 2007; NSTA, 2007). A study conducted by the ASBJ (2007) confirms that AP students have a higher grade point average in college than students who were not exposed to AP classes. The researchers at the University of Texas also found that these students enrolled in more credit hours in the subject area of their exam than students who did not enroll in AP courses (College Board; NSTA). Results also showed that students who had taken one or more AP courses and examinations significantly outperformed non-AP students on all college outcomes in all their years in college, after controlling for SAT scores and economic status (College Board, 2007).
The economic advantage of being enrolled in the AP program is significant for students and parents. On average, AP students enter college with 10 college credits, which monetarily adds up quickly (College Board, 2008). Dounay (2006) points out that a test that costs $83 can save a successful AP student several thousands of dollars.

Critics of the AP program, primarily AP teachers, argue that the amount of time covering material far outweighs time spent developing understanding of the material (Rhodes, 2007). High school teachers must frequently sprint through a year-long college syllabus, allowing for weeks at the end of the year to prepare students for the AP examination. Teachers are not allotted time to be creative and innovate when introducing the lessons (Oxtoby, 2007). Oxtoby expresses the following concerns:

I worry that advanced-placement programs are rapidly becoming the latest way in which schools are ‘teaching to the test,’ rather than using creativity to excite and challenge students. Too much of the high-school curriculum is turning into a pale imitation of college courses instead of providing the solid foundation that students need to build on in the future, and the new pressures associated with these courses are distorting both the high-school experience and the nature of the course being taught. (p. B22)

A concern that many principals are facing in their schools is the growing number of teacher vacancies, causing some principals to have no choice but for some of their teachers to teach out of field (Klopfenstein, 2003). New teachers are often recruited with the allure of teaching an AP course, but find that the
course content is rigorous and they have to learn the material as they go along. According to Klopfenstein, this is one aspect of the AP program that needs to be addressed.

Another concern that many school districts are facing with regard to the AP program is block scheduling. Block scheduling is when a course lasts only for one semester and the students attend that class five times a week, after which the students enter a new class for the next semester. This presents a problem in many ways. First, some students might be enrolled in a course in the fall semester and then have to wait until the spring to take the AP exam. Secondly, if a student is enrolled in an AP course in the spring, they lose valuable instructional time at the end of the semester since the AP exam is offered in early May (Hansen, Gutman, & Smith, 2000). A study was conducted by Santoli (2002) and found that schools are countering these issues by offering the split-block scheduling, in which two courses are offered year-long, but the students alternate between these classes every other day.

Oxtoby (2007) reports the cost of taking an AP examination is $83, which the student often must provide (some states pay for the exam). He contends that the College Board, in an effort to make a profit, encourages excessive test taking by publishing the names of students who have taken the largest number of AP examinations. Very few AP students actually use their AP examination scores to graduate from college early. Oxtoby provides two reasons for this: most students would rather stay in college the full four years rather than joining the workforce
early, and many colleges limit the number of credits toward graduation that a student can bring from AP examinations.

Sadler and Tai at Harvard University found that students who had taken AP courses in physics, chemistry, and biology in high school received higher college science grades than those who had not taken an AP science class; however, the differences were not significant (Rhodes, 2007; NSTA, 2007). In fact, the AP advantage was cut in half when the researchers controlled for parent's income, parent's educational levels, and differences among students in prior achievement. Sadler and Tai also found that a score of 5 on an AP examination does not lead to a college grade of A in the same subject (NSTA, 2006).

A study conducted by Kristin Klopfenstein and Kathleen Thomas in 2006 were unable to find any evidence that an average student derives any greater positive benefits from an AP experience than those provided by a non-AP curriculum that is strong in math and science. The study also found that AP experience does not increase the likelihood of early college success other than that predicted by a non-AP curriculum (Rhodes, 2007; Viadero, 2006).

Cunningham and Cordeiro (2000) have found that since some schools do not offer AP courses, especially in lower-socioeconomic areas, minority students are at a disadvantage when applying to college. Santoli (2002) has found that while the number of AP courses being offered around the country is increasing, and the number of schools offering AP courses is also increasing, a large number of schools are eliminating their offered AP courses. The reason for this
decline is the extra funding needed for professional development, supplies, and testing.

In an effort to increase the number of minority students enrolling in AP courses due to their school not offering them, the University of California began a College Preparatory Initiative (SREB, 2005). This initiative began in 2000 and offers AP classes online to schools that do not offer AP courses to their students. This initiative has spread, and Georgia, South Carolina, and Tennessee have joined with the SREB to improve this initiative. A federally funded program called AP Nexis Online now offers AP courses online to those students who are academically able and are considered low income (SREB).

The International Baccalaureate Program

The IB program is geared towards the cognitive needs of high-achieving and gifted students; the program allows them to learn advanced content at an age earlier than originally expected (Shaunessy et al., 2006). According to the mission of the IB program “students are engaged in regular discussions about abstract, complex ideas, including reflective thinking about life experiences, critical examination of assumptions about knowledge, appreciation of multiple perspectives, and consideration of bias” (Shaunessy et al., p. 77).

Shaunessy et al. (2006) report that IB students possess similar characteristics such as self-motivation, the desire to exceed school expectations, the ability to achieve academically, and a strong desire to succeed. The IB program is not designed for only the gifted and high-achieving students, but also students who have high academic expectations. Unlike the AP program, the IB
program is not subject-sensitive; students can have a weak area of study and still
do well in the IB program, as long as their academic values are in place (Taylor &
Porath, 2006).

After conducting their research, Shaunessy et al. (2006) found that
participating in the time-intensive curriculum is not harmful with regards to school
and psychosocial functioning; however, parents, administrators, and guidance
counselors may still feel comfortable recommending the IB program to those
students who meet the traditional academic profile adopted by the IB program.

The IB diploma is often given special regard by college admission officers,
but Taylor and Porath (2006) advise that this advantage should be weighed
against the perception that the student has had to work much harder and
sacrifice many extracurricular activities. It is quite likely, they argue, that the
same student could have achieved the same high grades, if not higher, in the
regular school program, producing the same college admissions credentials.

*History of the program.* After World War I, the IB program was developed
to ensure that the children of parents in highly mobile professions received
academic credentials accepted worldwide (Nugent & Karnes, 2002; Taylor &
Porath, 2006; Wingert, 2007). These students include children of diplomats
(Chaponot, 2000), students living abroad, and children likely to travel extensively
throughout their childhood (Nugent & Karnes). There were international schools,
but a consistent curriculum did not exist; students were forced to adopt either the
local school curriculum or a conglomeration of national programs (Chaponot).
University admissions was a concern for these mobile students; the goal was to create an academic experience that emphasized critical thinking, tolerance, and intercultural understanding that students around the world could use (Nugent & Karnes, 2002) and that would prepare them for global success (Panich, 2001). A second reason for the development of the IB program was to create a diploma program that could be recognized by many national school systems for entrance into their respective universities (Kroll, 1984). The IB program was not designed as a testing program for students to receive college credit; however, many colleges and universities around the world give credit for IB courses (Gazda-Grace, 2002).

The first documented attempt to create an international school program was organized by Robert Leach of the International School of Geneva. Leach, frequently called the father of IB, along with his fellow history teachers, obtained a grant from the United Nations Education, Scientific, and Cultural Organization (UNESCO) (Panich, 2001). In 1965, the International Studies Association (ISA) created the IBO as a charted foundation under the Swiss civil code. The ISA had consultative status with UNESCO (Chaponot, 2000).

With additional funding from the Ford Foundation and the Twentieth Century Fund (Chaponot, 2000; Kroll, 1984), a pilot program was developed in 1967 and launched in 20 schools (Panich, 2001). In 1970 the first official examinations were given to 312 students. These students had 49 different nationalities and had a 69.4% success rate (Chaponot). The first director of the IBO, A. D. C. Peterson, was also the director of the Oxford University
Department of Education and solicited the University to supervise the follow-up of
the pilot study. Peterson's largest concern was enlisting universities and nations
to accept its diploma for their national school systems (Chaponot).

The time period of 1970 to 1976 was an experimental period for the IBO in
which adoption by other international schools was solicited (Kroll, 1984). The first
IB examination in 1970 included 11 schools in 10 countries; by the end of the trial
period in 1976, there were 37 schools in 17 countries administering IB
examinations. This rapid increase was due in large part to the aforementioned
donors, as well as the Dulverton Trust, the Gulbenkian Foundation, and the
Mountbatten Fund (Kroll).

Kroll (1984) cites three objectives behind the development of the IB
program and its success. The first objective was to enhance peaceful
cooperation between nations. It was believed that the IB program would offer a
curriculum that would encourage cultural awareness in international schools.

The second reason behind the creation of the IB program was to develop
a series of "general studies," which are called the "liberal studies" in the United
States. In England there was much pressure to specialize in one subject at an
early age (Kroll, 1984), and students tended to ignore the other subject areas in
order to pass admission examinations in their subject area. The "general studies"
program required students to broaden their class repertoire to include more
subjects (Kroll).

The final objective was to standardize a curriculum among international
schools for those students who move frequently. This standardized curriculum
would allow students to easily adjust and adapt to new schools. This would allow students to make progress towards university admission without the necessity of a transition period (Kroll, 1984).

*Curriculum and testing.* The IB program is designed to address the affective and cognitive needs of intellectually advanced students. “All aspects of the program emphasize learning experiences that foster achievement; curriculum that are thematic and transdisciplinary, and complex; opportunities for affective development; and consideration of multiple perspectives and understandings” (Shaunessy et al., 2006, p. 76). The IBO assists IB schools by aiding in curriculum and assessment development, teacher training seminars, and electronic networking (Andrews, 2003).

Unlike the AP program, IB students are expected to complete course requirements in both the humanities and sciences. This holistic approach places emphasis on meta-cognitive aspects of learning, such as how to analyze, how to learn, and how to reach conclusions (Kyburg et al., 2007). Proponents of the IB program assert that it is recognized as “representing the highest levels of academic attainment possible for secondary students” (Van Tassel-Baska, 2003, p. 1).

The IBO does not have any admissions requirements for students to enroll in the program, and there are not any uniform practices to be found among the IB member schools (Panich, 2001). Panich has found in his research that schools that are more concerned with recording high success rates on the IB
examinations favor stringent admissions requirements. Schools that focus on the broad curriculum experience tend to enlist the open admissions approach.

The IB program is designed as a comprehensive two-year program for juniors and seniors, ages 16 to 19 (Nugent & Karnes, 2002). In order to prepare younger students for the IB program, a Middle Year program is offered in junior high schools and a Pre-IB program is offered to high school freshmen and sophomores (Panich, 2001).

The IB curriculum contains six core subject areas: two languages (one native and one foreign), math, a human science, an experimental science, and one elective (Chaponot, 2000; Vanderbrook, 2006; Wingert, 2007). In order to earn the IB diploma, students are required to select one subject from each group (see Appendix A). The actual courses available to the students vary by school (Rhodes, 2007). Three subjects are studied at the Higher Level (HL) and three are studied at the Standard Level (SL) (Panich, 2001). Students may choose to take four HL examinations and two SL examinations, but this is rarely done. By operating the program in this manner, students are able to study some subjects in-depth for two years and be introduced to other topics in breadth for one year (Panich).

Each subject exam is graded on a scale of 1 to 7 (Rhodes, 2007). Students must pass examinations in six subjects and receive a total score of 24 to receive the IB diploma (Andrews, 2003; Rhodes). Students not passing all six subject-area tests will earn an IB certificate rather than an IB diploma (Chaponot, 2000).
In addition to the six examinations, IB students are required to complete three additional requirements, a combination of the British, French, and U.S. educational systems (Panich, 2001). The first requirement is a Theory of Knowledge (TOK) course, which allows the students time to reflect critically (Andrews, 2003), improve their thinking skills (Kroll, 1984), and explore the relationship between the various disciplines (Panich). This course is not intended to be another course that requires factual memorization (Kroll).

The second requirement is the Extended Essay (EE), a 4,000 word research paper on a topic from one of their six subjects (Andrews, 2003; Chaponot, 2000; Kroll, 1984; Panich, 2001; Taylor & Porath, 2006). The paper does not have to be of thesis quality, but should show that serious thinking and reflection took place (Kroll). The EE provides the opportunity for original rigorous research, which will provide experience for the time when students have to write a research paper in college (Panich).

The final requirement is mandatory participation in supervised extracurricular and community service activities to fulfill the Creativity, Action, and Service (CAS) component of the program (Panich, 2001). The rationale behind this requirement is that some students, primarily from Europe, tend to neglect these types of activities so they can focus on their specialized area of study (Kroll, 1984). These activities can range from community volunteer work, sports, artistic projects (Chaponot, 2000), to experimental learning (Kroll). The IB student should complete a total of 216 CAS hours to be eligible for the IB diploma (Vanderbrook, 2006).
Benefits and detriments of the IB program. As mentioned in Chapter 1 and the beginning of this chapter, American students are in a state of mediocrity when compared academically to international students; in discussions of the shortcomings of American high schools, the IB program is increasingly mentioned as a reform mechanism (Plucker, 2006). According to Taylor and Porath (2006), graduates of the IB program walk away with the prestigious IB diploma, postsecondary admission and preparation, and an appreciation for international education. The integrative nature of the IB program is just one factor that predicts a student’s postsecondary success (Duevel, 1999).

Burris, Weiner, Wiley, and Murphy (2007) have read the reports indicating that IB students have a higher success rate than those who did not participate in the IB program; however, the researchers began to question those research findings. They questioned whether IB students were graduating with a higher success rate, and if so, whether this might be because they are high achievers rather than IB graduates.

To answer this question the researchers created two groups of high school graduates with matching PSAT scores; half of the group took IB classes and the other half did not. The researchers were able to conclude that 88% of those students who took both IB English and IB mathematics graduated within four years, while only 32% of those that did not take those IB classes graduated in four years (Burris et al., 2007).

Panich (2001) cited two different research studies that produced similar results; IB graduates do have higher mean grade point averages than non-IB
graduates. In a 1988 study conducted at the University of Virginia, the research followed the university progress of 100 students, 18 of them IB graduates. The IB graduates recorded a higher mean cumulative grade point average; however, the small sample size of IB graduates might caution one against making any valuable conclusions.

A study was conducted at the University of Florida in 2001 of high school graduates from 1998, 1999, and 2000. Those students who graduated with an IB diploma did have a higher mean cumulative grade point average than those without an IB diploma (Panich, 2001).

Shaunessy et al. (2006) conducted a study comparing the school and psychological functioning of IB students to that of general education students in the same school. A quantitative study was conducted using a survey instrument pertaining to school climate and a self-efficacy questionnaire for children was also used. The IB students faired significantly better than the general education students in both categories. IB students had higher grade point averages and academic self-efficacy than general education students and reported fewer affiliations with negative peers. The IB students possessed behavior patterns that are typically associated with postsecondary success. It is interesting to note that there was a negative correlation between tobacco use and participation in the IB program (Shaunessy et al., 2006).

The prestige that many attach to an IB diploma does not come without sacrifices; students spend 150 hours of instructional time in the classroom, with an additional 90 hours of instructional time for the three HL subject areas (Taylor
Parents complain about the extraordinary time commitment (Rhodes, 2007) and the lack of flexibility for extracurricular activities (Cech, 2007). Teachers complain that there is little time to deviate from the set curriculum, thus depriving students of creative exploration opportunities (Taylor & Porath).

In addition to the time constraints, there is a heavy financial burden as well. There is much criticism of the IB program with regard to the segregation that occurs between the IB and non-IB students with regard to socio-economic status. Many critics believe the cost of participating in the IB program contributes to this segregation (Rhodes, 2007).

It costs a school $10,000 in application fees to be considered by the IBO for authorization. This does not cover the additional costs for teacher training (Wingert, 2007), which is $1,000 per teacher for a three-day professional development course (Cech, 2007). Each IB school is responsible for yearly dues of $8,850, a portion of which may be passed along to the students through IB fees (Cech; Wingert). Cech believes the cost of supporting an IB program will prevent the program from becoming as popular as the AP program.

Summary

The major themes of the literature have been discussed, including adolescent stress, college preparation, cognitive theory, and self-actualization. Many aspects of the AP and IB programs have been thoroughly detailed. It is the researcher's intent to study perceptions of AP and IB graduates with regard to the related literature.
While there have been many studies attesting to the success of the AP and IB programs, the researcher did not find any studies seeking the perspectives of the graduates once they gain college experience. "Much of the research on gifted students neglects to examine the students' perceptions of their high school experiences" (Vanderbrook, 2006, p. 136). The researcher plans to answer Vanderbrook's call for an examination into the perspectives of the AP and IB graduates.
CHAPTER III
METHODOLOGY

The purpose of this study is to gain the perspectives of AP and IB graduates with regard to their overall experience while in their respective programs. This study also examined the ACT scores of both groups of graduates. This chapter describes the following: 1) research questions and hypotheses 2) research design, 3) participants, 4) procedures, and 5) data analysis.

In Chapter I the researcher outlined the research questions and hypothesis. The researcher analyzed the following questions:

1. To what degree do AP and IB graduates report they encountered stress while they were in their respective program? Are there differences between the ratings of AP and IB participants?

2. Is there a difference between the perceptions of IB and AP graduates regarding the degree to which they believe they were prepared for postsecondary studies?

3. What are the perceptions of AP and IB graduates relative to long-term benefits/detriments of participation in their respective programs? Are there differences between the ratings of AP and IB participants?

4. Are there differences between the ACT scores of graduates of the IB program and graduates of the AP program?
5. What is the level of satisfaction of graduates with their overall experience in their respective programs? Are there differences between the ratings of AP and IB participants?

The researcher's hypotheses to the aforementioned research questions are as follows:

1. There is no significant difference between levels of stress experienced by graduates from the AP and IB programs.

2. There is no significant difference between perceived levels of college preparedness of graduates from the AP and IB programs.

3. Graduates of the IB program will perceive more long-term benefits of program participation than graduates of the AP program. Graduates of the IB program will also perceive more detriments of program participation than graduates of the AP program.

4. IB graduates score significantly higher on the ACT than graduates of the AP program.

5. Graduates of both the AP and IB programs will be satisfied with their overall experience while in their respective programs. There will be no significant differences between the satisfaction ratings of students in the AP and IB programs.

There are currently eleven schools in the state of Alabama that have the IB program (IBO, 2008). The intent of this research was to study the perspectives of AP and IB graduates from schools in the state of Alabama that currently have the IB program. The researcher was able to ascertain the students' perspectives
regarding their respective programs and determine if there were differences between the ACT scores of graduates of the IB program and graduates of the AP program.

Research Design

The researcher studied two aspects of the AP and IB programs: perspectives of the programs by the graduates and their ACT scores. In order to answer research questions one, two, three, and five the researcher investigated the perspectives of the graduates, the dependent variable, with regard to their overall program experience. The variables included stress levels, perceived preparation for post-secondary studies, and benefits and detriments of their programs.

In order to answer research question four, the researcher investigated ACT scores, the dependent variable, of graduates from both programs. The independent variables included the programs they were enrolled in, along with other demographic variables. Frequencies and descriptive statistics for all research questions are discussed, along with detailed graphs.

Participants

Participants in this study were AP and IB graduates who have completed at least one semester of postsecondary study at a two or four-year college or university, and have graduated from high school within the past five years. The researcher studied the graduates from the seven schools in the state of Alabama that have had the IB program for five or more years. Alabama has eleven IB schools; however, the programs at Daphne High School, Fairhope High School,
and Davidson High were not implemented until 2007, and Columbia High School's IB program was not implemented until 2008 (IBO, 2008). Therefore these schools did not have any graduates during the time frame of this study. The researcher studied the population of all graduates within the past five years, as opposed to a small sample of graduates.

Procedures

Official authorization to conduct the study was sought from the Institutional Review Board (IRB), which allowed this research to be undertaken because of the following factors: all individuals involved were over 18 years old, participation in the study was voluntary, and there was not a posed threat to any individual taking part in the study. The researcher sent a letter (Appendix B) contacting the IB coordinator at each of the seven IB schools being studied through the mail, and requested names and addresses for IB graduates within the past five years. If email addresses were available for the graduates, the researcher used those in place of mailing addresses. In order to gain the names and addresses of AP graduates, the researcher also contacted AP coordinators with the same request.

Instrumentation

The AP and IB graduates rated their perspectives of the programs using a 5-point Likert scale. Graduates were also asked to state their ACT score. The survey instrument used was designed by Dr. Mary Lee Taylor and Dr. Marion Porath of The University of British Columbia. Permission to use their survey instrument, with modifications, is located in Appendix C.
The original survey instrument was designed for a qualitative study using open-ended questions. The researcher modified this instrument into a 5-point Likert scale in order to conduct a quantitative study (Appendix D). The 23 Item survey was sub-grouped into four constructs: stress, college preparedness, long-term benefits and detriments of the program, and overall program satisfaction. Items 4, 8, 9, and 10 measured stress. Items 1, 2, 3, 5, and 7 measured college preparedness. Long-term benefits and detriments of the program were separated into two different subscales; Items 11, 12, 13, 14, and 15 measured program benefits and Items 6, 16, 17, 18, 19, 20, and 21 measured program detriments. Lastly, Items 22 and 23 measured the graduates' overall satisfaction with their respective program. Upon completion of the 23 Likert-scale items, graduates were asked to complete several demographic questions, including ACT score.

In order to ensure the validity of the survey instrument, the instrument was field tested with a panel of six experts from an IB school in Alabama; the panel of experts included one of each of the following: IB coordinator, IB principal, IB teacher, AP coordinator, AP principal, and AP teacher. The panel members were asked to complete a form (Appendix E) reviewing the survey and give particular attention to the directions as well as the clarity and content of individual items. Upon completion of their review of the survey, they were asked to return the survey with any recommendations. The panel members were satisfied with the survey and did not have any recommendations.

The survey was also tested using a pilot group of 13 AP and IB students from an IB school in Alabama. Participation in the pilot group was voluntary and
was requested by the AP and IB coordinators. The researcher conducted a Cronbach’s alpha, $\alpha = .729$, for proper assessment of reliability. The final survey instrument was submitted to the Institutional Review Board (IRB) at The University of Southern Mississippi for approval; which was granted in June 2009.

Once names and addresses of the IB and AP graduates were collected the researcher mailed or emailed the graduates a link to the electronic survey. Accompanying the survey was an introduction letter (Appendix F) from the researcher encouraging active participation by the graduates. The researcher anticipated a higher response rate with an electronic survey than a mailed survey due to the age range and technological expertise of those being studied. Participation in this study was voluntary.

Data Analysis

Analysis of the graduates’ perceptions regarding their respective programs was conducted using responses to the 5-point Likert scale. An independent sample t-test was conducted on the testing data collected in an attempt to support or reject the hypotheses.

Descriptive statistics such as frequencies and percentages were reported for all relevant questionnaire item data. In addition, the means and standard deviations were reported. The researcher inputted all data into SPSS 13.0 for analysis.

Summary

Literature abounds on the effectiveness of the AP and IB programs. AP students are able to earn college credit for courses taken in high school, and are
shown to have higher college grade point averages than non-AP students (College Board, 2007). According to Rhodes (2007), IB students are better prepared for college than non-IB-students and are more competitive in the job market after post-secondary graduation. However, the researcher did not find any known research that examines the perceptions of these graduates regarding their perceptions of the programs. The aim of this study was to determine levels of satisfaction with their program experiences among the graduates and to determine whether there were differences in the ACT scores of AP and IB graduates.
CHAPTER IV
DATA ANALYSIS AND RESULTS

The researcher studied five different aspects of the high school experience of AP and IB students; these aspects include stress levels, college preparation, benefits and detriments they experienced, ACT scores, and overall satisfaction with their programs. Chapter 4 includes an analysis of the data collected for this study. Data were collected using surveys administered by the researcher; these data were then analyzed using independent sample t-tests, along with descriptive statistics and frequencies.

The researcher sent a letter to the AP and IB Coordinators for all seven schools in Alabama with an IB program requesting their assistance in providing contact information for their AP and IB graduates; however, only Hoover High School and Murphy High School were willing to participate in the study. These two high schools are the largest in the state and still provided an ample number of graduates to contact.

One participating school (School 1) provided email addresses for their IB graduates and mailing addresses for their AP graduates. An introduction letter (Appendix G) was mailed to AP graduates requesting their participation in an online survey; the same introduction letter was emailed to IB graduates requesting the same. The other participating (School 2) school was originally willing to provide email addresses for all their graduates, but later decided for security purposes to send out the researcher's letter themselves in order not to have to share any personal information on their graduates. A second email was
sent to the IB graduates of School 1, and a postcard was mailed to the AP graduates of School 1 as a second reminder to complete the survey. School 2 emailed a second reminder to their graduates requesting their participation in the study.

Within the past five years, School 2 has had 119 AP graduates, and 94 IB graduates; of these AP graduates, 52 (43.7%) responded and 31 (33.0%) IB graduates responded to the survey. School 1 has had 142 AP graduates and 78 IB graduates within the past five years. The researcher had 36 AP (25.4%) and 42 (53.8%) IB graduates participate in the survey. The total AP response rate was 33.7% and the IB response rate was 42.4%. The overall response rate for the study was 48.3%.

Of the 161 survey respondents, 88 (55%) were AP graduates and 73 (45%) were IB graduates. A large portion of the survey respondents (79%) were white. Asian/Pacific Islanders accounted for 10%, African Americans 7%, and the remaining 4% were Other. Demographic information about the survey respondents is in Table 1.
Table 1

*Race and Program Comparison for Survey Respondents*

<table>
<thead>
<tr>
<th>Race</th>
<th>Program</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AP</td>
<td>IB</td>
</tr>
<tr>
<td>White</td>
<td>70</td>
<td>57</td>
</tr>
<tr>
<td>Black</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>88</strong></td>
<td><strong>73</strong></td>
</tr>
</tbody>
</table>

The racial profile of the survey respondents was comparable to the racial profile of the pilot study participants. Of the 13 pilot participants, 6 were AP graduates and 7 were IB graduates. Eight of the participants were White. African American and Asian/Pacific Islander both had two participants and one of the participants was Other. Demographic information about the pilot study participants are in Table 2.

Table 2

*Race and Program Comparison for Pilot Study Participants*

<table>
<thead>
<tr>
<th>Race</th>
<th>Program</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AP</td>
<td>IB</td>
</tr>
<tr>
<td>White</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Black</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>6</strong></td>
<td><strong>7</strong></td>
</tr>
</tbody>
</table>
The survey instrument measured the following constructs: stress, college preparedness, benefits and detriments of the program, and overall satisfaction with the program. Survey items are sub-scaled by construct in Table 3 and their reliability is reported.

Table 3

*Survey Items by Construct*

<table>
<thead>
<tr>
<th>Construct</th>
<th>Survey Items</th>
<th>Pilot Study Alpha</th>
<th>Project Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stress</td>
<td>4, 8, 9, 10</td>
<td>.709</td>
<td>.733</td>
</tr>
<tr>
<td>College Preparedness</td>
<td>1, 2, 3, 5, 7</td>
<td>.729</td>
<td>.729</td>
</tr>
<tr>
<td>Long-term Benefits</td>
<td>11, 12, 13, 14, 15</td>
<td>.722</td>
<td>.736</td>
</tr>
<tr>
<td>Long-term Detriments</td>
<td>6, 16, 17, 18, 19, 20, 21</td>
<td>.701</td>
<td>.867</td>
</tr>
<tr>
<td>Overall Satisfaction</td>
<td>22, 23</td>
<td>.727</td>
<td>.737</td>
</tr>
</tbody>
</table>

Statistical Analyses

Research Question 1 was stated as follows: To what degree do AP and IB graduates report they encountered stress while they were in their respective program? Are there differences between the ratings of AP and IB participants? The related hypothesis, Hypothesis 1, was: There is no significant difference between levels of stress experienced by graduates from the AP and IB programs.

An independent sample t-test was used to analyze the results of the survey in order to answer the first part of research question 1. Means and standard deviations were used to determine if any differences exist between the two programs.
The stress level experienced by IB graduates was not found to be significantly different than that experienced by AP graduates, t(159) = -0.337, p = 0.736. The researcher's hypothesis that a significance difference would not exist was supported. The four survey items measuring stress as a construct were grouped into a sub-scale and the descriptive data is found in the table below. The mean survey response for AP graduates was 2.53 and the mean survey response was 2.57 for IB graduates.

Table 4

**Descriptive Data Measuring Stress**

<table>
<thead>
<tr>
<th>Program</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP</td>
<td>88</td>
<td>2.53</td>
<td>.75</td>
</tr>
<tr>
<td>IB</td>
<td>73</td>
<td>2.57</td>
<td>.62</td>
</tr>
</tbody>
</table>

*Note. 5.0 Measurement scale.*

The responses of AP and IB graduates to the four survey items pertaining to stress showed very little difference in mean values as demonstrated in Table 5. In order to avoid pattern set among the respondents, the researcher reversed the scale items in Item 9 of the survey. The responses were recoded for this item by the researcher in order to reflect responses on the same measurement scale.
Table 5

Means for Item Responses Used for Research Question 1: Stress

<table>
<thead>
<tr>
<th>Survey Item</th>
<th>Program</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 4: Excessive workload</td>
<td>AP</td>
<td>2.43</td>
<td>.920</td>
</tr>
<tr>
<td></td>
<td>IB</td>
<td>2.89</td>
<td>1.02</td>
</tr>
<tr>
<td>Item 8: Worried about requirements</td>
<td>AP</td>
<td>2.74</td>
<td>1.12</td>
</tr>
<tr>
<td></td>
<td>IB</td>
<td>2.93</td>
<td>1.22</td>
</tr>
<tr>
<td>Item 9: Felt less stressed</td>
<td>AP</td>
<td>2.53</td>
<td>.753</td>
</tr>
<tr>
<td></td>
<td>IB</td>
<td>2.57</td>
<td>.624</td>
</tr>
<tr>
<td>Item 10: Worried about college acceptance</td>
<td>AP</td>
<td>2.44</td>
<td>1.17</td>
</tr>
<tr>
<td></td>
<td>IB</td>
<td>2.45</td>
<td>1.01</td>
</tr>
</tbody>
</table>

Note. 5.0 Measurement scale.

Research Question 2 was stated as follows: Is there a difference between the perceptions of IB and AP graduates regarding the degree to which they believe they were prepared for postsecondary studies? The researcher's hypothesis for this research question was: There is no significant difference between perceived levels of college preparedness of graduates from the AP and IB programs.

An independent sample t-test was used to analyze the results of the survey in order to answer research question 2. Means and standard deviations were used to determine if any differences exist between the two programs.

The difference between AP and IB graduates and their perceptions of college preparedness was significant, with IB students reporting being more prepared for college, t(159) = -2.53, p = .013. The researcher’s hypothesis that a significant difference would not exist was therefore not supported. The four
survey items measuring college preparedness as a construct were grouped into a sub-scale and the descriptive data are found in Table 6. The mean survey response for AP graduates was 4.05 and the mean survey response was 4.30 for IB graduates.

Table 6

Descriptive Data Measuring College Preparedness

<table>
<thead>
<tr>
<th>Program</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP</td>
<td>88</td>
<td>4.05</td>
<td>.70</td>
</tr>
<tr>
<td>IB</td>
<td>73</td>
<td>4.30</td>
<td>.55</td>
</tr>
</tbody>
</table>

*Note. 5.0 Measurement scale.*

The data showed a mean of 4.59 for IB graduates responding to Item 3, while AP graduates showed a mean of 4.08. There was very little difference in the responses to Items 1, 2, 5, and 7 by the AP and IB graduates with means of 4.03 and 4.08 for Item 1, 4.00 and 4.19 for Item 2, 4.33 and 4.59 for Item 5, and 3.78 and 4.07 for Item 7, respectively. The means and standard deviations for the five survey items relating to college preparedness are shown in Table 7.
Table 7

*Means for Item Responses Used for Research Question 2: College Preparedness*

<table>
<thead>
<tr>
<th>Survey Item</th>
<th>Program</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 1: Pace of instruction</td>
<td>AP</td>
<td>4.03</td>
<td>.794</td>
</tr>
<tr>
<td></td>
<td>IB</td>
<td>4.08</td>
<td>.702</td>
</tr>
<tr>
<td>Item 2: Granted advanced credit</td>
<td>AP</td>
<td>4.00</td>
<td>1.12</td>
</tr>
<tr>
<td></td>
<td>IB</td>
<td>4.19</td>
<td>.981</td>
</tr>
<tr>
<td>Item 3: Prepared for college</td>
<td>AP</td>
<td>4.08</td>
<td>1.01</td>
</tr>
<tr>
<td></td>
<td>IB</td>
<td>4.59</td>
<td>.762</td>
</tr>
<tr>
<td>Item 5: Introduced to a wider range of topics</td>
<td>AP</td>
<td>4.33</td>
<td>.840</td>
</tr>
<tr>
<td></td>
<td>IB</td>
<td>4.58</td>
<td>.705</td>
</tr>
<tr>
<td>Item 7: More advanced college courses</td>
<td>AP</td>
<td>3.78</td>
<td>1.13</td>
</tr>
<tr>
<td></td>
<td>IB</td>
<td>4.07</td>
<td>.983</td>
</tr>
</tbody>
</table>

*Note. 5.0 Measurement scale.*

Research Question 3 was stated as follows: What are the perceptions of AP and IB graduates relative to long-term benefits/detriment of participation in their respective programs? Are there differences between the ratings of AP and IB participants? The researcher’s hypothesis for this research question was:

Graduates of the IB program will report more long-term benefits of program participation than graduates of the AP program. Graduates of the IB program will also report more detriments of program participation than graduates of the AP program.

Two independent sample t-tests were used to analyze the results of the survey in order to answer research question 3 with regard to both benefits and
detriments of the program. Means and standard deviations were used to
determine if any differences exist between the two programs.

The difference between AP and IB graduates and their perception of long-
term benefits of their programs was significant, with IB graduates indicating that
there were more benefits to their program than AP graduates, \( t(159) = -2.08, p = .019 \). The researcher's hypothesis that IB graduates would perceive more long-
term benefits was supported. The five survey items measuring long-term benefits
as a construct were grouped into a sub-scale and the descriptive data are found
in Table 8. The mean survey response for AP graduates was 3.54 and the mean
survey response was 3.77 for IB graduates.

Table 8

<table>
<thead>
<tr>
<th>Program</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP</td>
<td>88</td>
<td>3.54</td>
<td>.69</td>
</tr>
<tr>
<td>IB</td>
<td>73</td>
<td>3.77</td>
<td>.68</td>
</tr>
</tbody>
</table>

*Note. 5.0 Measurement scale.*

The data showed a consistent increase in mean scores for the survey
items by IB graduates pertaining to long-term benefits than AP graduates. The
means and standard deviations for the five survey items related to long-term
benefits are shown in Table 9.
Table 9

Means for Item Responses Used for Research Question 3: Long-term Benefits

<table>
<thead>
<tr>
<th>Survey Item</th>
<th>Program</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 11 Organizational skills</td>
<td>AP</td>
<td>3.64</td>
<td>.925</td>
</tr>
<tr>
<td></td>
<td>IB</td>
<td>3.82</td>
<td>.962</td>
</tr>
<tr>
<td>Item 12 Time management skills</td>
<td>AP</td>
<td>3.63</td>
<td>.998</td>
</tr>
<tr>
<td></td>
<td>IB</td>
<td>3.81</td>
<td>.967</td>
</tr>
<tr>
<td>Item 13 Scholarship opportunities</td>
<td>AP</td>
<td>3.38</td>
<td>1.24</td>
</tr>
<tr>
<td></td>
<td>IB</td>
<td>3.68</td>
<td>1.25</td>
</tr>
<tr>
<td>Item 14 Peer support</td>
<td>AP</td>
<td>3.90</td>
<td>.947</td>
</tr>
<tr>
<td></td>
<td>IB</td>
<td>4.18</td>
<td>1.14</td>
</tr>
<tr>
<td>Item 15 Access to college recruiters</td>
<td>AP</td>
<td>3.17</td>
<td>1.05</td>
</tr>
<tr>
<td></td>
<td>IB</td>
<td>3.34</td>
<td>.975</td>
</tr>
</tbody>
</table>

Note. 5.0 Measurement scale.

The difference between AP and IB graduates and their perceptions of long-term detriment of their programs was significant, with IB graduates believing there were more detriments to their program than AP graduates, t(159) = -2.808, p = .003. The researcher's hypothesis that IB graduates would report more long-term detriments was supported.

The seven survey items measuring long-term detriments as a construct were grouped into a sub-scale and the descriptive data is found in Table 10. The mean survey response for AP graduates was 2.33 and the mean survey response was 2.64 for IB graduates.
Table 10

*Descriptive Data Measuring Long-term Detriments*

<table>
<thead>
<tr>
<th>Program</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP</td>
<td>88</td>
<td>2.33</td>
<td>.73</td>
</tr>
<tr>
<td>IB</td>
<td>73</td>
<td>2.64</td>
<td>.64</td>
</tr>
</tbody>
</table>

*Note.* 5.0 Measurement scale.

The data showed a substantial difference in mean scores on Items 19 and 21 between AP and IB graduates. The mean scores for AP and IB graduates for Item 19 were 2.88 and 3.66, respectively. Item 21 had AP and IB mean scores of 2.42 and 2.99, respectively. Items 6, 16, 17, 18, and 20 all showed a consistent amount of variation between the AP and IB graduates' responses, as seen in Table 11. The means and standard deviations for the seven survey questions relating to long-term detriments are shown in Table 11.
Table 11

*Means for Item Responses Used for Research Question 3: Long-term Detriments*

<table>
<thead>
<tr>
<th>Survey Item</th>
<th>Program</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 6</td>
<td>AP</td>
<td>2.34</td>
<td>.969</td>
</tr>
<tr>
<td>Workload</td>
<td>IB</td>
<td>2.70</td>
<td>1.04</td>
</tr>
<tr>
<td>Item 16</td>
<td>AP</td>
<td>2.22</td>
<td>.928</td>
</tr>
<tr>
<td>False sense of preparedness</td>
<td>IB</td>
<td>1.92</td>
<td>.909</td>
</tr>
<tr>
<td>Item 17</td>
<td>AP</td>
<td>2.44</td>
<td>.928</td>
</tr>
<tr>
<td>Time with friends</td>
<td>IB</td>
<td>2.59</td>
<td>1.09</td>
</tr>
<tr>
<td>Item 18</td>
<td>AP</td>
<td>1.92</td>
<td>.925</td>
</tr>
<tr>
<td>Extracurricular activities</td>
<td>IB</td>
<td>2.18</td>
<td>1.12</td>
</tr>
<tr>
<td>Item 19</td>
<td>AP</td>
<td>2.88</td>
<td>1.26</td>
</tr>
<tr>
<td>Sleep</td>
<td>IB</td>
<td>3.66</td>
<td>1.08</td>
</tr>
<tr>
<td>Item 20</td>
<td>AP</td>
<td>2.13</td>
<td>1.02</td>
</tr>
<tr>
<td>Physical fitness</td>
<td>IB</td>
<td>2.47</td>
<td>.973</td>
</tr>
<tr>
<td>Item 21</td>
<td>AP</td>
<td>2.42</td>
<td>1.16</td>
</tr>
<tr>
<td>Course choice</td>
<td>IB</td>
<td>2.99</td>
<td>1.23</td>
</tr>
</tbody>
</table>

Note. 5.0 Measurement scale.

Research Question 4 was stated as follows: Are there differences between the ACT scores of graduates of the IB program and graduates of the AP program? The researcher's hypothesis for this research question was: IB graduates score significantly higher on the ACT than graduates of the AP program.

An independent sample t-test was used to analyze the results of the survey in order to answer research question 4. Means and standard deviations were used to analyze the ACT scores of each program's participants.
IB students scored significantly higher on the ACT than AP students, t(159) = -7.505, p < .001. The researcher's hypothesis that IB students would score higher on the ACT than AP students was supported.

The data showed little difference in maximum ACT scores by AP and IB graduates, which were 36 and 36 respectively; however, the difference in the mean scores between the AP and IB program participants was evident, with respective mean scores of 27.56 and 30.99. Descriptive statistics for the two programs with regards to ACT scores are shown in Table 12.

Table 12

<table>
<thead>
<tr>
<th>Program</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP</td>
<td>88</td>
<td>27.56</td>
<td>2.94</td>
<td>21</td>
<td>35</td>
</tr>
<tr>
<td>IB</td>
<td>73</td>
<td>30.99</td>
<td>2.82</td>
<td>25</td>
<td>36</td>
</tr>
</tbody>
</table>

*Note. 5.0 Measurement scale.*

Research Question 5 was stated as follows: What is the level of satisfaction of graduates with their overall experience in their respective programs? Are there differences between the ratings of AP and IB participants? The researcher's hypothesis for this research question was: Graduates of both the AP and IB programs will be satisfied with their overall experience while in their respective programs. There will be no significant differences between the satisfaction ratings of students in the AP and IB programs.
An independent sample t-test was used to analyze the results of the survey in order to answer research question 5. Means and standard deviations were used to determine if any differences exist between the two programs.

The difference between the overall satisfaction levels of AP and IB graduates was significant, with IB graduates reporting a high level of overall satisfaction, t(159) = -2.219, \( p = .028 \). The researcher's hypothesis that a significant difference would not exist was not supported.

The two survey items measuring overall satisfaction as a construct were grouped into a sub-scale and the descriptive data are found in Table 13. The mean survey response for AP graduates was 3.86 and the mean survey response was 4.15 for IB graduates.

**Table 13**

<table>
<thead>
<tr>
<th>Program</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP</td>
<td>88</td>
<td>3.86</td>
<td>.88</td>
</tr>
<tr>
<td>IB</td>
<td>73</td>
<td>4.15</td>
<td>.73</td>
</tr>
</tbody>
</table>

*Note.* 5.0 Measurement scale.

The data showed a mean score of 4.00 for IB graduates responding to Item 22, while AP graduates showed a mean score of 3.56. The means and standard deviations for the two survey questions relating to overall satisfaction are shown in Table 14.
Table 14

*Means for Item Responses Used for Research Question 5: Overall Satisfaction*

<table>
<thead>
<tr>
<th>Survey Item</th>
<th>Program</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 22</td>
<td>AP</td>
<td>3.56</td>
<td>.993</td>
</tr>
<tr>
<td>Pursue career goals</td>
<td>IB</td>
<td>4.00</td>
<td>.850</td>
</tr>
<tr>
<td>Item 23</td>
<td>AP</td>
<td>4.17</td>
<td>.950</td>
</tr>
<tr>
<td>Overall satisfaction</td>
<td>IB</td>
<td>4.30</td>
<td>.861</td>
</tr>
</tbody>
</table>

*Note.* 5.0 Measurement scale.

Ancillary Findings

In addition to the analyses associated with the proposed research questions and hypotheses, a post hoc analysis of additional study data was conducted in order to glean ancillary findings. Findings relative to the racial composition of the respondents were addressed at the beginning of the chapter. A comparison was made between the AP and IB graduates with regard to the number of classes from which they were exempted upon entering college. The researcher noted that 17 AP respondents reported being unable to exempt any college classes, while only 3 IB respondents reported being unable to exempt any college classes. Of those 98 respondents who were able to exempt three or more college classes, 57 were IB graduates and 41 were AP graduates. Table 15 shows the number of courses the AP and IB graduates report being able to exempt overall.
Table 15

Course Exemption Comparison

<table>
<thead>
<tr>
<th>Number of exempted courses</th>
<th>Program</th>
<th></th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AP</td>
<td>IB</td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>17</td>
<td>3</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>One</td>
<td>10</td>
<td>4</td>
<td></td>
<td>14</td>
</tr>
<tr>
<td>Two</td>
<td>20</td>
<td>9</td>
<td></td>
<td>29</td>
</tr>
<tr>
<td>Three or more</td>
<td>41</td>
<td>57</td>
<td></td>
<td>98</td>
</tr>
<tr>
<td>Total</td>
<td>88</td>
<td>73</td>
<td></td>
<td>161</td>
</tr>
</tbody>
</table>

Summary

The goal of Chapter IV was to provide detailed analyses of the data collected for this study. Data were collected by conducting a Likert Scale survey of AP and IB graduates from two high schools in Alabama and using subscales to measure each construct. The researcher found that stress levels experienced by AP and IB participants were not significantly different. IB participants reported a significantly higher sense of college preparedness than AP participants and scored significantly higher on the ACT than IB participants. The difference between AP and IB graduates and their perception of long-term benefits and detriments of their program was significantly different, with IB graduates indicating that there were more benefits and detriments to their program than AP graduates. Finally, the researcher found the difference between the overall satisfaction levels of AP and IB graduates was significantly different, with IB graduates having a stronger sense of overall satisfaction. Chapter V will include a
discussion of the researcher's findings along with recommendations for policy, practice, and future research.
CHAPTER V

DISCUSSION AND RECOMMENDATIONS

Chapter V includes for the reader a discussion of the purpose and findings of this study. The researcher discusses the core findings and ancillary findings within the context of existing research literature. Recommendations for policy and practice, along with limitations to the study, are also included. Finally, the chapter concludes with a discussion of implications for future research in this area.

Purpose

This study was designed to solicit the perspectives of AP and IB graduates who have completed at least one semester of postsecondary education about their experiences while in their respective programs. This study was also conducted to determine whether these IB graduates report that they were better prepared for postsecondary studies than students who participated in the AP program. The researcher was also able to determine whether AP and IB graduates believed they experienced any long-term benefits or detriments by having been in their programs and whether they believed their experiences were worthwhile. Lastly, the researcher was able to determine if the AP and IB graduates were satisfied with their overall high school experience in their respective programs.

As the researcher mentioned in previous chapters, the rigors and potential of the AP and IB programs may or may not outweigh the rewards if these programs are not producing graduates who are satisfied with their overall experience while in their respective programs, and with the postsecondary
benefits of participation. The researcher's data provides a comparison of the ACT scores, as well as a comparison of the responses from the AP and IB graduates pertaining to their experiences while in high school. This study further addressed a comparison of the graduates' overall satisfaction within their respective program.

It was the researcher's goal to determine whether there were differences in the perceptions of AP and IB program participants regarding their programs' stress levels, long-term benefits and detriments, ACT scores, levels of college preparation, and satisfaction within their program. With the increase in the number of students enrolling in these advanced programs, students and parents should be knowledgeable about the long-term impact of program participation. The researcher's goal for this study was to add to the existing literature pertaining to these programs; the findings offer administrators, teachers, and parents a detailed look into these advanced curricula. The conclusions may be used to assist these stakeholders in enhancing their school's performance and choosing the appropriate program for each student.

Discussion of Statistical Findings

Hypothesis 1

The researcher hypothesized that there would not be a significant difference between the levels of stress experienced by graduates from the AP and IB programs. This hypothesis was supported; the results showed that a significant difference between the two programs did not exist. Graduates of both the AP and IB programs reported experiencing stress while in high school as a
result of participating in their respective program. Survey participants reported these stress levels to be approximately 2.5 on a 5-point scale; however, response rates were higher when asked about stress levels pertaining to their ability to meet program requirements in order to graduate.

Megalis (2002) found that gifted and high-achieving adolescent students do experience stress. While gifted children are said to manage the stress and recover from it quicker than non-gifted students, their giftedness does not protect them from stress. The fear of academic failure is a chronic stressor that is associated with enrollment in the AP and IB programs (Megalis). This may explain parental concern over the participation of students in the AP or IB program, and the stress that is associated with determining which program is right for their child (Gazda-Grace, 2002).

The literature pertaining to stress levels reports that honors students experience stress while in high school, but does not report the levels of stress experienced. The researcher found these stress levels to be above average on a 5-point scale. As shown above, students in the AP and IB programs will experience some levels of stress; but, again, the researcher determined that those stress levels are not higher in the IB program compared to the AP program.

Hypothesis 2

The researcher hypothesized that there was not a significant difference between perceived levels of college preparedness of graduates from the AP and IB programs. This hypothesis was rejected. The IB graduates believed
themselves to be somewhat better prepared for college than the AP graduates. While the IB graduates reported a higher level of college preparedness than AP graduates, it should be noted that the mean rating for college preparedness by graduates of both programs was above 4.0 on a 5-point scale. Thus, while the IB graduates reported higher levels of college preparedness, the AP graduates reported high levels as well.

It is believed that the more rigorous the coursework in high school, the better prepared for college students will be (Nugent & Karnes, 2002). This is the reason Rhodes (2007) calls for a more challenging and rigorous curriculum for college preparation. The study conducted by the ASBJ (2007) reported that AP graduates have higher grade point averages than traditional students, which supports the researcher's findings that AP graduates do feel prepared for postsecondary education.

Studies conducted by Burris et al. (2007) and Panich (2001) report IB graduates have higher grade point averages than non-IB graduates in postsecondary education. These results align with the researcher's findings pertaining to the IB program; the graduates reported a mean score of 4.30 on a 5-point scale measuring college preparedness. Proponents of the IB program assert that it is recognized as "representing the highest levels of academic attainment possible for secondary students" (Van Tassel-Baska, 2003, p. 1). These conclusions are supported by the findings in the present study that IB graduates believe that they were well-prepared for postsecondary education.
Finally, the researcher's findings coincide with Cunia's (2007) cognitive theory. Cunia believed that cognitive processes greatly influence learning, people can control their own learning, and they organize what they have learned. The greatest implication of cognitive theory is that as students' knowledge expands, they are capable of more sophisticated thought. Both the AP and the IB graduates believed themselves to be prepared for postsecondary studies; the researcher attributes this perspective to the higher order thinking skills these students obtained while in their respective programs.

**Hypothesis 3**

The researcher hypothesized that graduates of the IB program will perceive more long-term benefits of program participation than graduates of the AP program, and will also perceive more detriments of program participation than graduates of the AP program. Both sub-parts of this hypothesis were accepted. IB graduates reported more benefits associated with their program than AP graduates; however, AP graduates also reported that they experienced a high amount of long-term benefits as demonstrated by a mean score of 3.54 on a 5-point scale. IB graduates also reported more long-term detriments associated with enrollment in their program than did AP graduates, although it should be noted that the mean scores for the AP and IB programs were 2.33 and 2.64, respectively, which is not on the low or high end of the scale.

Shaunessy et al. (2006) found IB students had higher college grade point averages and academic self-efficacy than their school peers, which appears to be consistent with the researcher's findings that IB graduates perceived that they
were more prepared for college than AP graduates, but also appears to be consistent with the researcher's findings that IB graduates perceived there to be more benefits involved with their program than AP graduates. Participation in the IB program does not come without its sacrifices; the complaints associated with the IB program, the lack of flexibility for extracurricular activities (Cech, 2007) and the extraordinary time commitment involved (Rhodes, 2007), are consistent with the IB graduates' opinions that there were more detriments involved with their program than the AP graduates perceived existed with their program.

**Hypothesis 4**

The researcher hypothesized that IB graduates would score significantly higher on the ACT than graduates of the AP program. The results showed that IB graduates scored significantly higher on the ACT than AP graduates, thus supporting the hypothesis. Both programs had admirable mean ACT scores; the AP graduates reported a mean score of 27.56 and the IB graduates 30.99.

The integrative nature of the IB program is one factor that sets it apart from the AP program (Duevel, 1999). Unlike the AP program, IB students are expected to complete course requirements in the humanities and in the sciences. This holistic approach places emphasis on meta-cognitive aspects of learning, such as how to analyze, how to learn, and how to reach conclusions (Kyburg et al., 2007). This approach to learning offers a more rounded academic experience, introducing students to a broader range of subjects, which the researcher believes is the reason IB graduates scored significantly higher on the ACT than AP graduates. The researcher was unable to find any studies which
used standardized tests to compare the AP and IB programs, so no conclusions could be drawn regarding consistency or inconsistency with extant literature.

**Hypothesis 5**

The researcher hypothesized that there would be no significant differences between the overall satisfaction ratings of students in the AP and IB programs. IB graduates were significantly more satisfied with their overall experience while in high school; therefore, the researcher's hypothesis that a significance difference would not exist was not supported.

The researcher contends that the combination of high expectations set forth by the IB organization, and the sense of college preparedness that the IB graduates experienced, explains the high overall satisfaction with their high school experience. The AP graduates were satisfied with their high school experiences as well, but their level of satisfaction was lower than that of the IB graduates studied.

Taylor and Porath (2006) conducted a study asking IB graduates to reflect on their IB experience, and reported that IB graduates had positive experiences while in the program. The researcher was unable to find a study that asked the same of AP graduates, nor was a study located that compared the relative impressions of the two groups regarding their experiences while in their respective programs. The researcher's study comparing the reflections of participants in the two programs appears to be the first such study in which the perspective of AP graduates was obtained. Similarly, the comparison of the perspectives of graduates from these two programs also appears to be seminal.
Limitations of the Study

This study was limited primarily due to the unwillingness of some IB schools in Alabama to participate. While the sample size was deemed adequate for the purposes of the study, including Alabama IB schools in addition to the participating schools would have provided a broader range of responses and could have produced a more representative sample with regard to race.

Among those schools that did participate, a mean overall student response rate of 48.3% was attained. While this is a useful sample, the absence of analysis regarding non-respondents also limits the generalizability of the findings.

Another limitation to this study was the self-reporting of ACT scores by the respondents. Due to the respondents having already graduated from high school, attaining the ACT scores from their respective high schools was not feasible as student files are not stored on campus once a student graduates.

Recommendations for Policy and Practice

While there have been many studies attesting to the success of the AP and IB programs, the researcher did not find any studies seeking the perspectives of the graduates once they gain college experience. "Much of the research on gifted students neglects to examine the students' perceptions of their high school experiences" (Vanderbrook, 2006, p. 136).

The goal of this study was to gain insights from high school graduates as they reflected on their experiences in the AP and IB programs. The results of the study showed that IB graduates scored higher on the ACT and felt more
prepared for college than the AP graduates. In addition, the IB graduates were more satisfied with their high school experience than AP graduates were. Thus, the recommendations for policy and practice will be based upon these results.

The data from Hypothesis 1 did not indicate a significant difference in the perceived stress levels of AP and IB graduates. The researcher's findings agree with those of other researchers that stress is prevalent in honors programs. It is therefore recommended that high schools develop techniques to monitor the mental health and stress levels associated with participating in an advanced curriculum. This should be accompanied by teaching participating students ways to monitor their stress levels and decrease the stress they experience. Stress prevention training is suggested by the researcher for IB coordinators and IB teachers, with hopes of curtailing the levels of stress these students experience.

Due to the researcher's finding that IB graduates believed themselves to be significantly more prepared for postsecondary studies, it is further recommended that high schools create mechanisms through which to follow-up with their graduates. This would facilitate gathering information on how prepared they were for college. Determining the areas in which the graduates did or did not feel prepared will allow the AP and IB programs to consider whether modifications in their practices are warranted. The graduates could prove to be a valuable resource to administrators and AP and IB coordinators.

The data from Hypothesis 3 show that IB graduates perceived there to be more detriments to participating in their program than AP graduates did. With this in mind, the researcher suggests that IB coordinators, along with administrators,
address the areas in which graduates believe that their program was detrimental. Efforts to eliminate or decrease the perceived long-term detriments would help to improve the success of the program and could decrease perceived stress levels.

The post hoc analysis yielded ancillary findings. The first of these findings related to the ethnic origins of the 161 respondents to the survey. Of these students, 78.9% of them were White. More specifically, 79.5% and 78.1%, in the AP and IB programs respectively. Based upon these data, the researcher recommends an evaluation to determine why there are such a small number of minority students enrolled in the AP and IB programs. Furthermore, the researcher recommends that efforts be made to increase the number of minority students in an effort to create more racially diverse advanced curricular programs.

A second ancillary finding disclosed that 17 of the participating AP graduates were unable to exempt any college courses, while three IB graduates were unable to exempt any courses. Of those AP graduates who participated in the study, 47% were able to exempt three or more courses. Of those participating IB graduates, 78% were able to exempt three or more courses. The researcher recommends that The College Board evaluate participating AP graduates to determine why the number of graduates who exempt college-level courses is relatively low in comparison to the number of participating IB graduates.

Recommendations for Future Studies

This study was conducted using only graduates from two high schools in Alabama, but could be used in other districts and states that have AP and IB
The following recommendations are made based upon the study's findings.

1. This study should be further examined to determine specific factors that lead to rising stress levels, and to determine if there are any specific areas in which graduates did not perceive that they were prepared for postsecondary studies.

2. Some dimensions of this study should be repeated in a qualitative design. Richer data might be obtained by conducting interviews with the AP and IB graduates. This study did not examine the factors influencing the five subscales; a qualitative study could provide more insight into the graduates' perspectives regarding their program.

3. Consideration should be given to developing a study that examines the lack of minority students enrolled in the AP and IB programs, along with ways in which to increase minority enrollment.

4. Due to the low number of participating schools, the researcher recommends that this study be repeated across several bordering states in order to increase sample size.

Conclusion

The AP and IB programs are quickly solidifying their roles in the American classrooms. The number of programs in the United States is rapidly increasing and schools that embrace these programs are considered more effective than those that do not (Kyburg, Hartberg-Davis, & Callahan, 2007). Rhodes (2007) cites three primary rationales for increased emphasis on accelerated educational
progress: students will be better prepared for college, will graduate from college quicker, and will be able to compete internationally with other graduates. The researcher believes the importance of advanced curricula should not go unnoticed, and hopes that the results of this study will raise awareness of these advanced curricular programs.

Rhodes (2007) states there is little research on the impact of either AP or IB programs on the future learning and success of American high school students. The researcher believes that the present study has contributed to the literature pertaining to these two programs and that it is responsive to Vanderbrook’s (2006) call to examine the students’ perceptions of their high school experiences more thoroughly.

Administrators and AP and IB Coordinators can use the findings in this study to improve the rigor and effectiveness of their program, increase enrollment, and more importantly help aid students in determining the most suitable program. While the findings of this study are limited, they provide useful information for school leaders to make proficient decisions pertaining to their school and the programs that are offered to the students.
APPENDIX A

INTERNATIONAL BACCALAUREATE SUBJECT AREAS

**Language A** (Best Language: includes the study of World Literature)

**Language B** (Second Language-the following languages B are termed “regular”):

<table>
<thead>
<tr>
<th>Language A</th>
<th>Russian</th>
<th>Arabic</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td></td>
<td>Polish</td>
</tr>
<tr>
<td>Malay</td>
<td>Afrikaans</td>
<td>Welsh</td>
</tr>
<tr>
<td>French</td>
<td>Danish</td>
<td>Hebrew</td>
</tr>
<tr>
<td>Finnish</td>
<td>Portuguese</td>
<td>Swahili</td>
</tr>
<tr>
<td>German</td>
<td>Norwegian</td>
<td>Turkish</td>
</tr>
<tr>
<td>Serbo-Croat</td>
<td>Hindi</td>
<td>Pilipino</td>
</tr>
<tr>
<td>Spanish</td>
<td>Swedish</td>
<td>Urdu</td>
</tr>
<tr>
<td>Chinese</td>
<td>Modern Greek</td>
<td>Slovene</td>
</tr>
<tr>
<td>Italian</td>
<td>Dutch</td>
<td>Persian</td>
</tr>
<tr>
<td>Indonesian</td>
<td>Japanese</td>
<td>Sistwati</td>
</tr>
</tbody>
</table>

Other languages may be offered on special request, provided that there is sufficient printed material readily available to enable the study of literature and life and civilization.

**Individuals and Societies:**

<table>
<thead>
<tr>
<th>History</th>
<th>Economics</th>
<th>Psychology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geography</td>
<td>Philosophy</td>
<td>Business/Organization</td>
</tr>
<tr>
<td>Social Anthropology</td>
<td>Information Technology in a Global Society</td>
<td></td>
</tr>
</tbody>
</table>

**Experimental Sciences:**

<table>
<thead>
<tr>
<th>Biology</th>
<th>Chemistry</th>
<th>Environmental Sciences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physics</td>
<td>Applied Chemistry</td>
<td>Design Technology</td>
</tr>
</tbody>
</table>

**Mathematics:**

<table>
<thead>
<tr>
<th>Mathematical Studies</th>
<th>Mathematics and Computing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics w/ Further</td>
<td>Mathematical Methods</td>
</tr>
<tr>
<td>Mathematics</td>
<td></td>
</tr>
</tbody>
</table>

**Sixth Subject (Arts & Electives):**

Art/Design Computing Studies Music Classical Language

History and Culture of the Islamic World or choice of a second subject from the Individuals and Society or Experimental Science groups, a third modern language or an approved school-based syllabus

(Panich, 2001, p. 7)
March 2, 2009

IB Coordinator
405 South Dean Road
Auburn, AL 36830

To Whom It May Concern,

My name is Shannon Smith and I am an IB teacher at Murphy High School in Mobile, Alabama. I am currently working on my Ph.D. from the University of Southern Mississippi and I am in the process of collecting data for my dissertation entitled, The Advanced Placement and International Baccalaureate Programs: The Graduates’ Perspective. Hopefully you received an email from Reenie Aides a couple of weeks ago vouching for me and my research.

I am a strong advocate for the IB program, and am hoping that my research will help raise awareness for the strong merits of the program. I have not found any research about the IB program from the perspective of a student who has already entered college and can offer a retrospective on their IB experience. I believe my research will conclude that IB students are wholeheartedly satisfied with their overall high school experience and feel as if they were better prepared for college than their AP counterparts.

I am seeking your help in contacting these IB graduates in order for them to complete an online survey that will not take longer than 10 minutes. I have enclosed a stamped envelope for you to provide me the names and addresses of your IB graduates. I am hoping to gain the names of those students that have graduated within the past five years; however, any names you can share will be appreciated.

On a side note, I am facing some difficulty in acquiring the names and addresses of students that graduated in the AP program since there is typically not an AP Coordinator at most high schools. If possible, could you inquire with a guidance counselor about obtaining some names and addresses of AP graduates? I spoke with the counselor at my school and she said most counselors would be hesitant to give the information to a stranger, but if requested from someone within the school she would not hesitate to help. This is why the request from you might have more success.

I would like to thank you in advance for any help that you can offer. Reenie assured me that the IB group in Alabama was a cohesive group that would be willing to help promote the IB program in any way. If you are able to help, I have enclosed a letter of permission that needs to be signed by your principal. The letter is complete; it just needs a signature on the bottom and to be copied onto your school’s letterhead.
The permission letter, names and addresses of IB graduates, and the names and addresses of AP graduates can be placed in the stamped envelope provided. If you would prefer you can fax the information to 251.633.2285 or email it to shannonSsmith@gmail.com. Again, thank you for your help. I will be happy to send you a copy of my dissertation upon its completion, as you might find it interesting reading!

Sincerely,

Shannon Smith
Good afternoon Dr. Taylor,

My name is Shannon Smith and I am a doctoral student at the University of Southern Mississippi. I am currently conducting some research on the IB & AP programs in my state and came across your article with Dr. Porath on the Reflections of the IB Program in The Journal of Secondary Gifted Education. I am writing to seek permission to use your survey instrument, with modifications, for my current study. My research will be used for educational research purposes only.

If permission is granted, will you confirm that you and Dr. Porath found your survey instrument to be valid and reliable?

Thank you in advance for your time,

Shannon Smith
The University of Southern Mississippi
ShannonSSmith@gmail.com
251.680.2493
Hello, Shannon.

I hope that the survey which I designed will be helpful to you as you conduct your research. You have my permission to use it for educational research as indicated in your message. As Dr. Porath has indicated, "No formal psychometrics were done with the instrument. It is a questionnaire and quantitative validity and reliability procedures aren't appropriate. It is credible and trustworthy."

Best wishes to you. I would be very interested in seeing your results.

Yours truly,
Mary Lee Taylor
APPENDIX D
SURVEY

Part 1

Please respond to the following items using the 5-point scale listed below.

1–Strongly disagree 2–Disagree 3–Neither agree nor disagree 4–Agree 5–Strongly agree

1. The pace of instruction in my AP/IB courses was appropriate, and allowed me to absorb the information that was presented to me.
   1  2  3  4  5

2. I was granted advance credit for some of my first-year courses and this permitted me to take fewer post-secondary courses in order to meet the graduation requirements of my post-secondary program.
   1  2  3  4  5

3. Because I was in AP/IB I was better prepared for introductory level postsecondary courses.
   1  2  3  4  5

4. While I was in the AP/IB program I felt that the workload was excessive and/or unmanageable.
   1  2  3  4  5

5. Compared to students in the regular high school program, I was introduced to a wider range of topics that were covered in greater detail.
   1  2  3  4  5

6. While I was in the AP/IB program I frequently felt that the workload was detrimental to my well-being.
   1  2  3  4  5

7. Graduating with an AP/IB diploma allowed me to begin taking more advanced courses at the beginning of my post-secondary career.
   1  2  3  4  5

8. Sometimes I was really worried that I was not going to be able to meet the requirements of the AP/IB program.
   1  2  3  4  5
9. During my first year of post-secondary studies, I felt less stressed than my classmates who had not been in the AP/IB program.

10. Sometimes I was really worried that I would not be able to keep up with all the work that was required, and I was afraid that I would not be accepted into the post-secondary institution of my choice.

11. Participation in the AP/IB program provided me with effective organizational/study skills.

12. Participation in the AP/IB program provided me with effective time management skills.

13. Participation in the AP/IB program provided me with scholarship opportunities.

14. Participation in the AP/IB program provided me with a core group of friends (peer support).

15. Participation in the AP/IB program provided me with access to more college recruiters than other programs.

16. Participation in the AP/IB program provided me with a false sense of preparedness for college.

17. Participation in the AP/IB program deprived me of spending time with friends outside of school.

18. Participation in the AP/IB program deprived me of being able to participate in extracurricular activities.

19. Participation in the AP/IB program deprived me of sleep.

20. Participation in the AP/IB program deprived me of maintaining my physical fitness.
21. Participation in the AP/IB program deprived me of being able to choose which classes I wanted to take.
   1 2 3 4 5

22. The AP/IB program has helped me to pursue my career goals to date.
   1 2 3 4 5

23. Overall, I was satisfied with my high school experience in the AP/IB program.
   1 2 3 4 5

Part 2

Please answer the following questions about yourself.

1. Name (voluntary):

2. In which program did you participate: AP or IB?

3. Age:

3. Race:

4. Highest ACT score:

5. Year of high school graduation:

6. High School name:

7. Name of college or university:

8. Number of courses you were able to exempt in college:
APPENDIX E

VALIDITY QUESTIONNAIRE

Thank you for volunteering your time to assist me in the development of this survey. Your input is very important with respect to the survey itself and the development of my dissertation overall. Your willingness and consideration to participate in this study is greatly appreciated.

Please rate the included survey based on the following information:

1. Does the survey contain language that can be understood by students who have participated in the AP or IB programs?

2. Does the survey address specific and appropriate issues in the statements, as it relates to obtaining information regarding student perceptions towards their respective program?

3. Do you find any of the questions offensive or obtrusive? If so, which ones?

4. Are there any questions that you would exclude from the survey? If so, which ones?

5. Are there any other statements that you would include that are NOT a part of the survey?

6. Please make any other comments or suggestions about the survey below:
APPENDIX F

LETTER TO GRADUATES

Dear AP/IB Graduate:

My name is Shannon Smith and I am a doctoral student at The University of Southern Mississippi. I am currently in the process of collecting my data for my dissertation entitled The AP & IB Programs: The Graduates' Perspective. I am gathering the opinions of AP and IB graduates about your experience while in high school and your overall satisfaction with the program.

I am asking that you take the time to complete the survey, which I assure you will not take longer than 10 minutes and your responses will remain anonymous. While your participation is voluntary, your responses will be valuable in proving the success of the AP and IB programs in Alabama. Please visit the following website to complete the survey:

http://www.surveymonkey.com/s.aspx?sm=DvDDaVj_2by1SvOxMX8q02Cw_3d_3d

If you have any questions regarding the survey or my research you may contact me at shannonSsmith@gmail.com or 251-680-2493. If you would like to validate my research you may contact USM at 601-266-4271. This project has been approved by The University of Southern Mississippi’s Institutional Review Board.

Thank you for your time and participation. If you would like to see the results of the study, please email me and I will share the results upon completion.

Best,

Shannon Smith
The project has been reviewed by The University of Southern Mississippi Human Subjects Protection Review Committee in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the "Adverse Effect Report Form".
- If approved, the maximum period of approval is limited to twelve months. Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: 29050401
PROJECT TITLE: The Advance Placement and International Baccalaureate Programs: The Graduates' Perspective
PROPOSED PROJECT DATES: 11/01/08 to 08/15/09
PROJECT TYPE: Dissertation or Thesis
PRINCIPAL INVESTIGATORS: Shannon S. Smith
COLLEGE/DIVISION: College of Education & Psychology
DEPARTMENT: Educational Leadership & Research
FUNDING AGENCY: N/A
HSPRC COMMITTEE ACTION: Expedited Review Approval
PERIOD OF APPROVAL: 05/11/09 to 05/10/10

Lawrence A. Hosman, Ph.D.  
HSPRC Chair
REFERENCES


Gazda-Grace, P. (2002). Psst...have you heard about the international baccalaureate program? *Clearing House, 76*(2), 84.


