



**THE NATIONAL  
RESEARCH CENTER  
ON THE GIFTED  
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*University of Connecticut  
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**Students' Perceptions of the  
Social/Emotional Implications  
of Participation in Advanced  
Placement and International  
Baccalaureate Programs**

Regan Clark Foust  
Holly Hertberg-Davis  
Carolyn M. Callahan  
University of Virginia  
Charlottesville, Virginia





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Carolyn M. Callahan  
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Charlottesville, Virginia

## **ABSTRACT**

Using qualitative methods, the researchers explored student perceptions of the social and emotional advantages and disadvantages of Advanced Placement (AP) and International Baccalaureate (IB) program participation, differences between the AP and IB programs in those perceptions, and whether or not students report experiencing a "forced-choice dilemma" between academic success and social acceptance. The results suggested AP and IB students perceived experiencing both positive and negative social/emotional consequences of their participation in these programs. The benefits AP and IB students attributed to their participation in AP and IB versus general education courses were a better class atmosphere, a special bond among participants, and pride and self-confidence derived from completing the more challenging work, but they lamented the perception of unflattering stereotypes assigned to AP and IB students, the socially limiting workload, and the stress and fatigue. Student perceptions of the social/emotional consequences of AP and IB participation also differed by program. IB students were more likely than AP students to complain about the rigidity of their program because of the reported limitations it placed on class choice, extracurricular activities, and interactions with non-participants; cite differences between themselves and non-participants; perceive a negative stereotype associated with the program; and report experiencing great exhaustion they attributed to the workload. Finally, AP and IB students did not consider academic success a choice and felt that they could maintain both a social life and their academic success; however, "having it all," both social and academic success, required them to sacrifice something. For many students, that something was sleep.





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## **EXECUTIVE SUMMARY**

### **Theoretical Rationale**

Offering Advanced Placement (AP) and International Baccalaureate (IB) courses is among the primary means of serving advanced learners in American high schools. Therefore, investigating student perceptions of the social/emotional advantages and disadvantages of participation is critical; however, not only do significant questions remain regarding the degree to which AP and IB courses serve participants' academic needs, the literature is silent with regard to the ability of AP and IB courses to serve participants' social/emotional needs and the social/emotional implications of enrolling in these courses, in general. Therefore, the researchers employed a multiple-case qualitative design to answer the following questions: (a) Do AP and IB students perceive social/emotional advantages and disadvantages to AP/IB enrollment? (b) What are the differences between students' perceptions of social and/or emotional implications of enrollment in AP versus IB courses? and (c) Do AP and IB students report experiencing a "forced-choice dilemma" whereby they must choose between academic success and social acceptance?

### **Design**

#### **Sampling Procedure**

This study was part of a larger study investigating the "fit" of AP and IB courses for a broad range of gifted high school secondary students (Hertberg-Davis, Callahan, & Kyburg, 2006). Twenty-four high schools from seven states were selected for participation in the larger study; of those schools, four schools from one state were chosen for in-depth multiple case analysis for the current study (Yin, 1994). The four schools were chosen using stratified purposeful sampling (Strauss & Corbin, 1998). The stratifications were by community size (urban, suburban, and rural), student demographics, and the advanced programs offered in the school (AP, IB, and both AP and IB). The four sites were representative of the demographics of the nineteen sites used in the larger study.

## **Data Gathering**

**Participants.** Within the four selected schools, approximately 85 students participated in observations and interviews. The student participants were chosen by the school to represent the program's diversity in gender, ethnicity, and experience with their school's program; therefore, our student interviews consisted of both current and former program participants.

**Observations.** Schools were visited at least three times over the course of an academic year. In most cases, these visits were arranged to correspond with the first third of the school year, the second third of the school year, and the instructional time after the AP and IB exams were administered. The purpose of the staggered visits was to increase the credibility in the findings by persistently observing the sites over time, to allow for probing of emerging themes, and to determine a pattern of curricular, instructional, and assessment practices in relation to the spring administration of exams.

During each visit, AP and IB classrooms were observed for at least one complete class period. Teachers were notified in advance of the visits, but were not asked to modify their plans for the observers. Whenever possible, verbatim quotes from teachers and students were recorded to enhance the validity of the findings and to reduce bias from the observer. Additional strategies used to increase the validity of findings included triangulation of data sources, the use of multiple data collectors, and the use of multiple data analysts.

**Interviews.** Student interviews were conducted mainly through small focus groups composed of three to five students per session. Students who were eligible, but not participating in AP courses and/or IB programs, were usually interviewed individually to increase the opportunity to uncover their unique experiences. In each case, semi-structured interview protocols guided the interview process and were enhanced by questioning designed to elicit information-rich responses or to follow up on questions from the classroom observations or themes emerging during data analysis. Documents such as teachers' planning documents, instructional materials, some student artifacts, program literature, and communication materials were collected and analyzed.

## **Data Analysis**

After each individual or group interview, classroom observation, and school visit, researchers recorded and then typed field notes. All interviews were tape recorded and transcribed verbatim. Data were then analyzed using a cross-case technique, where each case data were analyzed individually, then compared to each other. Data were analyzed and given initial codes. With further data-combing, the codes were refined and collapsed to yield final themes. The conclusions from each case served to theoretically replicate the conclusions of all other cases (Yin, 1994).

## Results

The results suggested AP and IB students perceived experiencing both positive and negative social/emotional consequences of their participation in these programs. Benefits of participation, including pride from completing more challenging work, similarity with other participants, special bond among participants, better treatment (more respect and responsibility) from teachers, better overall class atmosphere, and preference for AP and IB courses were consistent across schools and between programs; however, the reported disadvantages, although consistently present, varied in degree of intensity and negativity along a continuum. The degree of flexibility in grouping and workload required, intensity of social/emotional disadvantages of the workload, nature of participant/non-participant relationships, negativity of stereotypes, and the salience of the forced choice dilemma varied by school and program. Students in the IB program were more likely than those in AP to complain about the rigidity of their program because of the reported limitations it placed on class choice, extracurricular activities, and interactions with non-participants; cite differences between themselves and non-participants; perceive a negative stereotype associated with the program; and report experiencing great exhaustion they attributed to the workload. Finally, AP and IB students reported a new type of forced choice dilemma: one between maintaining social and academic success and a getting a healthy amount of sleep. These students did not consider academic success a choice and felt that they could maintain both a social life and their academic success; however, "having it all," both social and academic success, required them to cut back on other time-consuming activities. In response to this new forced choice dilemma, many students chose to sacrifice sleep.

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## **Introduction and Literature Review**

The purpose of this study was to explore the social/emotional implications of Advanced Placement (AP) and International Baccalaureate (IB) participation for students in four high schools in one state to answer the following questions: (a) Do AP and/or IB students perceive social/emotional advantages and disadvantages to AP or IB enrollment, and, if so, what advantages/disadvantages do they perceive?; (b) What are the differences between AP and IB students' perceptions of the social/emotional implications of enrollment in these courses?; and (c) Do AP and/or IB students report experiencing a "forced choice dilemma" whereby they must choose between academic success and social acceptance?

## **Background**

Offering Advanced Placement (AP) and International Baccalaureate (IB) courses are among the most common ways American high schools support the unique learning needs of gifted and high achieving students. However, not only do significant questions remain regarding the degree to which AP and IB courses serve participants' academic needs (Center for Education, 2002; Center for Undergraduate Education in Science, Mathematics, and Engineering Education, 1999; Commission on Life Sciences, 1990; National Academy of Science (NAS), 2002), the literature is relatively silent in regard to the ability of AP and IB courses to serve participants' social/emotional needs, and in regard to the social/emotional implications of enrolling in these courses in general. Please see Appendix A for a description of these Key Terms.

It is also useful to investigate research on the social/emotional impacts of ability grouping in general, as AP and IB classrooms are largely ability-grouped settings. This body of research suggests that advanced students may reap social/emotional benefits when grouped with others of commensurate ability and presented with appropriately differentiated curricula (Feldhusen & Saylor, 1990; Kulik & Kulik, 1992). Advanced students tend to befriend intellectual peers (Adams-Byers, Whitsell, & Moon, 2004; Hollingworth, 1926) and prefer working with students of commensurate ability (Sowell, 1993; Wright & Leroux, 1997).

Grouping research, however, also highlights specific social/emotional disadvantages of homogeneously grouping advanced students. For example, advanced students may not want to be singled out or treated differently, and, as a result of ability-grouping, may suffer a temporary drop in self-concept (Feldhusen & Saylor, 1990; Kulik & Kulik, 1992); feel isolated from a wider sphere of friends (Adams-Byers et al., 2004; Wright & Leroux, 1997); and face rejection by the rest of the school (Coleman & Cross, 1988; Cross, Coleman, & Stewart, 1993; Manor-Bullock, Look & Dixon, 1995; Schroeder-Davis, 1999; Tannenbaum, 1962). These findings raise the question of whether AP and IB course enrollment causes advanced students to feel the need to choose between intimacy and their academic pursuits, what Miraca Gross calls the "Forced Choice Dilemma" (Gross, 1989).

Although the healthy psychosocial drives toward intimacy and achievement complement each other in students of average ability, Miraca Gross (1989) posited that these drives conflict in gifted children, placing them in a "forced-choice" situation where gifted children feel forced to choose between intimacy and achievement. According to Gross, most students strive to cultivate meaningful relationships and to achieve to the best of their abilities. However, both vigorously pursuing academic excellence and maintaining relationships take extensive time and effort, and the pursuit of one takes time away from the other. According to Gross's theory, students of average ability, who do not report the pressure some gifted students feel to attain academic excellence, can more equally balance their time between the two pursuits and are not subject to rejection by the rest of the school for their academic success in the way, advanced students may be. Therefore, according to Gross, the gifted child pursues academic excellence at the "risk [of] forfeiting the attainment of intimacy with age peers. If the choice is intimacy, the gifted student may be forced into a pattern of systematic and deliberate underachievement to retain membership in the social group" (p. 189). Unfortunately, there is neither empirical research validating the existence of the "Forced Choice Dilemma" nor research examining whether AP and IB students perceive any social/emotional consequences (positive or negative) as a result of participating in these courses.

### **Professional Significance**

Because AP and IB courses serve as the primary means of serving advanced learners in our nation's high schools, it is important to investigate students' perceptions of the social/emotional advantages and disadvantages of enrollment in AP and IB courses. Potential benefits of this research are a better understanding of the social context in which AP and IB courses operate, the social/emotional implications of participation, and the priorities of advanced students. This research could also help promote the positive development of advanced learners by painting a more comprehensive picture of the effect of AP and IB participation on our nation's youth and assessing the degree to which current educational programs meet the needs of the advanced secondary learner.

## **Review of the Literature**

Because of the dearth of empirical research exploring the advantages and disadvantages of AP and IB courses, many of the underlying assumptions about the effects of these courses on students come from grouping research. Research suggests that ability grouping, the "re-grouping of students for the purpose of providing curriculum aimed at a common instructional level" (Fiedler, Lange, & Weinbrenner, 1993, p. 5), may be socially, emotionally (Adams-Byers et al., 2004; Gross, 1997, 1998; Hollingworth, 1926; Lando & Schneider; 1997; Wright & Leroux, 1997), academically (Kulik & Kulik, 1992), and intellectually (Feldhusen & Saylor, 1990) beneficial for advanced students. Studies have, however, also alluded to social/emotional disadvantages of grouping gifted students (Adams-Byers et al., 2004; Chan, 2004; Coleman & Cross, 1988; Cross et al., 1993; Feldhusen & Saylor, 1990; Janos, Fung, & Robinson, 1985; Kulik & Kulik, 1992; Manor-Bullock et al., 1995; Swiatek, 1995, 2001, 2002; Swiatek & Dorr, 1998; Tannenbaum, 1962; Wright & Leroux, 1997). This section explores the possible social/emotional advantages and disadvantages of ability grouping in general, as well as for AP and IB classes specifically.

### **Possible Social/Emotional Benefits of Ability-grouping**

In addition to academic and intellectual benefits (Adams-Byers et al., 2004; Feldhusen & Saylor, 1990; Kulik & Kulik, 1992; Sowell, 1993; Wright & Leroux, 1997), research has linked ability grouping to positive social/emotional outcomes for advanced learners (Adams-Byers et al., 2004; Gross, 1997, 1998; Lando & Schneider; 1997; Wright & Leroux, 1997). For example, advanced learners report social/emotional advantages to ability grouping, such as not being teased because of their intelligence, being around other students who understand them and think like they do, and having a more trusting, more fun and faster-paced class atmosphere (Adams-Byers et al., 2004). Lando and Schneider (1997) found that high-ability students in homogeneous groups exhibit more mutual support, encouragement to persist in the face of difficulty, and overall prosocial behavior toward each other than those in mixed-ability groups. These findings are consistent with the "cohort effect," characterized by peer bonding, mutual encouragement, and affectionate guidance among grouped students of similar abilities and interests (Gross, 1997, 1998; Wright & Leroux, 1997). In sum, some research suggests that homogeneously grouping gifted students can have positive social/emotional outcomes for group members. In a review of the existent grouping literature, Rogers (2002) concluded: "The fortunate gifted student will find [him or herself in] a self-contained class of like-talented age-mates in a setting that offers academic challenge in the company of peers" (p. 4).

### **Possible Social/Emotional Disadvantages of Ability-grouping**

Findings from the studies cited above, however, also allude to disadvantages of grouping advanced students. For example, research has shown that, when grouped with peers of commensurate ability, gifted students' self-concepts may decline (Feldhusen & Saylor, 1990; Kulik & Kulik, 1992). Additionally, some gifted students do not want to

be singled out or treated differently, and, as a result, can feel isolated from a wider sphere of friends (Adams-Byers et al., 2004; Wright & Leroux, 1997) and face rejection by the rest of the school (Coleman & Cross, 1988; Cross et al., 1993; Janos et al., 1985; Manor-Bullock et al., 1995; Schroeder-Davis, 1999; Tannenbaum, 1962).

**Decline in self-concept.** Research has suggested that some gifted students can experience a temporary drop in self-concept as a result of ability-grouping (Feldhusen & Saylor, 1990; Kulik & Kulik, 1992). Kulik and Kulik's (1992) meta-analysis of grouping literature exposed a decrease in self-concept scores for the most highly able students in ability groups, but the effect size of this drop, though consistent, was near zero, as was the similar increase of self-concept in students of lower-ability.

**Differential treatment and isolation.** Research has also suggested that some gifted students do not like being singled out or treated differently based on their gifted status and complain of feeling separated from those not placed in their ability-grouped classroom (Wright & Leroux, 1997). Though Wright and Leroux's (1997) study of homogeneous grouping noted a positive "cohort effect" among grouped students, it also found that "the very act of placing the students together can isolate them from the potential moderating influence of a wider sphere of friends" (p. 92). Consistent with the findings of Wright and Leroux (1997), Adams-Byers et al. (2004) found that one third of their participants expressed the desire "to have continued contact with their non-gifted friends" (p. 16), suggesting that these students experienced, and disliked, the isolation from their non-gifted peers resulting from homogenous grouping. Not only does isolating gifted and high-achieving students potentially limit friendships with other students, it could also reinforce the feelings of being "different" that some gifted students report (Manor-Bullock et al., 1995).

**Social rejection.** Studies also suggest that, historically, labeling and grouping practices have been associated with rejection of gifted students by non-gifted peers. In 1962, Tannenbaum found that participation in advanced classes could adversely affect students' social standing in the school as a whole. He noted, "American high school students actively reject those of their peers who demonstrate high-level academic or intellectual prowess" (cited in Gross, 1989, p. 190). Interestingly, not much has changed since Tannenbaum's study; gifted students have more recently reported perceiving a stigma attached to giftedness and high achievement that can lead to rejection by their general education peers (Coleman & Cross, 1988; Cross et al., 1993; Manor-Bullock et al., 1995; Schroeder-Davis, 1999). Studies have shown that the perceived stigma's existence does not need verification; many gifted students assume it exists (Coleman & Cross, 1988; Cross et al., 1993) and react negatively toward general education students who they *perceive* believe that they are "different" (Coleman & Cross, 1988; Manor-Bullock et al., 1995), thereby effectively perpetuating the stigma. Although no research has investigated the link between feelings of difference and grouping practices, research suggests that both feelings of difference and ability-grouping gifted students can lead to strained relations between group members and non-group members, as well as associated adverse emotional consequences.

Researchers have found that some gifted students engage in social coping that can be deleterious to the formation of a healthy identity as a gifted individual in response to these adverse social/emotional outcomes. Some gifted and high achieving students, not wanting to be associated with the "brain crowd" and suffer the subsequent adverse social consequences of being labeled a "geek," or "dweeb," display interest in anti-intellectual, "pop culture" topics and activities; withdraw from enjoyed activities that others see as "nerdy"; intentionally do poorly on tests; fail to hand in assignments; never volunteer answers in class; and even deny their own giftedness (Brown & Steinberg, 1990; Chan, 2004; Swiatek, 1995, 2001, 2002; Swiatek & Dorr, 1998). Tannenbaum (1983) concluded:

There is evidence to show that the gifted are influenced by their peers', parents', and teachers' feelings about their abilities. If they are seen as mental freaks, unhealthy personalities, or eccentrics simply because they are brainy or creative, many of them will avoid the stigma through conformity. Some would rather underachieve and be popular than achieve honor status and receive social ostracism. (p. 466)

Some research indicates that feeling forced to choose between social ostracism/academic achievement and popularity/academic underachievement is particularly salient in advanced students from underrepresented ethnic populations. Fordham and Ogbu (Fordham & Ogbu, 1986; Fordham, 1988, 1991) label this dilemma for minority students as the "Burden of Acting White."

Learning school curriculum and learning to follow the standard academic practices of the school are often equated by the minorities with . . . "acting white" while simultaneously giving up acting like a minority person. School learning is therefore consciously or unconsciously perceived *as a subtractive process*: a minority person who learns successfully in school or who follows the standard practices of the school is perceived as becoming acculturated into the white American frame of reference at the expense of the minorities' cultural frame of reference and collective welfare. (Fordham & Ogbu, 1986, pp. 182-183)

Donna Ford (2004) has used the term "Forced Choice Dilemma" to describe the conflict between affiliation and achievement experienced by gifted, culturally diverse students. Ford (2004) suggests that African American and Hispanic parents feel their children cannot simultaneously experience both academic challenge and social success because of their cultural backgrounds.

**Forced choice dilemma.** Miraca Gross's (1989) "Forced Choice Dilemma" posits that all gifted students face a unique conflict between their drives to pursue intimacy and achievement, placing them in a forced-choice situation. Most students strive both to cultivate meaningful relationships with their peers and family and to achieve to the best of their abilities; however, pursuing both requires extensive time and effort, and pursuing one takes time away from the pursuit of the other. And with the extensive pressure to pursue academic excellence that gifted students report (Sowa,

McIntire, May, & Bland, 1994), the gifted child experiencing the Forced Choice Dilemma feels he/she must choose *either* academic excellence *or* intimacy while students of average ability can theoretically pursue both simultaneously. Furthermore, Gross (1989) postulated that gifted students' perception of a stigma attached to giftedness exacerbates the dilemma, as it becomes a matter not only of time allocation, but of choosing between fulfilling one's own academic expectations and being socially accepted. Therefore,

If the gifted child chooses to satisfy the drive for excellence, he or she must risk forfeiting the attainment of intimacy with age peers. If the choice is intimacy, the gifted may be forced into a pattern of systematic and deliberate underachievement to retain membership in the social group. (Gross, 1989, p. 189)

### **Grouping in AP and IB Courses**

AP and IB programs are generally endorsed inside and outside the field of gifted education as appropriate options for challenging advanced high school learners (College Board, 1986; Cox & Daniel, 1985; Daniel & Cox, 1992; Feldhusen, 1995; Jacoby, 1992; Marnholtz, 1994; Pyryt, Masharov, & Feng, 1993). However, very few researchers have investigated their appropriateness for the needs of advanced learners (Callahan, 2003). The small amount of research that does exist focuses primarily on the academic effects of these courses (Bleske-Rechek, Lubinski, & Benbow, 2004; Center for Education, 2002; Center for Undergraduate Education in Science, Mathematics, and Engineering Education, 1999; Commission on Life Sciences, 1990; Lubinski & Benbow, 2000; National Academy of Sciences (NAS), 2002; Oregon University System, Oregon Department of Education, and Office of Community College Services, 1999) and in large part neglects the social/emotional effects, despite their importance. Coleman (1995) insightfully noted:

I have argued that educators of the gifted should pay more attention to the social context created in some specialized environments. We have looked almost exclusively at cognitive outcomes, [although] noncognitive outcomes are as important as cognitive outcomes and these latter outcomes may provide more powerful evidence for the appropriateness of specialized environments than the former. (p. 175)

### **Present Study**

Although the literature pertaining to the advantages and disadvantages of grouping advanced students is comprehensive, little research focuses on the social/emotional impacts of grouping in AP and IB programs specifically. Therefore, the research questions guiding this study are: (a) Do AP and IB students perceive social/emotional advantages and disadvantages to AP/IB enrollment? (b) What are the differences between AP and IB students' perceptions of the social/emotional implications of enrollment in these courses? and (c) Do AP and IB students report experiencing a



"forced-choice dilemma" whereby they must choose between academic success and social acceptance?

## **Study Design**

### **Sampling Rationale**

This study was part of a larger study investigating the "fit" of AP and IB courses for a broad range of gifted high school secondary students (Hertberg-Davis, Callahan, & Kyburg, 2006). Twenty-four high schools from seven states were selected for participation in the larger study. Of those schools, four schools from one state were chosen for in-depth multiple case analysis for the current study (Yin, 1994) (see Table 1). The four schools were chosen using stratified purposeful sampling (Strauss & Corbin, 1998). The stratifications were by community size (urban, suburban, and rural), student demographics (SES and ethnicity), and the advanced programs offered in the school (AP or IB). The four sites were representative of the demographics of the 24 sites used in the larger study.

### **Study Sites**

#### **Appleton High School**

Appleton High School was a public urban high school offering AP courses. At the time of the study, this high school had a disproportionately high percentage of Hispanic and Asian American students and a low percentage of African American and Caucasian students relative to state demographics. The students at this high school were performing below the state average on the state tests. Appleton offered 28 AP courses to their almost 2,000 students and had a school-wide AP participation rate of 23%. The school placed an emphasis on encouraging all students to take AP courses and offered a number of programs to prepare students for, and support students in, AP classes.

#### **Arken High School**

Arken High School was a public rural high school offering AP courses. At the time of the study, this school had a disproportionately high percentage of Caucasian students and a low percentage of African, Asian, and Hispanic Americans relative to state demographics. The students at this high school were surpassing the state average on the state test. This school offered 6 AP courses for its 426 students; their ratio of AP classes to students was lower than that of Appleton: 1 to 53. According to the school guidance counselor, between 15 and 20% of the student body participated in AP courses.

Table 1.

2005 School Information.

School	Student Demographics (State Averages: White: 60% Black: 27% Hispanic: 7% Asian: 5% Native American: <1%)	Percentage Eligible for Free or Reduced Lunch (State Average is 33%)	Average Test Scores (State Language Arts Average is 88%, State Math Average is 86%)	Ratio of Advanced Courses to School Population	Participation Rate
Appleton (AP)	White: 18% Black: 25% Hispanic: 47% Asian: 10% Native American: <1%	54%	Language Arts: 84% Math: 72%	1:71	23%
Arken (AP)	White: 86% Black: 13% Hispanic: <1% Asian: <1% Native American: <1%	22%	Language Arts: 91% Math: 84%	1:53	Between 15 and 20%
Ignacious (IB)	White: 68% Black: 22% Hispanic: 4% Asian: 6% Native American: <1%	21%	Language Arts: 90% Math: 91%	Not Available	10% in Diploma Program
Inland Heights (IB)	White: 35% Black: 15% Hispanic: 26% Asian: 21% Native American: <1%	37%	Language Arts: 89% Math: 81%	Not Available	40% in Diploma, Certificate, and Pre-IB

**Ignacious High School**

Ignacious High School was a public suburban magnet high school offering the IB program. The school's ethnic breakdown was fairly representative of state demographics at the time of the study, and the students at this high school were surpassing the average on the state test. According to the school website, ten percent of the student body was enrolled in the IB Diploma Program, but this percentage did not take into account the amount of students enrolled in pre-IB or IB-track programs. This school's IB program was the most rigid of the AP and IB programs investigated in this study in that it only offered students who fit numerous criteria the option of earning a full Diploma in IB, which required students to complete six academic courses in six different subject areas, an external examination in at least three higher level subject areas and three standard

level subject areas, a minimum of 150 hours in the CAS (Creativity, Action and Service) Program, an Extended Essay, and six external examinations.

### **Inland Heights High School**

Inland Heights High School was a public urban high school offering IB courses. This high school had a disproportionately high percentage of Hispanic and Asian American students and low percentage of African American and Caucasian students relative to state demographics. The students at this high school were performing below the average on the state test. Forty percent of the student body was participating in pre-IB and IB certificate and diploma programs. The IB program at this school was offered to "highly motivated 11th and 12th grade students" who sought "academic rigor, structure, and experiences. . . [and] the highest degree of academic challenge," but had no other specific entrance criteria. Inland Heights offered more flexibility in its IB program than Ignacious; not only were there fewer entrance criteria, Inland Heights allowed students to complete either a Diploma or Certificate program.

### **Participants**

Eighty-four students from the four study sites participated in focus group interviews. Student participants were chosen because they were enrolled in AP or IB courses, and represented the diversity in gender and ethnicity in their schools' AP and IB courses. Fifty-seven percent (n=48) of the students participating in the study were female; 43% (n=36) were male.

### **Data Collection**

#### **Interviews**

Interviews with AP and IB students were conducted primarily through small focus groups composed of three to five students per session. In each case, a semi-structured interview protocol guided the interview process, enhanced by questioning designed to elicit information-rich responses or to follow up on questions from the classroom observations or themes emerging during data analysis.

#### **Observations**

Observations of AP and IB classrooms in the study schools were conducted to provide information regarding classroom environment, curriculum, and instruction to supplement student interview data. Schools were visited at least three times over the course of an academic year. In most cases, these visits were arranged to correspond with the first third of the school year, the second third of the school year, and the instructional time after the AP and IB exams were administered. The purpose of the staggered visits was to increase the credibility in the findings by persistently observing the sites over time, to allow for probing of emerging themes, and to determine a pattern of curricular, instructional, and assessment practices in relation to the spring administration of exams.

During each visit, AP and IB classrooms were observed for at least one complete class period. Teachers were notified in advance of the visits, but were not asked to modify their plans for the observers. Whenever possible, verbatim quotes from teachers and students were recorded to enhance the validity of the findings and to reduce bias from the observer. Documents such as teachers' planning documents, instructional materials, some student artifacts, program literature, and communication materials were also collected and analyzed.

### **Data Analysis**

After each individual or group interview, classroom observation, and school visit, researchers recorded and then typed field notes. All interviews were tape recorded and transcribed verbatim. Data were then analyzed using a cross-case technique, where the data from each case data were analyzed individually, then compared to each other. Data were analyzed and given initial codes. With further data-combing, the codes were refined and collapsed to yield final themes. The conclusions from each case served to theoretically replicate the conclusions of all other cases (Yin, 1994).

### **Results**

#### **Research Question 1: *Do AP and IB Students Perceive Social/Emotional Advantages and Disadvantages to AP/IB Enrollment?***

AP and IB students described both positive and negative social/emotional consequences resulting from participation in AP and IB courses.

#### **Perceived Benefits**

Among the significant social/emotional benefits that AP and IB students attributed to their participation in AP and IB courses versus general education courses were (a) a better class atmosphere, (b) a special bond among participants, and (c) pride and self-confidence derived from completing the more challenging work offered in these courses.

#### **Atmosphere**

AP and IB students' responses suggested that they regarded their AP and IB classrooms as having "a more open environment" (Appleton, SFG1) and an overall better atmosphere than their general classes. Students attributed the improved classroom atmosphere of AP and IB courses to the fact that the teachers of these courses were better prepared to meet the needs of advanced students, and accorded students more respect and responsibility. Additionally, AP and IB students believed they were more similar to and had more in common with other program participants than with students in general education classes they were in or had attended in the past.

**Teacher preparedness to meet advanced needs.** AP and IB students consistently reported their preference for their advanced classes. Many noted how unfulfilling regular classrooms were for them, in large part because they believed their general education teachers were not equipped to teach advanced students. For example, one IB student noted how he did not learn very much in general education courses because his teachers placed more of an emphasis on *passing* than on genuine learning and understanding:

In regular classes, it's hard to concentrate because some teachers. . . don't really care as much. I've taken regular classes, and it's more, 'Just get this done, and you can pass!' And, it's OK, but the Higher Level teachers care more for you to understand *how* to do it and not just pass. (Inland Heights, SFG2)

An AP student also called attention to the lack of general education teacher knowledge of how to meet the needs of advanced learners. She explained that in general classes, the teacher "doesn't relate to us, he doesn't talk to us. And then like, I just finish the work pretty quickly, and then I have nothing else to do. Nothing" (Arken, SFG2).

**Teacher respect for students.** AP and IB students believed that their AP and IB teachers were more fun, liked them better, and gave them more respect than did teachers in non-AP and -IB courses. One IB student noted bluntly: "I think the teachers have a lot more fun with us. I think they like us better. Seriously!" (Ignacious, SFG9). Similarly, an AP student noted:

They give you a lot more respect in AP classes, the teachers. Because they assume that if you're in the class, then you're smart enough and. . . what you're going to say is actually intelligent. So, the teachers will respect you and everything; they'll listen to what you have to say as opposed to the, like, normal classes, where teachers just, they "have" you, instead of like listening to you. (Appleton, SFG3)

AP and IB students believed that their teachers afforded them more respect because they tended to have higher educational goals and a higher level of maturity and independence than students in general education courses. They believed that this student homogeneity allowed AP and IB teachers to give their students more responsibility inside and outside of class. For example, one AP student suggested:

I think AP teachers can be like that because they know we've had the initiative to get into the AP class; they know we're going to do the work and we're not just going to be lazy and not do it. So, they can feel like they can be laid-back and just give us the work and rely on us to do it. (Arken, SFG2)

Similarly, an IB student noted:

Maybe the [general education] teachers aren't necessarily worse or the content isn't necessarily worse, but in IB, you're talking about a group of kids who, at this

point, obviously want to be there. In the other classes, there's a large segment of the population that just doesn't really care about school. And so the teacher may be trying just as hard, and the content may be as enriching if they got into it. But it's a matter of motivation. And I don't care what the content is or who the teacher is, it's easier to learn stuff and learn it in a fun and entertaining way with a group of individuals who wants to be learning. And I think you get that in IB." (Ignacious, SFG9)

Overwhelmingly, AP and IB students noted that the positive relationship that existed between themselves and their AP and IB teachers was one of the primary benefits of taking these courses.

**Feelings of similarity toward other participants.** Participants also reported feeling more comfortable in AP and IB classes than in general education classes. Students attributed this comfort to a diminished fear of peer judgment for answering questions, striving toward academic success, and "being yourself" because other students in the class had similarly high academic goals and academic interests. For example, one AP student explained her preference for AP classes:

I like AP English because I like being with advanced students, and not with the regular type. The people that take AP English are like, like-minded people. And it's easier. . . like some people would frown upon those people who try hard in school and they just don't think it's cool or something, but when you're in a class and everybody else in the class is trying hard to get good grades, it makes it a lot easier to learn, I think. (Arken, SFG2)

An IB student reported:

As far as the level of comfort goes, with interacting with other IB students, yes because we're all in there for the same purpose; we have something in common then. And you can respect them for having the same goals as yourself. (Inland Heights, SFG4)

One student suggested that she felt more comfortable answering questions in her AP classes than in her non-AP classes because in her general education classes, she felt like she was either always the only one answering questions, or not speaking at all because she felt "really awkward" (Appleton, SFG1). These comments are representative of the experiences of many AP and IB students who indicated that while they felt some discomfort about—or pressure to mask—their academic interests in general education courses, they felt more able to be themselves while in their AP and IB classes.

**Feelings of difference from non-participants.** Some of the discomfort that AP and IB students reported feeling in their general education courses seemed to stem from their reported feelings of difference from their non-AP and -IB peers. For example, one IB student noted: "[IB students] just form this really different group. I just think [that] everyone else in school is so different" (Inland Heights, SFG1). Participants reported

feeling different from non-participants in terms of their areas of interest and topics of conversation. For example, one IB student reported: "In normal class, I know they talk about: 'Oh, I did [X] this weekend, blah, blah, blah. . . ' but we're talking about philosophy and stuff like reality. And it gets really awkward" (Inland Heights, SFG1). Another noted:

The majority of our time is at school, and we're in our class, and I think we talk more in class, even if it's. . . not, "Let's go to the mall!" It's more like, "Hey! How did you get your answer?" (Inland Heights, SFG2)

Furthermore, AP and IB students reported believing that the major differences between AP and IB students and students not taking these courses were motivation and desire to learn. An AP student noted, "Well I think part of the difference between AP students and regular students is just who wants to apply themselves and get the work done" (Appleton, SFG1). Another said, "I know the people who are not in AP. . . most of them. . . just come to school just to be in school. It's really not hard to be in AP as long as you take school seriously, you know. The other kids don't" (Appleton, SFG4). An IB student noted, "Regular classes are more filled with people that aren't willing to learn" (Inland Heights, SFG2).

However, interviews with AP and IB students also suggested that AP and IB students believed they had higher levels of intelligence than students not taking these courses. For example, an AP student noted:

Sometimes I get frustrated with the students in my regular classes. . . I pretty much like everyone, you know, but sometimes some of what people say in regular classes, it's like, 'God, are you just naturally that stupid? Does a thought cross your mind that is intelligent at all?' But like, in AP classes. . . they're all on the same, pretty much the same thinking level. (Appleton, SFG1)

An IB student explained:

I'm a server, so I had to learn the menu and everything, and it just came so quick! And I'm training with three other people. . . they just take regular classes. And there's such a difference in the ability [of] IB Students compared to regular students. . . to catch onto something. (Inland Heights, SFG1)

Another IB student agreed:

S1: You feel bad that [non-IB students] are not being challenged and pushed to do things and they just kind of go through the day. . . S2: But then it's kind of like, can they handle it? Because I have friends who are failing. . . S3: How can you not spell that word? S1: Right, Right! S3: "Cat" S1: Exactly! (Inland Heights, SFG1)

And although both AP and IB students affirmed their friendships with non-AP and -IB students outside of class, the participants still reported feeling different from their non-participant friends:

My friends. . . most of them take no IB classes. And in a way, the interaction is different, but then it's kind of a relief from this daily, like. . . sometimes I like to just let down, to put down my guard and stuff, but then, for example, what you were saying, it gets frustrating. I was having a conversation with my friend [and] I was like, 'You just need to be persistent and keep going with that!' And she was like, 'What is persistent?' And I was just like, 'Oh my God!' (Inland Heights, SFG1)

Most AP and IB students reported feeling different from those students not participating in their program. While most reported that they had non-participant friends, the majority of the interviewed AP and IB students preferred to be in classes with students to whom they felt more similar in terms of motivation, academic interests, and intellect.

Overwhelmingly, AP and IB students reported preferring the classroom environments of AP and IB courses to general education courses, believing that the generally high level of motivation and academic interests of the students in AP and IB courses resulted in teachers treating them with greater respect and affording them more responsibility. Additionally, they felt free to "be themselves" in class without fear of judgment from their peers.

### **Special Bond Among Participants**

An additional advantage perceived by AP and IB students to taking these advanced courses was the relationships that they developed with their classmates. AP and IB students noted that they considered many of their AP and IB classmates "friends" and consistently referred to the "special bond" that existed among program members. Many students reported that their friendships with other AP and IB participants were long-standing. In many cases, they were originally grouped in elementary gifted and talented homogeneous classrooms and those relationships were maintained in high school honors and AP and IB courses. Two AP students in a group interview noted:

S1: It just seems like some of us have been grouped for like a long time. . . A lot of times you start with the GT program or whatever, so you find yourself. . . sitting next to the same person you did in 9th grade because. . . we've been in the same classes for I don't know how long. . . S2: Yeah, we like grew up together. (Appleton, SFG1)

An IB student similarly commented: "You have this x amount of people that take all these classes, and they're the same kids, and so you take classes together, and you eat lunch together, you become friends with them, you hang out with them" (Inland Heights, SFG1). Many students noted that these friendships were nurtured by shared experiences and an ability to help each other academically. An example of this mutual support comes



from the comments of another IB student: "This sounds really corny, but you are kind of like a support group, because everybody's going through the same thing. . . People really help each other" (Inland Heights, SFG1). An AP student felt the same way: "Everyone in the AP classes, we're all like friends and everything, so we're all going through the same thing and it's a new experience for everyone so we all help each other out" (Appleton, SFG4). While the close, long-standing bond among classmates taking AP and IB courses served as a support network for many students, for students new to the community or taking advanced classes for the first time, this tight knit community felt difficult to break into. A former IB student noted that she had decided to quit the program for this reason: "I didn't feel like I connected with the students as much because most of them, I didn't go to school with them before and we were just like too different people" (Inland Heights, SFG5).

In Appleton High School, the faculty and administration noticed that their male minority students were underrepresented in advanced courses and were voicing a feeling of disconnection from other advanced students. In response, a weekly lunch group was established to provide a forum for discussion of issues related to Advanced Placement participation, college preparation, and ethnic and individual identity. Members of the lunch group expressed feeling a strong and unique bond not only with other group members, but also with other AP participants. One described the weekly meetings as:

It's pretty much a bonding thing. We support each other in more ways than one: academically, socially, and we give each other advice. And that also helps, especially in our class, and especially in AP English. . . I didn't really know anyone in our class, just a quarter of the members, but then we started talking and . . . we just help each other out; that's basically what we do. (Appleton, SI1)

Another lunch group member noted simply, "It's trust. I trust these guys" (Appleton, SI1). For a description of this program and a full discussion of its effect, see Hertberg-Davis, et al. (2006).

## **Pride**

Another major benefit of taking AP and IB courses that students consistently noted was the pride and confidence they derived from taking on the challenging work in AP and IB courses.

And you're proud of yourself too when you do well in [AP classes]. . . Everybody's like, "Good job. You worked hard for that." Your friends are like, "Yeah, that's great," and teachers. . . But that doesn't really matter because you know you did well. It's like a certain type of inner satisfaction. . . you know that you've overcome more of a challenge than you had if you were in Regular classes. (Arken, SFG1)

Overwhelmingly, interviewed AP and IB students believed that the workload, content, and pace of these advanced classes made them more challenging than that of general

education courses and they derived pride from being able to rise to the challenge. For example, one AP student noted, "I just got my first A+ on an AP English paper and I was like, "Yes!" And I was so excited. It's more of a satisfaction to you if you do good [in AP classes]" (Arken, SFG1). Another AP student said, "The challenge makes me feel like a better person" (Appleton, SFG4). Similarly, an IB student noted that grades had more meaning because of the challenging work. "It's challenging, and I'd rather get lower grades in a more challenging course than pass through all the easy ones because then it doesn't mean anything to me" (Inland Heights, SFG1).

### **Summary of Perceived Social/Emotional Benefits of AP and IB Courses**

In summary, AP and IB students reported reaping many social/emotional benefits from participation in their respective programs. Students regarded the atmosphere of AP and IB classes as better suited to them than that of general education courses. AP and IB students believed that their teachers gave them more responsibility and respect and believed they had more in common with their AP and IB classmates than with students in other courses they had taken. As a result, they reported feeling more comfortable "being themselves" in AP and IB classes. Interviewed students also acknowledged and appreciated the special bond they felt with other participants, and noted the pride and self-confidence they derived from meeting the challenge of AP or IB courses.

### **Perceived Disadvantages**

Interviewed students, however, also reported that they perceived social/emotional disadvantages to their involvement in AP or IB courses. Three themes emerged concerning disadvantages: (a) the perception of unflattering stereotypes assigned to AP and IB students, (b) the heavy workload, and (c) stress and fatigue.

### **Negative Stereotypes**

Most AP and IB students perceived an unflattering stereotype of AP and IB students among students at their schools. Many students said they felt prejudged by non-AP or IB students as intelligent, as a "smart geek" (Arken, SFG) or, in some cases, as arrogant, "exclusive," or "snobby" (Ignacious, SFG5).

### **Socially Limiting Workload**

Although AP and IB students noted their clear preference for the level of challenge (i.e., pace, content, and workload) offered by their program's courses, many referred to the workload as socially limiting. Not only did the amount of AP and IB work limit their ability to participate in varied extracurricular activities, it reportedly kept them from interacting with others during lunch, non-AP or IB classes, and outside of school. For example, IB students noted they "all do homework during lunch" because "you have to use every minute" (Inland Heights, SFG1), which cut into their social time at school. Similarly, both AP and IB students noted they needed to finish homework for other classes during non-AP or IB class time, limiting their ability to participate in class

discussions or casual conversations. Many AP and IB students also acknowledged that the workload in these courses hindered their ability to interact with their friends and family outside of school. One IB student reported how upset she was that she had to miss her grandmother's birthday party to finish all her work (Ignacious, SFG1). Other IB students concurred:

You kinda put [your social life] on hold for, you know, a certain amount of time, until you get used to the flow of things. [IB] takes a lot of time, I'll tell you that much. If I was taking regular classes, I would be doing a lot more in my social life than I am now. [Other students agree]. (Inland Heights, SFG4)

A student who dropped out of the IB program after her junior year confirmed:

It's nice to be able to enjoy my senior year. Like, now I have a job, and I can go out with my friends. And all my IB friends, they can never go out, except on weekends because they have so much homework. (Ignacious, SFG5)

A few AP students suggested that a "normal" social life was a sacrifice you had to make to succeed in AP:

S1: I know that I like don't go out. . . (The other girls agree) ever anymore. Like all I do is my homework and I've lost contact with some of my friends. Like, I have a girlfriend [at another school] and I never get to see her because the only time I can is on the weekends and I'm spending all that time trying to catch up for the next week. S2: Or do what you missed during that week! (The other girls say, "Yeah!") I: So you guys are almost like sacrificing your friendships by not doing things outside of school because you're doing your work. S2: Oh yeah! S1: It's a lot of sacrifice. (Appleton, SFG1)

### **Stress and Fatigue**

Students reported that the workload, pace and level of challenge of the courses, as well as the grades they received, had a considerable impact on their emotional state. Students reported experiencing frequent stress and pressure to excel, leading to a variety of consequences. One AP student, feeling as though she had sacrificed herself to succeed, reported, "You lose. . . you lose a lot of yourself, though because like, it's so stressful" (Appleton, SFG3). Many students' comments revealed that the pressure to succeed in these more challenging courses, and the subsequent stress, was largely self-imposed. For example, one IB student noted, "It's that whole thing ingrained in my head: I must get an A or else I explode" (Ignacious, SFG1). Another IB student said:

The problem is that I'm one of those people that has to excel at things. And so I kind of work myself to death in IB because I'm trying to be at the top. And we have certain people in our class who are very, very, very at the top. And so I try to fight myself up to this elite group, and it causes a lot of stress. (Ignacious, SFG2)

Many students noted they got sick from their constantly high stress level, which further limited their ability to interact with others. One AP student recalled a familiar conversation she had with her non-AP friends: "Oh, what did you do last night? 'What do you think I did?' 'You didn't go to the game?' 'No! I've been sick from all the stress!'" (The other girls say, "Yeah!") (Appleton, SFG1).

By far, the most commonly reported adverse consequence to AP and IB participation was fatigue. Both AP and IB students repeatedly noted their chronic fatigue and their desire to sleep in their spare time, which they attributed directly to the intense AP or IB workload. Many explained that in order for them to be able to complete their work, they had to sacrifice sleep. They noted: "Like six out of my seven days are home doing my homework until like, four in the morning" (Inland Heights, SFG2).

### **Summary of Findings from Research Question 1**

In summary, AP and IB students perceived both social/emotional advantages and disadvantages to participation in AP and IB courses. AP and IB students preferred the AP and IB class atmosphere to that of their general education classes and enjoyed working within a more homogeneous group because they felt more comfortable being themselves among like peers. They also enjoyed the special bond they shared with other program members, the respect and responsibility they received from teachers, and the greater sense of pride they derived from completing more challenging work. However, they disliked feeling prejudged because of their membership in these programs and felt that they had to make sacrifices—both socially and in terms of sleep—to participate in AP and IB courses because of the amount of work required.

### **Research Question 2: *What are the differences between AP and IB students' perceptions of the social/emotional implications of enrollment in these courses?***

Differences emerged in terms of students' perceptions of the social/emotional consequences of AP and IB courses. Students in the IB program were more likely than those in AP to complain about the rigidity of their program because of the reported limitations it placed on class choice, extracurricular activities, and interactions with non-participants. Additionally, IB students were more likely than AP students to cite differences between themselves and non-participants, to perceive a negative stereotype associated with the program, and to report experiencing great exhaustion caused by the IB workload.

### **Program Rigidity and Friendship Patterns**

IB students reported fewer friendships with non-participants and more intra-program friendships than did AP students. IB students' less frequent reporting of friendships with non-IB students could be related to the reported rigidity of their program relative to the AP program.

## Program Rigidity

Most participating IB students, but not one participating AP student, regarded their program's rigidity (i.e., the required course sequence and schedule the intensity of the workload from taking all IB courses, and the limits IB participation placed on extracurricular activities and interaction with non-participants) as a social/emotional disadvantage. One IB student commented on the restrictiveness of the course sequence and schedule:

I think a lot of the schools it's like you can choose, I'll take this IB class and this AP class. But here they say if you're in the IB program, you have to take all IB classes. So once you got here, it's like cool, they have these classes, but I can't take them. (Ignacious, SFG1)

Another concurred:

Because IB, they have stuff set out for you that you have to take, and it really takes up time for classes that you really want to take. And there's like 10 or 20 classes that you're interested in, but you can't get in because your schedule is already full. (Ignacious, SFG1)

One other IB student noted that participating in the IB program ruled out other attractive opportunities:

I didn't know it was going to take that much time of my life. I didn't get to do any of the clubs that I wanted to do. I didn't get to join any organizations I wanted to. I couldn't get an afternoon job. It took away so much time. (Ignacious, SFG8)

## Friendship Patterns

Not only did the structure of IB and the subsequent intense workload limit participants' ability to take classes and participate in extracurricular activities they would have enjoyed, it reportedly hindered their ability to interact with non-participants. For example, a group of IB students explained how the rigidity of their program's grouping limited their interactions with non-participants:

S1: You're pretty much with the same people for the next four years. I mean, I've had the same people in every class. Some of the people in my classes now, like, half of us go to the same class next after that one. We all walk together. S2: There's like a down side, because like our classes are a unique group of people that are up at the top and you only interact. . . it's like a different world. You might as well be going to a different school if you're in IB. S3: You really don't get a chance to socialize with the other people here who go to regular classes. It's like you don't know them really. (Inland Heights, SFG1)

The relative rigidity of the IB program (i.e., the reported restrictions it placed on class scheduling, extracurricular activity participation, and interaction with non-participants) were, not surprisingly, related to fewer IB student reports of friendships with non-participants and more reports of friendships within the program. AP students, on the other hand, who never complained about the rigidity of their program, on average, spent less time in advanced classes. As a result, AP students reported having more interaction with non-participants, and reported more non-participant and fewer participant friends than IB students. For example, one AP student suggested her school was not "cliquey": "We don't have like, 'You're a jock. You have to stay with the jocks. You're a smart person. . . ! Like, everybody kinda intermingles" (Arken, SFG1).

### **Feelings of Difference and Stereotypes**

IB rigidity (i.e., reported restrictiveness of class schedules, extracurricular activity participation, and interaction with non-participants) also translated into more frequent and negative reports of feelings of difference from non-participants and stereotypes of participants. One IB student explained that she felt separated and different from non-IB students:

S1: The only thing I don't like about IB is that you don't get to connect with the popular culture stuff, like you just form this really different group like, I just think like everyone else in school is so different. S2: It feels like a bubble. (Inland Heights, SFG1)

Another noted, "There is a very strong divide between IB and non-IB. Not like real strong, because I don't think people really discriminate, but it's there" (Ignacious, SFG9). It is likely that the higher degree of IB separation, relative to AP, fueled greater feelings of difference from non-participants, a stereotype of elitism, and associated antagonism between IB and non-IB students. Illustrating the IB stereotype, one former IB student noted, "The IB students sometimes are just exclusive. Some of them are not, but some of them don't talk to anyone who's not in IB because they're in IB and they're better than you are" (Ignacious, SFG5). IB students perceived the stereotype and antagonism as related to the rigid grouping philosophy of the IB program: "There were a lot of complaints about the IB people feeling superior and people being like, 'Ughh.' So we just came to an impasse because it's a 'school within a school.' What can you do?" (Ignacious, SFG9).

AP students, on the other hand, did not note such a strong divide between AP and non-AP students and did not feel as though other students regarded them as arrogant. Instead, they felt they were prejudged to be intelligent, and therefore felt pressure to act in certain ways:

I: Do the other people in your school who aren't enrolled in AP, do they look at you guys differently? Do they have like a preconception of you guys because you're in AP? S: Yes. You have to be like a total genius and when you. . . like say if you use a slang term or something, they look at you like, "Hold on! You're an AP student! What are you doing saying that?" (Appleton, SFG1)

They also noted much less, if any, animosity between participants and non-participants. For example, one AP student noted:

Everyone gets along really well. S2: Yeah. S1: Like especially in our grade, everybody. . . [there are] not that many people at all that don't get along with each other. Maybe like a handful, but other than that, we're all just like, "So, let's all go to the basketball game!" (Arken, SFG1)

In general, unlike IB students, AP students did not report feeling all that different from non-participants or relegated to either a higher or a lower social status as a result of their participation.

### **Emotional Consequences**

Both AP and IB students attributed adverse emotional consequences to their participation in their respective programs, but IB students reported emotional volatility, anxiety, and fatigue more frequently and with more intensity than AP students. IB students the stress they experienced with statements such as, "Sometimes I get to the point where I feel I'm about to have a nervous breakdown, and I just start breathing in and out really slowly" (Ignacious, SFG4), "We're a walking emotional bomb" (Inland Heights, SFG1), and "We're worse than like a Chevy truck, and they break down all the time!" (Ignacious, SFG1). IB students also expressed anxiety in statements such as, "We're, like, so Type-A, and compulsive about doing everything" (Inland Heights, SFG1), and:

S1: I just sit there, and you're like, "I'm supposed to be doing something. I should be doing something!" S2: You feel bad about not doing something. S1: Yeah. We all like do homework during lunch. You have to use every minute. (Inland Heights, SFG1)

Finally, IB students called attention far more frequently, and with more intensity than AP students, to their chronic fatigue. They also repeatedly reported their clear desire to sleep in their spare time. Statements such as these were frequent: "Seriously, so many people are chronically tired" (Ignacious, SFG9); "I don't remember a day I have not been tired since freshmen year" (Ignacious, SFG1); "Sometimes I think, 'God, I want to go to bed now!'" (Ignacious, SFG1); "S1: If get 6 hours of sleep, I am so happy! S2: Well yeah. We all don't get enough sleep. (All students agree)" (Inland Heights, SFG4); "S1: Well, I've gotten used to it. Like, I'll go like days without sleep. S2: Yeah. S3: Running on two hours of sleep. . . (Inland Heights, SFG4); "We have so much work on us at home, and we come to school and we're tired, and we don't feel like doing anything" (Ignacious, SFG1); "I'm a student athletic trainer at school, and I like doing that. And besides that and school, I spend most of my time asleep. Any spare moment" (Ignacious, SFG1); and "I: What do you do for fun? S1: Sleep" (Ignacious, SFG1).

Although IB students more frequently reported intense fatigue than AP students, both AP and IB students believed that they did not get enough sleep, and they attributed

fatigue to the intense workload of their programs. Many students explained that in order for them to be able to complete their work, they had to sacrifice sleep.

**Research Question 3: *Do AP and IB Students Report Experiencing a "Forced Choice Dilemma" Whereby They Must Choose Between Academic Success and Social Acceptance?***

The AP and IB students interviewed in this study did not report experiencing the "Forced Choice Dilemma" between academic achievement and social acceptance that Gross (1989) theorized. Achieving academically was not a choice for these students at this point in their academic careers—by enrolling in AP and IB courses, they had already prioritized academic achievement. Furthermore, the students in this study indicated that they did not feel they had to choose between having a social life and achieving academically—they believed they could successfully balance both. For example, an IB student noted: "It's all about time management. If you know how to balance your time and everything, you can have your social life and your rigorous IB classes" (Inland Heights, SFG4). An AP student's comments agreed: "It's like athletics, clubs, still go out on the weekends, still hang out with your friends, but you get the job done" (Arken, SFG1). Most of the interviewed AP and IB students emphasized that it was important to them to maintain both a social life and academic achievement. An IB student's comments echoed this idea: "You have to balance out extracurricular activities and all the things you do after school with school" (Ignacious, SFG1). In addition to being important, students felt that "having it all" could also be a learning experience in itself. IB students explained: "S1: You can have a social life and a job and do the IB Diploma. S2: That's what I'm doing. S3: It teaches you a lot" (Inland Heights, SFG1). In short, AP and IB students did not see academic achievement and social acceptance as mutually exclusive; they wanted to—and believed that they could and should—"have it all."

However, to have enough time to "have it all," time to balance a heavy workload with time to spend with friends, most students indicated they had to sacrifice something. A group of Ignacious IB students, for example, illustrated the dilemma:

If you want to go out, you are not going to get your homework done. . . S2: Or you're not going to sleep (laughing). S1: And then you get down to like 4 hours of sleep, and you die the next day. (Ignacious, SFG4)

Most students in this dilemma chose to sacrifice sleep. Therefore, if the AP and IB students in this study faced a "forced choice dilemma," it was between a desire to "have it all" and the need to sleep. One AP student explained: "I'll get to college by going to class, by not necessarily sleeping" (Appleton, SFG4).

In general, AP and IB students tended to prioritize maintaining both academic success and an active social life over getting enough sleep. Students noted they chose to sacrifice sleep because they owed it to themselves to socialize with friends for the hard work they did during the week, and because they could sleep through their other classes. For example, a group of IB students noted:



S1: I need to go out! S2: Yeah, we need to. S1: The way I see it is I'm working so hard all week and I owe it to myself to go out. S2: You can sleep in class. S3: It's not like I sleep anyways, so what's the (inaudible)? I'm going out! S2: If I'm lucky, I'll get to sleep in. S3: And if not, I doze off in class. (Inland Heights, SFG4)

The need to sacrifice sleep to maintain social and academic activity was more prevalent in the comments of IB students than AP students, a trend that is illustrated in Figure 1, along with the variation between AP and IB students on the other aforementioned themes.

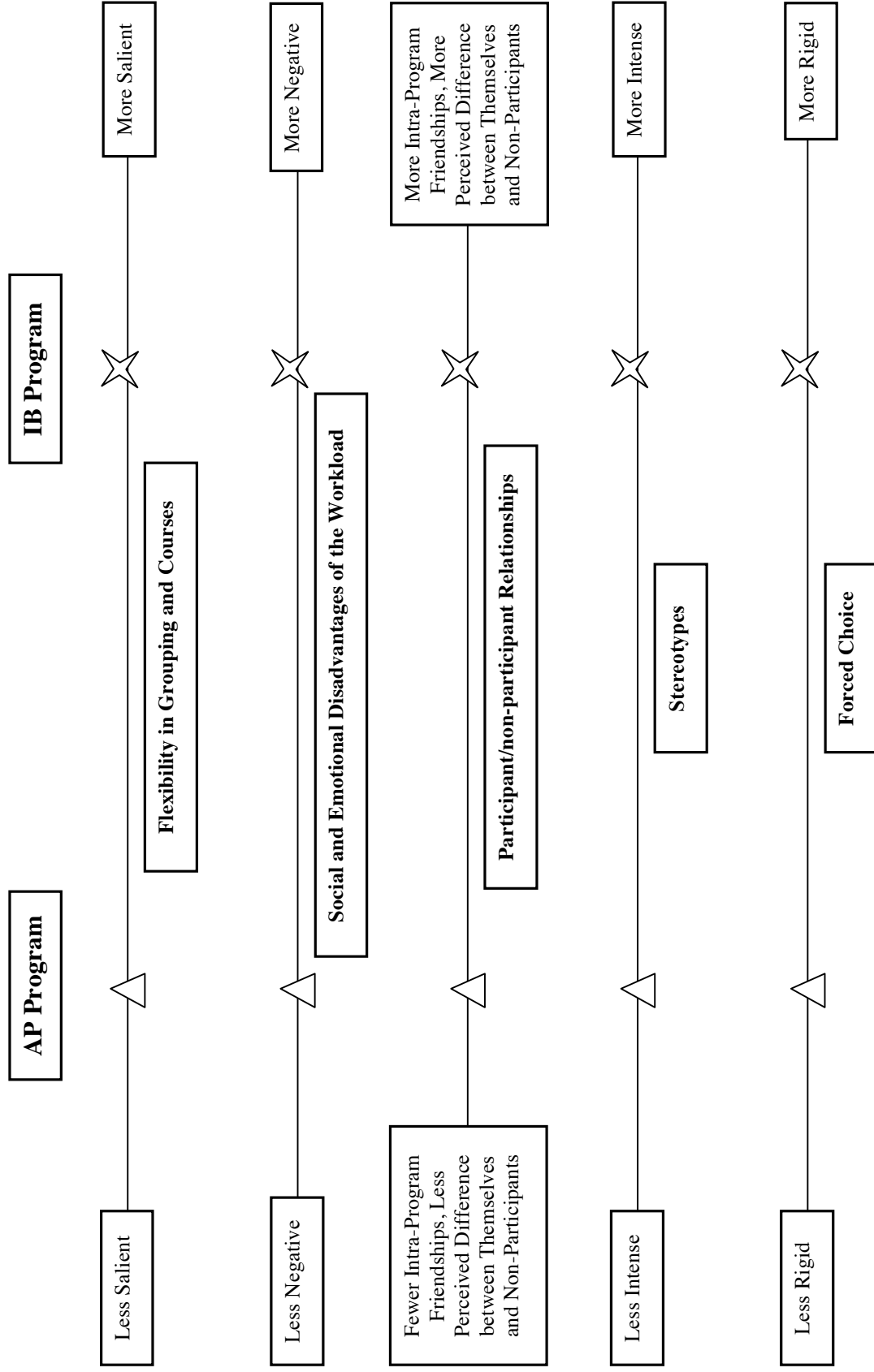


Figure 1. A comparison between AP and IB student comments on major themes.

## Summary of Findings

The current study sought to answer the following research questions. (a) Do AP and IB students perceive social and/or emotional advantages and disadvantages to AP/IB enrollment? (b) What are the differences between students' perceptions of social and/or emotional implications of enrollment in these courses? and (c) Do AP and IB students report experiencing a "forced-choice dilemma" whereby they must choose between academic success and social acceptance?

The results suggested that AP and IB students experienced both positive and negative social/emotional consequences of their participation in these programs. Among the significant social/emotional benefits AP and IB students attributed to their participation in AP and IB courses versus general education courses were (a) a better class atmosphere, b) a special bond among participants, and (c) pride and self-confidence derived from completing the more challenging work offered in these courses. Three disadvantages also emerged: (a) The perception of unflattering stereotypes assigned to AP and IB students, b) the socially limiting workload, and (c) stress and fatigue.

Student perceptions of the social/emotional consequences of AP and IB participation also differed by program. Students in the IB program were more likely than those in AP to complain about the rigidity of their program because of the reported limitations it placed on class choice, extracurricular activities, and interactions with non-participants; to cite differences between themselves and non-participants; to perceive a negative stereotype associated with the program; and to report experiencing great exhaustion they attributed to the workload. Finally, AP and IB students reported a new type of forced choice dilemma: one between maintaining social and academic success and a getting a healthy amount of sleep. These students did not consider academic success a choice and felt that they could maintain both a social life and their academic success; however, having both social and academic success required them to cut back on other time-consuming activities. In response, students chose to sacrifice sleep.

## Discussion

Four major areas of interest arose from the results of the current study, all of which have broader implications for the field of gifted education: advanced students' perceptions of the improved classroom atmosphere of AP and IB courses over general education courses; the discomfort AP and IB students felt about their advanced academic abilities and interests when in the presence of students who did not share these abilities and interests; the impact of the amount of time spent in homogeneously grouped classrooms on students' perceptions of difference and isolation from non-AP or -IB peers; the desire many AP and IB students expressed to maintain both an active social life and academic achievement, often at the expense of healthy amounts of sleep; and the high level of stress reported by many AP and IB students.

## **Perceived Social/emotional Implications of AP and IB Participation**

### **Improved Learning Environments**

Chief among the social/emotional benefits students attributed to their participation in AP and IB courses was the improved class atmosphere over general education courses. AP and IB students believed that they received better treatment from teachers when in AP and IB courses and enjoyed the increased homogeneity among the students in these courses. These factors, students noted, contributed to their preference for AP and IB courses over general education courses and were consistent with previous findings (Adams-Byers et al., 2004; Coleman & Cross, 1988; Cross et al., 1993; Gross, 1997, 1998; Janos et al., 1985; Kubitschek & Hallinan, 1998; Lando & Schneider, 1997; Manor-Bullock et al., 1995; Wright & Leroux, 1997).

On one hand, it is comforting that AP and IB students perceive advanced classrooms to be socially comfortable and emotionally safe. On the other hand, AP and IB students reported feeling discomfort in general education classes due to their perception of these courses' low level of challenge and the teachers' need to focus on classroom management at the expense of instruction. As many advanced students spend much of their instructional time in general education courses, these findings are disturbing. It seems that many advanced students must wait until late in their high school careers to meet with challenge and classroom environments in which they feel comfortable.

Furthermore, the low level of challenge and low expectations that AP and IB students characterized as typical of many general education courses raise concerns over the fit of these courses for *all* students, indicating a need to focus efforts on raising the level of challenge in all high school courses and prepare teachers to differentiate curriculum and instruction to meet the needs of a broad range of learners in their classrooms.

### **Feelings of Difference From Peers**

Interviewed AP and IB students identified several disadvantages to participation in advanced courses that were consistent with previous literature: feelings of difference and isolation from students who did not participate in advanced courses, the perception of unflattering stereotypes surrounding AP and IB students, and the high level of stress that they experience (Chan, 2004; Coleman & Cross, 1998; Cross et al.; Janos et al., 1985; Manor-Bullock et al., 1995; Swiatek, 1995, 2001, 2002; Swiatek & Dorr, 1998). The feelings of difference from peers who did not participate in AP and/or IB courses and feelings of stress that interviewed students reported was linked to the amount of time they spent in ability-grouped settings; IB students and students who took a heavy AP course load—that is, students whose schedules tended to be rigid and contained mostly ability-grouped courses—were more likely than students taking only one or two AP courses to report being negatively stereotyped by other students, feeling different from general

education peers, having fewer friends outside of their advanced courses, and experiencing stress and fatigue.

Interestingly, while many students indicated feeling uncomfortable about their participation in AP and IB courses when socializing with non-AP and -IB students, many also reported feeling uncomfortable about their advanced academic abilities and interests when learning in heterogeneously grouped, general education classes. It seemed, regardless of the context (i.e., social or academic), many advanced secondary students reported feeling discomfort as a result of their advanced academic abilities and interests when in the presence of peers who did not share these abilities and interests. The only time these students reported feeling *comfortable* with their talents was when they were surrounded by students of like interest and ability—but this comfort disappeared as soon as they were put in the context of mixed-ability peers and attention was drawn to their abilities.

Whether the discomfort advanced students reported feeling resulted from their own feelings of difference from other students or from other students' treatment of them was unclear in this study. Some prior empirical and theoretical literature indicates that advanced students may perceive themselves as different from other students and view giftedness as a stigma, regardless of the veracity of this belief (Chan, 2004; Coleman & Cross, 1988; Cross et al., 1993; Janos et al., 1985; Manor-Bullock et al., 1995; Swiatek, 1995, 2001, 2002; Swiatek & Dorr, 1998). Other researchers and theorists suggest that the environments within our nation's public schools are unsupportive of and even hostile toward intellectuals (Howley, Howley, & Pendarvis, 1993; Schroeder-Davis, 1999).

The academic homogeneity of AP and IB classroom environments seemed to increase students' comfort while learning, but also seemed to increase students' discomfort when interacting with non-AP and -IB students. This phenomenon seemed to intensify in relation to the amount of time students spent in academically homogeneous classrooms. This seems to support prior literature on the academic benefits to advanced students of learning in academically homogeneous settings (Adams-Byers et al., 2004; Feldhusen & Saylor, 1990; Kulik & Kulik, 1992; Sowell, 1993; Wright & Leroux, 1997), as brain research indicates that we learn most effectively in emotionally safe and comfortable environments (McGaugh, Introini-Collision, Cahill, Castellano, Dalmaz, Parent, & Williams, 1993; see Erlauer, 2003 for a review). However, it also indicates the need to develop programs for advanced secondary students that allow them to feel comfortable, both about their own abilities and the abilities of others, when interacting and working with *all* students. Most crucially, we need to develop high school cultures and classrooms in which the broad range of individual student talents and interests represented in the population are nurtured, supported and celebrated, and in which motivation to learn and engaging, challenging curriculum are not privileges reserved for advanced students in advanced courses.

## Forced Choice Dilemma

Students in this study did not experience a "Forced Choice Dilemma" as described by Gross (1989). Gross (1989) posited that a forced choice exists between academics and affiliation, stemming from the social rejection that accompanies pursuing academic achievement. AP and IB students interviewed in this study indicated that they did not feel rejected by their general education peers if they chose to pursue academic achievement. While they did report experiencing feelings of discomfort about their abilities around students who did not share these abilities, they did not indicate that this had an impact on their social status, as suggested by Gross' theory. Student interviews instead seemed to indicate that AP and IB students believed they could—and should—pursue both academic achievement and social lives, even though they needed to sacrifice sleep to do so.

The consistent reporting of sleep sacrifice by AP and IB students was concerning. Research suggests that sacrificing sleep has detrimental emotional and physical consequences that can impact student health and school performance, such as memory problems, attention lapses, slowed reaction time, depressed mood, irritability, decreases in divergent thinking, ill health, increased school absences and poor grades (Carskadon, 1999; Dahl & Carskadon, 1995; Frederickson, Rhodes, Reddy, & Way, 2004; Randazzo, Muehlbach, Schweitzer, & Walsh, 1998; Roberts, Roberts, & Chen, 2001; Sadeh, Raviv, & Gruber, 2000).

Despite the consequences of getting insufficient amounts of sleep, most AP and IB students indicated that going to bed late, getting up early and sometimes not sleeping at all was the only way they could fit everything in. And despite the fact that AP and IB students repeatedly indicated that they *chose* to pursue both academic achievement and a social life, most complained of experiencing a great deal of stress as a result of their demanding schedules. However, they did not seem willing to sacrifice either academic achievement or social opportunities to abate the stress. It appeared very important to interviewed students that they be able to achieve both, and be perceived as being capable of achieving both.

Research on gifted females (Callahan et al., 2004; Hollinger & Fleming, 1984; Reis, 1995) illustrates the existence of a similar phenomenon in young gifted women. Callahan et al. (2004) called the phenomenon the "Superwoman Syndrome," which is characterized by a desire to "do it all"—that is, fulfill multiple roles—without the knowledge of how to manage and balance these roles, leaving women overwhelmed and unable to participate in activities they find personally fulfilling. Could many of the advanced students interviewed in this study be experiencing a related "Superstudent Syndrome," in which they feel pressured to fulfill the multiple roles of high-achieving student and successful social being, without support or tools to balance them?

The results of this study indicate that stress and fatigue are conditions that most AP and IB students willingly accepted as intrinsic to the academic paths they were on—paths they saw leading directly toward successful futures. It seems important, then, that

high schools be aware of the stress and pressure that many of the students taking AP and IB experience and provide support for them, such as seminars on stress reduction, coping with stress, time management, and making thoughtful choices. It also seems worthwhile to examine the nature of the heavy workload within AP and IB courses to ensure that students are encountering rich, challenging curriculum, not simply "more work."

Furthermore, educators and researchers concerned with secondary education need to investigate the extent to which advanced high school students are really experiencing maintaining a successful social life along with a successful academic life as a *choice*, and the extent to which they are feeling pressure to "have it all." Do students *not* enrolled in advanced courses experience the same desire to balance academic achievement and social life? Further, we need to investigate to what extent the modern college admissions process, in which students are encouraged to take the most challenging courses offered in their high schools while also participating in a broad array of extracurricular activities, contributes to the heavy demands that AP and IB students put upon themselves early and often in their educational careers.

## **Summary**

The results of this study indicate that AP and IB students are largely relieved by the environments and level of challenge they encounter in AP and IB classes. Most indicate that AP and IB courses represent their first real encounters with challenge in public education classrooms. And while most AP and IB students did not describe experiencing the "Forced Choice Dilemma" as described by Gross (1989), many indicated that their desire to maintain both an active social life and successful academic life caused them to experience stress and could only be realized through sacrificing sleep. When considered in combination, the results of this study suggest that much of the stress that AP and IB students encounter may be due to a lack of past opportunities to meet with challenging curriculum. Because many advanced secondary students have not had a chance during their academic careers to wrestle with the demands of a challenging curriculum, many may not have developed the skills necessary for coping with stress. This underscores the importance of ensuring that the K-12 curriculum includes opportunities for all students, including the most advanced, to experience high-level challenge and high expectations geared toward their individual readiness levels.

## **Recommendations**

1. *Better equip students to handle the rigor and challenge currently required in advanced courses (especially IB).* Advanced students interviewed in this study, and especially students in IB, reported routinely sacrificing sleep to finish their homework and experiencing stress and other psychological consequences as a result of their participation. Therefore, we must either reevaluate the amount of work assigned to these students or better prepare them for the demands of these rigorous programs by providing workshops, seminars, or classes that focus on

stress reduction and healthy coping skills, and confronting these students with appropriately challenging curriculum before they are 17.

2. *Increase flexibility of grouping in advanced courses (especially for IB) while maintaining the positive characteristics of these courses that these students loved.* The more time students spent in classes with only other advanced students, (a) the more compliments they had about their program-mates and classes, but b) the more complaints they reported about the socially and sleep-limiting workload and interacting with the "other" students at their schools. While taking care to maintain the major positives that students associated with their participation in these ability-grouped settings, schools must mollify the negatives by encouraging advanced students to work and take classes with students with diverse talents and opinions, thereby nurturing a sense of school- in addition to program-community.
3. *Help teachers (a) better respond to the needs and nature of individual students and b) establish learning environments in which all students will thrive through differentiation.* Training teachers in differentiation (i.e., Teaching them how to better attend to the academic and affective needs of individual students by providing appropriately challenging curriculum in a respectful and supportive environment) will help teachers be more effective, regardless of their students' levels of ability. In addition, differentiation should make general education classrooms feel more similar to advanced courses in challenge, instruction and atmosphere. Thus, differentiating instruction in all classrooms should perpetuate the maintain characteristics advanced students used to describe their AP and IB classrooms, reduce the negative characteristics they used to describe their mixed-ability classes, and improve the challenge, instruction, and atmosphere in classrooms school-wide.



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**APPENDIX A: KEY TERMS**





### **Advanced Placement (AP)**

Originally developed to provide motivated high school students with the opportunity to earn college credit, the AP program currently comprises 31 AP courses and 34 exams across 19 subject areas. Students can choose any number of these courses to complete, subject to his or her school's offerings. AP teachers are provided syllabi, sample exam questions, and recommended texts and activities, and attend curriculum and instruction workshops offered by a number of agencies working jointly, including the Educational Testing Service (ETS), the College Entrance Examination Board (CEEB), and The Educational Testing Service (ETS) to help them teach their students more effectively and ready them for the year-end examinations. Each examination, given at the end of the course and treated as independent from class work completed during the year, is standardized and scored by independent examiners. Scores range from 1 to 5 with a score of 3, 4, and 5 roughly equaling a C, B, and A respectively in a university introductory course (College Board, 2005a); however, the score necessary to earn credit for the corresponding introductory course at a university varies as the criteria is independently set. The examinations, like the courses, are developed in consultation with college faculty and high school teachers who are experienced in Advanced Placement teaching (College Board, 2005b).

For the past 50 years, the number of participating high schools and participating students, the number of exams administered, and the number of participating colleges have grown at a steady pace. In 2005, 1.2 million students from 15,000 schools took 2.1 million exams. About 60 percent of American high schools offer Advanced Placement courses and most American colleges and universities, as well as international institutions in more than 30 countries, provide credit, differential placement, or both for qualifying AP exam scores (College Board, 2005b).

### **International Baccalaureate (IB)**

The International Baccalaureate Program was designed for "highly motivated secondary school students aged 16 to 19" (International Baccalaureate Organization (IBO), n.d.a). Because the IB program originated from a goal to standardize programs across international school situations, its organization and philosophy differ from the Advanced Placement Program. First, the IB program is a *program* of studies. Each participant is expected to complete a course of study following specific requirements. While the Advanced Placement courses are not tied to a program, but stand as individual educational pursuits, the aim of the IB program is to transcend achievement of particular content-related goals in specific subject areas to achieve the more comprehensive goal of developing "inquiring, knowledgeable and caring young people who help to create a better and more peaceful world through intercultural understanding and respect" (IBO, n.d.b). And unlike the AP program, schools offering IB must be approved through formal application and a review process. The application requires that the school offer all of the courses in the program that lead to the diploma.

Approximately 75% of the candidates earn an IB diploma each year (IBO, 2003). To do so, they must complete (a) one subject from each of six categories of study, (b) at least three (but not more than four) subjects at the "Higher Level" (HL), which translates to two years (or a minimum of 240 teaching hours) of in-depth study and then an exam, (c) three subjects at the "Subsidiary Level" (SL) (one year of study, followed by the IB exam), (d) a Theory of Knowledge course spanning two years, which was created to foster questioning of assumptions about knowledge, becoming aware of ideological biases, and building competencies in the analysis of evidence, (e) standardized examinations, (f) an Extended Essay of 4000-5000 words about an independent study of a self-selected topic, and (g) a Creativity, Action, Service (CAS) project (IBO, 2003).

The six clusters of course selections include courses in the following areas:

*Group 1: Language A1*

This group of courses promotes an "appreciation of literature and a knowledge of a student's own culture along with that of other societies," "emphasizes skills involved in writing and speaking in a variety of styles and situations," and is "designed to develop students' powers of expression, both in oral and written communication," (IBO, 2003, p. 17).

*Group 2: Second Language*

To demonstrate fluency, all diploma candidates must pass an exam focusing on written and oral communication in a second language.

*Group 3: Individuals and Societies*

Subjects within this group include business and management, geography, history, information technology in a global society, philosophy, psychology, and social anthropology.

*Group 4: Experimental Sciences*

Biology, chemistry, physics, environmental systems, and design technology courses are included within this group. The IB program brochure stresses that within this cluster, students are expected to develop laboratory and collaborative learning skills, as well as understand the social and historical aspects of science as a dynamic, evolving body of knowledge about nature.

*Group 5: Mathematics*

Four courses in mathematics are available, including Mathematical Studies and Mathematical Methods at the "Higher Level" (HL), but every student must complete at least one.

*Group 6: Arts and Electives*

Courses in this group include visual arts, music and theater arts. Introduced as pilots in 2001, three new subjects within this group, which enable students to satisfy the requirements of two groups at the same time in one subject, are text and performance (group 1 and group 6), ecosystems and societies (group 3 and

group 4), and world cultures (group 3 and group 6). They provide a new opportunity for IB students to foster transdisciplinary learning and greater access to all six subject groups (IBO, 2003).

The IB program requires a considerably greater school commitment of financial and personnel resources than those required for a school's participation in the AP course structure. Participation in the IB program requires an application fee, annual participation fees, participation in teacher training that necessitates release time, travel and training fees, costs for authorized IB consultants, and funding of the position of IB Coordinator.

The IB program has not grown as rapidly as the AP program. In the year 2005, over 50,000 students from 1,597 schools in 122 countries worldwide (IBO, 2005) were enrolled in the IB Diploma program (IBO, 2003). One factor that may account for the more gradual growth of the IB program than the AP program is the much higher cost to schools to implement the IB program. A second factor is the commitment to a full course of study required for the IB program, compared to the AP program which allows students to choose which course or courses to take.

### **Advanced Learner**

The interviewed students in this study who participated in AP and IB courses are considered "advanced learners." In this study, the term *advanced learners* refers to students identified as gifted as well as students who are high-achieving but not labeled as gifted. An *advanced learner* is a student who learns at a faster pace, understands advanced and complex concepts in a variety of reasoning domains (Janos & Robinson, 1985; Karnes & Oehler-Stinnett, 1986; Renzulli, n.d.; Tannenbaum, 1983) and is able to apply them in novel situations (Renzulli, n.d.), engages in more independent learning and metacognition (Monks & Von Boxel, 1985), is persistently intellectually curious, shows initiative and flexibility in thinking, and exhibits greater efficiency in problem-solving (Renzulli, n.d.; Saul, 1999). Although advanced learners differ cognitively from the general population, Robinson's (2002) review of the literature notes that there are no significant differences between the social/emotional adjustment of advanced learners and the general population, nor do advanced learners have any specific vulnerabilities associated with their giftedness. However, advanced learners may face certain situations, such as inappropriate placement in educational settings and lack of support for their special needs from significant others, and possess certain traits, such as anxiety and perfectionism, cognitive and emotional intensity and sensitivity, and asynchrony in development, that can result in inappropriate treatment from parents, teachers, and peers, as well as confusion and negative affect in the student. Although none of these traits or situations is unique to this population, they can, individually or in combination, uniquely hinder advanced learners' positive social/emotional development (Robinson, 2002).

### **Social/Emotional Needs**

Generally speaking, the social and emotional needs of advanced learners are similar to those of other learners (Webb, 1994). For example, all children need to feel safe, loved, and supported, and the way they feel these important *emotions* is through *social* contact. Therefore, these two realms (*emotional*, pertaining to what is felt within an individual, and *social*, pertaining to an individual's relationships with people in his or her environment) greatly affect and are affected by each other. For these reasons, we will refer to these needs together by using the term "Social/Emotional." Mahoney (1998) argues that healthy identity formation of advanced learners depends upon the fulfillment of four social/emotional needs: the need for validation (i.e., the acknowledgement of one's giftedness by significant others), affirmation (i.e., the process of reinforcing and thus making more permanent the characteristics of one's giftedness), affiliation (i.e., the association and feeling of alliance that one may have with others of similar abilities and interests), and affinity (i.e., one's drive to fulfill his or her purpose, mission, or calling in life). The extent to which these needs are satisfied should, along with the level of academic challenge offered, be taken into account when evaluating the appropriateness of educational experiences and settings for advanced learners.

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The National Research Center on the Gifted and Talented  
University of Connecticut  
2131 Hillside Road Unit 3007  
Storrs, CT 06269-3007  
www.gifted.uconn.edu

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