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Intellectually Gifted Females and Their Perspectives of Lived Experience in the AP and IB Programs

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The Advanced Placement (AP) and International Baccalaureate (IB) programs serve as popular choices for many intellectually gifted high school students. This article describes an aspect of a larger study that examined 5 intellectually gifted females' perceptions of their educational experience while enrolled in one of the programs. Using the phenomenological method of qualitative research, this study reports that the participants identified various challenges within the curriculum as part of the overall AP and IB experience. In addition, the participants believe that the teachers in these programs heavily influenced their perception of their experience in the program.

Review of the Literature

This article describes a qualitative research study that examined the lived experience of five intellectually gifted females enrolled in the Advanced Placement (AP) and International Baccalaureate (IB) programs. In order to place this study into context, the literature review first discusses pertinent literature in the areas of gender bias, both generally and specific to intellectually gifted females. Next, the literature review contains information pertaining to curriculum and instruction for the gifted, as well as the latest research on counseling the gifted. Finally, I will present research pertaining to the influence peers appear to have over gifted females.

Social literature continues to suggest that females in the United States experience discrepancies when compared to males in the manner in which they are raised, educated, and socialized (Boyd, 1981; Campbell & Evans, 1996; Furnham, Reeves, & Budhani, 2002; Halpern, 2002; Kerr, 1994, 1996; Klein & Zehms, 1996; Nelson & Smith, 2001; Orenstein, 1994; Pipher, 1994; Read, 1991; Reis, 1998; Reis & Callahan, 1996; Rizza & Reis, 1991; Shoffner & Newsome, 2001). However, in a large part as a result of the women's rights movement, young women today experience more equality and personal rights than their grandmothers experienced. Nevertheless, most females of all ages continue to encounter obstacles to their goals that impede or prohibit success (Reis).

Some of the obstacles females continue to encounter directly involve curriculum and instruction within the classroom. Despite social progress towards female equality, high school girls today continue to report bias in the orientation of curriculum and the manner of instruction in traditionally male disciplines. For example, girls often describe encountering stereotypical gender roles within their high school science classes (Reis & Callahan, 1996). Moreover, adolescent girls also are 12 times less likely to speak up in class and 5 times less likely to receive attention

from teachers (Reis & Callahan). When females are asked questions in class, the questions often are phrased as simple, closed, and concrete questions, whereas boys are asked more abstract, high-level, open-ended questions (Pipher, 1994). Overall, studies of teacher attitudes, comparing their expectations for male and female students, indicate that teachers, regardless of their gender, describe males as more academically adept than girls (Read, 1991).

Teachers' views of their female students do not only affect their female students' performance in the classroom, but also impact the girls' future performances. Research indicates that although textbooks now include more references to women in prestigious careers, teachers continue to convey traditional attitudes and lowered expectations for female students (Reis & Callahan, 1996). These biases influence girls' attitudes towards career choices; if low expectations exist for girls, girls generally assume those expectations and do not strive for nontraditional careers. These biases influence the choices of all girls, including intellectually gifted girls. In the classrooms in the Reis and Callahan study, gifted girls were not discouraged from pursuing specific careers, but they were not actively encouraged either. At the same time, the researchers found that the boys in the classrooms were actively encouraged to pursue prestigious careers (Reis & Callahan).

These findings support another study conducted by Sally Reis (1998), which suggests that gifted females share numerous characteristics including a general lack of knowledge regarding how to prepare for their futures. Reis found that many young women think about all of the goals they wish to accomplish, but do not always think realistically about how they are going to achieve the life they wish to lead. In her research involving young gifted females, Reis found that many girls possessed a limited idea of how to become a doctor, lawyer, scientist, or other desired professional. The girls did not seem to comprehend the number of years of school their desired profession would take, the financial commitments the career would demand, or the cost their goals may have on their relationships with others (Reis). Furthermore, many gifted girls still operate under the belief that a young man will appear and take care of her for the rest of her life. Few girls understood that they too would have to work in order to support their family (Reis). In contrast, boys are brought up knowing that they will work throughout their lifetime. As a consequence, planning for the future always remained a focus for boys (Reis).

Researchers have suggested that the best way to combat girls' lack of understanding about their futures is to discuss the issue with them. Schools usually are in the position to open dialogue with female students about planning for life simply because one of the main purposes of school is to prepare youth for future careers and to expose them to as many different experiences as possible (Shoffner & Newsome, 2001). Because individuals begin to form their identity during adolescence, influences during this time period impact future career choices (Shoffner & Newsome). Therefore, it is important that adolescents receive some exposure and guidance in their future careers before and during the formation of their identity (Shoffner & Newsome). Furthermore, the combination of asynchronous development, heightened emotional sensitivity, advanced moral reasoning, and information processing drive the gifted adolescent towards the desire for identity, intimacy, and achievement at a much faster rate than an average adolescent of average ability (Shoffner & Newsome).

Shoffner and Newsome's study (2001) found that adjusting curriculum to add a career focus could assist gifted girls in achieving positive steps towards their desired careers. The authors argued that a great potential exists for girls to form an identity too quickly. Therefore, they stressed the need for curriculum that addresses career options and issues women face in making career choices. The authors recommended hosting career fairs, women speakers, and other activities to enhance units of study and emphasize nonstereotypical career choices for women (Shoffner & Newsome).

Contact with self-assured and prolific professional women in areas of interest to the student also was recommended (Shoffner & Newsome, 2001). A mentoring program, such as the "Program for the Exceptionally Gifted (PEG) Model Women" at Mary Baldwin College, offers gifted adolescent girls the experience of listening to and interacting with strong female leaders (Rhodes, 1996). Mentors typically discuss their prior educational coursework and the events that led to their current careers (Rhodes). Hearing women talk about their experiences not only opens dialogue with adolescent gifted females about their career possibilities, but also provides them with specific steps and information about how other women achieved their goals.

Exposing gifted adolescent girls to the steps used in planning for the future can make a marked difference in the lives of gifted females. Planning for the future not only helps females think about different career options, but also often prompts thought about how to plan realistically for balance in professional and personal life. Therefore, when a young woman meets a partner and falls in love, she has at least considered, and hopefully planned, how she will address her family's needs without giving up on her own (Reis, 1998). Finally, Shoffner and Newsome

(2001) argued that it is crucial that counselors, teachers, and parents find methods to initiate conversation about career options and also encourage thinking and planning for the future.

In addition to the need for career counseling to help gifted female adolescents plan for their futures, researchers generally agree that a social/emotional counseling component should exist in a well-planned program for intellectually gifted students (Colangelo, 1991; Fisher, 1981; Kerr, 1996; Moon, 2002; Tuttle & Becker, 1980; Woolcock, 1962). Counseling for this population is recommended for numerous reasons. First, some gifted children and adolescents deny their abilities and become underachieving students, while others need assistance understanding that not everyone has similar abilities (Tuttle & Becker). Second, many students face the issue of perfectionism, coupled with the fear of failure (Tuttle & Becker). Perfectionism is difficult for gifted students to cope with on their own because perfectionism often stifles creativity, as well as intellectualism. This can impact the willingness of gifted students to accept the challenges needed in order to grow academically, emotionally, and intellectually (Tuttle & Becker). Third, pressures from age-group peers and society can work against intellectually gifted students because much of popular culture represents values that may be vastly different from their inherent interests and values (Kerr, 1994). Peers and society may influence all intellectually gifted students, but research indicates that gifted girls are most susceptible to such influence due to the intensity of peer pressure on female adolescents (Kerr, 1994).

Counseling most often appears to be needed during early adolescence when gifted individuals seem to struggle with their sense of accomplishment and association (Moon, 2002). Furthermore, significant transitional events, such as transitions to new schools or even to new gifted programs, can prompt the need for counseling (Moon). Guidance counseling can be useful when a former school or program was more academically challenging (Moon). In addition to these specific instances, there also are distinct subgroups within the gifted population that traditionally require counseling services. These groups include highly gifted children that are placed in general education classrooms, twice-exceptional students, underachieving students, adolescent and adult females, gay and lesbian individuals, and cultural and ethnic minorities (Moon).

In addition to counseling, any program that nurtures gifted learners must incorporate a challenging and appropriate curriculum that addresses the advanced intellectual needs of gifted students. However, gifted programs cannot survive without quality teaching. A curriculum, regardless of how ingenuous, always will be hindered by poor instruction. Overall, the literature indicates that teachers of gifted students should possess high intelligence, expertise, and a passion for the areas in which they teach (Coleman & Cross, 2001; Feldhusen, 1991; Schwartz, 1994; Tuttle & Becker, 1980; Vassar, 1980; Woolcock, 1962). Some educators have argued that the teachers of gifted students must themselves be gifted in order to understand their students' intellectual, academic, and emotional needs fully (Woolcock). The literature indicates that strong teachers of gifted students possess inherent personality traits mimicking the traits found in gifted students.

Similar to other adolescents, peers have a profound impact on gifted adolescent females. It is believed that peer influence is one of the major factors responsible for the lower enrollment of gifted adolescents in gifted programs (Reis & Callahan, 1996). Further, although females usually comprise a small majority of participants in gifted programs from kindergarten to ninth grade, after ninth grade the proportion of gifted girls in gifted programs drastically decreases (Read, 1991; Reis & Callahan). In her study on gender enrollment in gifted programs, Read asserted many explanations for why girls decide to drop out of gifted programs. One of the most commonly cited reasons for this phenomenon was the influence of peers. The desire for peer acceptance outweighs the desire for intellectual and academic stimulation in the minds of gifted adolescent females.

Surrounding gifted females with other gifted females may limit this negative peer influence (Silverman, 1986). In a case study conducted by Celeste Rhodes (1996), the participant, a gifted adolescent female, formed strong alliances with other gifted girls. Her gifted female peers provided her with emotional support and friendship, as well as intellectual stimulation, in her classes for the gifted.

Any educational program for gifted adolescent females encounters and must address issues of societal gender bias, curriculum, instruction, counseling, and peer relations. The AP and IB programs, with their population of gifted adolescent females, therefore, should pay particular attention to these issues. Although thousands of gifted females participate in these programs, no research has been conducted specifically to ascertain these students' perceptions of their educational experiences. This article describes a study that examined five intellectually gifted females' educational experiences while participating in the AP and IB high school programs.

Advanced Placement and International Baccalaureate Programs

Approximately 13,680 high schools nationwide offer courses in the AP program (College Board, 2005). The International Baccalaureate program, another academically accelerated program, now is sponsored in almost 100 countries around the world (Tookey, 2000) and 479 schools in the United States (International Baccalaureate Organization, 2005). Schools that participate in these two programs offer accelerated classes to juniors and seniors in high school, although some schools open AP and IB classes to younger students. The curriculum is advanced in nature, and both programs purport to instruct at the college level. In addition, students participating in these programs generally receive course credit by most universities upon passing exams at the end of the school year (Curry, MacDonald, & Morgan, 1999; Gazda-Grace, 2002).

Depending on the school's structure, schools offering AP courses encourage freshmen and sophomores intending to enroll in AP classes to participate in accelerated or honors classes, which are designed to prepare them for the AP classes offered for juniors and seniors. However, some schools permit freshman and sophomores to skip these accelerated courses and attend AP classes as younger students. The AP program in the high school involved in this research study primarily placed juniors and seniors in the AP classes, although exceptions were made for some younger students.

Comparatively, students registered in the IB program participate in Pre-IB classes that purport to offer appropriately challenging classes to underclassmen. The IB program offers students the choice of obtaining an IB diploma or an IB certificate. The IB diploma requires students to take additional classes and end-of-the-year examinations. Specifically, diploma students must take two languages (English and one other) and enroll either in a creative or performing arts or technology based course for all 4 years. In addition, IB diploma students must complete 216 volunteer service hours during their junior and senior years and complete six exams before graduation. IB certificate students take fewer upper level IB classes and take three IB exams at the end of senior year. The language, arts, and service hours are not required of certificate students.

Neither the AP nor the IB program has been designed to address the specific needs of gifted adolescents specifically; however, many gifted students find themselves enrolled in one of these two programs because of the lack of other available advanced courses. With the number of gifted adolescents enrolled in these programs, investigations as to their educational experiences are warranted.

Although much research has been conducted on programs for gifted students and the issues that affect females in the classroom, few studies offer an examination of the curriculum and instruction for this population through the perspectives of the students who directly experience the AP and IB programs. Much of the research on gifted students neglects to examine the students' perceptions of their high school experiences. This study examined the experiences of five intellectually gifted high school girls in the AP and IB programs using the phenomenological method of qualitative research.

Definitions

Two key terms are used throughout this article. *Academic acceleration* describes a method of instruction for gifted or accelerated students that accommodates individual educational experiences based on ability rather than chronological age. Academically accelerated classes use materials that are advanced by one or two years relative to the students' ages (Schwartz, 1994) or speed up the pace of instruction in order to condense a year's worth of material into a semester or a quarter. Both the AP and the IB programs offer students a form of academic acceleration (Rogers, 2001; Tookey, 2000; VanTassel-Baska, 2001).

Second, this article uses the term *intellectually gifted* (National Association for Gifted Children [NAGC], 2003). As the term is used generally, it refers to the definition of intellectually gifted promulgated by NAGC. The participants in this study all had been identified as intellectually gifted through the use of behavioral checklists and by scoring in the top 3–5% on the Cognitive Abilities Test (CogAT).

Purpose of the Study

The design of the study permitted close examination of the secondary school experience of five intellectually gifted females attending public high schools. This article describes the results of a larger study. The original study addressed not only the curricular and instructional aspects of each participant's perception of her education, but also the numerous psychological and social aspects associated with each participant's giftedness. In addition, this study combines the qualitative methodology of phenomenology with the methodology of educational criticism. This article reports only the findings related to the curriculum and instruction experienced in both programs as revealed by the participants in phenomenological interviews.

Method

Phenomenology

The word *phenomenon* means, "to bring to light, to place in brightness, to show itself in itself, the totality of what lies before us in the light of day" (Moustakas, 1994, p. 26). A phenomenology describes the meaning of the lived experience for several individuals about a concept or a phenomenon (Creswell, 1998). This qualitative tradition centers on people's perceptions of their own experiences and interactions with the world (Creswell). Overall, the aim of a phenomenological study is to:

> determine what an experience means for the persons who have had the experience and are able to provide a comprehensive description of it. From the individual descriptions general or universal meanings are derived, in other words, the essences or structures of the experience. (Moustakas, p. 13)

The examination of the experience of a phenomenon facilitates the understanding of others' experiences with similar phenomena. This assumption implies that the examination of a phenomenon through the perspective of one and then several participants in a study will provide an understanding of that phenomenon for a larger whole. This understanding of the experience that the participants share is then transferred to other individuals who currently are experiencing, or have experienced, a similar phenomenon.

Educational Criticism

The structure of an educational criticism is focused on description, interpretation, evaluation, and thematics (Eisner, 1998). After the researcher describes and interprets her setting, then evaluation and criticism occur. Criticism, as Eliot Eisner has explained it, "provides connoisseurship with a public face" (p. 85). In order to criticize, one must be a connoisseur of the subject. Simply stated, a description evokes images of what is observed so that the reader can render the best understanding possible of the phenomena. Interpretation gives the reader an "account for" the object studied (p. 95). Further, it offers an explanation as to the meaning of the described account. Evaluation places a value judgment on the account and attempts to answer the following questions: "Is this a good thing?" "Should this continue?" This evaluation creates another aspect where connoisseurship and knowledge of the subject play an important role. Finally, through thematics, the researcher closely examines the stories and describes similarities or themes. In this way, the educational critic summarizes and explains the trends that occur in her study (Eisner).

The intent behind both methods of qualitative research, phenomenology and educational criticism, is not to generalize to the greater population. Rather, the goal, as Eisner (1998) stated, is to extrapolate particular situations to analogous situations. Eisner calls this ability "naturalistic generalization" (p. 103), and differentiates this form of generalization from statistical "formal generalization" (p. 103). Statistical studies are based on random samples that, in theory, formally generalize to the greater population of that sample (Eisner). Conversely, in studies of particular cases, sampling is rarely random. However, Eisner argued that people also could learn from nonrandom experiences; what an individual learns in a particular setting (in this case, the experience of five gifted girls in AP and IB courses), becomes awareness when he or she faces a similar setting. Thus, in studies such as this, the process of naturalistic generalization does not serve the same purpose as formal statistical generalization. "The study does not claim that other schools will share identical or even similar features but rather that these are features one might look for in other schools" (Eisner, p. 103). It is within this spirit that this study was conducted.

Procedure

Participant Selection. Data for this study were collected from five participants. In order to identify participants correctly, criterion sampling (Rudestam & Newton, 2001) was used. The criteria for participation required the participants to be identified as intellectually gifted, be enrolled in an AP or IB program, and be female adolescents. Three participants were of European descent, one was of Cuban-Lebanese descent, and one was of Chinese descent. Both IB participants were former junior high students of the researcher's, and all three AP students were former students of a relative of the researcher, who teaches gifted students at the elementary level. The use of former students as participants in this research was primarily motivated by a desire on the researcher's part to interview and observe participants with whom a rapport and level of trust already had been established.

Phenomenological Interviews. Data were collected though phenomenological interviews. Unlike interviews for other types of qualitative research, phenomenological interviews are lengthy and in depth. Phenomenological researchers usually conduct a series of three interviews per participant (Seidman, 1998). Because the data in a

phenomenological study is gathered primarily and most importantly through interviews, the researcher develops protocols before each interview and ensures that the questions are written clearly and in a nonleading fashion. Interviews are spaced days apart (Seidman).

In this study, the first interview for each participant focused on reconstructing the participant's educational history through the retelling of early school experiences and self-reflection on those experiences. The second interview focused on the details of the participant's current educational experience, in this case her familiarity with the AP or IB program. The third interview prompted reflection and the creation of meaning from the previous interviews. The questions drew from the emotional and intellectual connections between each participant's experience and her reflection on the impact of those experiences.

The study's three-interview structure was chosen to because it "incorporate[d] features that enhance validity" (Seidman, 1998, p. 17). A three-interview construct places the participants in a context that the researcher and reader can understand (Seidman). Furthermore, the number of interviews and the time that elapses between interview sessions allows for the monitoring of internal consistency, which in this context refers to the similarity of each participant's statements in each interview (Seidman). Finally, each interview was transcribed and member checked.

Data Analysis

The research questions that guided the study also guided the development of the codes used in the analysis (Miles & Huberman, 1994). Statements related to the first question (What challenges do gifted girls who enroll in these programs face?), were given the code prefix of CH. From there, subcodes were derived based off of the interviews. For example, a phrase that consisted of a theme indicating a challenge with an intellectual peer was coded CH-P/INT (challenge, peer, intellectual peer). The research questions were used as code prefixes with further subdivisions according to topic. In the end, 82 codes were used to classify the participants' statements made in the interviews.

After the codes were developed, the transcripts were reread once again and statements and phrases carefully were coded and recoded. The codes were noted in the left-hand margin, and the right-hand margin was used to write comments, summaries, or observations about the transcripts (Miles & Huberman, 1994). In addition, a separate notebook was kept in which descriptions or comments that related to the text of the transcript were written. For example, if a participant made a statement concerning her positive interactions with an instructor, a detailed description of the particular incident observed in the field that supported her statement was recorded in the separate notebook.

Once the coding process for the interviews was completed, each interview transcript was read a final time with close attention paid to the frequency occurrence of particular codes. From this process, the themes for the interviews began to emerge. The same codes were used to analyze the field notes taken during observations.

Descriptions of Participants

The participants in the study attended two different schools in separate districts in a large city in the Western United States. The first, Green View High School (names of schools and participants have been changed to maintain anonymity), housed the AP program. Approximately 1,700 students attended the suburban campus of Green View High School at the time of data collection. At this time, Green View's ethnic mix was approximately 68% European American, 23% Hispanic or Latino, 4% African American, and 5% Asian and American Indian. The school graduates between 350–400 students each May (77% of the average senior class). According to the school's Web site, upon graduation most students continue on to postsecondary school. The statistics for the graduating class of 2003 indicated that 91% of the students planned to attend postsecondary education. Green View offered nine AP classes, most of which were core academic subjects such as math and English.

The IB program examined in this study was located at Arlington High School, which first opened in 1939. During the school's first years of operation, it was located at the northern outskirts of the city. Today, however, because of the rapid growth of the metropolitan area, the school now is positioned toward the center of the city. Arlington High School enrolls around 2,470 students each year. Sixty-five percent of the student population is Hispanic, 19% European American, 8% African American, 4% Native American, and 2% Asian. The graduation rate at the time of data collection was approximately 62%. Statistics on the percentage of students who continue to higher education did not appear on the school's Web site.

IB students at Arlington live in all sections of the city; however, Arlington High School also enrolls non-IB, "traditional students" who live within the district's geographical boundaries. Traditional students may take honors classes, as there are no AP courses offered at Arlington. Thus, the IB program at Arlington essentially constitutes a school-within-a-school (referred to as a magnet school).

For the most part, the students in the IB program enroll in completely separate classes and intermix with the rest of the school population only during lunch, assemblies, and extracurricular activities. Generally, students enrolled in the Arlington IB program spend their entire day only with other IB students.

Participants

Kiki, who attended Green View, is of Cuban-Lebanese descent and comes from an upper middle-class household. She was enrolled in most of the traditional academic AP courses during both her junior and senior years. Upon graduating from the eighth grade, she explored the option of attending the IB program at a different school in the city, as well as attending St. Stephen, a private Catholic college-prep school. After visiting and talking with other students at all three schools, she decided to attend Green View because she was confident that it offered her an education as strong as the other schools.

Chloe also comes from an upper middle-class family. She is the daughter of Chinese immigrant parents who came to the United States before Chloe was born. Chloe also attended Green View's AP program. She did not discuss any other plans that she may have had for high school. She enrolled at Green View and decided to enroll in all of the AP classes because, "whatever AP classes I can take, I'm gonna take . . . AP seems like it's above and beyond." Chloe also was extremely motivated to participate in extracurricular activities. For example, she was the senior class president and devoted a class period a day to counseling her peers.

Heidi, the final AP participant who attended Green View, is of Western European descent and from an upper middle-class home. Heidi's demeanor was more reserved than the other two young women. She often sat back and observed her surroundings before deciding to participate. Initially, she attended St. Stephen's Academy, but transferred to Green View at the beginning of her junior year. She said her decision to transfer was motivated by two factors: first, she wanted to be with the peers she had grown up with, and second, she felt that the academic demands of St. Stephen's were too onerous. "My life was not fun." For these reasons, she transferred to Green View, enrolled in AP classes, and met up with her intellectual peers from elementary and junior high school. She did not regret her decision to transfer schools.

Both of the IB participants were of Western European descent and came from families in the lower middle-class economic bracket. Bethany was a senior during the study and graduated with an IB diploma. The other IB participant, Julie, was a junior and was working towards obtaining the IB certificate. Neither Bethany nor Julie considered enrolling in any program other than the IB program at Arlington. Both girls lived outside Arlington's boundaries for standard enrollment and, therefore, would have attended another high school if they had not enrolled in the IB program at Arlington.

Thematic Findings

In an effort to understand the participants' experiences in the AP and IB programs, the study undertook to report the curricular successes experienced by the participants. Therefore, the following research questions guided the study: (a) What challenges did the intellectually gifted females encounter in the AP and IB programs? and (b) What were the experiences of intellectually gifted females who enrolled, and remain enrolled, in AP and IB programs?

All of the participants encountered challenges with the AP or IB curriculum. Aside from challenging experiences with the curriculum, all of the young women discussed experiencing additional challenges that were affective in nature. Second, the participants, in discussing both their past and present educational experiences, identified the extraordinary influence of teachers on their educational experiences and on their lives. Third, the participants in the study identified specific needs that they believed the programs successfully satisfied, which primarily involved affective needs such as academic and emotional support from their AP or IB teachers and their intellectual peers. However, several participants identified the lack of career and social/emotional counseling received in either program as problematic. The emergent themes summarize only these participants' experiences and do not generalize to all gifted females in AP or IB programs; rather, these experiences suggest themes for others to consider when examining this population.

Challenges

When asked to identify the most challenging experiences encountered with either AP or IB curriculum, the participants responded with an interpretation of the word *challenge* connoting a particular skill or subject in which they struggled to find immediate success. For example, Kiki used the term challenge in the context of the time she spent comprehending and analyzing literature as compared to the time required for her to reason through math problems. Kiki attributed the challenges she experienced to the

inadequate curriculum and instruction of her previous high school English classes, which she believed did not prepare her for the later AP high school classes, or for college. In contrast, Bethany and Julie, both IB participants, continually used the term challenge in the context of not understanding a particular concept. For both IB participants, science classes posed a particular challenge (again, because of lack of instruction in previous schooling). In describing her experience in first-year IB Physics class, Bethany stated, "I didn't understand force. I didn't understand magnitude. I didn't understand (pause) it was really, really hard." Julie said that she encountered a similar experience in chemistry class. Julie felt that she never caught up with the course material she missed because of an illness. All three AP girls attributed challenge with regard to the curriculum as difficulty in mastering the subject matter quickly.

One AP participant, Chloe, described the challenges she experienced in the context of grades (the other participants also, but to a lesser extent, discussed challenges in relation to grades). Chloe described the class in which she did not earn an "A" as one of her most challenging courses. In fact, she said that she almost received an "A" in that course, but that the teacher would not round the grade up (she had an 89.6%). Instead, she earned a "B" both semesters and developed great admiration for this teacher. As a result, this AP United States History course was the course she "really wanted to overcome and be victorious in." She later added, "It was just a privilege to be in a class like that."

A few of the participants found time management and the transition from easy courses to more difficult courses as the main challenge they experienced embedded in the AP or IB curriculum. All of the young women commented that, up until their junior and senior years, they experienced an easy time in school. Therefore, when the AP and IB programs began their junior year, it was difficult for them to adjust to the increased amount of work, as well as the increased difficulty. The participants found it difficult to go from doing little work to doing more.

Interestingly, Heidi left St. Stephen, a private school she attended her freshman and sophomore years, to transfer to the AP program at Green View for her last two years of high school, and her experience with the workload was the opposite of the other participants. She went from doing more work to doing less. Heidi said that the AP curriculum was not as difficult as the curriculum she experienced during her first two years of high school. "At Green View, it is easier in the honors programs, but I've fallen to the occasion."

Aside from grades and workload, the participants rarely discussed other forms of academic or intellectual challenges. Rather than indicating that the content in the curriculum challenged their thinking or understandings, most participants expressed that they experienced difficulty finding the time to complete their homework. For example, the IB students frequently remarked on the volume of work required. All participants spoke of the difficult transition from doing little work to doing more work; however, notably, these participants did not indicate that the work became more substantively challenging. Further, rather than describing the curriculum as difficult, the participants more often described any difficulty encountered stemming from their own weakness or from too much work. For example, participants spoke of not comprehending material in science classes, experiencing difficulty with advanced comprehension and analytical skills, or not being able to obtain an "A" grade. In all of these cases, the challenge was personal and seldom curriculum specific.

Three of the participants mentioned specifically that the year-end tests required in both the AP and IB programs presented a considerable challenge. For example, one AP participant said that she found it difficult to memorize all of the material necessary in order to pass the AP exams. Also, both IB participants indicated that they struggled with the comprehensive IB exams, but again, in discussing these challenges, the IB participants focused on the challenge of memorizing the content, not in comprehending the material.

The girls rarely described encountering challenges with the curriculum that focused on improving the participants' abilities, such as pushing student thinking and developing potential. When asked directly if she experienced academically difficult curriculum in her classes, one participant replied, "Academically difficult? Well, (pause) no."

The Influence of Teachers

It is well documented in the literature that teachers have the ability to impact the lives of their students' (Coleman & Cross, 2001; Croft, 2003; Lindsey, 1980; Wright, Horn, & Sanders, 1997). A study conducted by Wright et al. suggests that student achievement is directly connected with the quality of teachers. For this reason, administrators and parents strive to ensure the presence of effective teachers.

Three participants discussed their experiences with teachers they identified as outstanding instructors. The participants expressed the importance of having teachers with expertise in the subject area(s) taught. In addition, the girls said that outstanding teachers possess overall intelligence, passion for their subject, and passion for teaching. According to the participants, outstanding teachers also

use humor in the classroom. In addition, the participants expressed the importance of personal and emotional connections with their teachers.

Notably, the teachers with whom the students most identified exhibited characteristics similar to the characteristics the students possessed (or at least aspired to possess). When a personal connection between the girls and their teachers existed, the educational experience, as reported by the participants, was highly positive and proactive. Interestingly, the participants repeatedly identified the same teachers as excellent. At Green View, four teachers continually were mentioned as outstanding: the AP United States History, AP Calculus, AP Government, and AP Biology teachers. All three AP participants spent extra time describing the teaching style and personal characteristics of these particular teachers.

The teachers identified as most exceptional by the participants recognized their students' intelligence and taught at an advanced level. In addition, these teachers showed respect for their students and welcomed ideas that challenged their own ways of thinking. Further, these teachers demonstrated passion, intellectual excitement, and an appreciation of humor, traits that teachers shared with their students. Finally, all four teachers knew that these women needed more than just academic support; these teachers knew that the participants needed understanding and acceptance. These four teachers served as role models for the type of adults their students hoped to become.

> He is a great teacher because he . . . treats us like mature adults like I think we should be treated . . . he will not stop until he has proven the equation six or seven ways so that everyone understands it. He wants to click with every single student in that class . . . he is a great mentor and role model. I really look up to him because he has the most respected position in the school, he is just a real well-rounded person too. . . . I think he is a genius. We, as AP students, like that because you want to impress this teacher because the other teachers don't really have much to offer. . . . I regard him as a really experienced, competent, really qualified teacher. So, from that it makes me really want to be in class, [pause] be there as a good student, for him.

When Needs Are Not Met

Although the participants in the study encountered great teachers, they also encountered ineffective teachers. For two of the AP participants, their experience with what they considered an ineffective teacher occurred in AP English. Both Kiki and Chloe believed that their AP English teacher did not understand the proper level of instruction needed to pass the AP exam. Specifically, the girls complained that the teacher gave them "busywork," such as worksheets that presented little difficulty. After the class read novels and plays, in lieu of having class discussions, this teacher often would show the movie rendition of the literature. This frustrated both girls because they perceived that valuable discussion time for analysis was being used to watch movies. Both Kiki and Chloe knew they needed to prepare and practice for the exam at the end of the year (as they were doing in their other AP classes). Kiki and Chloe said that they both mentioned to their AP English teacher that they believed they needed to prepare for the AP exam by taking practice essay and multiple-choice tests. According to the girls, their concerns were met with a tepid response. Frankly, the girls were uncomfortable with the level of knowledge possessed by this AP English teacher. Both participants said that the teacher relied on material found on the Internet to obtain insight into the works of literature they read in class. In short, they did not believe the teacher knew or had passion for the material.

These two participants struggled all year with this teacher, and near the beginning of the second semester (when my interviews with them occurred), both girls reported that they essentially had shut down and refused to participate in class. During one interview, Chloe stated:

> Well, they say the opposite of love is indifference . . . . AP English has been a hurdle in that way . . . . [I] want to be a consistent student in all of my classes. But that class, I just really put up a wall. And it's never too late; I could start now, like putting my mind into the class. But then again, I've tried. I know that. And I'm just so against settling for less, but that's what I think I've done. So I'm a huge hypocrite in that class. I'm just indifferent about that class. I could care less about that class.

The contrast between their experiences with the AP English course and their experiences with their other AP classes highlights, in part, the overwhelming influence teachers have on the success of these specific gifted girls in a particular course.

The other participants in the study also encountered similar experiences with teachers, thus providing additional evidence of the influence of specific teachers. Bethany, an IB participant, experienced confrontational relationships

with some of her instructors in the IB program because of what she believed were unfair policies. Bethany stated that, generally, after she determined that a teacher was "working against her," she would conclude that no point existed in trying to work on her relationship with the teacher. She said that she developed few personal relationships with her IB teachers and, in fact, she names only one teacher whom she believed was "excellent."

According to Bethany, her IB History teacher knew everything about history, "more than you can ever imagine . . . he actually becomes part of it, which is pretty cool." She said that she never saw him look at notes, and she specifically was impressed when he told the students that if he ever was unprepared for class they should tell him and he would quit.

She described this particular teacher as being "so passionate about history." His passion and love for the subject was evident not only in his extensive knowledge about history, but also in the manner in which he explained history and its implications on current events. That passion was catching, and Bethany responded to his obvious love for history. "I never wanted to go to history until this year. He is so passionate about what he is talking about and he makes me want to know [what] happened and how people felt about it." Similar to the other participants in this study, she felt that a teacher's excitement transfers to students, causing them not only see the value in the subject but also to become motivated to learn with similar fervor.

This passion, along with this teacher's dry sense of humor, pulled this participant into his world, and in doing so, invited her to love history. She said that she always would remember his class and the material she learned. "How he taught was different from anything I [had] ever experienced, and I'll probably always remember that."

The second IB participant, Julie, also felt disconnected from her teachers in the IB program, although not as strongly. Julie appeared to assume that her teachers could always be worse. For example, she described that some of her former elementary and junior high school teachers were "difficult [to work with]," which she interpreted and internalized as those teachers not liking her. This participant perceived that these teachers disapproved of her attendance in gifted pull-out classes. She said that these teachers would not work with her to ensure that she did not fall behind with the class work she missed while attending the gifted pull-out classes. She believed that some of her teachers penalized her because she was "smart." Because of her prior experiences, this participant appeared pleased with the teachers in the IB program who appreciated her intelligence, even if she experienced little personal connection with them.

This study cannot and does not intend to draw a direct correlation between the girls' relationships with their teachers and their personal academic achievement in school. However, the participants' positive and negative experiences with their teachers did appear to overlap with their overall opinion of their experiences in the respective programs and individual classes. For example, one participant stated that she was not sufficiently challenged intellectually by the curriculum of some of the AP courses; however, she also spoke with great admiration and enthusiasm for most of the teachers of these same courses. Another participant said that she could not imagine completing her AP courses successfully without the support of her teachers. The IB participant who professed to have no time for relationships with teachers remembered favorite elementary and junior high school teachers fondly and almost wistfully. In fact, she works very hard at maintaining her connections with her former teachers. Thus, in many ways, positive relationships with and student admiration for teachers did impact the success of these gifted girls in individual classes.

If effective teachers provided motivation and support, teachers also had the power to create roadblocks for these gifted girls. This was demonstrated by the experience reported with the AP English teacher. Both Kiki and Chloe believed that a succession of low-level "accelerated" English classes and unqualified teachers left them with unsatisfactory training in the interpretation of literature and the ability to write effectively. Most likely, both girls' abilities in interpretation and writing remained at or above grade level, but both girls perceived that they had fallen behind as a result of their current and previous English teachers. Both girls suffered from low self-esteem in English and were convinced that their college peers would look down on them for what they perceived as low skills in English literature. They also worried about their performance on the AP English exam. The participants demonstrated frustration and anger for not receiving what they believed all students had a right to: knowledgeable and qualified teachers who provided a quality education that continuously met their individual needs and expectations.

Strong Alliances With Intellectual Peers

In addition to the personal role that teachers served in the experiences of the participants in the AP and IB programs, the participants in this study also identified their relationships with their peers as an important element of their experience in both programs. The intensity of these peer relationships differed according to the individual par-

ticipant, but the overall importance that the participants placed on the support of their peers highlights another affective experience of the programs.

All participants cited their peers as a source of both academic and emotional support. Academically, their peers aided the participants in various ways. The participants involved in the AP program frequently spoke of the usefulness of study groups. Study groups seemed to form in each AP class and encompassed various numbers of students and sometimes the entire class. The groups not only helped solidify student learning through discussion, review, and the teaching of each other, but the groups also provided a vehicle in which these students socialized with one another. The atmosphere in these peer study groups was very attractive to the three AP participants. The study groups were particularly important to these participants because they served as a mechanism of social acceptance for each participant.

The importance of social acceptance and peer support for these participants is perhaps best exemplified by Heidi's experience at St. Stephen, compared to her experience at Green View in the AP program. Heidi started high school at St. Stephen, a single-sex Catholic high school, and she encountered what she believed was an academically competitive environment lacking peer support. She transferred to Green View in order to move to an environment of social support and acceptance. She explained that the environment at Green View was exactly what she was looking for when she decided to transfer schools. Although she described the work at Green View as less academically rigorous, she found the spirit of cooperation between students and the peer support by the study groups as mitigating in favor of the AP program. In short, Heidi elected a less-challenging yet more supportive environment instead of a more rigorous but less-supportive educational experience.

Although the IB participants did not mention the existence of formal peer support systems, such as the creation of study groups, both participants emphasized the important role that peers played in providing support in the IB program. Bethany specifically mentioned that she often went to the library to study for her classes with a group of friends; Julie said that if she did not understand something she would ask her peers for help. Particularly in the IB program, the participants expressed that the IB students felt as if they were going through a shared experience that was different and apart from the experience of the other students attending Arlington High School. As a result of this collective experience, the IB students relied on one another and drew support from each other.

In addition to academic support, both the participants in the AP and IB programs also relied on their peers for emotional support. The five girls mentioned that their peers uniquely understood the stresses and pressures that accompanied these programs. The idea that the girls and their peers in each program were "in it together," and collectively experienced success and failure was prevalent in both programs. Although the IB participants emotionally did not experience the same close community that the AP participants enjoyed, the IB participants still reported that peers remained important to them. As Bethany stated aptly, "when you feel like you're alone in a boat to Hell, you know there's like 20 other people that feel that same way. If you talk about it that makes it easier."

In addition to peer support, all participants spoke about the importance of spending time with their intellectual peers. Although the AP program was not a school-within-a-school like the IB program at Arlington, the AP girls in this study enrolled in classes with almost identical schedules. Therefore, they spent most of their days with their intellectual peers. The girls reported that they enjoyed learning with people who were comparably intelligent. "We have a similar mentality that we can handle work that we've never seen before. . . . I just feel better being with peers that are of a certain level of thinking and I appreciate that."

One IB participant, Julie, historically had experienced a difficult time relating to peers; however, the IB program afforded exposure to intellectual peers who accepted and appreciated her. She felt safe in the IB program because she was one of many "smart kids," and therefore, not as clear of a target for ridicule.

In fact, being one of many intellectually gifted students affected all of the participants in many ways. The participants all commented that at some point they realized they were not the only gifted students in the AP and IB programs and that other people existed who knew as much, if not more, than they did. Chloe discussed how she felt "humbled" around her intellectual peers because of her awareness that they were just as able intellectually. Similarly, Julie discussed her feelings of frustration as she watched some of her peers understanding with ease concepts that she found difficult. However, feelings of envy appeared to come second to the admiration and respect these girls said they felt when speaking of their AP and IB classmates.

Finally, intellectual peers also acted as a gauge for the participants in the study. Chloe looked to her peers' accomplishments in gauging her success. Specifically, she participated in a fundraising event and also decided to begin a tutoring program for elementary school students

in part to distinguish herself from her peers' extracurricular activities. Heidi looked to her intellectual peers to act as better influences on her than some of her peers had in the past. All of the girls seemed to expect their peers to push them to achieve and act as examples. Most likely, these same peers looked to the participants for similar support.

Lack of Guidance

Despite the success of the AP and IB programs in providing, for the most part, excellent instruction and an environment that promoted healthy peer relations, the absence of counseling services extending beyond guidance for college remains disconcerting. With the exception of one student, the contact and quality of the time the participants reported having with guidance counselors was low. The participants reported that they interacted with counselors rarely and when they did, the primary purpose was to discuss college applications. None of the students discussed their future ideas for careers with their counselors or discussed how any of their current classes impacted their future plans. Even if the counselors had asked the participants about their lives, it is doubtful that the participants would have responded with honest answers because they felt disconnected from their school counselors. Four of the five students indicated they had a distant relationship with their counselor.

During one interview, Julie, an IB participant, described an incident involving her counselor's advice to stop the pursuit of an IB diploma. Because the school cancelled the advanced economics class necessary for Julie to remain eligible to take the IB economics exam, she could not take the IB economics test, and therefore, could not meet the IB diploma graduation requirements unless she overloaded another subject in order to take the IB test in that new subject. Her counselor indicated that he did not think she was capable of overloading and should instead stop pursuing an IB diploma and graduate with the IB certificate. She walked out of his office that day with the clear message that her counselor did not want to take the time to work with her in order to help her obtain her goal of earning the IB diploma. Instead, she reported that he said that it was "too hard," and sent her away with an even worse message, that she was incapable of achieving her goal. When recounting the story in our interview, Julie had not fully understood what transpired and why it would be "too hard' for her to continue pursuing the IB diploma.

With the exception of Chloe's positive experience with her counselor and an instance when Bethany's counselor called her in to intervene with a worrisome grade, the counselors at these two schools did not address the participants' emotional needs and did not provide career advice. Aside from providing basic support in college applications and some advice on classes, the participants reported that they had no conversations with their counselors regarding their present or future lives. This lack of attention and support is one of the reasons why gifted girls have a difficult time planning for their future (Reis, 1998; Shoffner & Newsome, 2001). In fact, when asked about the future, none of the participants had very clearly defined plans. Two of the participants said that they were planning to major in business in college and eventually wanted to work in international business. Two other participants had multiple interests and mentioned many career options, all vastly different from each other. The final participant shared that she had no career direction at all. In short, none of the participants in this study had clearly defined career goals and all reported that although their teachers and counselors helped them set goals for attending college, these important individuals did not give feedback or participate in conversations about future careers.

Researchers have agreed that a counseling component that addresses emotional, academic, and career counseling should exist for gifted students (Fisher, 1981; Kerr, 1996; Moon, 2002; Shoffner & Newsome, 2001; Tuttle & Becker, 1980; Woolcock, 1962). The guidance counselors who were in the prime position to discuss these important topics with the participants of this study did not do so.

The lack of comprehensive counseling in these schools is not surprising. Neither the AP nor the IB program is designed or intended for gifted students. Further, the programs are not designed or intended for the development of a mentoring program or the development or improvement of counseling programs. The emotional support and career support of students are not expressed aims of either program. Rather, the curricula of both programs focus, in one case exclusively and in the other case primarily, on the preparation of students for the end-of-the-year exams and college enrollment.

Discussion and Recommendations

Curriculum and Instruction

According to the participants in this study, both the AP and IB programs offered advanced curriculum, which most participants found appropriately challenging. The participants did not always believe they were challenged in every class, and in some aspects of the programs, the participants felt insufficiently challenged both academically

and intellectually (most often through "busy work" or through the repetition of concepts the participants already knew). Interestingly, most of the girls' feelings and beliefs about their classes were not tied to the AP or IB programs' curriculum, but rather to the teachers of these classes.

For this reason, teacher training in gifted and talented education is necessary for all instructors in the AP and IB programs. Despite the amount of gifted students enrolled in the AP and IB programs, neither program encourages teachers to participate in professional development in gifted education. Implementing teacher training or encouraging teachers to take graduate-level classes that focus on the development specific to gifted students' abilities and instructional strategies that support gifted students will greatly empower AP and IB teachers in helping them differentiate curricula for their gifted learners.

Further, AP and IB teachers should practice specific teaching strategies for gifted students. Formal training, through NAGC-approved university coursework or staff development provided by the district, should be required for all teachers of AP and IB courses. Preferably, these teachers should be endorsed or certified in gifted education. The IB program especially, with its centralized control and worldwide uniformity, already possesses the network to mandate and incorporate training for and responsiveness to the needs of gifted learners. The AP program also could encourage school districts to implement similar guidelines for teachers of AP courses. Training in gifted education also could be incorporated into the already existing training for AP and IB teachers.

After the AP and IB instructors become proficient in the instruction of gifted students through educational programs, these instructors should be given the flexibility to adjust the AP and IB curricula in order to meet the needs of particular students. For example, instructors could modify the curriculum by adjusting pacing for students and by incorporating independent studies (the length of which would be determined in collaboration between the teacher and the student). Adding flexibility to the curriculum and increasing the awareness of the professional characteristics and behaviors of the outstanding teachers also will assist nongifted, high-achieving students enrolled in these classes.

Counseling

Researchers and advocates in gifted education long have advised that a counseling component should exist in any program supporting gifted learners (Fisher, 1981; Kerr, 1996; Moon, 2002; Tuttle & Becker, 1980; Woolcock, 1962). Counseling programs can support gifted students in numerous ways including intervening in underachievement and perfectionism, teaching students to deal with peers, and supporting special population subgroups (Moon). One participant who was referred to a school counselor in elementary school in relation to her problems with bullies reported that she was told by her counselor to "ignore" bullying by her peers. Perhaps this counselor did not know how to handle the situation or perceived no need to address the issue because this participant was being teased for the fact that she was smart. Whatever the reason for the inaction, this participant's experience with the counseling program at her school was ineffective. Counselors should serve a complementary role to teachers in encouraging success and in monitoring for problems and providing emotional support for gifted students.

The literature clearly shows that through the combination of asynchronous development, heightened emotional sensitivity, and advanced moral reasoning and information processing the gifted adolescent is driven towards the desire for identity, intimacy, and achievement at a faster rate than an average adolescent of average ability (Shoffner & Newsome, 2001). Teachers and counselors must support these needs. Because of the large population of gifted learners in the AP and IB programs, a strong need exists to integrate both counseling (emotional and career) and mentoring programs into the AP and IB programs.

Early career counseling is recommended specifically by Sally Reis (1998). As observed in her study on adolescent girls, many adolescent girls do not know the breadth or depth of education needed for the chosen profession or the amount of money necessary to finance that education. To address this issue, a mentorship program, where students meet with professionals in careers they think they may be interested in, would greatly help gifted students prepare for the future. Specifically creating a mentoring program whereby students could gain real-world exposure to career alternatives would provide gifted girls in these programs with necessary support and encouragement.

As discussed previously, it is recommended that teachers in the AP and IB programs be trained in gifted education because they work closely with a large number of gifted students. Similarly, counselors of AP and IB students should participate in training to adequately acquaint them with the nature and needs of gifted individuals. Realistically, in order for a healthy relationship of trust to develop between counselor and student, each counselor must have a lighter student load. Fewer students per counselor would free up time to develop trust and respect between counselors and students. Of course, a strong counseling program, such as the one suggested, should be open to every student in the school because a counseling program can benefit all stu-

dents. However, counselors who work with gifted students should be required to be endorsed or otherwise certified in gifted education.

General Recommendations for the Pre-AP and IB Programs

The first two years of high school at Green View offers gifted and high-achieving students the opportunity to participate in accelerated classes. According to the participants in this study, these two years were a waste of time. Both girls that attended Green View for all four years believed that their accelerated classes offered no more challenge than their regular classes in junior high school and, therefore, in no way prepared them for their AP classes. These findings suggest that revisions to the AP courses alone are insufficient. High schools need to implement similar strategies for their accelerated classes with the view to prepare students for the material in the AP classes. The accelerated classes offered before AP classes should be focused on presenting challenging and intrinsically rewarding curriculum similar to the AP classes. These accelerated courses also should be more tailored to the needs of gifted students. Thus, these classes should challenge students appropriately, foster independent learning, and provide academic, emotional, and career support.

Although pre-IB courses appear to satisfy some of these needs, such as offering advanced curriculum early, it appears from remarks by the IB participants that these pre-IB courses also require some modification. For instance, students should not be forced to repeat subjects that they already have mastered, as both IB participants had to do with Algebra 1 their freshman year. Another participant also felt similar frustrations with the prerequisite math classes to AP Calculus. If the above recommendations were to be implemented, the benefits to gifted students in the AP and IB programs would be hindered if similar recommendations also were not implemented for the first 2 years of high school.

Limitations

It is important to review the limitations of this study. First, this is a qualitative study and does not use statistical formal generalization. Therefore, the study is not intended to generalize either to the greater population of intellectually gifted females or the general AP and IB programs; however, the characteristics found in these participants and their AP and IB experiences suggest what one should look for in other schools (Eisner, 1998). Second, the participants all experienced success in their respective programs and most likely will pass their exams and continue to college. This study did not take into account those gifted females who did not experience success in the programs and discontinued enrollment. Third, the study was conducted over the span of three months rather than all four years of high school. Therefore, some of the interview data collected was based on the participants' memories and recollections of experiences. Fourth, the socioeconomic status (SES) of all learners affects their educational experience. The SES of the participants in this study was not a focus, although it is probable that their background influenced their educational experiences. The impact of SES factors on gifted learners in AP and IB programs may be an important issue to examine in future research.

Conclusion

The study concludes that although both the AP and IB programs the participants were enrolled in currently offer challenging curriculum, both programs have room for improvement in meeting the needs of these gifted female learners. For instance, both programs should allow students to pursue their passions or tackle material at a pace appropriate for them. The emotional support of gifted students was not part of the study's original design but an important theme that emerged out of the data. The findings suggest that both the AP and IB programs that participated in this study need to improve their support for the nonacademic needs of gifted learners, through methods such as career counseling and emotional support. Above all, the participants shared that the personality and effectiveness of their teachers is paramount to their success in the classroom. Teachers who were passionate and knowledgeable inspired these participants to learn. Of course, these qualities in teachers can be learned only to a degree. Nevertheless, encouraging instructors in the AP and IB programs to become and remain knowledgeable about gifted education and effective instructional strategies for gifted students likely will translate into ensuring effective instruction in these programs. Particularly with regard to gifted female students, greater support and encouragement from teachers, along with a greater emphasis on their future, will foster higher achievement and greater self-esteem.

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