Gifted Education

## **Governor's Schools:**

# Fostering the Social and Emotional Well-Being of Gifted and Talented Students

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Reviewing and conducting research on summer residential program models for gifted and talented students will illuminate the academic, social, and emotional difficulties they face and reveal which practices are effective in addressing these issues. One program model, the Governor's School, warrants particular attention because of its mission to provide an accelerated and enriched curriculum and a positive social environment in a seasonal residential program. To date, few well-designed studies directly assess the effect of attending a Governor's School on participants' social and emotional well-being. In order to provide a context for an in-depth examination of 8 studies conducted between 1965 and 1991 on participants in Governor's Schools in the Southeast, this review of literature begins with 2 landmark studies conducted on participants in summer residential programs between 1984 and 1993. Significant and tangential findings from all of these studies show that participation in summer residential programs has positive effects on students; the most significant effect is the formation of strong friendship bonds and support networks among program participants. However, the extent of supportive evidence is minimal due to limitations of the research designs, and a considerable lack of current research. Gaps in the literature reviewed are discussed, and suggestions for future research are presented.

n the United States, several summer residential programs exist for gifted and talented secondary students. These programs vary in content, duration, intensity, age group served, delivery model, funding, and overall mission. Some programs are based primarily on acceleration and enrichment, and some are based primarily on differentiated curriculum (VanTassel-Baska, Landau, & Olszewski, 1984). There is a long history of interest in how such programs impact the various academic, social, and emotional needs of gifted and talented secondary students. One program model, the Governor's School, warrants particular attention because of its mission to provide an accelerated and enriched curriculum in a positive social environment. In this review of literature, research on different summer residential programs for secondary gifted students will be analyzed, synthesized, and discussed in order to provide a context for examining the Governor's

School model and research related to its academic, social, and emotional effects on participants.

#### A Review of Landmark Studies Conducted on Summer Residential Programs

Many research studies have been conducted on summer residential programs to assess the long-term impacts of program attendance on academic and professional achievement; however, few studies have been conducted to determine the impact of attending a summer residential program on participants' social and emotional development. A research study conducted by VanTassel-Baska and colleagues in 1984 was one of the first large-scale studies designed to address the lack of research on the long-term social and emotional effects of attending a

summer residential program. Similarly, Enersen's (1993) study examined the long-term program impacts on participants' academic, social, and emotional selves, and this study was one of the first qualitative studies to assess the interplay between the various selves. Together, these two studies serve as landmark research in summer residential programs for the gifted.

Van Tassel-Baska and colleagues (1984) conducted their study with the rationale that program directors had reported that attending a summer program had an immediate profound effect on the participant's life, as well as specific long-term effects with regard to schooling; however, no research had been conducted to substantiate these claims. Therefore, the researchers examined the effects and benefits of participation in the 1983 summer session of the Midwest Talent Search at Northwestern University by conducting a follow-up study on 100 program participants. Van Tassel-Baska and colleagues developed a questionnaire to ascertain the benefit of "the experience in the personal, social, and academic dimensions of a student's life" (pp. 74-75). This questionnaire was sent to all participants' parents 6 months after the end of the program; 117 (55%) were returned. The questions solicited parental feedback concerning the summer program's effect on their child, the appropriateness of various program components, accommodations the home school made for their child upon return to school, and areas of the program that should be improved for future sessions. In addition to collecting data from parents, the researchers also collected data from participants' home schools. Six months after the end of the program, a questionnaire was sent to all the home schools soliciting data about the schools' receptivity and interventions for summer program participants; 85 (57%) were returned.

Findings from the study by VanTassel-Baska and colleagues (1984) showed that more than 90% of the parents who responded stated that program participation had a positive effect on their children's academic development. However, according to 97% of the parents surveyed, the overwhelming benefit of program participation was the "new friendships with other youngsters, formed as a direct result of the program" (p. 77). In other words, program participants were able to form and maintain strong friendships bonds with like-ability peers in such an intense academic environment. Similar findings from Enersen's (1993) work also support the claims made by these researchers.

Van Tassel-Baska and colleagues (1984) limited their study to how parents and school personnel reacted to students' participation in a summer residential program; however, Enersen's (1993) study examined how program

participants and their parents viewed their experiences in a summer residential program at Purdue University. Due to Enersen's aim to understand the program participants' own perceptions of their experiences in the program, and to understand how participants interpreted their program experiences in their lives, phenomenology was the guiding theoretical framework for this study. In essence, her research was guided by questions relating to memorable events and experiences during the program; the program's effect upon participants' academic, social, and emotional selves; reasons why participants returned to the program multiple times; and how program experiences affected participants' college and career plans. Enersen also wanted to determine if participants thought the program had any negative aspects, and if so, identify them. Enersen also interviewed participants' parents using the same guiding questions to gain a greater understanding of how the program impacted the participants.

Twelve students who attended the program for at least 3 years were interviewed during the program in 1992. The interviews conducted with students consisted of openended questions, and were audio taped, transcribed, and supplemented with detailed field notes. Enersen (1993) also conducted telephone interviews with one parent of each participant. These parent interviews also consisted of open-ended questions similar to the questions Enersen asked the participants.

The primary finding from Enersen's (1993) study was that program participants "had substantial needs that were unmet in their school and peer environments" (p. 171). These unmet needs were primarily psychological in nature, but participants also lacked sufficient challenge in their academic situations. Overall, the findings from participant and parental data showed that although students enjoyed the experience of engaging in challenging and meaningful academic work, the most important aspect of program attendance was making friends or forming a true peer group.

In summation, VanTassel-Baska and colleagues (1984) and Enersen (1993) found that social and emotional effects are intertwined with and influenced by the academic impacts, which makes is difficult to distill one from the other. Both studies also provide a foundation for further exploration of the impact of summer residential programs on gifted and talented students and demonstrate that both quantitative and qualitative research methods can be effective and useful in exploring these areas.

#### Methodological Strengths and Weaknesses of Studies Conducted on Summer Residential Programs

The studies conducted by VanTassel-Baska and colleagues (1984) and Enersen (1993) have contributed to the field of knowledge regarding the effects of participation in summer residential programs. However, strengths, as well as weaknesses, of their research designs need to be considered. Strengths of the study conducted by Van Tassel-Baska and colleagues include the large sample size (117 parent participants; 85 school participants), the time frame of 6 months allotted before data collection so that program participants would have ample time to manifest any changes after adjusting and acclimating to their home and school life, and the two different data sources, parent and school personnel questionnaires. However, the two data sources were also weaknesses of this study. First, from a logistical stance, the number of questionnaires returned by parents did not correspond directly to the number of questionnaires returned by school personnel. All responses were anonymous and consequently the researchers were not able to correlate the parental and school data because nothing could be done to ensure that data pertained to the same program participants. No information was provided as to whether or not the sample was representative of the group of program participants. Second, parents and school professionals involved with the students were asked to provide data about their perceptions of the changes in the students. Although these data are interesting and insightful, they do not necessarily portray an accurate picture of what changes the program participants may have actually experienced. Third, the researchers were unable to account for the parents and school personnel who did not respond. It is quite possible that those who did not respond had significantly different or contrary perceptions of their students' reactions to the program. Despite methodological weakness, this landmark study is important because it is the first serious examination of the effects of attending a summer residential program.

Enersen's (1993) study on summer residential programs also had several strengths that lend credibility to her findings. First, methodological strengths of the study include Enersen's attempt to understand the participants' perceptions of their own experiences in the program, and to understand how participants interpreted the effects of their program experiences on their lives. Enersen also collected two sets of data to gain a clear understanding of participants' experiences; she interviewed both program participants and participants' parents. Enersen's use of open-ended questions when interviewing both groups is

a distinctive strength of this qualitative study because the interviewees were free to give natural, elaborate responses. Additionally, data gathered from program participants proved essential and meaningful because participants are in the best position to discuss how the program impacted them. Nevertheless, the interview data may have been skewed because the participants were well acquainted and comfortable with Enersen due to her involvement in the summer program. Even though Enersen made a "consistent and concerted effort . . . to ask for concrete details and to use follow-up questions to grasp the students' meaning completely" (p. 171), the participants' familiarity with and possible desire to please Enersen by giving positive responses cannot be overlooked. Likewise, parents whom Enersen interviewed may have only shared positive reactions because of the novelty of being chosen as a research participant, or out of a desire to respond positively so as not to highlight negative outcomes of program attendance. Despite these limitations, findings from Enersen's study support previous claims that participation in a summer residential program is a positive experience for the students.

In conclusion, the findings from these two studies show that the primary benefit of attending a summer residential program is the formation of strong friendship bonds and a supportive social network. These findings resonate with the current literature on the social and emotional needs of gifted adolescents, which emphasizes the need for gifted students to have a similar-ability peer group. These friendship bonds and supportive social networks become even more critical when considering that gifted students may struggle with social dyssynchrony regarding friendships in their home schools: "when gifted children are placed in school class by chronological, rather than mental, age . . . they are cognitively out of sync with their classmates" (Silverman, 2002, p. 33). Moreover, having a similar-ability peer group is critical because it encourages high achievement, growth potential, and constructive self-concepts (Rimm, 2002).

Equally important is that all of the researchers concede that more research is needed to assess the long-term effects of attending summer residential programs. How does the research conducted to date on the effects of attending summer residential programs in general compare to the research conducted to date on the effects of attending a Governor's School? Before this question can be answered, it is important to understand the Governor's School model.

#### History of the Governor's School Model

The first Governor's School, the Governor's School of North Carolina West (GSW), was initiated in 1963 and based on a theory by Virgil Ward (of the University of Virginia). Ward derived his theory of instruction from educational research findings by experts in the field of gifted and talented education such as Terman, Torrance, Gowan, Welch, Stanley, Getzels, Jackson, Ward, and Gallagher (Bray, 1991). Ward devised the "three major areas of study for a summer program with gifted and talented youths" (Bray, p. 53). The three areas include aptitude development (Area I), general intellectual development (Area II), and personal development (Area III). According to Ward (1979), instruction in Area I focuses on developing the aptitude and cognitive skills in a student's chosen curricular area such as mathematics, communicative arts, or science. In Area II, instruction includes identifying, generating, and understanding the relationships between all areas of knowledge; this area also serves as a study of epistemology for the students. In Area III, the focus is on personal and social development; this is the phase of the curriculum in which "the affective and purposive aspects of the student's potential are brought to the fore . . . to facilitate those kinds of personal and social adjustments that are commensurate with productivity and leadership" (Ward, p. 212). In other words, according to Bray, the objective of instruction in Area III is to help students overcome their "anxieties about being gifted and their anxieties of exploring new ideas in Areas I and II" (p. 53). The program is designed so that the three major areas of study are interrelated and dependent upon each other for support.

After North Carolina established the Governor's School in 1963, other states implemented similar programs (e.g., Georgia in 1964 and Virginia in 1973). In 1987, the National Conference of Governor's Schools (NCoGS) was created to facilitate communication between the various Governors' Schools throughout the United States (Bean, 1991). Currently, there are approximately 60 Governor's Schools in 20 states (NCoGS, 2006), and the number of Governor's Schools across the nation fluctuates on a yearly basis due to budget and instructional constraints.

The bylaws of NCoGS define a Governor's School as a residential, state-affiliated, seasonal enrichment program of at least one week in length, sponsored or sanctioned by the governor of the state or commonwealth as a "Governor's School," and designed for selected students with special academic, creative, artistic, and/or leadership talents (NCoGS, 2006). Not all affiliated schools bear the words Governor's School in their titles; some are known as Governor's Honors Programs (GHP), and others are

known as Governor's Scholars Programs (GSP). Each Governor's School has highly selective criteria for student selection. Most programs take place on university or college campuses and are administered and fully funded by the state's department of education (Cross, Hernandez, & Coleman, 1991).

Governor's School sessions vary in length from one to six weeks, and the number of students served at each school ranges from 50 to 800. Governor's Schools vary in scope, mission, and structure, but are designed and legally obligated to provide intellectually gifted and artistically talented high school students challenging and enriching educational opportunities not usually available during the regular school year (Bean, 1991).

## A Review of Studies Conducted on Governor's Schools' Participants

When reviewing studies conducted on Governor's Schools' participants, four studies stand out in the literature because they are the first studies on Governor's Schools' participants, and because of their large sample sizes. Cashdan and Welsh (1966), with a sample size of 311, and Halpin, Payne, and Ellet (1974), with a sample size of 360, studied the correlation between personality traits and creativity in Governor's Schools participants. Payne, Halpin, and Ellet (1973), with a sample size of 381, also studied personality traits in Governor's Schools participants, but focused primarily on characteristics of differentially gifted students. A fourth study, conducted by Torrance and Reynolds (1978), with a sample size of 200, investigated the correlation between feelings of alienation, expectations for the future, and learning styles. Although these studies stand out in the research on Governor's Schools, it is important to note that the research purposes of each study were not directly related to the effects of program attendance. Instead, Governor's Schools were purposefully chosen as research sites because they offered access to a large number of gifted and talented students in centralized and controlled environments. Nevertheless, these studies mark the beginning of the research on Governor's Schools and confirm Governor's Schools as being rich, favorable, and legitimate sites for research on gifted and talented adolescents.

In the late 1980s and early 1990s, researchers began to use Governor's Schools students as research participants to investigate and understand their perceptions related to program attendance. Four specific studies conducted on Governor's Schools in Georgia, Tennessee, and Kentucky during this time period deserve consideration because of

their research purposes, designs, and findings. Each study will be considered in turn.

Gold, Koch, Jordan, and Pendarvis (1987) conducted the first longitudinal study on Governor's Schools to learn how participation in the 1965 Georgia GHP had influenced students' personal, educational, and professional lives during the 20 years following their program. Gold and colleagues found that in 1965, friendships were ranked as being the most valuable aspect of the program; however, by 1985, major classes were considered to have been the most valuable aspect, with friendships ranking a close second. GHP students noted that the most profound long-term effect had been on career choices—respondents were found to be flexible in their vocations and willing to change career paths. One female respondent wrote that GHP had helped affirm her intellectual abilities, and she said it helped her to feel as if she could achieve anything. A second female respondent articulated her experience:

What I remember most clearly of all my experiences at the GHP is being told that we were "positive deviants." It has assisted me in standing "above" the crowd without apology and with self-assurance when I have been called upon to speak out and be a leader. (Gold et al., p. 12)

Additionally, one male respondent wrote: "GHP not only stimulated my interest in the natural sciences and philosophy but also gave me the opportunity for growth and social maturation" (Gold et al., p. 3). A second male respondent stated: "GHP was a watershed experience for me in that it took me out of my home (I needed that), threw me into a social network of interesting peers (I needed that badly), and pushed me intellectually" (Gold et al., p. 6). In brief, attending GHP clearly had significant positive impacts on these participants' social and emotional development.

Two studies on the effects of attending a Governor's School were conducted by Cross et al. (1991) and Coleman and Cross (1993) on the five Tennessee Governor's Schools. Each of the five schools has its own curriculum, Arts, Humanities, International Studies, Science, and Tennessee Studies. In addition, the delivery models for the schools vary; some focus primarily on enrichment experiences and some focus on acceleration. Regardless of these differences, there are several similarities across schools; for example, each school provides high-level learning experiences, mentors, a community where students can build friendships and networks, high expectations for individual and group work, resources for advanced study, and a strong emphasis on personal and social development (Cross et al.). Due

to these similarities, it was possible to conduct one study encompassing participants from each of the five schools.

The research purpose for Cross and colleagues (1991) was to suggest which features and practices of the Governor's Schools could be effectively introduced into regular schools to enhance gifted and talented programs. To this end, the researchers developed a Student Attitude Questionnaire (SAQ) to obtain data from students that would make the cross-schools comparisons possible. Findings from survey data showed that since their inception, the Governor's Schools have prompted tremendous growth in two broad areas, academic achievement and social development. However, the most outstanding outcome has been in the affective domain. For 4 consecutive years, the participants rated the SAQ questions concerned with social growth and development the highest, and many respondents commented that the Governor's School was the first time in their lives they had the opportunity to form friendships with like-minded, like-ability peers. Results indicated that many students have remained in contact with their Governor's School friends. Indeed, the most important effect of Governor's Schools is the profound impact they seem to have as a social experience because students have the "sense of freedom to be who they are and the intellectual climate encourages them to move outside their area of expertise and take risks" (Cross et al., p. 31).

In a similar vein, data collected from a 3-year study conducted by Coleman and Cross (1993) on students in the program and program directors from the five different Tennessee Governor's Schools were analyzed to determine which practices were associated with ratings of effectiveness of program outcomes. This particular study is important to consider because of its sample size, N = 2,213, and the timeframe of data collection. In accordance with Cross and colleagues (1991), Coleman and Cross found that affective outcome scores, which included the categories: control over my future, excited about learning, motivated about learning, developing my self-confidence, and expressing my thoughts and feelings, were the highest scores for each year of their study at each of the five Governor's Schools. To summarize, findings from both studies conducted on Tennessee Governor's Schools showed that program participation had significant positive effects on the social and emotional well-being of the students.

Analogous with the three previous studies, a study conducted by Reigelman, Wolf, and Press (1991) on students in the Kentucky Governor's Schools examined survey data from program participants and also suggested that program attendance positively impacted students' affective development. Based on the data, the researchers emphasized that students thought their greatest gain was confidence in

ability to succeed, followed by willingness to accept new ideas, curiosity about learning new things, enjoyment of learning, and knowledge of strengths and weaknesses. One participant wrote a particularly illustrative comment: "At GSP, students discover 'it is okay to be smart and different.' Participants learn about themselves, emotionally, as well as academically and they learn to accept both their importance and their unimportance" (p. 9). In conclusion, findings from these four studies overwhelmingly show that asking program participants to share their experiences provides rich, meaningful data, which substantiate the claim that significant outcomes of attending a Governor's School include short- and long-term positive impacts on students' social and emotional well-being.

#### Methodological Strengths and Weaknesses of Studies Conducted on Governor's Schools

Although the outcomes of the studies conducted on Governor's Schools are positive, a critical examination of their research designs is necessary. The studies conducted by Gold and colleagues (1987), Cross and colleagues (1991), Coleman and Cross (1993), and Reigelman and colleagues (1991) all share common strengths and weaknesses. All four studies are longitudinal; this is an essential element in assessing long-term effects of participation in a Governor's School program because many of the students do not recognize the self-transformations they undergo until they complete the program and reenter a world that they no longer view from the same perspective (Bean, 1991). All four studies use quantitative and qualitative measures to gather data, which combined, offer a more comprehensive explanation of program effects. These studies, however, are not explicitly grounded in theory, and they do not take into account differences in subject characteristics such as gender, age, ethnicity and/or learning differences, which may affect how Governor's School participants view their experiences.

Gold and colleagues (1987) used surveys to collect data from students in the 1965 Georgia GHP. The first survey (a Likert-type scale) was administered at the end of the program and measured students' attitudes before and after GHP concerning friends, family, school, hopes for the future, and the program itself. Researchers distributed 400 surveys and received responses from two thirds of the students. In 1975, previous respondents were sent a new survey (a Likert-type scale) asking for more elaboration on how attending GHP had affected their lives thus far. A total of 122 completed surveys were returned, and in

1985, these respondents received a third, more qualitative survey that asked open-ended questions so that participants could elaborate on their responses. Only 20 participants responded to all three surveys; all participants were Caucasian—10 were male and 10 were female. Questions on the two follow-up surveys covered a wide range of personal and professional themes and inquired as to ways that GHP had affected individual lives.

As noted above, the Gold and colleagues (1987) study included multiple stages of data collection. Strengths of this study include its use of qualitative and quantitative measures, the time span of data collection that allowed for several life changes to occur, and the equal representation of males and females. Conversely, the study was limited in terms of the research design; failure to use probability sampling resulted in bias because the sample was not necessarily representative of the population of the 1965 Georgia GHP. In addition, program participants with strong opinions are more likely to respond to volunteer surveys (Moore, 2004). Consequently, the findings are not necessarily representative of the paths taken by the 400 students who attended the Georgia GHP in 1965 and are not generalizable or transferable to any other group of GHP participants.

Similarly, Cross and colleagues (1991) conducted an informal study of questionnaire, interview, and observational data from previous studies of the five Tennessee Governor's Schools and drew conclusions about across-school effects and school-specific effects. This study was strong in terms of the extensive review of existent data, the creation of a relevant test measure (the SAQ), and the data collected through nonparticipant observation. However, the design of the SAQ was not applicable to other Governor's Schools and was not normed or tested sufficiently to assess its reliability and validity. The researchers also did not report their sample size or explain how data were analyzed; this omission makes the findings more anecdotal than factual.

Coleman and Cross (1993) conducted a second study on Tennessee Governor's Schools. As in the previous study, the researchers also collected survey data. Students attending the five Tennessee Governor's Schools from 1986 to 1988 and the directors of the schools during this time period were the research participants (N = 2,213). Coleman and Cross used the SAQ and tailored it to elicit specific answers about each school. The SAQ used a Likert-type scale and contained 15 questions grouped into two categories: *program features*, which were concerned with the structure of the school, and *program outcomes*, which were divided into two subcategories: affective and cognitive. The Governor's Schools' directors were interviewed

and student data were compared with the school directors' data to establish which changes in practice influenced students' ratings. "A standard for comparison was established by treating the yearly average percentage on a question received by a school as one score. The scores for three years were then averaged to establish a standard percentage for comparison" (Coleman & Cross, p. 425).

An obvious strength of Coleman and Cross's (1993) study is the large sample size; other strengths include using quantitative and qualitative measures to gather relevant data, tailoring the questionnaire to match the various schools, and gathering data from both students and directors. These practices allowed the researchers to better identify and assess effective program practices. The methods employed by Coleman and Cross also guaranteed a solid and thorough assessment of the data. A major limitation of the study is that all data were collected after the end of the program, so there was no preassessment against which the numbers could be compared. The characteristics and goals of each program director also stand to greatly impact the school and may make it difficult to make across-school inferences. Comparisons are further hindered by the fact that not all Tennessee Schools had been in operation for the same amount of time, and each program had different sized enrollments.

Just as in the three previous studies, data for the study conducted by Reigelman and colleagues (1991) on students in the 1989 Kentucky Governor's Scholars Program were collected via surveys. Students were given a survey at the end of their final year in high school (one year after attending the Governor's School) and again 4 years later. The initial survey asked participants to think of themselves in the present time and rate themselves on various items in comparison to themselves the previous year. The time span between surveys allowed for life changes to occur and for participants to reflect back upon their experiences, which is an asset to this study. However, sample size and methods used, such as analysis and research design, were not mentioned. Surveys taken on a volunteer basis are often biased.

To summarize, each of the four studies on Governor's Schools had methodological strengths and weaknesses. However, despite the limitations in research design, each study showed that students in Governor's Schools gained more self-confidence, built valuable friendships, and learned to place greater value on both their own and others' ideas. Thus, it is evident that these programs make significant positive contributions to students' academic, social, and emotional well-being. To further substantiate these claims and lessen academic, social, and emotional

angst for gifted and talented adolescents, more thorough research needs to be conducted.

#### **Findings and Implications**

Findings from existent studies show that Governor's Schools are beneficial to students' academic, social, and emotional well-being. Indeed, according to Reigelman and colleagues (1991), "The almost seamless blend of the academic, social, and recreational in Governor's Schools Programs provides a natural learning environment that permits intellectual discovery at every level" (p. 9). These findings are significant because they can be used as guides to improve current Governor's Schools and as supportive evidence for implementing Governor's Schools in states without such programs. In addition, they can point to an effective program model for gifted and talented secondary students. These findings also attract much-needed attention to interrelated issues surrounding the social and emotional needs of gifted students, such as perfectionism and underachievement.

Several factors come into play when discussing perfectionism, giftedness, and adolescence. Perfectionism is "a complex construct generally regarded as a combination of thoughts and behaviors generally associated with high standards or expectations for one's own performance" (Schuler, 2002, p. 71). Perfectionism has repeatedly been cited as a major counseling focus for the social and emotional health of gifted children and adolescents (Schuler). Gifted adolescents, like all adolescents, undergo profound physiological, social, and emotional changes as they enter adulthood. However, being both gifted and adolescent means learning to understand and cope with unique developmental circumstances beyond the normal dimensions of adolescence. Gifted children have the intellectual ability to understand the world at a level beyond their chronological age, but they have the emotional development typical of their same age peers (Buescher, 1985; Cross, 2004). Perfectionism in gifted adolescents must be seen as capable of bringing either intense frustration and paralysis or intense satisfaction and creative contribution, depending on how it is channeled (Schuler).

Expectations and standards are often extremely high for gifted students. A long history of high academic success; continual, glowing feedback from teachers and parents; and pressures from school, society, family, and self can contribute to the idea that peak performance should always be the norm for gifted adolescents (Davis & Rimm, 1998; Delisle, 1992; Silverman, 1999). This emphasis on perfect performance instead of mastery learning is also a

major contributing factor in neurotic or disabling perfectionism in gifted adolescents because gifted adolescents will set these unrealistic expectations in all areas of their life, and if they do not perform perfectly, they feel like failures (Davis & Rimm). Although perfectionism can often breed excellence, it can also be destructive, leading gifted adolescents to believe that the only efforts worth making are those that end in perfect achievement (Delisle). Consequently, gifted adolescents may begin to experience several difficulties academically, socially, and emotionally. Therefore, attending a Governor's School may be beneficial for students with perfectionistic tendencies because they will be provided with an appropriately academically challenging curriculum in a positive social environment comprised of similar-ability and like-minded peers. In addition, the teachers at the Governor's School are experts in their fields, and are familiar with characteristics of gifted and talented students. This combination of expertise and understanding is crucial in helping gifted and talented students identify their strengths, improve upon their weaknesses, and set high, yet realistic goals. The academic and social environment at a Governor's School may also help reverse underachievement, which may be a result of perfectionistic tendencies.

Underachievement is a complex and multidimensional problem that manifests itself in various ways and is defined as the discrepancy between ability and achievement that persists over time (Emerick, 1992; Rathvon, 1996; Reis & McCoach, 2002). Some factors in regular school settings that may influence underachievement in high-ability students (e.g., the competition among and within gifted students and the desire to win and excel) may become so great that students refuse to try because they fear failure (Rimm, 1995). Once high-ability students lose the desire to persist or try, they will fall into behaviors resulting in underachievement. The all-or-nothing mindset of perfection or failure also leads students to the conclusion that there is no acceptable middle ground. This type of mindset manifests itself in perfectionistic tendencies such as setting unrealistic goals or focusing on the final product (grades) instead of the process of learning (Rathvon). If these factors are not sufficiently addressed, behaviors that lead to underachievement may begin to appear. To reiterate, participating in a Governor's School may provide a more appropriate environment, both academic and social, that will allow gifted and talented students to take risks without the fear of failure, and to engage in the learning process simply for the sake of learning. In sum, research on Governor's School participants and program impacts can contribute to the expanding knowledge base of issues and effective interventions for gifted and talented adolescents.

#### Gaps in the Literature

As evidenced in this review of the literature, several gaps related to the effects of attending a Governor's School need to be addressed. First, there is an absence of large-scale, well-designed studies that examine the shortand long-term effects of participation in a Governor's School on students' social and emotional well-being. The research to date is limited, and furthermore, no studies on Governor's Schools have been conducted within the last decade. Moreover, the main body of research has been conducted on Governor's Schools in the Southeast, and it would be beneficial to conduct comparable studies on similar programs in other regions. Research also should focus on the various types of Governor's Schools-subject-specific vs. comprehensive, focus on acceleration or enrichment, duration of one week vs. six weeks, and so on, to identify program-specific outcomes. In the studies reviewed, little to no attention was given to the effects program participation may have on minority students, students with learning differences, underachievers, or students of different ages or genders. By addressing these gaps through well-designed studies, information could be obtained that would be beneficial in addressing the social and emotional needs of gifted adolescents.

### Implications for Future Research

Future research studies on Governor's Schools should be conducted over long periods of time using multiple data sources, reliable and valid instruments, and control for variables such as a change in directors, program length, program location, students' background experiences, and the scope and mission of the specific Governor's School program being studied. Future research should also focus specifically on the social and emotional issues of gifted students as they relate to age, gender, race, ethnicity, perfectionism, underachievement, and learning differences.

#### **Conclusions**

The success of Governor's Schools in providing nurturing, safe, intellectual climates that encourage social and emotional maturation should be applauded. Overall the Governor's School model is a highly effective way of delivering an accelerated and enriched curriculum that is not available to students in a regular high school setting. In addition to having a strong and meaningful academic experience, students are also immersed in a psychologically safe and encouraging social environment. Gifted and talented students need opportunities to be around

like-minded, like-ability peers in order to form friend-ship networks, which will assist them in reaching their full potential. Several practices from the Governor's School model should be examined for their applicability to regular school settings so that other gifted and talented high school students may benefit academically, socially and emotionally.

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