A substantial portion of ATDP’s research has appeared in peer-reviewed academic journals. The articles that are summarized below cover a wide variety of topics, but they have been organized here into three categories:

• Student Characteristics
• Program Evaluation and Program Practices
• Educational Measurement

These categories are not mutually exclusive by any means, but they represent the basic sorts of questions that the studies attempt to answer. Articles on racial and ethnic diversity (or lack thereof) among academically talented youngsters, for instance, may be found in more than one category because of how the researcher(s) approached the topic. Within each category, articles are ordered from the most recent to the earliest.

**Student Characteristics**

Learning more about academically talented youth themselves and what “makes them tick” is an important part of our research agenda. Some of the articles take a comparative approach, and contrast academically talented individuals with at-risk individuals. The majority, however, look at academically talented groups on their own through a variety of lenses, including broad variables like gender and ethnicity, as well as more particular ones, such as course choice.


  This study attempted to see what relationship exists, if any, among ethnic identity, self-esteem, and achievement for academically talented teenagers. A group of students, who were enrolled in a summer academic enrichment program, took a questionnaire as part of their evaluation of the program, and the four largest groups—African Americans, Asian Americans, Latinos, and Whites—were compared. The results showed no appreciable differences among the four groups with regard to expected program grade or overall self-esteem, despite the fact that Asian and White American students noted higher school GPAs on average than their peers. Admission requirements for special summer programs, the author argues, should be flexible: rigid standards (i.e., for GPA) would have excluded students who appear to be just as capable within the program. For African Americans in the sample, a positive orientation toward other ethnic groups strongly predicted higher achievement (as measured by school GPA) and moderately predicted higher self-esteem; on the other hand, strong identification with their own group predicted lower achievement. However, no such relationship was found with achievement in the talent development program (as measured by summer grades). For Latinos, the same strong ethnic identification instead predicted increased self-esteem. The study confirmed that minorities should be analyzed separately with regard to ethnic identity and suggests that the importance of identity variables to individual achievement differs across contexts.


  In this study, the authors explored the possible effect of time perspective—one’s outlook on the past, present, and future—on academic achievement among a group of adolescent students
attending a summer program for academically talented youth. Overall, the students surveyed did not hold markedly negative or positive views of any particular time frame. The results, however, did indicate a relationship between age and time perspective, such that older students had a more hedonistic attitude toward the present than younger students in the study. Additionally, female students had a less negative future outlook in general, and increased achievement was correlated with a positive future outlook and a lack of fatalistic attitudes towards the present.


Students attending a summer program for the academically talented were given a questionnaire about their participation in extracurricular activities. Of the students sampled, most participated in at least two. A sizable majority of both genders participated in sports, though males participated at a greater rate than females. Female students, on the other hand, were more active in ethnic and cultural organizations—which was especially true for female minority students—and the arts (i.e., music and dance). Students also tended to have more activities as the grade level increased. While the researchers noted that higher rates of females participating in the arts and of males in sports conformed to gender stereotypes, widespread athletic activity defied stereotypes for students with high academic achievement.


This study used a questionnaire to compare total and area-specific self-concept (self-esteem) among a sample of academically talented Asian American and White students. White students’ job and academic self-concept ratings were only slightly higher than their Asian American counterparts. While no area-specific aspect of self-concept was a strong predictor of overall self-concept among Asian Americans, self-concept as related to appearance was strongly predictive of overall self-concept for Whites. The study also pointed to avenues for further research in measuring total self-concept and accounting for ethnic diversity among Asian Americans.


The authors wanted to know whether differences exist between academically talented female and male students in terms of their course choices and their motivations for those choices. Females enrolled in both traditionally female and male courses at comparable rates, while males heavily favored traditionally male courses. However, the results did not indicate any significant gender differences in motivation, but seemed to suggest that students who selected traditionally female or male courses were either more self-motivated or externally motivated, respectively. Additionally, Asian Americans in the sample tended to have more external motivations for their course choices than their peers.


Questionnaires measuring self-esteem and future outlook were administered to students who attended a continuation high school, a mentoring program at a regular high school, or a summer program for academically talented students. Self-esteem and future outlook had both been linked by older studies to individual achievement. The students who attended the continuation school were placed there because of conduct issues in regular high schools, while the mentoring program, though voluntary, was composed of students who had been referred by counselors. Both groups were classified as “at-risk” for the study. Although the continuation school students had considerably lower hopes for their futures, the results indicated no significant differences in self-esteem among the three groups. The authors suggested that mandatory assignment to the
continuation school may have negatively affected its students' attitudes toward the future. Also, programs designed to aid at-risk youth should be analyzed for their impact on students' future outlook, which may be crucial to their long-term success.


A group of academically talented adolescents enrolled in summer program were given questionnaires about their overall and area-specific self-esteem. With regard to age, there were no significant differences among the students sampled. With regard to gender, however, girls reported slightly higher social self-esteem, while boys had slightly higher athletic self-esteem; academic self-esteem was roughly equal between girls and boys. Males also reported higher overall self-esteem, but this was also only a slight difference. The authors proposed that studies done over long periods of time that also take into account students’ time within a particular academic program may offer more conclusive results for the relationship between age and self-esteem among talented students.


A group of students who attended an alternative high school were compared with students who attended a summer program for the academically talented. The high school was geared toward helping students who had had difficulties in traditional high schools graduate. On the basis of several risk factors (i.e., conduct problems or a lack of extracurricular activities), the students at the alternative high school were considered at risk. However, with regard to a number of so-called “protective factors”—including high overall self-esteem, a circle of close friends, and positive familial interactions—the at-risk students were comparable with the academically talented students who were not considered at risk. The author asserts that the results of the study promote the use of nonacademic interventions to encourage student tenacity and well-being.

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**Program Evaluation and Program Practices**

This section’s articles are concerned with the process of effectively running ATDP and similar programs. The focus can be on the structure of the organization, how it facilitates learning experiences, or even how it attempts to foster its own unique culture. Alternately, researchers evaluate specific policies and whether or not they achieved their stated goals. The overarching purpose of articles such as these is to improve programs that serve academically talented students and their families.


Linking the lack of African Americans in gifted programs to a history of diminished educational opportunities, Worrell also identifies a number of key contemporary obstacles to diversifying gifted and talented education. First, he cites narrow definitions of giftedness that are especially exclusionary because talent is seen as innate ability rather than something that has to be developed over time. As a result, the IQ test, which favors those from affluent and well-educated backgrounds, is sometimes used as the sole measure of giftedness. Second, attempts to publicize gifted programs among African American families have been largely ineffective, and
limited in part by the same narrow ideas regarding intellectual ability. Third, whether due to conscious or unconscious factors, the underachievement of gifted black students presents a persistent and complex problem.

Because of the difficulty of running productive talent development or gifted programs in public schools, university-run summer and after-school programs may play a substantial role in helping nurture academic abilities. Worrell includes a brief study of African Americans attending a summer program that used a variety of admissions criteria that weren’t limited to standardized test scores and school GPA. The data, covering a span of several years, revealed a wide gender gap in participation, with female students attending at roughly twice the rate of their male peers, while overall participation among African Americans was only about 7 percent for the entire period in question. More importantly, however, results indicated that they were performing at an adequate level and that they were enjoying the program, despite having lower standardized test scores and school GPAs on average than other groups in the program. These findings, Worrell asserts, reaffirm the need for using broad-based identification standards in gifted programs. Furthermore, students, parents, and teachers all must be proactively educated on the options available for developing academic talent, and what is required in order to exercise those options. In concluding the article, the author notes that there is still much work to be done in order to both increase African American participation in academic talent development and understand the forces that undermine African American academic achievement across the board—inside and outside of schools.

  Noting the traditional under-representation of such students from gifted programs, the study examined the retention of minority and low-income students recruited to attend a summer program for gifted students. In analyzing the program’s student database from a nine-year period, the results indicated that retention was not significantly linked to GPA, standardized tests, summer course grades, or socioeconomic status; participating students’ feelings of social isolation was offered as a possible explanation. The authors pointed to further research into salient individual traits and reaffirmed the need to develop effective strategies of retention as well.

  The authors of this article surveyed the parents of elementary-age children attending a summer program for the academically talented. Questions focused on children’s homework behavior and the amount of homework they received during the normal school year, in addition to how much time parents spent helping with assignments. Parents were also asked how much homework they thought would be appropriate at a summer program for talented students. Findings indicated that parent assistance remained relatively steady among students entering the second grade or higher, even as the amount of homework increased with grade level. The vast majority of the children did not have trouble finding the motivation to do their homework during the school year, nor did they have difficulty completing it; some parents, however, believed that the summer program should not assign homework. As a result of the initial study, administrators and teachers tried to ensure that the amount of homework given was suitable for the students’ age and that parents knew the objective of each assignment. Teachers and parents indicated they were satisfied with this change to the program’s homework policy.

  Sosniak begins by summarizing the results of an earlier study on talent development. A group of 120 talented adults, who had become particularly successful in one of six fields, were
interviewed along with their families. Many of the talented individuals being studied weren’t identified as talented at a young age, and many lacked an early goal of becoming successful in their eventual field of choice. What occurred instead was a lengthy process, through which individuals became more and more competent in a given area over time. Meanwhile, they were also exposed to activities and supportive adults within that area in both formal and informal situations. Individuals moved from a playful initial interest, to an intense period of investigation into the field (usually in adolescence), until finally they committed to gaining membership in and making significant contributions to their field, whether it was as a world-class swimmer or a respected neurologist. Sosniak notes that much of the work the talented people in the study did to reach their adult status was done outside of school, and specifically mentions ATDP among the organizations that can and should develop talent in conjunction with—not in spite of or instead of—the school system. ATDP, Sosniak contends, allows students to acquire and nurture interests by providing a distinctive opportunity to connect with and learn from supportive adults engaged in various fields of study. However, she cautiously notes that there may be substantial differences in the learning experiences and development between students who take a number of classes in the same subject area over the course of several summers or instead take a variety of classes. Sosniak closes by reiterating that talent development is a long-term process, and that society as a whole must work to find effective ways of engaging youth in ways that affirm their interests and accommodate their abilities.


  The authors present ATDP as an organization that depends on the collaborative efforts of students, teachers, staff, and affiliated researchers to create a productive, responsive, and nurturing learning community. The Program’s partnerships with several local school districts and a community in the Central Valley—which broaden and diversify the ATDP community—are also offered as positive examples of educational alliances.


  Sosniak summarizes the unique organizational and cultural features of ATDP, characterizing it above all as a community that actively encourages its students to engage with academic fields of study through interaction with like-minded peers and faculty. She also links the program’s particular structure to the educational philosophy of its staff and director—one that promotes a pluralistic view of academic talent that, in turn, has contributed to the diversity of the program’s student body. In concluding the article, Sosniak points to ATDP as one of the many educational institutions outside of normal K-12 schools and asserts that such institutions should be an important part of efforts to reform the country’s educational system.

**Educational Measurement**

Educational researchers have long been interested in finding ways to scientifically assess the characteristics of students and their learning environments. As a result, a tremendous number of instruments have been developed, commonly in the form of questionnaires filled out by the students themselves. Other scholars, including those at ATDP, subsequently conduct validity and reliability studies of these instruments in order to ensure that they both accurately and consistently measure what they are intended to measure.

The study examined the diagnostic qualities of the Elementary Reading Attitude Survey (ERAS) for a group of elementary-age children attending a summer program for academically talented students. The results indicated that the ERAS was largely consistent in its measurements for the sample, and participating students scored well above average, indicating that they generally enjoyed reading. Additionally, girls scored slightly higher than boys in three of the seven grade levels under study, which echoed other studies. The importance of reading attitudes in the development of literacy was reaffirmed, and the authors also suggested that incorporation into strongly pro-reading environments might increase positive attitudes of reading and reading ability as a result.


The Zimbardo Time Perspective Inventory (ZTPI), which measures an individual’s attitudes towards the past, present, and future, was administered to a sample of adolescents attending a summer program for the academically talented. The students’ ZTPI scores were then compared with their grades, attitudes towards cheating, and scores on established scales measuring hope and perceived life chances. The expected relationships (i.e., acceptance of cheating was correlated with future orientation, and future orientation tended to increase as present fatalism decreased) were evident, and ZTPI scores were significant predictors of scores measuring students’ hope for the future. Several of these relationships, however, were very small. While the ZTPI was not initially designed for adolescents, the authors noted that its measurements were mostly consistent in the study. Nevertheless, they argued that it still needed a more thorough investigation of its properties before its usefulness could be confirmed.


This article examines the Learning Behaviors Scale (LBS) within the context of a handful of scales that have been developed to identify students for school gifted and talented programs: the Scale for Rating the Behavioral Characteristics of Superior Students (SRBCSS), the Gifted Evaluation Scale (GES), and the Gifted and Talented Evaluation Scales (GATES). Contending that the SRBCSS, the GES, and the GATES have yet to be definitively validated, the authors tested the LBS as an alternative, given its emphasis on rating observable student behaviors. After two summers at an enrichment program for the academically talented, teachers evaluated their students using the LBS, and the results from both years were analyzed. The LBS was relatively effective in predicting summer grades, and the students’ LBS scores were comparable to those of gifted and talented students who had been assessed with the LBS in a previous study. These and other findings suggested that the LBS could still be useful for identifying academically talented students. The authors maintain, however, that it—like the other scales—must be tested on a number of different samples before validity can be firmly established.


Using a sample of academically talented middle schoolers, the authors assessed the strength of the Almost Perfect Scale-Revised (APS-R) in measuring individual perfectionism. They concluded that the APS-R was a fairly reliable questionnaire, and noted that results in several areas echoed earlier studies of perfectionism. The authors were hopeful that the APS-R could enable long-term studies of perfectionism along with other scales, though they recommended that a handful of its questions would need some modification.

Academically talented high schoolers attending a summer enrichment program were asked to evaluate their courses and rate the effectiveness of their instructors—both overall and with regard to specific, observable behaviors (i.e., using multiple examples to explain concepts). Ratings of teacher clarity were stronger predictors of overall teacher effectiveness ratings than those of teacher enthusiasm, course workload, or course difficulty. In light of their findings, the authors suggest that students’ evaluations could serve as another tool to aid educators as they assess and refine their practices.


The Multigroup Ethnic Identity Measure (MEIM) was created to measure ethnic identity and attitudes toward other ethnic groups regardless of the individual’s own ethnic identification. In order to assess its validity, a group of adolescents attending a summer program for academically talented students was sampled. The results suggested that ethnic identity—as measured by the MEIM—is relatively fixed during adolescence. However, Worrell calls into question what he sees as the uncritical acceptance of the MEIM, especially since no one has fully explored its meaning in relation to theories of racial or ethnic identity. Given the importance of ethnic identity, he argues, the instruments researchers use to study it must be dependable.


Many scholars have linked the risk of dropping out to a negative, discouraging school climate. Questionnaires created to gauge students’ evaluation of school climate, like the Instructional Climate Inventory-Student Form (ICI-S), could therefore be important tools in predicting the likelihood that at-risk students will leave school. In this study, the ICI-S was administered to recent and current students of an urban continuation school, students attending a summer program for the academically talented, and a group of eighth graders at a rural middle school. The academically talented students rated their program’s climate highest, followed by the continuation school students and the middle school students. Although the ICI-S produced consistent measurements, the reason for the differences in the school ratings was not immediately clear from the analysis, and the author stated the need for further research on the properties of the ICI-S.


Students were given questionnaires that evaluated overall and area-specific self-esteem, as well as a handful of behavioral variables. The students fell into one of three categories: students who had graduated from an urban continuation school, students who had dropped out of that same school, and students who had attended a summer gifted program housed at a local university. Both the continuation school graduates and dropouts were identified as at-risk. To assess overall self-esteem, the study used two of the more prominent scales, the Self-Perception Profile for Adolescents (SPPA) and the Rosenberg Self-Esteem Scale (RSES); the SPPA also provided area-specific measures. However, the area-specific measures of self-esteem (i.e., athletic, academic, romantic, etc.) lacked consistent impact, and their effect on overall self-esteem depended on whether the RSES or the SPPA was being used. Based on the results, the author openly questioned whether the RSES and SPPA actually address the same concept, and also whether they or other questionnaires have been sufficiently developed to examine at-risk youth.

The Self-Perception Profile for Adolescents (SPPA) is a questionnaire that was created to reliably gauge an adolescent’s self-esteem, which was defined as whether the individual saw him or herself as a “competent” person or not. Using the responses of a group of students attending a summer program for the academically talented, this study examined the underlying structure of the SPPA. Only four of the original eight areas of self-esteem the scale was intended to measure were adequately reproduced in the analysis: academic, athletic, occupational, and behavioral. The author recommends several routes for future research, including fine-tuning the SPPA’s elements and using it with a diverse number of groups to further determine its utility.