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Running head: SUMMER PROGRAMS FOR GIFTED STUDENTS

"Nerd Camp": Students' and Parents' Perceptions of Summer Programs for Gifted Students

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Abstract

Measures of parental value, reasons for enrollment and re-enrollment, contentment with residential and academic aspects, perceived benefits, demographic and curricular area differences in perceptions, and comparisons to regular schooling were analyzed for participants of one 2005 Johns Hopkins University Center for Talented Youth (CTY) summer program and their parents. All students, ages 12-16, (N=227) completed likert-scale evaluations, and select parents (N=17) and students (N=9) completed open-ended perception questionnaires. Similar to prior research, students and parents were very pleased with all aspects of CTY and some gender, ethnicity, and curricular area differences existed. The results support intellectual ability grouping, enrichment learning, and out-of-school gifted programming, as well as suggesting that gifted students would like maximum independence during their summer experience.

"Nerd Camp": Students' and Parents' Perceptions of Summer Programs for Gifted Students

Every summer, thousands of bright students flock to university and college campuses across the United States in order to take part in programs that encompass a challenging and accelerated academic curriculum and a social environment that promotes interaction between like-abled peers. Affectionately known as "nerd camp" to many participants, summer programs for identified gifted youth are designed to foster optimal personal, academic, and social growth for the students. While there is not a large or wide-ranging pool of literature on summer programs for gifted students, some topics that have been researched include long-term and short-term academic and social benefits, the success and implementation of academic follow-up after the summer, and perceptions of students' experiences at these programs. Most studies are descriptive in design, but many have small sample sizes or are out-of-date. Also, there are few studies of why students and parents decide to attend and return to summer programs, demographic differences in student perceptions, and perceptions of staff performance. Only one study has been done with both parents and students from the same camp, and this had only limited input from parents. Nonetheless, summer programs for gifted students have been given overwhelmingly positive reviews in both scholarly and recruitment literature and continue to grow in popularity.

In this study, I intend to add to the existing literature by examining student and parent perceptions of one summer camp for gifted students. I have collected data from parents and students who took part in the Johns Hopkins University's Center for Talented Youth (CTY) summer program held in Saratoga Springs, New York in 2005. CTY is a representative example of most academic summer camps for the gifted population because it has served as a model for many of the other existing programs. Unlike other studies done on this topic, this study will

involve data from three different sources, including two student perceptions questionnaires and one parent perceptions questionnaire. By surveying both parents and students about their perceptions of the CTY summer camps, I have gotten insight into each of their reasons for enrollment and re-enrollment, perceived values and benefits of participation, and how they compare the program to regular schooling. I have also received feedback on which aspects of the program students like or dislike. Furthermore, I examined differences in student perceptions of their residential and academic experiences at CTY by gender, ethnicity, age, and type of course in which they were enrolled.

In order to ground my findings in what is already known on the topic of gifted education and, especially, summer camps for gifted students, I will give a brief overview of the nature of giftedness and gifted education, as well as background information on the features and roles of summer camps for gifted students. Finally, I will examine existing literature on both student and parent perceptions of the programs and give some examples of what students and parents have previously said about summer camps for gifted students.

Who are the Gifted?

In every era of history there have been a handful of individuals who, propelled by a creative idea, a driving persistence, or an intuitive talent, have risen above the masses and have been recognized as special, unique, or above average. In accordance with today's American educational system, these people would have been labeled with the terms 'gifted' or 'talented'. The definitions of these terms, and also their use, have been in constant flux since they were introduced in the sphere of education. Over the past century, giftedness has been given such varied definitions as above average Binet IQ scores, superior ability in a skill area, advanced creativity, consistent performance, high rankings in a specific age range, and unusually high

potential (Newland, 1976). The literature printed by the Center for Talented Youth does not provide a concise definition of giftedness, but rather describes qualities that a gifted student might possess and the means by which they determine whether a child can be labeled gifted. CTY centers on academic talent, so this paper will focus mainly on giftedness within the realm of what are considered typical academic subjects in the United States, such as math, science, and the humanities. Therefore, to ease communication and increase clarity in my discussion, I will utilize the definition used by Mönks and Mason (2000), "giftedness is an individual potential for exceptional achievement in one or more domains" (p. 144), because of its widely encompassing nature and its coherence with the Center for Talented Youth guidelines of determining giftedness. I will also use the words gifted and talented interchangeably throughout because there is no distinction between them in literature printed by the Center for Talented Youth.

Gifted students are usually identified through a variety of methods that may include testing, observation, or performance analysis. While there is not, as of yet, any foolproof way of identifying the gifted child, studies done on characteristics of gifted students have shown similar results within the identified population and these have guided the development of appropriate curriculum for their special needs (Newland, 1976). Not every gifted student has the same needs or traits, but research has shown some characteristics as being more common in gifted students than in non-gifted students.

In the academic realm, above-average creativity, advanced meta-cognitive skill, high measured ability, and extraordinary intrinsic motivation are traits commonly found in those identified as gifted. The creative thinker often demonstrates the ability to identify and solve problems with a greater degree of fluency, creativity, originality, and thoroughness than their less creative peers (Callahan, 1991). Furthermore, meta-cognition, or the ability to plan, monitor,

and evaluate a solution to a problem, may manifest as advanced skills in brainstorming, self-questioning, self-reflection, and organization (Barrel, 1991). Also, high intellectual ability means the gifted child can grasp concepts much faster than most of their classmates, which is generally attributed to a combination of inherent ability and appropriate encouragement, education, and training (Schneider, 2000). Lastly, the level of motivation that a student employs determines the effectiveness of their intellectual abilities, cognition, and creativity because highly motivated students will push to apply their academic talent more than students with low motivation and, therefore, will be able to achieve more intellectually (Lens & Rand, 2000). Intrinsically motivated individuals, as many gifted learners are, see the value of mastery for its own sake and tend to achieve more than their less motivated peers (Lens & Rand, 2000). Overall, the characteristics of high creativity, meta-cognitive thinking, intellectual ability, and motivation are advantageous to the individual who possesses them, but can present special difficulties for a gifted child whose talents may be misunderstood by themselves or their educators. The problem can often be alleviated with the proper educational intervention.

The gifted child also has some additional psychosocial needs because of their advanced intellect, such as the need to validate their own ability, cope with conflicting expectations, and find positive, supportive relationships (Enerson, 1993). Many gifted children find their outstanding abilities to be confusing and that their abilities set them apart from their peers. Consequently, they tend to hide or minimize the use of their talents in order to be accepted by their peers and fit into proscribed social roles (Buescher, 1985; Ford, 1989; Frey, 1991). Gifted students need to take ownership of their giftedness before they feel comfortable using their talent productively (Buescher, 1985; Frey, 1991). Further, in order to maximize the use of their talents

with self-efficacy, gifted students must include their talent as part of their self-identity (Frey, 1991).

Gifted students also face the challenge of discordance between their performance, their own expectations, and the expectations of others. Conflict often arises between the student's desire to excel and the necessity of hiding exceptionality to avoid additional workload assigned by teachers and parents, who are attempting to challenge the student's intellect (Ford, 1989; Buescher, 1985). Furthermore, gifted students are more likely to receive praise for academic accomplishments, and thus form their concept of self-worth around their academic successes and failures (Frey, 1991). Gifted students are oftentimes more critical of themselves than others are of them and are especially impatient with unresolved problems because of a low tolerance for ambiguity, leading them at times to rash decisions that are a source of future disappointment (Buescher, 1985; Buescher & Hingham, 1989; Frey, 1991).

Gifted students may also have a difficult time creating and maintaining meaningful relationships but have a special need for the support of peers and mentors. However, some peers and adults, such as teachers and administration, react to a student's giftedness by ostracizing them from the peer group. Regardless of the intent of the ostracism, the feelings of separation and difference often make it difficult for gifted students to form relationships with their peers. By making connections with like-minded peers, gifted students may feel more comfortable taking risks, which is often a special challenge for them because of their tendency to overanalyze possible consequences (Buescher, 1985; Buescher & Hingham, 1989; Enerson, 1993; Frey, 1991).

What is Gifted Education?

Once giftedness is defined and a child is identified as having qualities that match the definition, the question then becomes how these special talents are going to be fostered, if at all. There is much public debate about whether or not exclusive programming is beneficial and necessary (Moon & Rosselli, 2000), but different opinions may be a result of the huge variety of gifted programming that is available to talented youngsters. Here, I am defining gifted programming as any organized educational service in an explicit location that is specifically tailored for those who have been identified as gifted or talented in some area and that has a main goal of providing provisions for an advanced learner that would not normally be encountered in the course of their regular education (Moon & Rosselli, 2000). A program for the gifted should allow for optimal educational outcomes as a result of group interaction amongst students and between student and teacher and should also encompass in-depth or accelerated teaching to the students as a group (Smutney, 2003). Gifted programming defined as above has shown positive results in the form of higher achievement and social skill development in many studies and evaluations (Olzsewski-Kubilius & Lee, 2004; Smutney, 2003; Swiatek & Benbow, 1991). Academic motivation and performance seem to increase with participation in a challenging educational intervention program (Swiatek & Benbow, 1991).

Educational initiatives for gifted learners come in many and various forms. Schools employ a host of methods to provide specialized education, such as integrating the lessons in the regular classroom, accelerating a student beyond grade level, intra-classroom ability grouping (such as honors or Advanced Placement courses, ability tracking, etc.), inter-classroom ability grouping (such as reading groups, math-level grouping, etc.), pull-out programs and resource rooms, after school programs, special project or field trip opportunities, or special student or

parent counseling opportunities (Morgan, Tennant, & Gold, 1980; Smutney, 2003). Some specialized schools limit enrollment to only those identified as gifted or talented. At the opposite extreme, many schools, due to resource restraints, educational pedagogy, or politics, have no programming at all or have only limited programming for certain grades within the school system.

Armstrong (1989) notes that when, where, and under what conditions a gifted student lives are more decisive factors of the type of programming they will receive than their own ability or motivation. For gifted students, especially those who are not privy to a variety of in-school opportunities for gifted programming, there exists special out-of-school programs that are either acceleration- or enrichment-based and act as a supplement to regular schooling. Some of the most popular types of out of school programs include parent-initiated programs such as internships or independent studies; long-term courses, such as Saturday or after-school courses; seminars and workshops; study-abroad programs; academic competitions, such as essay contests and quiz bowls; and residential programs, such as summer academic programs or talent-based camps (Campbell, Wagner, & Walberg, 2000; Olszewski-Kubilius & Lee, 2004). These types of programs have been shown to have positive academic and socio-emotional effects on their students, as they often foster talent development, provide a better match for students' ability levels than can in-school programs, and create opportunities for gifted students to form peer groups based on similar interests and aptitude (Olszewski-Kubilius & Lee, 2004). Other positive outcomes include boosts in self-esteem, enjoyment of learning, and value in hard work (Olszewski-Kubilius & Lee, 2004).

Summer programs, as part of this group, are unique opportunities in that they are not usually associated with a school system but employ some of the gifted education pedagogies in a

concentrated and separate experience, free from the social and academic pressures of the school environment. CTY summer programs are based on the concepts of acceleration and homogeneous ability grouping. These types of educational initiatives are also used in regular schooling and many other gifted programs as a way to accommodate the advanced learning needs of gifted students. However, for summer camps, these strategies are the basis of the structure of the program instead of an adaptation within an already existing organization.

Acceleration

Acceleration is one strategy in which the content and level of difficulty of the curriculum is adjusted in order to fit the developmental pace of the student (Mills, Ablard, & Gustin, 1994). The strategy aims to eliminate repetition and overemphasis of basic level themes that often cause boredom and eventually disinterest in academically advanced students (Kulik & Kulik, 1984). Acceleration can take the form of early admittance into kindergarten, high school, or college, skipped grade levels, early high school graduation, advanced course work, or out-of-school programming (Brody & Benbow, 1987; Cornell, Callahan, Bassin, & Ramsay, 1991). Accelerative strategies for teaching gifted students have been very controversial because some educational planners fear that the acceleration will have negative long term effects on the students, such as fast pace instruction causing a reduction in academic productivity and achievement, difficulties in social adjustment if a student is removed from his peers, reduced extracurricular opportunity, and emotional maladjustment (Kulik & Kulik, 1984; Southern & Jones, 1991).

While not many studies have been done on the effects of acceleration on the individual student, in studies of group outcomes, acceleration has shown more positive effects than negative (Southern & Jones, 1991). For example, according to post-graduation surveys administered to

students who were identified as gifted by a talent search, students who have taken part in more acceleration, received relatively the same number of academic awards and scholarships, were admitted to more selective colleges, and did not show any significant emotional and personality differences than their less accelerated and non-accelerated peers (Brody & Benbow, 1987). Furthermore, Kulik and Kulik (1984) analyzed the results of 26 controlled studies on acceleration and found that students who were placed above their grade level with older students as part of an acceleration program performed as well as their older peers in the same grade, and better than their same-age peers in a lower grade, on tests of that subject. However, the analysis showed inconsistency about the non-intellective outcomes of acceleration, especially on the topics of popularity with peers, adjustment, and teacher ratings of character. In addition, math acceleration was found especially successful for both elementary school and high school students in that the students were able to perform extremely high, out-of-grade-level math skills when allowed to progress at their own pace (Kolitch & Brody, 1992; Mills, et al.,1994).

In most academic summer programs, including CTY, students take a course that is typically taught to students above their grade level in a compact and intense study period, usually one to several weeks in duration (Campbell, et al., 2000). This type of accelerative strategy offers students a chance to proceed through more basic level courses at a fast pace and, upon returning to their regular classrooms, be able to skip ahead to courses that are more challenging and appropriate to their skill level (Brody & Stanley, 1991). In a study done on the academic effects of a summer course in basic sciences, it was found that the comprehension level of the summer course students was comparable to that of their peers who took the course in a full year of high school (Stanley & Stanley, 1986).

There is little evidence to support the fears of negative effects of academic acceleration that keep many educational administrators and parents from allowing children to accelerate (Brody & Benbow, 1987; Feldhusen, 1991; Kulik & Kulik, 1984). However, the lack of support for a negative hypothesis does not necessarily mean that accelerative strategies produce positive results; positive outcomes are more highly dependent on the circumstances of the accelerant, such as the method of acceleration, age, and amount of acceleration that is put in place (Cornell, et al., 1991). Studies more consistently show positive results for intellectual outcomes than for psychosocial outcomes, perhaps because intellectual tests of knowledge and ability are less dependent on the factors of age and personality.

Ability Grouping

Ability grouping is also becoming a major controversy in the educational field (Mills & Durden, 1992). Most studies show that for gifted learners, being among peers who have similar academic ability is beneficial both intellectually and psychosocially if the conditions allow for maximum differentiation based on the students' level of readiness (Mills & Durden, 1992). However, many educators prefer integrated classrooms because it allows for students who have stronger academic abilities to help those who have lower or average academic ability in a type of cooperative learning.

In Adams-Byers, Whitsell, and Moon's (2004) study on student perceptions of homogeneous and heterogeneous ability grouping, gifted learners reported social/emotional benefits of homogeneous grouping like having peers who understand them, not being teased for academic inquisitiveness or achievement, and better teacher/student relations. Disadvantages of homogeneous grouping included a drop in class rankings because of greater challenge and frustration with being in class with the same people throughout school. Academically, being

educated with like-abled peers, allows for a faster pace, a greater challenge, less repetition, and more time to concentrate on their own study without the interruption of tutoring less able peers. Academic disadvantages were rarely cited but included competitiveness with peers and the stress of high expectations. Some advantages cited for heterogeneous grouping included the academics being easier and less stressful, the ease with which it is to be ranked higher in the class, and the ability to meet a more varied group of people. The study suggests that gifted learners who prefer mixed ability grouping to homogeneous grouping do so because they form their identity around their rank at the top of the class and are able to uphold that rank in mixed ability groups.

Summer programs have been developed particularly to allow for ability grouping. Tough entrance requirements usually exclude those who will not be able to handle advanced course work and, therefore, limit enrollment to a group of students who will benefit from those positive outcomes found in the study discussed above.

What Are Summer Camps for Gifted Students?

The summer, for most children, is a time to take a break from the regiments of school and homework and turn their attention to more relaxed endeavors. However, there is a growing trend, in the United States especially, of gifted youngsters spending their summer in programs specifically designed to further their gifts and expand on their interests. While there are summer programs available to all children, regardless of ability, programs designed for students who have a special interest, ability, or talent in specific domains have grown in popularity in the last decade (Center for Talent Development, 2002).

While most summer programs are not organized around specific developmental or educational theories (Olszewski-Kubilius, 1989), good programs are designed to allow students to grow in both the social and academic domains (National Association for Gifted Children,

2004). Most programs intend to assess and develop talents and abilities systematically through carefully planned curriculum implemented by trained and qualified teachers (Feldhusen, 1991). Furthermore, unlike time-constrained programs typically found in schools, well-balanced residential programs will not focus solely on talent development, but will allow sufficient time for physical activity, structured and unstructured social activities, play, and rest (National Association for Gifted Children, 2004). Most programs promote some combination of child/ child, child/ adult, and child/ material interactions, depending on the specific goals of the curriculum (Olszewski-Kubilius, 1989). While participating in these interactions, children are encouraged to form working friendships with similarly abled peers (Center for Talent Development, 2002), foster a unique camaraderie with experts in their area of interest (Cox & Daniel, 1984), and increase analytical skills, creativity, and subject proficiency (Olszewski-Kubilius, 1989).

Summer programs for the gifted vary greatly from one to the next in structure and focus. Program curricula covers a wide range of topics from sports, arts, travel, leadership, and social service, to traditional academics, to topics normally not found in schools, such as computer programming, archeology, or flight science. Some summer programs are residential, offering an experience of diversity in the student body and a wide range of activities, whereas non-residential programs may provide opportunities to creatively utilize a variety of local venues (National Association for Gifted Children, 2004). Programs are available for different ages, ranging from the youngest of elementary school students to college students. Some programs require steep tuition for entrance while others are publicly funded or provide scholarships to those unable to pay (Morgan, et al., 1980).

Talent searches, auditions, recommendations, past performance, or simply the ability to register and pay tuition are among the many criteria used in selecting students for summer programs (Piskurich, 2003). Depending on the way in which each program defines giftedness or what type of talent area to which it caters, the program will employ a different kind of admission criteria. CTY, for example, hosts its own talent search in which students are required to take standardized tests, such as the SAT, in order to qualify for its summer programs (Center for Talented Youth, 2005). This type of criteria is used to find students who would likely succeed in a challenging academic environment. Different types of criteria would be used to admit students to a fine arts camp for talented artists, for example.

Summer camps for gifted students have been listed in literature as examples of two models of gifted education: the telescoping model and the talent search model. The telescoping model is an acceleration plan in which students complete all the necessary requirements of their regular education in a condensed time frame (Callahan & Hunsaker, 1991; Hunsaker & Callahan, 1991). Academic summer programs supplement the regular school year by allowing students to take courses that they could not fit into their regular school schedule. If the student gets the experience and credit necessary to fulfill the general education requirements of their school, they may be able to graduate early without having to skip any of the courses that they would have taken in the full term, thus telescoping their education.

Additionally, the Talent Search Model, created by Johns Hopkins University with the start of the Study of Mathematically Precocious Students, focuses on educating for individual development throughout the lifespan (VanTassel–Baska, 2000). Instead of condensing the time a typical education takes, such as in the telescoping model, the Talent Search Model advocates for enriching the students' education by broadening their intellectual scope. The focus remains on

teaching to the ability and interests of the learner, rather than fitting the learner into an appropriate pre-determined learning level. The model uses difficult and reliable testing to identify students for participation in subject matter acceleration through fast-paced, challenging courses and a flexible curriculum for all educational experiences. The model has proven its sustainability through many long running summer programs that have been designed around its principles. The CTY summer program, on which this study is based, has the capacity to work under both models but is generally marketed in a way that best fits with the talent search model.

Olszewski-Kubilius (1989) also defines two models under which academic summer camps may fall: the proficiency model, in which students do advanced and accelerated coursework meant for older students, and the enrichment model, in which students gain experience with very specific topics that they would not encounter in their regular schooling. Enrichment models may also provide more in-depth and hands-on immersion into a topic than regular schooling would normally allow. The CTY summer programs are designed for academically gifted students who wish to expand on their traditional education by taking academic courses during the summer. However, they may also be used to obtain course credit for courses that are normally taught to older students. Therefore, the program can be placed in either the proficiency or enrichment model depending on the course taken or the how the student uses knowledge gained from the course.

What is the Role of Summer Camps in the Gifted Child's Education?

Role in Intellectual Pursuits

Many gifted students do not have the opportunity to experience a variety of academic and social experiences in their regular schools and so, they use their time off in the summer to satisfy the missing aspects of their education (Olszewski-Kubilius & Lee, 2004). For some

students, the summer programs offer a break from the slow moving and often boring lessons in their regular school and offer them a challenging and stimulating learning experience with peers of similar ability (Piskurich, 2003). Learning opportunities in regular classrooms are designed to meet the needs of the average student and therefore do not always offer the gifted student the opportunity to utilize their ability, creativity, and motivation to their greatest potential (Swiatek & Benbow, 1991). Small class sizes, independently paced courses, above grade level course subjects, a learner-friendly environment which often fosters healthy competition, a supportive residential environment, and qualified instructors are a few characteristics of summer programs that differ from the traditional school's classroom and help gifted learners to fulfill their maximum capability. The program may also be a chance for students to pursue a specific academic interest in greater depth or at a more advanced level than is available to them in their regular school (Brody & Stanley, 1991). Some programs, including CTY, use written evaluations by the instructor in lieu of grades as a way to decrease the detrimental effects of external motivation often encountered by an emphasis on good grade acquisition (Ablard, 1996/1997). Intrinsically motivated learning is often found in summer program classrooms as students seek an opportunity to practice advanced intellectual skills, gain proficiency in a subject area, and increase their analytic thinking ability and creativity (Olszewski-Kubilius, 1989).

Most academic summer programs intend for students to fit in a three-week intensive experience what most students accomplish in one full year of high school or one semester of college. This set-up is intended as an opportunity for students to fulfill prerequisites for upper-level courses or requirements for high school graduation in order to accelerate through high school and avoid boredom and wasted time in a class paced too slow for the student (Lynch, 1990). In support of this type of accelerated learning, Barnett and Durden's (1993) study of

CTY summer programs compared alumni and students who qualified for CTY programs but chose not to attend. Upon completion of high school, the two groups had similar academic success, taking a comparable average course load in high school and getting relatively the same average GPAs. However, on average CTY alumni demonstrated a greater tendency to seek academic challenge than their non-participating peers, as demonstrated by taking more college courses at four-year colleges and universities during high school. Also, more CTY participants enrolled in more competitive colleges and universities than non-participants. In addition to their greater drive for challenge, CTY participants outperformed non-participants on standardized tests according to average test scores. In further testament to the academic validity of summer programs like CTY, a study of students who had taken a three-week accelerated summer course in physics shows that the students had retained much more information than their counterparts who had taken a regular honors physics class in high school (Hsu, 2003).

In addition to personal fulfillment, many students seek academic credit or advanced placement from their regular schools for courses taken over the summer as a way to accelerate, perhaps even to graduate early (Brody & Stanley, 1991). However, some students report difficulty in getting their schools to recognize the summer course for credit or placing the student in the appropriate level course during the school year. In a study of 1989 CTY summer program participants, it was found that 69 percent of the students who took a math or science course that was equivalent to a typical high school course requested course credit or advanced placement for their summer experience and 80 percent of those requests were granted (Lynch, 1990). Reasons for not granting either credit or placement included the school's unfamiliarity with the program, a course not being sufficiently equivalent to the school's course on that topic, and not being able to give high school credit before a student enters high school. Some students had to take special

exams in order to receive credit or placement for their summer course. In a study of another summer program, students who requested credit or advanced placement after having completed a three-week intensive math or science course were more likely to receive it than other subjects (Olszewski-Kubilius, 1989). Those studied reported a reluctance of schools to provide an opportunity for independent study or funding for outside schooling, which may be the most appropriate avenue for students who have exhausted their schools existing curriculum.

Role in Psychosocial Development

One of the biggest selling points of academically based summer camps is the opportunity afforded to students for psychosocial development. Many summer programs are tailored to meet the specific developmental needs of the students they serve (Olszewski–Kubilius, 1989). For example, residential programming, which often occurs on college campuses, allows students to get a feel for independent campus life and relieve fears associated with the residential college experience and living independently, which is particularly helpful for early-entrance students (Center for Talent Development, 2002; Enerson, 1993; Olszewski-Kubilius, 1989). Furthermore, being taught by experts in their field of study provides role models and mentors to young learners through the unique relationships formed between teacher and student (Cox & Daniel, 1984). Students form social networks with adults that offer exposure and connections to new educational and job opportunities in the future (Olszewski-Kubilius, 1989). Special counseling on giftedness, in the capacity of an academic counselor or peer group discussions, is often available at summer programs as well and is very beneficial to students who need help in understanding their talent (Feldhusen, 1991; Olszewski-Kubilius, 1989).

The homogenous nature of the student population at the summer programs affords the most noted psychosocial benefit: social interactions with true intellectual peers. Friendships are

often formed on the basis of common interests, experiences, priorities, and values, as well as a bond over the group's attention to academic pursuit (Piskurich, 2003). Students have expressed that summer programs are places where they come into contact with peers that share similar experiences and provide lasting friendships of support and encouragement (Enerson, 1993). True peer interactions can contribute to a better sense of self, increased self- and peer-acceptance, and an environment that encourages greater risk-taking (Olszewski-Kubilius, 1989). Risk-taking is encouraged also through the range of activities offered at the summer camps; the various possibilities allow for a widening sense of self.

While there are many proposed benefits of summer programs for gifted students, most information on psychosocial benefits is probably derived from speculations based on similarities between the structure of summer camps and other forms of gifted educational programming that have been studied more formally. Nonetheless, much of the student and parent perception data about summer camps reflects similar psychosocial benefits to those mentioned here.

How do Students and Parents Perceive Summer Programs for the Gifted?

Students

There have been few qualitative and quantitative studies done on the way students perceive their summer program experience. While the studies have shown that students are generally pleased with their experience, there has not been much duplication of research with similar methods of inquiry and many studies lack a replicable description of the details of their design. Nonetheless, these studies have provided valuable information about the summer program experience for gifted students. Overall, students have indicated that they enjoy the academic challenge of the summer coursework more than the less rigorous academics in their regular classrooms (Enerson, 1993; Mills & Hoffman, 1998). Also, students perceive that there

are many social benefits derived from their exposure to peers that are very similar to themselves (Enerson, 1993; Mills & Hoffman, 1998).

One of the most thorough studies of students' perceptions was carried out by the CTY research department and has not been published. In this study, 192 students were asked to fill out open-ended questionnaires about the opportunities for gifted students, such as themselves, in their home schools, their satisfaction with the CTY program, and what aspects of CTY they liked the best (Mills & Hoffman, 1998). The greatest majority (36.70%) of students said that there were no special educational opportunities available to them at home, followed by about 29 % reporting that course acceleration/ grade skipping/ early college entrance was available and 28 % reporting that advanced courses were available. The students listed pacing, the level of challenge in class, and the quality of instruction as the top academic aspects of the CTY program. Meeting friends and/or interesting people and participating in activities and free time were cited as the best social aspects. Over 20 percent of students said that they would not change anything about their experience. Many students would alter only superficial conditions (such as the temperature of classroom, etc.) or the timing of the program. However, they reported that they wished their home schools were more similar to CTY in ways such as availability of accelerated classes, reducing class sizes, and being taught in groups of students who were of similar intellectual ability. Students were also asked about what made them decide to attend the CTY program. They reported reasons such as academic or advanced work (37.97%), looked interesting (30.48%), parents (17.65%), social aspects (13.90%), other reasons (10.16%), siblings (6.95%), friends (6.95%), and nothing better to do during the summer (4.28%). In summary, the students were overwhelmingly satisfied with CTY because it provided for their academic and social needs better than their home schools.

Enerson (1993) completed a qualitative study on gifted students in summer camps and found similar results to those of Mills and Hoffmann (1998). Enerson interviewed 12 students aged 13-18, who had attended the Purdue University summer program for talented students, with open-ended questions about their satisfaction with their home schools and the summer program. The researcher knew the participants well, although it is unknown in what capacity. Each of the students had attended the program three or more years and was attending the program at the time of the interview. Students reported that their home schools did not meet their social, academic, and emotional needs. They found respite from classroom boredom in the opportunity to work hard learning worthwhile and meaningful subjects while at the summer program. They expressed satisfaction with the program because of the opportunity it gave them to experience campus life, learn about career options that they had not previously considered or were aware of, and interact with teachers who they felt encouraged their curiosity and respected them as individuals. They felt that their social needs were met because they did not need to explain themselves to peers who seemed to already understand, accept, and affirm who they were. They formed meaningful and intense relationships that lasted long after the summer ended. Some students also noticed an increase in their own self-confidence because of the acceptance they found from peers and staff, as well as a sense of academic confidence after they had met the big challenges they faced during the program. Most of the students reported that they would not change anything about the program if given the opportunity.

Additional evidence of the potential benefits of summer programs for gifted students comes from recruitment material and magazine articles written about summer camp experiences. Many articles and websites offer quotes from summer program participants that demonstrate the

student's perceptions of the programs. However, this material does not offer any review of the methods by which these quotations were obtained. Quotes from students include:

> The best thing about the CTY programs was that I learned to accept myself and others,…At CTY I was surrounded by real people who appreciated me for what I could bring intellectually to a conversation. – CTY alumni (Millard, 2001, n.p.)
>
> TIP (a CTY-like summer program run by Duke University) treats the whole person…that's what I find so amazing about it. I did my growing up at TIP. I gained self-confidence, self-assurance, and a whole lot of good friends…[TIP was] the only place where there has been an atmosphere of total acceptance. –3-year TIP participant (Harbin, 1992, p. 41)
>
> CTY's programs provided me with a great educational opportunity that ultimately helped me advance within my school's system – CTY participant (Center for Talented Youth, 2005)
>
> CTY creates an atmosphere in which kids can excel academically and develop personally. – CTY participant (Center for Talented Youth, 2005)
>
> One thing I haven't explicitly mentioned that's the best thing about this camp is the "Espirit de Corps" or "camaraderie" may be the better word for it. Anyway, it's a friendly place. – National Science Camp participant in Indiana (Summers, 1981, p. 16)

Parents

More studies have been done on parent perceptions of summer programs for gifted students than student perceptions, but there are still only three. Parents determine their children's educational needs by reflecting on the parents' own values (Hertzog & Bennett, 2004), and therefore, learning about what a parent values can give insight into why they are

making specific choices for their child's education, such as sending them to a summer program. Additionally, parent perceptions of the value and importance of any aspects of their child's education is likely to have an effect on the child's own view of that endeavor (Hertzog & Bennett, 2004). In summer camps, especially, parents play an important part in the enrollment, financial support, and emotional encouragement of their children, as well as in advocating for their child when they return to school. Overall, parents have reported high satisfaction with their children's experience (VanTassel-Baska, Landau, & Olszewski, 1984), high student enjoyment rates (Olszewski –Kubilius & Lee, 2004), and positive academic, social, and psychosocial benefits (Enerson, 1993; Olszewski –Kubilius & Lee, 2004; VanTassel-Baska, et al., 1984).

In one study, 117 parents filled out a postal mail questionnaire about their child's experience socially, academically, and personally at the Northwestern University Summer Program for Academically Precocious Students, a similar program to CTY, six months after their child's return (Olszewski-Kubilius, 1989; VanTassel-Baska, et al., 1984). The parents were generally very satisfied with their child's experience at the program. While at the program most parents (at least 90%) felt that their children were appropriately supervised, experienced good interactions with other students and staff, and formed new friendships. Eighty-seven percent of parents thought that their child enjoyed the program and 95% said that they would send their child to the program again. Parents were highly satisfied with the academic challenge that the courses offered, the form of evaluation that was used, and the coursework that was assigned, but only 21% felt that their child was ready for the challenge upon arrival at the program. Also in this study, the top three benefits of the program listed by parents were social interaction with intellectual peers, personal and intellectual self-confidence, and academic challenge and

stimulation. About half of the students received credit or appropriate placement after participating.

In an attempt to outline the potential long-term benefits of a child's experience at a summer camp for gifted students, a "student-benefit model" was created based on this study that suggests that the social, academic, and personal benefits of summer programs for gifted students combined with appropriate follow-up during the school year can lead to future schooling and a productive adult life (VanTassel-Baska, et al., 1984).

Enerson (1993) interviewed 12 parents of participants in the Purdue University summer program for gifted students by telephone about why their child returns to the program and what they see as the value of the program. Parents reported that their children demonstrated a greater self-confidence, an excitement about teachers and learning, and a greater use of creativity as a result of the program. Parents also mentioned that there was great value in the true peer group that children encounter at the program and that their children enjoyed the way that program staff treated them as intelligent and independent people. Many parents also expressed that they wish they, too, had an opportunity such as this one when they were young. In ten of the interviews, parents used the exact same wording as their children in answering the questions. Select quotes from parents in this study include:

> She [her daughter] always talks about being able to work on things as much as she wanted to, with no limits on time like the time slots in school. And while she complains about the assignments at school, she loves to write at the programs. She doesn't have to conform to certain ideas, and she finally feels like a writer. (p.175)

> At the summer programs they can relax and know they are not alone. They can have a rapport of like-minded intellects. They can stay up all night and talk about saving the world. They feel an excitement and a zest for life. (p.175)

Additionally, parent perceptions of their child's experience in an out-of-school gifted program were collected for a study comparing a Saturday Enrichment Program and an academic summer program (Olszewski-Kubilius & Lee, 2004). Two months after the completion of the program, one hundred and thirty parents of students in grades four through twelve who attended the Center for Talent Development summer program in 2002 completed a multiple-choice and scaled-answer survey about their perceptions of the effects of the program on their child, their satisfaction with the program, and their follow-up actions after the program. The majority of parents (77.3%) perceived that the child's academic experience in the summer program was more challenging than their academic experience in their regular school. Almost ninety percent reported that the level of challenge was appropriate for their child. Similar to other studies, an overwhelming majority of parents reported that their child enjoyed the program. Parents also perceived that their children benefited from the program in ways such as, increased social confidence (85.2%), increase in reading and comprehension ability (84.8%), academic confidence (83.6%), interest in the subject area studied (80.6%), and ability to work independently on academic assignments (80.2%).

Purpose

The limited research on summer programs for gifted students has revealed information regarding the way that students and parents feel about the academic and residential proponents of this specific type of educational program. Many studies have reported positive benefits, high satisfaction, and high value in the academic aspects of the program. The academic courses have

been shown to be effective in teaching the projected amount of curriculum material (Hsu, 2003) and accelerated summer academic work has been found to have positive long-term effects on participants' academic careers (Barnett & Durden, 1993). Many, but not all, parents and students attempt to gain either advanced placement or academic credit for the course completed in the summer program, and many of them receive it, although some encounter institutional resistance from their schools (Brody & Stanley, 1991; VanTassel-Baska, et al., 1984). Also, students have reported, that as opposed to their experience in their home schools (Enerson, 1993; Mills & Hoffman, 1998), they appreciate the accelerated classes (Mills & Hoffman, 1998), small class size (Mills & Hoffman, 1998), grouping by student ability (Mills & Hoffman, 1998), high level of challenge in class (Mills & Hoffman, 1998), quality of instruction (Enerson, 1993; Mills & Hoffman, 1998), and meaningfulness of the coursework (Enerson, 1993). Additionally, more students listed academics as their reason for enrolling in the program than any other aspect (Mills & Hoffman, 1998).

Similar to the students, parents were satisfied with the academic components because of the high, yet appropriate, level of academic challenge (Olszewski-Kubilius & Lee, 2004; VanTassel-Baska, et al., 1984), and benefits such as academic stimulation (Enerson, 1993; VanTassel-Baska, et al., 1984), self-confidence (Enerson, 1993; Olszewski-Kubilius & Lee, 2004), increased skill and interest in the subject matter (Olszewski-Kubilius & Lee, 2004), greater academic independence (Olszewski-Kubilius & Lee, 2004), and greater use of creativity (Enerson, 1993). Parents, like students, felt that the academic experience at the summer program was more challenging than at their home schools (Olszewski-Kubilius & Lee, 2004).

A number of studies have also shown that summer programs for gifted students can result in many social and personal benefits and that the programs are highly valued for the social

experiences that they afford. Students value aspects of the program, such as forming new and lasting friendships (Enerson, 1993; Mills & Hoffman, 1998), participating in exciting activities (Mills & Hoffman, 1998), the opportunity to experience independent, campus living (Enerson, 1993), being with peers who understand and accept them (Enerson, 1993; Harbin, 1992), working with accepting staff members (Enerson, 1993), and increased self-esteem (Enerson, 1993).

Parents also thought that students benefited socially in ways such as meeting new friends (Olszewski-Kubilius, 1989; VanTassel-Baska, et al., 1984), interacting with intellectual peers (Enerson, 1993; VanTassel-Baska, et al., 1984), an increase in self-confidence (Enerson, 1993; Olszewski-Kubilius & Lee, 2004;VanTassel-Baska, et al., 1984), and having opportunities to work with supportive staff members (Enerson, 1993).

The most consistent finding of all of the aforementioned studies on summer camps for gifted students was that students enjoyed their experience at these programs, as perceived by parents and students using many different types of surveying instruments (VanTassel-Baska, et al., 1984; Olszewski-Kubilius, 1989; Enerson, 1993; Olszewski-Kubilius & Lee, 2004; Mills & Hoffman, 1998). Also, most students reported that they would not like to change anything significant about the programs (Mills & Hoffman, 1998; Enerson, 1993).

Despite what is known about summer camps, there is much that is not known about how students and parents perceive the programs. There is little information about how students and parents view the staff at the program and only one study asks separate questions about what aspects of the residential and academic programs students like (Mills & Hoffman, 1998). Also, there is little information about why parents sent their children to the programs in the first place, why they re-enroll their children in programs, and how they would like the programs to improve.

Finally, there is no known study that takes demographic and academic interest area differences into account when reporting student perceptions.

All of the information that we do have about students' and parents' perceptions of summer programs is limited by the lack of repetitiveness between studies. Therefore, all information is very specific to the sample and it is difficult to make any broad conclusions. Also, all but two of the studies are now more than ten years old. Though the main structure of summer camps for gifted students has not changed much over the years, changing public opinion about giftedness and gifted education may affect the results of these studies, especially in questions of the value of summer programs. Furthermore, only one study (Enerson, 1993) has examined both parent and student perceptions about the same summer program.

In order to address these discrepancies and provide a more full account of how students and parents feel about summer programs, I will use three types of data collected from the participants of one particular summer program. Through the use of scaled student questionnaires completed by all of the students, I hope to get an overview of what the average student thinks about his or her experience. By surveying a small subset of students and parents, I will attempt to gain a more in depth understanding of how they feel about the program. This study will emulate previous studies done on both student and parent perceptions by similarly exploring topics such as, parent perceived value, parent and student perceived benefits, reasons for summer program attendance, and how students and parents think that the program could be improved. Perceived comparisons between regular school programs and the summer programs will also be explored. Perceptions of staff, the community, and the activities program are some previously unresearched measures that are included in this study. The study also differs from previous studies because both qualitative and quantitative measures will be used and information taken at

the time of attendance and several months after will be used together. Moreover, students in this study are asked about their academic and residential programs separately on a variety of measures.

Through the use of scaled-answer student questionnaires, open-ended student perception surveys, and open-ended parent perception surveys, this descriptive study hopes to gain insight into the following questions about summer programs for the gifted:

1) What value do parents see in sending their students to summer programs?
2) Why do students return or not return to summer programs?
3) How do students perceive their experience with the residential and academic aspects of the community? What do parents think that their child's experience was like?
4) Are there differences in the way students perceive the residential and academic aspects of the program based on demographics and academic interest area?
5) What are the aspects of the program that students and parents would most like to change?
6) What are the parent- and student-perceived benefits of participation in the program?
7) How does the program compare to the child's regular schooling?

Method

Sample

Center for Talented Youth. The Center for Talented Youth (CTY) began with the creation of a talent search to identify young people with superior academic ability. Dr. Julian Stanley, a psychology professor at Johns Hopkins University, introduced the talent search in 1972. With this beginning, he planted the seed for an organization that now has identified about one million talented young people through academic testing and has served over 100,00 students

in programs including distance learning, one-day conferences, and summer programs (Center for Talented Youth, 2005). CTY is accredited by the Middle States Association of Colleges and Schools (Course Catalog, 2005). CTY also includes a research department that has contributed greatly to the scholarly literature on gifted and talented children and has served as a resource for parents, educators, and administrators. The CTY talent search and programmatic models have inspired the creation and design of other university-based talent searches and programs, including those of Duke University, Northwestern University, and the University of Denver and programs abroad in Germany, Ireland, Bermuda, England, and Spain.

CTY's mission statement as quoted on the center's website states:

> CTY shares with its parent organization, the Johns Hopkins University, a three-part mission of teaching, research, and service. More specifically, CTY:
>
> - Seeks students of the highest academic ability through its talent search and offers them challenging educational opportunities that develop intellect, encourage achievement, and nurture social development.
> - Conducts research and evaluation studies that advance knowledge about gifted education; develops the best practices in educating highly able children; and disseminates its findings to parents, the education community, and policymakers.
> - Supports educators in their efforts to meet the needs of highly able students, assists parents in advocating for their gifted children, and participates actively in community service. (Center for Talented Youth, 2005)

As part of the first point of their mission statement, CTY offers three-week programs at colleges and universities across the country each summer to academically able youngsters in grades 2-12 who qualify through CTY's own talent search. Students qualify to participate in the

talent search through nomination by teachers or administrators in their local schools (Center for Talented Youth, 2005). They must score within the 95th percentile on nationally standardized tests, receive distinguished marks on state tests, or demonstrate superior academic ability to be nominated. Students who score at age-appropriate levels on the SAT or ACT test are invited to attend a summer program. All students who qualify for the summer programs are among the top students of their age group (Course Catalog, 2005).

Summer programs for grades seven and above encompass many features that are not available in most regular schools. Each student chooses one course in the humanities, math, or science fields that they will complete in a three-week period. The courses are taught well above grade level and most are designed to cover enough material to be equivalent to a full-year high school course or a semester-long college course. Each course is taught by a talented and knowledgeable instructor, who may be a university professor, accomplished high school teacher, or expert in their field. An equally qualified teaching assistant, who is usually an undergraduate student with a concentration in the subject matter of the course, assists the students and the instructor in the classroom. The average course enrollment is 15 students and the curriculum centers on active learning and creative application of new knowledge in order to keep the young students engaged (Course Catalog, 2005). Courses offered in the 2005 CTY programs include Ancient Greek, Ethics, Music Theory, American Studies: The Harlem Renaissance, Crafting the Essay, Probability and Game Theory, Fundamentals of Computer Science, Astronomy, Fast-Paced High School Biology, and Electrical Engineering. An individually paced mathematics sequence course, in which the student can accelerate through topic-based math courses at their own pace, is also available as a course option. By taking this course, some students can

demonstrate proficiency in as many as three mathematics topics that would each usually take a full year to complete in the high school setting.

Monday through Friday for three weeks, each student spends five hours in the morning and afternoon in class or in a class-related lab and has a two-hour study hall session in the evening. Students take many breaks throughout the day for recreation and socialization time. Instructors are not allowed to assign out-of-class work to any student and students are not allowed to take textbooks or course materials out of the classroom; these rules are in place to ensure that students do not miss out on the many other opportunities available to them through the residential program.

While one of the main goals of the CTY summer programs is to "allow students to work at a challenging pace, explore topics in depth, and develop skills while studying subjects that students their age often do not have the opportunity to pursue" (Course Catalog, 2005, p. 2), another major benefit of the program is participation in the residential community. While not in class, participants are supervised by residential assistants (RAs) at all times. Hired for their demonstrated responsibility, previous related experience, and superior academic records, the RAs are typically undergraduate students from all over the United States and abroad. RAs live in the dormitories with the students and keep all students within eyeshot or earshot at all times. Students live in single-sex dormitories with their classmates and are organized into groups of eight to fifteen students with one RA per group.

Every weekday after class, the RAs lead a variety of activities in two activity periods. These activities are designed with the special needs of talented youth in mind while still recognizing that the students have similar social interests to their typically developing adolescent peers. Activities in the past have included such summer classics as capture the flag, ultimate

Frisbee, movie viewings, and friendship bracelet making, as well as some not-so-ordinary pursuits, such as noodle battling, improvisation games, music appreciation, and philosophical debates. Students choose from six to ten activities per activity period. Weekends offer more time for informal socialization in the residence halls and around the campus, as well as structured tournaments amongst the students. Weekends also include several mandatory, all-campus events organized by the RAs including social dances, casino nights, carnivals, and talent shows.

Through the residential program the students are able to live, work, and play with students of their own intellectual caliber and who share their motivation and love of learning. For many students, especially those from economically disadvantaged backgrounds, the summer program may be the first time that they have had such an opportunity (Olszewski-Kubilius, 1989). Often, students develop long lasting friendships with fellow students and learn the important skills needed for optimal functioning in a living and learning community, such as a college campus (Course Catalog, 2005). Veteran students have cited that their experience in the residential program has proven just as valuable as the academic program (Center for Talented Youth, 2005).

All CTY summer program students are asked to sign the CTY Honor Code, in which they promise to "uphold personal and academic integrity, respect the ideas and property of others, and ensure that those around them do the same" as well as upholding the expectations to:

- Strive to do the best work possible in their courses
- Respect individuals of different races, cultures, religions, genders, sexual orientations, ages, disabilities, and national origins
- Behave in a friendly, cooperative, and responsible manner toward all persons in the CTY community and in the larger college and local communities

- Attend all class sessions, meals, activities, and meetings
- Observe all rules for student conduct (Course Catalog, 2005, p. 51)

In order to ensure that all students are safe and well cared for, each CTY site includes a full administrative staff, including a Site Director, Academic Dean, Academic Dean's Assistant, Dean of Residential Life, two Senior Residential Assistants, office manager, nurses, and an academic counselor (Center for Talented Youth, 2005). All students and staff have access to these individuals twenty-four hours a day throughout the program.

In 2005, there were eight sites across the country at which the CTY summer programs for seventh graders and above were held, including Baltimore, Maryland; Carlisle, Pennsylvania; Kaneohe, Hawaii; Lancaster, Pennsylvania; Los Angeles, California; Loudonville, New York; Saratoga Springs, New York; and St. Mary's City, Maryland (Course Catalog, 2005). Community populations range from 120 students and 30 staff members to 510 students and 130 staff members. Most sites offer two sessions of its program per summer; the first session starting in late-June and the second starting in mid-July. Not all courses are offered at each site, and many students choose their site based on course availability. All sites are run with the same fundamental premises and with the same schedule. There is little variation in the basic structure of the program between sites for this age group.

There are tuition and other fees required for all students in the CTY summer programs. According to the 2005 Course Catalog, a nonrefundable $42 application fee is required of all applicants. Tuition, room, and meals for the three-week program costs $2750, while the tuition-only price for a commuter student is $1770. There are a variety of other fees as well, including book and supply costs, any medical services not available through the on-site health office, and lab and field trip fees. Part of the CTY vision is to "serve all qualified students regardless of

their ability to pay" (Center for Talented Youth, 2005) and it carries out this vision through an assortment of need-based financial aid and scholarship possibilities. While there are many awards and scholarships available from generous people in the public, there are not nearly enough to reach the goal of allowing every eligible student to attend the summer program (Course Catalog, 2005).

Demographic Information. The data used for this study was taken from the Saratoga Springs, New York, CTY site held on the campus of Skidmore College, a 650-acre campus built to preserve natural serenity in the hub of an upstate New York tourist town. All data was taken from session 2 of the program, which was held from mid-July to early August in the summer of 2005. Students are assigned to a session based on their preferences and there are no fundamental differences between session 1 and session 2. Session 2 was chosen because it was more representative of a typical CTY program than session 1, during which there were some unusual occurrences out of the control of the program that caused disturbances.

Two hundred and twenty-seven students completed the program during the session. Parents gave demographic information about their children at the time of their participation in the talent search. Those who did not use CTY's talent search were asked to fill out the form when registering for the summer program. There were a total of 117 (51.5%) girls and 110 (48.5%) boys, all between the ages of 12 and 16. The mean age of all the students was 15. On the optional question about ethnic background, 122 (53.7%) students reported that they were White or Caucasian, 66 (29.1%) students reported that they were Asian American or of Asian origin, 3 (1.3%) students reported that they were Latino or Hispanic, 8 (3.5%) reported that they were of some other ethnic background, and 28 (12.3%) either chose unspecified or left the question blank.

Thirteen different courses were taught at the site in four different course categories: math (4 classes, 60 students), science (3 classes, 44 students), writing (5 classes, 56 students), and humanities (5 classes, 67 students). Since some courses were taught in two sections by two separate instructional teams (instructor and teaching assistant) due to over-enrollment, there were 17 classes with class sizes ranging from 9 to 17 students. Average class size was 13.35 students. For the residential aspect of the program, students were broken up into 22 groups, 11 groups of boys and 11 groups of girls, and housed with these groups and a resident assistant (RA) of the same gender. Students were grouped with all the students of the same gender who were in their class. One to three classes were combined to form groups ranging from 8 to 14 students. Only one boy commuted from his home each morning and evening throughout the three weeks but did not miss any of the activities or class time that were offered to the other students.

Researcher

During the summer of 2005, I was employed by the Center for Talented Youth summer program and worked at the Saratoga Springs site during both sessions as one of the two Senior Residential Assistants. In this position I worked directly with most students and staff, but time did not allow me to form many close relationships with any particular students. Nonetheless, because of my position as an administrator, all of the students knew who I was and recognized my position. I was not involved in disciplining or supervising students directly, as my main focus was supervising the residential staff. No students knew of my intention to study the program while in attendance at the CTY site and I made no formal observations or research inquiries during the program.

Measures

Data Source 1: Student Perception Scales. The data from Source 1 was collected in order to gain a sense of students' general perceptions about a variety of aspects of the program and to see if there were differences in opinions according to various demographic factors. The quantitative data in this study was collected from the entire student population and, therefore, represents the collective and inclusive opinion of the student body on the residential and academic programs. However, the data is confounded heavily because of the large number of different courses and staff members that are being evaluated by the students.

Data about student satisfaction with the program was taken from information reported on the Student Program Evaluation (SPE) forms generated by CTY. SPEs were created by CTY summer program staff for the purpose of obtaining feedback on their programs. They have been used to evaluate courses, sites, and staff members. SPEs are taken into consideration when making decisions for the next year, but are never considered as complete evidence of a site's or a staff member's performance. Each CTY site uses the same forms and they have been used almost every year that CTY has offered summer programs, with some adjustments. Students are required to fill out the form and must use a provided number two pencil to do so. The blank forms are distributed to the students according to their assigned student id number and the student's name does not appear on the form anywhere to maintain confidentiality. Each student is asked to fill out the form thoughtfully and completely and told that the feedback received on the form is used by CTY to make changes in courses and sites and in decisions to rehire staff members. They are also told that their responses are kept confidential until all students have left the site. After the students complete the forms they elect one student from the group or class to deliver it to the main site office to be kept until the students leave the site. Once all students are

gone, staff members are allowed to review the forms if they so choose. There are two separate forms for students to complete for the academic side of the program and the residential side.

Academic SPE forms are administered to all students on the second to last day of class by their instructional team. The forms ask the student to provide the name and code for the one course in which they were enrolled, their instructor's name, and their teaching assistant's name. Students are asked to appraise their course (6 items) by filling in bubbles that correspond to answers ranging from strongly disagree to strongly agree (five-point Likert scale). Items in this category include "this course was challenging for me" and "required reading contributed to my understanding of the material." Next students are asked to appraise their instructor by responding on a five-point scale from poor to excellent to categories (10 items) such as "knowledge of the subject" and "constructive feedback on my work." Finally, students (7 items) are asked to appraise their teaching assistant with the same answer choices on similar categories. Students are also asked to answer the open-ended questions, what do you think were the most important ideas and/or skills you learned in this course; and would you recommend this course to other students? Why or why not; as well as to comment on their instructor's and teaching assistant's strengths and suggestions for improvement. There is also a space for additional comments.

Resident assistants administered the residential SPE forms in the residence halls before the final social activity on the day before the site closed. Students are asked to report their RAs name on the form and then appraise their RA from poor to excellent (five-point Likert scale) on measures (11 items) such as "preparation and organization" and "availability". Students are asked to rate measures about the community (9 items), such as, "community expectations were clear" and, "my hall mates respected my opinions," on a five-point scale from strongly disagree

to strongly agree. Finally, students are asked to rate the organized activity program (7 items) from poor to excellent (five point Likert scale) on measures such as "variety of daily activities" and "creativity of weekend activities." The open-ended section of the form asks students to comment on their RA's performance, strengths, and areas needing improvement, as well as asking whether or not the student would recommend the site and whether they felt that everyone respected each other as per the honor code. There is a space for additional comments on this form as well.

I have received an electronic database with each of the students' answers to all questions using a Likert scale from the CTY research department. Each child's responses are matched to their identification number and their demographic information, but no names or other identifying information is associated with their responses. To reduce the number of variables, scales were created based on similarity of question topic and reliability analyses. Residential scales include residential assistant (RA) effectiveness (6 items, $\alpha = .913$), RA supportiveness (4 items, $\alpha = .862$), RA overall rating (10 items, $\alpha = .941$), clarity of community expectations (2 items, $\alpha = .639$), respectfulness of the community (6 items, $\alpha = .814$), overall community rating (9 items, $\alpha = .854$), and activities rating (5 items, $\alpha = .814$). Academic scales include instructor's effectiveness (5 items, $\alpha = .865$), instructor's supportiveness (5 items, $\alpha = .892$), overall instructor's rating (10 items, $\alpha = .928$), teaching assistant's (TA) effectiveness (3 items, $\alpha = .902$), TA's supportiveness (4 items, $\alpha = .877$), overall TA rating (7 items, $\alpha = .933$), and overall course evaluation (5 items, $\alpha = .754$). In addition to separate measures, overall rating scales for RAs, community, instructors, and TAs were created as a composite of all measures about those topics because the overall reliability factors were consistently higher than the individual measures. (See Appendix A for list of questions.)

Data Source 2: Parent Perceptions Surveys. Parent surveys were conducted in order to obtain specific examples of how a small sample of parents feels about different aspects of the CTY program. They offer an outsider's perspective on the CTY experience because they have presumably been able to observe students' reactions to the program before, during, and after their participation and the impact that the program has had on the student. Furthermore, parents ultimately decide to enroll their children in the program and the reasons why they enroll them and the values that they hold about the program are crucial to understanding how students have come to arrive at the program. Parent survey participants, however, inherently represent a biased sample of the entire program because they must volunteer to participate and are a very small subset of the total population. The survey is in no way intended to or able to represent the opinions of all parents of CTY students, but rather some interesting examples of what some parents think about the program.

Parents were contacted six months after the end of the summer program. In order to recruit participants, the CTY research department contacted 222 families with valid email addresses whose students attended the Saratoga Springs CTY site during the second summer session of 2005 via electronic mail. This email explained that an undergraduate researcher was doing a project on student and parent perceptions of the CTY summer program and that their input would be an opportunity to help a young researcher and give valuable feedback to the CTY summer programs staff that could help to improve the program in the future. The email asked parents to reply with their phone numbers and appropriate times during which they would like to be contacted by the researcher as well as a statement of consent. The phone numbers were then separated from the corresponding email addresses and sent to me.

The original intention was to do phone interviews of each of the students that volunteered but due to time constraints, it was decided that it would be more efficient to gather information via open-ended surveys distributed through email. I attempted to call each of the parents who had originally responded (N=29), explained the project further, and asked for the parent's email address along with permission to contact them through that email address about both a parent and student survey. Twenty-seven parents were contacted by phone and all but one parent consented to participate in the survey.

Emails were sent out to consenting parents (N=26) including detailed consent forms (See Appendix B) and a list of eleven open-ended questions (See Appendix C) regarding the reasons why they enrolled and re-enrolled their child in the CTY summer program, why they value the program, what impact the social and academic aspects of the program had on their child, and how CTY compares to their child's regular school program. The wording of questions regarding parents' perceptions of derived academic and social benefits of the CTY programs (Olszewski & Lee, 2004; VanTassel–Baska, et al., 1984) and about parent values (Enerson, 1993) was adapted from similar questions used in previous research on parent perceptions of summer programs. Questions regarding why a student enrolled in the program are based on similar questions asked by CTY in a previous study (Mills & Hoffman, 1998). On all questions previously asked in other studies, the wording of the question was changed in order to better fit the CTY program. Parents were also asked how many times their child participated in the CTY program. Parents were informed that their identities would be kept anonymous, the information would be shared with the CTY research department, and their participation in the study was optional.

Data Source 3: Student Perception Surveys. The purpose of collecting survey information from students was similar to the reasons why parent survey data was collected.

Because the data is inherently biased based on the small sample size and the fact that both parent and student had to choose to and consent to participate, the survey data is not meant to represent the total population of students at CTY during the second session at Skidmore College. It is meant to give some voice to the quantitative data collected in Source 1 in order to better understand why some of the students rated different parts of the program the way that they did. It is also meant to get an idea of what students feel is important about the program when not prompted by specific questions.

I have conducted student surveys via electronic mail. In accordance with consent regulations for minors as mandated by the Connecticut College Institutional Review Board, I first contacted parents who had given me permission to contact them about a student survey (N=21) at their own email addresses shortly after sending the parent survey. I asked them to give consent for me to contact their child through the child's email address about the student survey and to respond to me with that email address and their child's first name. (See Appendix D for the full parent consent statement). Once I received the child's email address from the parent (N=12), I sent an email to the student giving details of the project and an informed consent statement (See Appendix E for informed consent statement). The students were informed that their responses would be kept anonymous and would be sent to CTY. As the students would have known me from my work at the CTY summer program, I also included a word of introduction and a more personal invitation to help with my project. However, in order to combat worry over anonymity because of our existing relationship, I specifically informed them that I did not know who they were because I did not have their last names and asked them not to include their full names to keep their identity anonymous.

There were 14 open-ended survey questions attached to the end of the email that were centered on four topics: what the student liked most about the overall, residential, and academic programs, what improvements they thought could be made to the overall, residential, and academic programs, what benefits they got from their participation in the overall, residential, and academic programs, and how CTY compares to their regular schooling. (See Appendix F for list of questions.) Questions about the perceived impact of the program were adapted from the interviews and results of a similar study on student perceptions to match the purpose of this study (Enerson, 1993). Separate questions about the residential and academic portions of the program were asked in order to prompt separate responses that might reflect or dispute answers given to the survey of Source 1. VanTassel-Baska, et al. (1984) prompted parents in this way when asking for their perceptions of the benefits to participating in an academic summer program. Additional questions included student's gender, age at the start of the program, number of times they attended the program, and if they planned to return to the program next year.

Analysis

Data Source 1. Descriptive statistics were taken on all academic and residential measures included in the quantitative data set. T-tests were run to examine gender differences in student perceptions on all measures. In addition, t-tests were run to examine differences in student perceptions according to ethnicity. In these analyses, only White/ Caucasian students and Asian American/ Asian Origin students were included. Students who designated themselves as other ethnicities or did not indicate their ethnicity could not be included in the analysis because there were not enough of them to compare statistically to the White and Asian groups. Also, an analysis of variance model was used to examine differences in student perceptions by curricular

areas, including science, humanities, math, and writing. Finally, age differences in student perceptions were explored through a correlation analysis.

Data Source 2. Seventeen parents (6 fathers, 8 mothers, 3 did not indicate) sent responses to the parent survey to the researcher via email. Responses were separated from email addresses upon receipt, combined with other responses, and given a random case number for the purpose of analysis. Since there was such a small sample size, the data was analyzed, first, by noting all possible comments and the number of times each comment was made. Categories were then created based on similar response topics for each question, such as social and academic related answers. All surveys were then read again and responses were coded to fit into the best possible category. Frequencies were taken for each category. Quotations were chosen based on their ability to represent the responses in each category or if the response represented a unique idea not expressed in any other parents' responses.

Data Source 3. Nine students responded to the student survey (7 girls, 2 boys). The students ranged in age from 13 to 16, with the average age being 14.44. Students attended the program an average of 2.78 times, ranging from one to five sessions. All student information was separated from their email addresses and real names. Students were given case numbers that corresponded to their parents' case numbers for cross-referencing. One student responded to the survey whose parents did not respond. The responses were coded in a two-step process for analysis, similar to that of the parents' survey. First, all answers were coded separately noting when an answer was repeated by two or more participants. The answers were then analyzed for trends and recoded based on more broad categorical answer groups. Quotations that were representative of most answers within any given category were noted, as well as some quotations that offered unique views on any one topic.

Results

Research Question #1: What value do parents see in sending their students to summer programs?

Parents, in their responses to parent surveys, gave a variety of reasons why they initially sent their children to the CTY summer program. The most common reasons given by parents were recommendations based on the positive experience of a sibling or friend of the student (N=9) and the belief that the academic experience would be beneficial to their child (N=8). More specifically, parents listed academic-related reasons for attendance such as an opportunity for an intellectual challenge, a chance to learn about subject matter not taught in school, and a belief that the course would help their child to increase academic skill and confidence. Six parents listed social reasons for why they sent their child to CTY, including the opportunities to have fun, make friends, and interact with peers who have similar interest and intellectual aptitude. Other reasons given include an opportunity for personal growth through the experience of living away from home (N=3) and general interest in the program (N=3).

While more parents listed academic reasons for initially enrolling their children in a CTY summer program than social reasons, the surveys indicate that more parents value the CTY program for its social value than its academic value. Fourteen parents mentioned that they valued the social experience in which their child took part at CTY. Many parents especially value the interaction with like-minded peers and/or the opportunity to create lasting friendships (N=12). Parents placed value in the opportunity for their child to interact with peers who are intellectually, academically, or culturally advanced. For example, one parent said of the peers with whom her daughter interacted, “most of the kids she hung out with at CTY were culturally sophisticated, enjoying reading and travel, the news, active sports, not just fashion, games, etc.”

Many parents also expressed that they value the program for the transformation or redemption in their child that resulted from the peer interactions that took place at CTY. "CTY was a literal lifeline to my daughter during the middle school years. She was challenged and made friends with whom, I believe, she will be in contact with for the rest of her life," said one mother of a four-session CTY veteran. A father wrote of CTY, "It created a social and intellectual context that has been central to his personal growth. All of his closest friends have come from CTY summers. These relationships have turned him into a healthy, happy teenager." Six parents mentioned that they value the benefits their children derive from the overall experience of CTY, such as independence, exposure to the college environment, confidence, and increased risk-taking.

Ten parents value the academic components of CTY; however, there was only one parent that solely mentioned academic values. Parents who listed academic values referred to the intellectual environment of CTY, specific scholastic skills learned through classes, and the academic challenge. Four parents wrote that they valued the atmosphere of the program. One parent appreciated that CTY is "an environment where it's not uncool to want to learn." Another parent remarked, "At CTY, [my son] felt he was welcomed and valued for being who he is." Also, one mother wrote of the CTY atmosphere, "There wasn't [an] age-taboo system of school-grades." One parent mentioned that they value the program overall, another parent specifically valued the nonjudgmental staff, and one parent valued the program as a pre-college resume booster.

Research Question #2: Why do students return or not return to summer programs?

Source 2. When asked if they planned to enroll their child in CTY for the following summer, eleven parents said that they would not. However, most of the parents who are not re-

enrolling their children in a CTY summer program are not doing so because the child had exceeded the maximum age for CTY (N=7). The rest of the parents reported that their children would be participating in other activities this summer including summer jobs, volunteering, and other camp programs (N=4). Notably, none of the parents said that they would not be sending their child back to CTY because of dissatisfaction with the program. Of the parents who said that their child would be returning to CTY, reasons given included positive perceptions of the residential program (N=3), the child's desire to return (N=2), positive perceptions of the staff (N=2), satisfaction with the structure of the program (N=2), positive perceptions of the academic program (N=1), and perceived benefits for the child (N=1). Most parents of returning CTY students gave one or more responses similar to one particular parent, who listed many reasons:

> Yes [my child will be returning to CTY] because of the high standard and top quality academic experience that is offered, because of how well the entire program is organized and supervised, and because of the valuable social interaction that my child has with her peers in the program.

Another parent's list of reasons for re-enrolling her child in CTY was,

> She is returning because she loved the independence; the kids she met were interesting and welcoming, not clique-y and the counselors were fun and seemed truly engaged in the idea of helping these kids get along, learn, have a great time. The subject she worked on has helped her relax and open up in her studies. It gave her a chance to be in the country for a bit, like camp.

Source 3. Four students reported that they would be returning to the CTY summer program next summer. Reasons for their return included the fun they have had in the past (N=3), regaining contact with and making new friends in the program (N=2), and looking forward to the

academic experience (N=2). The other five students reported that they will not be returning to CTY. Two students had aged out of the program and one student reported that, because her friends from the program had aged out, she was choosing not to participate during her last year of eligibility. One girl felt that, while she is technically not over the age limit, she has "gotten everything [she] could from CTY" and is "ready to move on and out." She noted,

> As a 16 year old, many of the rules CTY has are really obnoxious and babying. The streets I am allowed to drive on by myself and the stores that I am allowed to go into are restricted by CTY policies, telling me that in order to cross Broadway I basically must be holding an RA's hand.

Another student reported that she plans to apply the inspiration and knowledge she has gained through her study of International Politics at CTY to her community service work in Honduras this summer, instead of attending CTY.

Research Question #3: How do students perceive their experience with the residential and academic aspects of the community? What do parents think that their child's experience was like?

Source 1. To answer the third research question, quantitative data was used to determine how students perceive their experience with the residential and academic aspects of the community. Each aspect of the program was separated into three categories. The residential section involved students' evaluations of their residential assistant, the community, and the structured activity program. The academic section asked students to assess their instructors, teaching assistants, and course. Each rating was based on a scale of one (poor or strongly disagree) to five (excellent or strongly agree). All 227 students answered all of the questions. Descriptive statistics were run on all measures (See Table 1). Across all categories, both

residential and academic, students rated the staff and program very highly, with a collective mean rating above 4.00 out of 5.00 on all measures except for the rating on the activities program.

Students' assessment of their RA was confounded because there were 22 separate RAs, with each child only reporting on the one RA that they were assigned to for the three week program. Despite the difference in RA style and personality, mean ratings of RAs were fairly consistent and high, with all mean ratings between very good and excellent for all three RA measures: effectiveness (M =4.51; SD= .66), supportiveness (M = 4.57; SD = .71), and overall rating (M = 4.53; SD = .66).

The ratings for the community measures were also consistent and high. The students agreed that expectations of the community were clear (M= 4.46; SD=. 72) and that they felt the community was respectful and welcoming towards them (M = 4.50; SD = .64). Generally, the mean value for the overall community rating indicated that students were between somewhat and strongly in agreement that their community experience was a good one (M=4.48; SD = .59).

The lowest of all the ratings were the items related to the activity program (M=3.62; SD = .81). These questions asked about the variety and creativity of both the weekend and daily activities. The students rated the program between satisfactory and very good. To learn more about the lower rating, descriptives were taken of the measures separately. Interestingly, ratings on the measures for the variety (M=3.35; SD= 1.24) and creativity (M=3.27; SD=1.24) of weekend activities were lower than the ratings for the variety (M=3.77; SD=.96) and creativity (M=3.87; SD=.99) of the daily activities. Regardless, none of the mean ratings for the activity measures reached the "very good" rating.

The academic aspects of the program were based on seven measures: three about instructors, three about teaching assistants, and one about the overall course evaluation. Mean values for all three instructor ratings: effectiveness (*M* = 4.44; *SD* = .64), supportiveness (*M* = 4.43; *SD* = .71), and overall (*M* = 4.44; *SD* = .64), all fell between very good and excellent. All of the instructors were rated "fair" or better in effectiveness and overall ratings, and no students deemed their instructors to be "poor" on those measures. Mean values for all three measures rating teaching assistants also fell in between "very good" and "excellent." Students' ratings for their TA's effectiveness (*M* = 4.52; *SD* = .70) in the classroom were almost the same as their rating for their TA's supportiveness (*M* = 4.48; *SD* = .69).

The students also responded to questions about their specific course and indicated their level of agreement with a series of statements on a scale from "strongly disagree" to "strongly agree." The mean course rating (*M* = 4.40; *SD* = .61) indicates that the students are between somewhat and strongly in agreement about having a positive experience in their academic classrooms.

Source 2. Parents were asked to speculate as to what their child liked the most about their experiences at CTY. Ten parents thought that their children liked the peer group that they interacted with and the friends that they made the most. More specifically these parents note "camaraderie", "understanding", and making friends with peers who were like their children. Eight parents listed the aspects of the residential program, such as organized activities, the general social atmosphere, and fun that their children had as what their child liked the best about the program. The same number of responses included references to the academic program (N=8), such as small class sizes, academic challenge, fun in the classroom, and the education received from taking the course. Five parents thought that their children most liked the

independence of campus living. Some parents mentioned that their children particularly enjoyed the staff (N=3) and one parent reports that their child liked the overall experience, without discerning any particular aspects.

Source 3. Students were asked to report on what they liked most about their CTY experience as a whole and then were prompted to discuss what they liked best about the academic and social programs separately. Many students mentioned more than one favorite aspect of their overall CTY experience. In response to the more general question, five students chose to comment on their social experience and four mentioned that their favorite part of CTY was the friendships that were formed at the program. For example one girl wrote, "My favorite part about CTY is making wonderful friends who have interests similar to mine." Beyond friendships, six out of nine students mentioned the social atmosphere created by the "people" of CTY. Comments made about the atmosphere include that the people were accepting, "reached out" to new CTY students, were passionate about "geeky stuff", and were generally "amazing." One girl wrote of the atmosphere, "My fourth year, I went to a different camp earlier in the summer, and there was no comparison." Another said, "I liked the people I met the most about the CTY experience. Everyone was able to connect, and by the end of three weeks friendships were made that I'm sure could last a lifetime." Apart from the social experience, five students reported liking academic aspects of the program, saying that they liked their courses and found them to be stimulating and interesting. One student liked her instructor best about CTY.

Expectantly, many students gave similar answers for the general question about what they liked and the separate questions about social and academic aspects. Nonetheless, even students who commented on only one side of the CTY experience in the general questions found things that they liked the best in both the academic and social aspects. From their participation

in the academic program at CTY, students described many different aspects as their favorite parts of the academic program. Comments about the curriculum and instructors were made nine times. Three students listed characteristics of the academic structure, including in-depth learning, breadth of topic exploration, and the closeness of the student/teacher relationship. Three students enjoyed the teaching methods employed in their classroom, such as class discussions, hands-on activities, and "thoughtful and comprehensive teaching." Some students particularly mentioned their instructors (N=3), saying, "I loved that our teacher…never condescended to us [*sic*]. This was important to me because often there is a "distance" between students and teachers, but our teacher made it seem like he was having as much fun as we were." The others mentioned their teachers' effectiveness, intelligence, energy, and dedication.

Concerning the academic aspects of the class, some students also wrote that they liked their peers (N=2) and the atmosphere of their class (N=2). One student said, "The classes were dynamic and much more relaxed and in this way they were very effective…everyone wanted to learn so the classes went uninterrupted by the usual rowdiness of the classroom at school." Two students also mentioned that their enjoyment of the class was the best part of the academic program.

Additionally, students were asked to report on what, for them, was the best part of the social or residential program at CTY. The majority of students conveyed that their favorite part of the residential program had to do with some aspect of the structure of the program itself (N=7). One student mentioned that the social dances were her favorite because they provide her "most vivid CTY memories." Another said that having hall meetings each night was her favorite part because "it was kind of cozy, and a good way to make sure we [the students] all heard the announcements." The variety of activities, free time, living in college dorms, and weekend

activities were also mentioned. Two students commented that they liked the way that students are grouped within the residential program. One such student said, "The way CTY's set up (RA groups which form clumps and small classes) I got to know people instead of being overwhelmed by the number and diversity of the people here." One student commented on the social atmosphere; she felt that "knowing someone for a day at CTY was like knowing someone for months at home. It felt like everyone instantly connected through common interests and a common 'nerdiness'." Also one student mentioned that their friends were the best part of the social program.

Research Question #4: Are there differences in the way students perceive the residential and academic aspects of the program based on demographics and academic interest area?

In order to better understand how students perceive the residential and academic aspects of the program, each of the rating measurements has been analyzed in terms of the students' gender, ethnicity, and age and the curricular area of the course that they took during the 2005 CTY summer program.

Within the organization of CTY summer programs, there are no structural differences in the residential experiences of any demographic group of students. Nor are their any specific differences based on the type of class that the student is taking during the program. Nonetheless, some significant differences were found between these groups in the way they rated their residential experience. Also, within the academic domains of CTY, no discrimination on the basis of gender, ethnicity, and age was made in the decision of which course a student would participate in during the summer program. Students, for the most part, chose their own course and teachers and TAs were assigned to each course based on subject matter.

Gender. Significant differences were found between boys and girls ratings of the community. Girls were more in agreement that the expectations of the community were clear than were boys (t =-3.09; p <.01). Also, girls felt that the community was more respectful and welcoming than did boys (t =-3.33; p <.001) and rated the overall community experience higher than did boys (t =-3.20; p <.01). (See Table 2.)

Also, significant differences exist between boys' and girls' ratings of the teaching assistant (TA). Girls thought that the TAs were more effective in the classroom than did boys (t =-2.25; p <.05), as well as thinking that the TAs were more supportive (t =-2.93; p <.01). Consequently, the difference between boys and girls overall ratings of the TA indicates that boys rated their TAs lower than did girls (t =-2.75; p <.01). (See Table 2.)

Ethnicity. Although there were small numbers of Latino or Hispanic students and students that designated their ethnicity as other, the majority of students at the Saratoga Springs CTY site were either White/Caucasian (53.7%) or Asian American/Asian origin (29.1%). Also, a considerable number of students (or their parents, depending on who filled out the demographic information) did not report their ethnicity. Therefore, only White/Caucasian and Asian American/ Asian Origin students were compared because they each had enough representation for analysis.

RA supportiveness is the only residential measure in which there was a significant difference between White/Caucasian and Asian American/Asian origin students (t =2.05; p <.05). Asian American students found their RAs to be more supportive than did White students. In comparing White/Caucasian students with Asian American/Asian origin students for academic measures, there were some differences on how the students rated their instructors and their course. White students found their instructors to be more effective than did Asian students (t =-

2.62; p <.01) and their overall rating for instructors was higher than Asian students' ratings (t =-2.17; p <.05). White students also rated their courses higher than did Asian students (t =-2.38; p <.05). (See Table 3.)

Age. There were no significant differences in how students of different ages rated any of the residential or academic measures. (See Table 4.)

Curricular Area. Curricular area was not related to which RAs the students would be assigned to, which activities they participated in, or their place in the community. Although social reputations of students who take a certain type of class inherently exist in a teenage community, there were no structural differences in the residential experiences of the students, regardless of whether they were taking a course in the humanities, math, science, or writing fields. There were, however, significant differences in how students of different curricular areas rated their RAs and their experience in the community. Students in science classes rated their RAs effectiveness significantly higher than did students in math and writing classes (F =6.42; p <.001). Science students also rated their RA's supportiveness significantly higher than did math students (F =2.94; p <.05). In the overall RA rating, science students also gave a significantly higher mean rating than both math and writing students (F =5.67; p <.001). (See Table 5.)

In addition, community ratings varied by curricular area. Students in writing courses found the community expectations to be significantly clearer than did students in the humanities and science courses (F =5.13; p <. 01). Students in writing courses also thought that the community was significantly more respectful than did students in science courses (F =3.52; p <.05). In the overall ratings for the community, students in writing courses rated the community significantly higher than students in science courses (F =3.91; p <.01).

Predictably, the curricular area under of the student's course was a significant predictor of how the student rates their instructors, TAs, and courses. However, it is unclear whether this difference goes beyond the curricular area and is actually a reflection of the different courses that the students took or if the difference lies within the realm of the type of course. Nonetheless, there were significant differences in the mean ratings in all of the academic measures between the four different curricular areas.

Students in science courses rated their instructors significantly lower on measures of effectiveness (F =25.78; p <. 001) and supportiveness (F =12.92; p <. 001) than students in writing, math, and humanities courses. Students in writing courses rated their instructor's higher than did students in math and science courses on measures of effectiveness. Students in writing courses also had significantly higher mean overall ratings of their instructors than math and science students, and science students rated their instructors lower than all other students (F =20.52; p <.001). In measures of TA effectiveness (F =10.29; p <.001), supportiveness (F =11.43; p <.001), and overall ratings (F =11.86; p <.001), math students rated their TAs significantly lower than all the other curricular categories. Science students rated their courses significantly lower than math, science, and humanities students (F =10.02; p <.001).

Research Question #5: *What are the aspects of the program that students and parents would most like to change?*

Source 2. Some parents offered a variety of suggestions on what changes could be made to the CTY program to make their child's experience a better one. However, a majority of parents did not see any room for improvement in what happens at the program at the time when students are present (N=10). Five parents said that they could not suggest any changes for the program. One parent wished that CTY were extended to include an additional program for

students who have aged out of the traditional CTY program. Another parent wished that there were better communication methods between parents and staff of the program before and after the program takes place, saying, "I guess it could've been improved if we'd had a little better way to communicate her needs to the RAs, instructors, and the staff. She has some social issues that might've been handled better with this." Two parents mentioned that follow-up after the program could be improved; one wished their was an organized way for the students to contact each other after the program, and the other parent would have liked help in trying to get academic credit for her child's coursework at CTY.

Of those who had suggestions about how to improve the on-site CTY experience, six parents had suggestions for the residential program, one parent mentioned an improvement that could be made to the academic program, and one parent was unsatisfied with the overall atmosphere of the Saratoga Springs CTY site specifically. Of the suggestions for the residential program, one parent would have liked their child to have air-conditioning in the dorms, one parent suggested that their be more opportunities for unstructured "pick-up" sports games during social times, and another parent wished that there were a greater variety of activities offered in the structured activity program. Three parents mentioned that their children would have liked more freedom and independence and less structure throughout the program. The only suggestion made for the academic program was to have fewer evening study hall sessions per week. The parent who commented about the atmosphere of the Saratoga Springs site says,

> My child felt that the Skidmore site and experience was especially depressing and completely lacked the "nerd camp" spirit of CTY. She felt that the administration was rigid and the students were unfriendly, or 'clicky'.

Source 3. Students were also asked about what improvements could be made to the CTY program, both in general and about the academic and social aspects of the program separately. Responses varied greatly in all three questions. In response to the question about possible general program improvements, three students mentioned that they felt that the rules of the program and how the staff implemented those rules should be loosened. One student mentioned that she thought that staff could have better handled students with "elitist" attitudes. Three students suggested that the program was too structured and/or scheduled. One student wished that there were a way to contact the instructors of a course before the session to better assess the appropriateness of the course for the students' particular experience. Two students said that they would not choose to change anything about the program.

Regarding the academic aspects of the program specifically, five students did not feel that any changes could be made to improve the academic program. One typical response was, "I've really enjoyed every aspect of CTY's academic program. I can't think of any improvements that could be made." One student mentioned that they wished the TAs were more effective, "The TAs were not very helpful from my experiences. I think that they should be more knowledgeable about the subjects that they taught." Another student wished that he could have brought newspapers provided in the classroom back to the dorm rooms. Students are typically not allowed to bring any course work or course materials outside of the classroom in order to make sure that the students are maximizing their social/ residential opportunities. Additionally, one student would have liked more hands-on activities in the classroom.

There were more suggestions for improvement for the residential program than the academic program. Only two students found no room for improvement with the social program; one hopes that the social environment at CTY "never changes." One student would have liked

all students to have air-conditioned dorms. One student said, "I guess the thing that could be improved there is to make sure the RAs have enough of an interest in kids," because she felt that her RA was more "passive" than other staff. Another student felt that staff should "loosen up regulations on lights out [the mandatory bedtime for all students] and such." Two students mentioned that they did not enjoy one particular weekend activity that is known by most CTY students as "mandatory fun." One student would have liked to see more opportunities for free time; he said, "As I said earlier, there was little or no social time at the camp, particularly on weekdays. I stress the necessity for the free time because the camp occurs during the summer, a time in which students should relax in unstructured time."

Research Question #6: What are the parent- and student-perceived benefits of participation in the program?

Source 2. Parents were asked to assess the impact that both the academic and residential aspects of the CTY program had on their children after participating. Academically, parents listed benefits mostly related to their children's attitudes toward intellectual pursuit, such as their children's drive to learn increasing (N=4), gaining exposure to and interest in new subject matter (N=4), and increases in academic confidence (N=3). Some examples from different parents include: "My daughter came home from each of her CTY experiences more eager to learn than before;" "CTY gave my daughter the chance to challenge herself while pursuing topics of deep interest to her;" "She is more driven to succeed, and no longer afraid to approach teachers with questions;" and "She was inspired. In a very non-envious manner, she admired how intelligent some of the top students in the program were."

Some parents also mentioned the impact that coursework at CTY had on their child's consequent academic studies at school, including advancement in scholastic skills (N=3) and

learning from CTY instructor feedback (N=2). One parent appreciated the feedback, but had some criticism of it: "We think [the course] was good for her, given how much feedback she got. The feedback could have been more detailed, and particularly, more forceful (She's willful, and sometimes only hears what she wants to hear). Academic feedback to parents was quite thin." The other parent who mentioned the instructor feedback was more positive, "The teacher feedback was positive and constructive. She was given some real tools to help her to continue to improve her writing skills."

Four parents found minimal or no impact of the academic program on their children, especially in comparison to the other aspects of the program. One parent said, "I think he enjoyed the academic side of CTY but I don't think it compared to the social side."

Parents were more likely to mention more than one benefit in their answers to the question about social benefits than in their answers to the question about academic benefits. Also, parents' use of language to describe the social impact is not as varied between parents as it was in their responses about the academic impact. Seven parents noted that their child gained some kind of self-assurance based on their interactions with like-minded peers within the CTY community. For example, one mother noted about her daughter, "Finding other kids who are like you is so important for adolescents and CTY was the first (and only) place where she felt a sense of community." Another mother remarked, "[My daughter] has gained a greater security in herself, that she is a great kid, attractive, and with interesting ideas that are worth while to other kids….There was a sense of social ease and acceptance there that was quite different from middle school." Also, one mom remarked,

> I think she feels more confident of herself. She goes to a public school and there the number of students like her is small. Students like her are labeled "nerds" and it was

good for her to spend 3 weeks with kids just like her. She was assured that there are lots of highly intelligent, good students like her.

On the contrary two parents recognized the feeling of acceptance that most students get from the CTY social atmosphere, but did not think that their children shared that experience. A father wrote, "I would say that she did not have the 'traditional' CTY experience, where CTY is 'the only place where I can be with other people like me'." The same father also mentioned about his daughters social experience: "She has some issues making friends, and she's intermittently in contact with a few participants from a couple of CTY years, which is a good thing," and said that the social impact was "positive." The other parent noted that his son was, "still functional at school/ can make friends there. He's happy in normal world, though a lot of CTY kids aren't. He has a separate group of friends from CTY but actively keeps in touch with CTY friends."

Many parents also mentioned that they feel that the lasting friendships that their children created while at CTY were a particular social benefit of participation (N=7). One parent said, "He has found good friends and has found confidence in that." Another said that her daughter "has kept a steady e-mail correspondence going with all the students from her class."

In addition, many parents listed personal, psychosocial benefits for CTY (N=7), including increases in maturity, confidence, and openness. Four parents felt that interacting with peers who had different backgrounds than their own was a benefit to their children and three parents saw the experience of living on a college campus, independent from parents, as a benefit to their child.

Source 3. To the question regarding the academic impact of the program, students had similar answers to their parents. Five students listed that they gained a lot of knowledge in the

specific subject area in which they took a course. For example, one student noted, "I took psychology, so I learned about psychological concepts and the brain and stuff." Two students said that they felt their academic experience prepared them for their coursework in school. Also, two students felt that they learned about intellectual topics outside of the classroom curriculum. They said, "I learned about a variety of new topics concerning mathematics and I feel that I have also learned other things just from speaking with the teachers and other students," and "I have learned much about the world around me." One student said that her academic experience, "broadened the way [she] think[s] and look[s] at things."

Students listed many of the same social benefits as their parents, as well, when asked about the impact that the residential program at CTY had on them. Benefits included making friends (N=3), gaining social skills or social confidence (N=5), personal growth (N=2), becoming happier people (N=2), and learning about the nature of people (N=2). An example from those who listed that they benefited by making friends was,

> Before this program I had never met anyone who shared my passion for history or politics. With my CTY friends I can have conversations about normal teenage topics, but we also discuss the state of Cuban politics and what our favorite punctuation marks are. Because of their enthusiasm for unusual interests, my CTY friends are the people I am closest to.

Over half of the students felt that they have gained social skills or have increased their confidence in social situations as a result of their social experience at CTY. Some students who mentioned this benefit said, "I learned that I can make friends really easily and that gave me confidence," and "I am not nearly as shy as I was when I first went to CTY, I'm much more outgoing, more willing to jump in and join a group of people I don't necessarily know well."

Two other students mentioned more personal benefits of the residential program including independence and keeping the student "down to earth." Two students specifically mentioned that their social experience at CTY made them happier in general. Also, two students thought that through their interactions with other students at CTY they have learned more broad lessons about people in general. These students said, "I have realized that there are many accepting people and the world in general can be a lot different than the high school hierarchy," and, "I have met so many different individuals from all over the world. I have learned about people and different cultures."

Research Question #7: How does the program compare to the child's regular schooling?

Source 2. Parents reported five different types of gifted programming in which their children took part. According to parents, four students attend an exceptionally competitive school with high academic standards, including both public and private schools. Two students take more classes during the regular school year than their average peer. Three students take part in academic clubs, including math club, an extracurricular honors program, and a debate team. Two students take courses that are usually taken by students of higher grade levels. The most common forms of special academic program for the gifted in which these CTY students took part was Advanced Placement or honors classes. Only one parent reported that his child took part in no special programming.

Parents were also asked how their children's educational program compared to their experience at CTY. Two parents felt that there were similarities in the level of challenge between the two educational opportunities, and one parent thought that the teachers were similar, saying, "[The teachers at my child's school], like the CTY teachers, are willing to take the extra time and effort with students who truly show an interest." Three parents reported aspects of their

child's home schools that were better than the equivalent at CTY, including instructor's feedback [N=1], staff [N=1], and level of challenge (N=1). One parent said,

> I am forced to the conclusion that my daughter's English classes at school are more rigorous, since they have many faults with my child's essay writing skills, even after taking two essay writing courses at CTY and receiving very positive feedback on her essays…. In view of the essay-writing component on the new SATs, CTY should raise the standard of teaching and evaluation of their essay writing courses.

Fourteen parents listed features of CTY that they felt are better than the same features in their child's home school. Some of the most often cited advantages of CTY were the atmosphere or philosophy of the program (N = 6) and more intelligent and passionate peers (N=5). Parents made comments such as, "The overall atmosphere at CTY is more nonjudgmental, and the fact that geekiness is viewed as a good thing is a good thing," "Clearly camp is for having a good time learning whereas the school experience so far as a freshman appears to be dominated [with] comparing grades," and, "No one knows more in the end, and so the learning is all for their selves, not to show off. There is no stigma about having to take tests over, they cheer for each other." Comments about the students of CTY included, "My daughter has lots of smart kids in her high school but at CTY the kids have a passion for learning that she doesn't see in her day to day school experience," and, "In a public school, a good student belongs to a minority group. At CTY, kids see that there are brighter and more talented kids than you and it challenges you to become better." The structure of the academic program (like the class size and pace, N=4), the range of subject matter offered in courses (N=3), the academic challenge of high standards (N=3), and the staff (N=1) are also listed as aspects of CTY that are better than those found in regular schools.

Source 3. Students were asked two separate questions about what was the same and what was different about their home schools and the CTY experience. Information on what type of gifted programming in which they took part at their regular schools was not collected from students. More students talked about differences between the academic experiences at school and CTY than talked about differences in the social environment. Of comments made about academics, there were four students who thought that the structure of the academic program at CTY was better than at their home schools, including aspects such as the depth of learning, time spent on one subject, and the topics addressed. One student specifically noted many differences between the academic structure of the program at her school and at CTY,

> The learning process was much different. At CTY, I was completely immersed in the subject each year and by the end of the three-week session I would feel completely capable. The topics were more exciting at CTY, and the process more interactive. Also, the teacher student relationship was different in that students were generally on a first name basis with their instructors.

Four students also noted that the atmosphere found in the classrooms at CTY was better than those found in their home schools. Two examples of comments in this category are, "At my regular school kids are either uninterested in class work or interested only in terms of grades. It was refreshing to be in class with students whose zest for knowledge matched mine," and, "CTY classes treat learning as enjoyable where at school, of course, it's something you have to do." One student mentioned that they liked the social atmosphere at CTY better than at her home school, "There is no hierarchy at CTY. Everyone is friends with everyone and everyone accepts everyone." One student commented simply, "CTY is better."

While most students listed differences that were either in favor of their schools or CTY, two students made no judgment between CTY and regular schools, but simply noted a difference. One said,

> At CTY, the only way you learn is in class or in study hall. At home, we have 5-6 hours of homework a night, the majority of which is material that the teacher wants us to learn on our own. So at CTY everything depends on the teacher, and at home a lot depends on the student.

The other student noted, "CTY's program differs from my school in that it offers a total-immersion experience in a single subject area, whereas at school, disciplines are broad in scope and are cursory surveys."

In response to the question about similarities between CTY and their home schools, students noted three main ideas: similar people (N=2), similar basic academic structure (N=5), and similar teachers (N=2). Those who talked about similarities between the people at CTY and the people at their home schools said, "Both at school at home and at CTY there were clear differences between overachievers and underachievers," and, "Sometimes at school I'll be lucky enough to find a passionate, gifted teacher, or be in class with enthusiastic students. These people often remind me of CTY academics." Similarities between the basic structure of CTY and students' regular academic experience include teaching methods, subjects taught, and ability grouping. Contrarily, two students noted that there were no similarities between their schools and CTY.

Discussion

As with much of the existing literature on students' and parents' perceptions of summer programs (Enerson, 1993; Mills & Hoffman, 1998; Olszewski-Kubilius, 1989; Olszewski-

Kubilius & Lee, 2004; VanTassel-Baska, et al., 1984), both parents and students surveyed in this study feel that participation in the overall CTY program is an enjoyable and beneficial experience. Students and parents have rated their experience with the academic and residential aspects of the program extremely high in both scaled and open-ended question formats. The results are similar to the existing literature on measures of students' and parents' satisfaction, values, perceptions, and benefits regarding the staff, academic program, residential program, and opportunities for personal and social growth. This study offers new insight on how students' regular schools differ from summer programs and about how demographic characteristics and academic interest areas affect perceptions of summer programs that does not appear in previous literature. This study also suggests that participants of summer camps for the gifted have a strong desire for independence that has not been found in previous literature.

As in Enerson's (1993) study of parents' and students' perceptions, parents' and students' answers to any given question were frequently very similar. Although parents and students were not cross-referenced by family, overall, parents and students presented the same themes, ideas, and preferences throughout their survey responses, with very few exceptions. Because of the close correlation between parents' and students' responses, it is suggested that parents' values have played a major part in shaping the values' of their children (Hertzog & Bennett, 2004) and/or that parents' have consulted with their children about their answers to the parent survey questions either for the purposes of this study or previously in general conversations about their child's experience. Either way, parents' and students' opinions, as reported in the survey, will be combined here in order to discuss general themes found in their responses.

Conclusions

Reasons for Enrollment. The reasons that parents gave for initially enrolling their child in the CTY program were similar to what students reported on the subject in prior research (Mills & Hoffman, 1998). However, recommendations were more prevalent as a reason for enrollment than as seen in previous research, suggesting that alumni hold the CTY program in high regard. It is significant, too, that parents listed more academic reasons for initially sending their children to CTY and more social reasons for why they value the program, suggesting that students and parents may hold very high expectations of the academic program because of the emphasis on coursework found in recruitment literature. While parents seem to hold the academic program in high regard, their lack of expectations about the social program may have resulted in social experiences being more memorable than academic experiences, thus shifting the results of this perception study toward emphasis on the social experience.

General Satisfaction and Suggestions for Improvement. Students and parents have shown an overall rate of high satisfaction with the CTY program. Students have rated their experiences within the academic and residential aspects of the program, as well as the staff, close to the highest possible rating on almost all of the measures. Similar to other perceptions studies (Enerson, 1993; Mills & Hoffman, 1998; Olszewski-Kubilius, 1989; Olszewski-Kubilius & Lee, 2004; VanTassel-Baska, et al., 1984), students and parents seem to be pleased with almost all of the major aspects of the program. Across all measures, very few students and parents had negative comments about a major part of the program and many found no room for improvement in either the residential or the academic domains, similar to previous research (Enerson, 1993; Mills & Hoffman, 1998).

Furthermore, most of the students who were not planning to return to the next CTY summer program were not doing so because they had aged out of the program, or because their

friends had aged out of the program. Others reported that they were not coming back because they were going to be involved in another type of program. Nonetheless, with only one partial exception, there were no students or parents who are not returning because they were dissatisfied with any aspect of CTY. Most students who are eligible to return plan to do so and gave many positive reasons for that decision.

Though participants gave mostly positive feedback on the program, the program's strict structure and rules came up a number of times as a dissatisfactory element. The most frequent suggestions for improvement were requests for more independence, such as loosening rules and regulations and having the program be less structured, as to allow for more free time. Students in these types of summer camps value the feeling of being respected and treated as a trustworthy individual (Enerson, 1993). In other parts of the surveys, students and parents frequently mention that living on a college campus independent from parents is a valuable experience afforded through participation in the program. Therefore, it is comprehensible that the group of students and parents who value the independence of dorm life would also be leery of structure and rules that seem to take that independence away. The issue of wanting more independence has not been mentioned in any other perception study.

Staff. Students rated all their RAs, TAs, and instructors very highly on measures of effectiveness, supportiveness, and overall ratings, and many students and parents made positive comments about staff in response to a variety of perception questions, though they were not prompted to give their opinions on the staff. Although there were a few negative comments made about staff, the overall perception of the staff at CTY seems to fit with other literature that says that student interactions with staff at summer camps for gifted students is a positive aspect

of the program, especially regarding the student/staff interactions and the quality of staff supervision and instruction (Enerson, 1993; VanTassal-Baska, et al., 1984).

Academics. Students' ratings of the academic program and many comments made by parents and students alike indicate that most students are very pleased with their academic experience. Student's rated their course at a very high mean rate in quantitative measures. There are not any other known studies that ask for an overall rating or opinion of the academic program as a separate experience from the residential program. However, past studies have asked students to list some of their favorite aspects of the academic program (Mills & Hoffman, 1998) and all other student and parent perceptions studies have resulted in some kind of judgment on the academic program. Comparatively, the results of this study are very similar to past studies in terms of which aspects of the academic program are most liked, what academic benefits can be accrued from participation, and what academic aspects are most valued.

Both students and parents agree that there are many academic benefits to the program, and many of these benefits have been cited in other studies. Academic challenge (VanTassel-Baska, et al., 1984), stimulation of intellectual pursuit (VanTassel-Baska, et al., 1984), greater excitement about learning (Enerson, 1993), increase in academic self-confidence (Olszewski-Kubilius & Lee, 2004), and increase in interest in a specific subject area (Olszewski-Kubilius & Lee, 2004) have all been previously recognized as benefits of the academic program. This study suggests additional perceived academic benefits of the learning in a summer course, such as being helpful to the student in future academic pursuits and expanding their knowledge in the subject area. Parents' and students' comments on how students' learning in CTY courses has helped them later in school speak to the academic validity of the course. However, while many students mentioned the effects of CTY learning on their school performance, many also pointed

out that it did not have much of an impact on their overall learning ability, which is different from prior research. Also, only one student compared his learning in a three-week CTY course to the learning that he would get in school, and he disagreed with Hsu's (2003) research that the two could be equivalent.

Like previous literature (Mills & Hoffman, 1998; Olszewski-Kubilius & Lee, 2004; VanTassel-Baska, et al., 1984), many parents in this study mentioned the challenge of the coursework as a positive aspect of the academic program. In general, students have reported that they enjoy the breadth and depth of curriculum, as well as the array of topics that they have studied at CTY that they would not have had the opportunity to study in their regular schools. The opportunity to study topics in depth that would not normally be taught to students in high school has not previously been mentioned in perception literature, but is mentioned as a beneficial aspect of academic summer programs by Brody and Stanley (1991).

Many students and parents also enjoyed the teaching methods that were used in the classroom. Some agreed with the students in Mills and Hoffman's study (1998) that one of the top academic aspects of the program was the quality of instruction. Specifically, they mentioned methods of teaching such as hands-on learning, giving each topic equal value, group discussions, individual pacing, and evaluation without grades as features that they enjoyed about the academic program. The satisfaction with these methods of teaching at CTY and the perception that there are many academic benefits to the program indicate that this style of teaching is preferable and effective in teaching gifted students.

The prevalence with which academic challenge and in-depth learning of unique topics was mentioned in this study suggests that students are utilizing their summer academic experience as a way to accelerate their learning as well as to expand their intellectual horizons.

Since gifted students have a special educational need for challenge and new topics because of their above average intellectual ability and high motivation, it is likely that the students' satisfaction with the opportunity to explore a variety of topics in a challenging way is due to those needs being fulfilled.

Residential. Many parents and students also spoke highly of the structure of the residential program in ways that have not been prevalent in literature on summer programs for gifted students. For example, living in dorms and getting an opportunity to experience college life was mentioned as a benefit of the program, a reason for attending, and what students liked the most about CTY. Experiencing campus life was mentioned as a reason why students were satisfied with the residential program in only one other study (Enerson, 1993). Some parents and students made a connection between the dorm-life experience and the opportunity to live independently from parents.

In addition, students and parents both made some positive comments about the activities program, which is run through the residential side of CTY. However, students also made many comments about how they did not like specific weekend activities and the overall activity rating was the lowest of all ratings. Because ratings are lower on weekend activities, which tend to be more structured and involve very little choice on the part of the student, than on daily activities, there is an indication that the ratings might be related to the students' desires for more independence, less structure, and more free time for socializing. These assumptions can be made because of evidence that suggests that students value being treated as an independent individual and feel that free access to the social environment is important. Dissatisfaction with the activity program is more likely due to its structure than its content, as many students and parents value the fun that students had at CTY and the activity program as a major aspect of the program.

Personal Growth. Many students and parents mentioned that CTY afforded them the opportunity for personal growth. Comments were made about the life changing benefits of the CTY experience that mirrored some existing literature, such as gains in confidence inside and outside of the classroom (Enerson, 1993; Olszewski- Kubilius & Lee, 2004; VanTassel-Baska, et al., 1984) and gaining independence (Enerson, 1993; Olszewski- Kubilius & Lee, 2004), and some that have not been mentioned before, such as becoming a happier person and maturing.

Many students and their parents also mentioned that, in participating in CTY, their worldview was altered. Some students felt that they learned about topics beyond their course subject, broadened their way of thinking about the world, and discovered some new universals about human nature. One aspect of CTY that was mentioned positively by both students and parents in this study, but not in any other literature, is the opportunity for students to interact with peers who are different from them. While demographic information suggests that the student body is not very ethnically diverse, students and parents find that getting to meet peers who are not from the students hometown and may have different interests than their own is a benefit to participating in the program. A number of students note that they liked meeting people from many different geographic locations.

Social. From the scaled ratings of the community and the comments made by parents and students regarding the social atmosphere of the CTY summer program, it is evident that, on the whole, students and parents highly approve of the CTY atmosphere and consider it valuable, enjoyable, and beneficial. In response to general questions about what students liked the most about CTY, what parents thought students liked, and what parents valued in the program, more parents and students mentioned social aspects of the program than academic aspects. Also, parents and students were less varied in their praise of the social aspects than of the academic

aspects, representing solidarity in viewpoints on the topic. Parents and students surveyed in all other perceptions studies shared this positive view of the social aspects of summer programs (Enerson, 1993; Mills & Hoffman, 1998; Olszewski-Kubilius & Lee, 2004; VanTassel-Baska, et al., 1984).

The most frequently cited values, benefits, and likes of the CTY residential program by parents and students were related to the atmosphere created by grouping students of similar interests and intellect in a social environment. Students rated the level of respect in the community very highly. Also, many parents and students wrote that students benefited from the community by increasing in self-assurance, social skills, and confidence. Similar benefits of social interactions between children of comparable intellectual ability in the summer camp setting have been noted in other literature (Enerson, 1993; Harbin, 1992; Summers, 1981). The overwhelmingly positive feedback about this particular aspect of the program may be linked to some of the special social needs of gifted students, specifically a gifted child's need to validate their own ability and their need to form meaningful relationships (Enerson, 1993; Frey, 1991).

Gifted students have been described as having a special need to validate their intellectual ability in order to take ownership of it and have their talents become part of their identity (Beuscher, 1985; Frey, 1991). Comments made by students and parents about the sense of being accepted, welcomed, and respected by the community at CTY because of a common bond of giftedness suggest that participation in summer programs that have this type of community may help a student to take ownership and pride in their talent.

Parents and students have also described the overall social environment as the reason why many CTY summer program students have formed lasting and meaningful friendships (Mills & Hoffman, 1998; VanTassal-Baska, et al., 1984). Some students mentioned that the

structure of the CTY program and the way that students are grouped for different activities is particularly conducive to forming friendships without getting overwhelmed and many mentioned that they liked the activities that were especially suited for socializing. Many students and parents indicated that, in finding friends at CTY, they have benefited by building social skills and social confidence (Buescher, 1985; Frey, 1991). Opportunities for gifted students to form meaningful relationships are precious because it is often difficult for peers of extremely different intellectual ability to find common ground (Enerson, 1993). It is likely that it is because of this difficulty in forming meaningful relationships that students put so much value onto the friendships that they make at CTY, an atmosphere that embodies acceptance of talent. Students have listed friends as the reason why they return to CTY, what they liked the most about their experience, and how they benefited from the experience. Additionally, parents value CTY because of the friendships that their children form there and consider friendships to be an important social benefit of participation. A few parents and students also mentioned that students benefited from participation in CTY by taking more social risks that they would not have without the reassurance of their ability to make friends at CTY. This is significant because risk-taking is especially difficult for gifted students (Beuscher, 1985).

Differences in Perceptions. There has been no previous research done on differences in perceptions of summer camps for gifted students based on gender, age, ethnicity, and curricular interest area. However, a variety of significant differences were found in this study. For instance, girls rated their experience in the community higher than boys. Previous research has shown that girls are a typically underrepresented group in gifted education and generally receive lower levels of support from peers and adults for pursuing academics (Brody, Barnett, & Mills, 1994). Since most students reported thinking of the community as a support network, it is

possible that girls found more of a contrast between the support at CTY and the support in their home schools, and would, therefore, rate the community higher. The same logic explains why girls rate their TAs higher than boys, being that the main job of the TA is to support the students emotionally and intellectually in the classroom.

Additionally, while there is much research that shows the positive benefits of ethnic minorities participating in summer programs, literature focuses mainly on Black and Latino students. Unfortunately, in this sample, there were not enough students that reported being of an ethnicity other than Asian or White to compare their perceptions. However, the considerable number of Asian students is an interesting aspect of the program by itself. While it can only be speculated as to the reason for the demographic split, the overrepresentation of Asian students may be due to more Asians being in higher social classes that have access to the resources needed to attend such a summer program. The American notion of Asians as the "model minority" could also have contributed to a tendency to recognize giftedness in Asian students more so than any other minority, giving them a higher chance at being recommended for the talent search that feeds into CTY and stronger encouragement for attendance. However, the finding that whites rate their instructor's effectiveness and overall performance and their course higher than Asian students points to two possible explanations. White students' ideals about what they are looking for in an academic course may be more in line with what can be found at CTY than Asians' ideals; or instructors may have some kind of inherent bias in their interactions with White and Asian students, since the majority of instructors are, themselves, White. On the contrary, Asians felt that their RAs were more supportive than did Whites, perhaps suggesting that RAs, who were more culturally diverse on the whole than instructors, were more sensitive to the needs of the Asian student population.

That there is no difference in student perceptions based on age is also an interesting finding because one would expect students' maturity level and academic readiness to vary based on age. The lack of different reactions to the residential and academic aspects of the program, despite the expectation, suggests that students' preparedness for the social and academic challenge of the summer program is not dependent on age or experience. Rather, all students can adjust to the environment quickly and get similar benefits regardless of age and experience.

The most simple explanation for the differences in how students who were taking courses in different curricular areas rated their experience at CTY is that the staff and curriculum of courses within each of the curricular areas happened to be better than the specific courses in other curricular areas. However, other explanations may exist. For example, the finding that students in science courses rated their course and their instructors lower than any other curricular area may have been because the science courses are designed to be extremely similar to what a student would encounter in a biology, chemistry, or physics class in a regular high school, except that the pace is much faster. Therefore, students may not have been as enthusiastic about the course as other students were about courses that were less likely to be encountered in a typical high school setting. It is possible, then, that students in science courses rated their RAs higher than math and writing students because they were comparing their residential experience with their RAs to their seemingly less exciting experience in the classroom with their instructor.

Similarly, the structure of the math courses at CTY may explain why students in math courses rated their TAs lower than students in any other curricular area. Math courses at CTY are individually paced and require a lot of independent work on the part of the student. Because of this set-up, many math students need to get individualized instruction from either their instructor or TA and require their TAs help more so than in any other curricular area.

Unfortunately, this finding points to an overall perception of TAs being less helpful than students would like, based on a low rating of TA effectiveness and support when these qualities were the most crucial to student learning.

CTY Versus Regular Schools. More parents reported that their child was involved in some type of special program for gifted students than in Mills and Hoffman's study (1998). However, the majority of parents reported that their child was involved in honors or advanced placement classes or took more classes than their peers, as opposed to being involved in an organized in-school gifted classroom. Furthermore, in comparison to the majority of parents in a previous study who said that their child's summer academic program was more challenging than their experience at their regular school (Olszewski-Kubilius & Lee, 2004), parents in this study were more varied in their comparisons between the level of challenge in their child's school and at CTY. CTY's academics varied from more to less to equally challenging than CTY in students' and parents' opinions. These results may be because most students are involved in some type of gifted programming or accelerated education.

Also, students in Enerson's (1993) study expressed that the summer course was a relief from boredom in the classroom. However, students that mentioned academic differences between school and CTY in this study focused mainly on the intellectual environment and the structure of the learning experience. Both in this and Mills and Hoffman's (1998) study, students mentioned the small class size, acceleration, and ability grouping as aspects of the summer program that were better than their home schools. Although not in previous literature, students and parents were widely satisfied with the subject matter taught at CTY that would not have been taught in regular schools. Many students and parents said that the atmosphere of CTY

in general was better than the atmosphere in their regular schools because there was a greater sense of support of and respect for intellectualism.

In reporting differences and similarities between CTY and their home schools, students focused mostly on academic differences. This may be because they associate school with an academic environment more than a social environment, and, therefore, felt they could not compare the aspects of the residential program or social atmosphere with anything from their home schools.

Limitations of the Research

Despite all that this data suggests about how students and parents perceive summer camps for gifted students, there are many limitations of the research method that could lead to other explanations for why the results are as they are. One constraint of the data is the extremely low sample size in both the parent and student open-ended surveys. The surveys provide a suggestion of what opinions some students and parents hold, but there are far too few families who responded to be representative of the whole. Therefore, it is impossible to make conclusions about the way that students and parents feel about CTY based on this small subset of parents and students.

What is more than the sample size being small, the response rate to the participant recruitment emails was extremely low, and so participation in the study was highly selective. Only parents who were willing to respond to the original email, allow the researcher to have their email address, and fill out the survey are accounted for in this sample. There was an additional step for students, further reducing the sample size for the students' survey. Therefore, it can be assumed that there is a biased sample of both students and parents. It is unlikely that many students and parents who were less enthusiastic or satisfied with CTY would have chosen to

participate, and their participation would have altered the perspective on CTY offered by this study.

The design of the three questionnaires also leaves much room for misinterpretations of the data. Responses to open-ended surveys can only be used to support arguments that rely on what is written in the response. Claims cannot be made based on what participants do not write in their survey in the way that ranking or multiple choice questions can. Therefore, it is only known what is important to the participant and not what was not important enough to mention. In addition, the email format of the open-ended surveys leaves doubts as to who is actually filling out the form and who has access to the answers on the participants' end. One such possible interference could occur if parents read their child's answers to the survey, thus putting pressure on the students to answer in a certain way.

Additionally, the quantitative questionnaire gives only a limited view of students' opinions of the overall program, and offers no opportunity for students to explain their rating. The original purpose of the questionnaire was to evaluate the program, not to gain insight into how students view the program, as it is used here. While the survey data helps to fill in the missing pieces, staff evaluations are left largely on their own. Data from the questionnaire was also highly confounded because students were rating different staff members and different courses, so it is impossible to tell whether trends are because of training by or affiliation with CTY or coincidental similarities between staff members and course design.

The researcher's existing relationship with the students could have also altered the way that students and parents reported their perceptions. Because of my affiliation with the program, students, especially, may have felt obligated to shade their survey responses in a certain way, based on what they thought that I wanted to know.

Implications for Gifted Education

Although this study offers a limited view of how some students and parents feel about summer camps for gifted education, taken at face value, these results have important implications for the field of gifted education. Through their responses, parents and students have given arguments that support homogeneous ability grouping over heterogeneous age grouping, and education for enrichment rather than acceleration. Also, their comments support out-of-school programming as a method of gifted education.

Ability Grouping v. Age Grouping. The socially constructed atmosphere at CTY fosters a respect for being a "geek" or "nerd" that is unlike what is found in many middle and high schools and is held in high esteem by both parents and students for the experience it provides and the benefits that students can take from it. The community made of students who share common interests, ability levels, and value sets was mentioned frequently, especially as the driving force behind students forming valuable friendships, increasing social skills, gaining self-confidence, and taking more social risks. Furthermore, parents and students wrote positively about ability grouping in the classrooms at CTY. Like students surveyed by Mills and Hoffman (1998), these students listed being in an academic course with people who wanted to learn and could take part in intellectually stimulating discussions because of their high academic ability and motivation as one of their favorite parts of the academic program. Also, many parents named the opportunity for students to learn with like-abled peers as why they value the CTY program. The value placed on ability grouping is similar to values expressed by parents in another study (Enerson, 1993). Because almost every survey's responses were dominated by answers relating to ability grouping, there is an indication that students and parents who are involved in summer programs for gifted students perceive ability grouping as enjoyable and beneficial. Moreover, because age

had no effect on students' perceptions of the program and some students and parents positively mentioned the lack of social hierarchy based on age, an argument can be made against age grouping as an educational strategy for the gifted.

Enrichment v. Acceleration. Although there were no questions directly asked about whether students were using their summer courses to accelerate in school, many comments about how students benefited from the academic process elude to parental support for enrichment over acceleration. Parents and students seemed to focus on the academic programs being a way to learn skills that would be useful in future education and to learn about subjects that were not normally taught in schools. No students reported that they would be graduating from school early or skipping grades. The focus seemed to be mostly on filling the student's educational palette with a broad range of information rather than on speeding up the process of education. Science courses, which were meant as a substitute for a high school course to allow for acceleration, were liked the least, suggesting that students may have been using the course for acceleration but perhaps would have preferred a more enrichment type course. Therefore, parents and students were more likely to be pleased with CTY if used as part of the enrichment model rather than the acceleration model and as part of the Talent Search Model rather than the telescoping model.

Out-of-school Programming. It is clear from the demographic make-up of the student body at this CTY site, as well as the methods of recruitment for the program and the high tuition, that there are many students who could benefit from the CTY programs, but are not afforded the opportunity to participate because of their financial, racial, and other circumstances. The high satisfaction rate and multiple perceived benefits of the program are testament to the positive value that the program can have for its participants. Although many of the benefits can be

derived from any gifted program, there are many aspects of CTY that are crucial to its success and that can only be found in out-of-school programs for gifted students. For example, many parents and students feel that the opportunity to meet a diverse group of students who are not from the students' hometown is important. Also, a main focus of all comments was on the social environment being a crucial part of the program. In-school programming for gifted students often limits time in which students can spend socializing with each other to make sure all of the academic objectives are met. With out-of-school programming, there is less pressure to meet academic objectives, especially if the program is enrichment based, and therefore socialization is given equal importance. Lastly, many students and parents liked that CTY did not foster high pressure to succeed socially and academically, as is typically found in schools. The opinions of students and parents in this study form a strong argument for getting more students involved in gifted programs that are not run by or affiliated with their school system. This is especially important for those gifted students whose school systems favor students of low intellectual ability with financial or philosophical support and do not afford them adequate opportunity for challenge and socialization with fellow gifted students.

Recommendations for Further Research

Though this study adds to the current research on student and parent perceptions of gifted summer camps, it also brings a number of new questions to the forefront. First, repetitions of this study with larger sample sizes should be conducted in order to support the findings with a more representative survey sample. Also, a similar study should be conducted on comparable summer camps for gifted students to determine if these results are specific to the CTY program or if they are universal to all programs. Questions regarding demographic differences need to be examined further in order to determine their meaning. For example, research needs to be done to

determine why boys rate the community at CTY lower than girls and why Asian students find their RAs to be more supportive than do White students. Furthermore, there is a need to investigate if curricular area or the course itself has a higher correlation to ratings of the course, the instructor, and the TA.

It would also be interesting to extend research on student and parent perceptions to include other gifted programming. A similar study on other types of programs that involve ability grouping, such as out-of-school enrichment classes, clubs, honors classes, etc., should be conducted in order to determine if these results are or are not unique to summer camps. Finally, students and parents of students who attend special residential schools for the gifted should be surveyed about their perceptions of the school. This would help to determine whether students who are in an environment similar to CTY year round are equally as satisfied as those who only experience this type of atmosphere for three weeks a year.

Summary

The results and implications of this study support gifted education in any form that includes ability grouping and enrichment-based learning. Many young students do not have the opportunity to socialize and learn with students of their own intellectual caliber in the way that the students do at CTY. Gifted programming of various types could be put in place in order to afford those students this beneficial experience. Although this study represents only a small subset of the participants of one specific gifted program, the results are congruent with the few studies that have been done in the past on gifted summer camps. With further research on a variety of programs, there may be a stronger argument for policy changes that would provide appropriate educational opportunities for all gifted students.

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Appendix A

Source 1 - questions according to scaled measures

Residential Scaled Measures

RA effectiveness (6 items, α = .91)

- Knowledge of the honor code and rules
- Interest in academic aspects of the program
- Preparation and organization
- Awareness of issues on the floor
- Ability to solve problems/conflicts
- RA's overall effectiveness

RA supportiveness (4 items, α = .86)

- Caring
- Availability
- Approachability
- Overall fairness to students

RA overall rating (11 items, α = .94)

- Knowledge of the honor code and rules
- Interest in academic aspects of the program
- Preparation and organization
- Awareness of issues on the floor
- Ability to solve problems/conflicts
- RA's overall effectiveness
- Caring

- Availability
- Approachability
- Overall fairness to students
- Ran useful hall meetings

Clarity of community expectations (2 items, α = .64)

- Community expectations were clear
- I knew where I was expected to be and when

Respectfulness of community (6 items, α = .81)

- There was a feeling of community among the students
- I felt welcome in the community
- My hall mates respected my opinions
- My hall mates respected my property
- My hall mates respected my background
- I felt safe on campus

Overall community rating (9 items, α = .85)

- Community expectations were clear
- I knew where I was expected to be and when
- There was a feeling of community among the students
- I felt welcome in the community
- My hall mates respected my opinions
- My hall mates respected my property
- My hall mates respected my background
- I felt safe on campus

- Overall I am satisfied with my residential experience this summer

Activity program rating (5 items, α = .81)

- Variety of daily activities
- Creativity of daily activities
- Variety of weekend activities
- Creativity of weekend activities
- Overall activity program

Academic Scaled Measures

Instructor effectiveness (5 items, α = .87)

- Knowledge of subject
- Organization
- Ability to explain difficult concepts
- Kept class interesting
- Instructor's overall effectiveness as a teacher

Instructor supportiveness (5 items, α = .90)

- Concern for my individual learning
- Availability to help students
- Constructive feedback on my work
- Overall fairness to students
- Openness to different opinions

Overall instructor rating (10 items, α = .93)

- Knowledge of subject

- Organization
- Ability to explain difficult concepts
- Kept class interesting
- Instructor's overall effectiveness as a teacher
- Concern for my individual learning
- Availability to help students
- Constructive feedback on my work
- Overall fairness to students
- Openness to different opinions

TA effectiveness (3 items, α = .90)

- Knowledge of subject
- Ability to explain difficult concepts
- TA's overall effectiveness

TA supportiveness (4 items, α = .88)

- Concern for my individual learning
- Availability to help students
- Constructive feedback on my work
- Overall fairness to students

Overall TA rating (7 items, α = .93)

- Knowledge of subject
- Ability to explain difficult concepts
- TA's overall effectiveness
- Concern for my individual learning

- Availability to help students
- Constructive feedback on my work
- Overall fairness to students

Overall course evaluation (5 items, $\alpha = .75$)

- This course covered the material described in the catalog
- This course was challenging for me
- Written assignments contributed to my understanding of the material
- Required reading contributed to my understanding of the material
- After taking this course, my interest in this subject has increased
- Overall I am satisfied with my academic experience this summer

Appendix B

Parent Survey Consent Statement

By answering the questions below, I, hereby, consent to my participation in Felicia Brown's research that will involve an email survey about my child's experience at the Center for Talented Youth summer program. I understand that the results of this research may or may not contribute to society's understanding of summer camps for gifted students. I understand the survey will take approximately 20 minutes of my time and that there are no known risks or discomforts involved in this study. I am aware that I may decline to answer any survey questions, and I may withdraw from this study at any time without penalty. I understand that this survey is not meant to gather information about specific individuals and that my responses will be combined with other participants' responses for the purposes of analysis. I understand that all information will be identified with a code number and/or pseudonym, and NOT my name or email address and I consent to the publication of the study's results as long as my identity is kept anonymous. I understand that information gathered from participant responses will be shared with the Johns Hopkins University Center for Talented Youth, and that this information may be used for research purposes within that institution, but will still remain anonymous. I have been informed I may contact the researcher, Felicia Brown, at (860) 439-3442 or her advisor, Dr. Jennifer Fredricks, at (860) 439-2631, who will answer any questions I may have about the purpose or procedures of this study. I know that the Connecticut College Human Subjects Institutional Review Board (IRB) has approved this research and concerns about any aspects of this study may be addressed to Professor Ann Devlin, chairperson of the Connecticut College IRB, at (860) 439-2333.

Appendix C

Source 2- Parent Survey Questions

1) What is your relationship to the child who attended CTY at Saratoga Springs in 2005?
2) How many times has your child attended a CTY summer program?
3) Why did you initially choose to enroll your child in a CTY summer program?
4) Do you plan to enroll your child in a CTY summer program next summer? Why or why not?
5) What do you see as the value of the program for your child?
6) What do you think your child liked the most about their CTY experience?
7) What improvements could be made to CTY to enhance your child's experience?
8) How do you feel that your child has been impacted socially from his or her experience at CTY last summer? In what ways?
9) How do you feel that your child has been impacted academically from his or her experience at CTY last summer? In what ways?
10) Is your child involved in any type of gifted programming in their regular school? What type of program is it and what does the program entail?
11) How does CTY's summer program compare to the educational program your child participates in with their regular school? In what ways are they similar or different?

Appendix D

Parent Consent Statement for Student Survey

By sending my child's email address to Felicia Brown, I consent to my child's participation in Felicia Brown's research on student perceptions of the Center for Talented Youth summer program. I understand that the results of this research may or may not contribute to society's understanding of summer camps for gifted students. I understand the survey will take approximately 20-25 minutes of my child's time and that there are no known risks or discomforts involved in this study. I understand that my child may decline to answer any questions, and my child and I may withdraw from this study at any time without penalty. I understand that all information will be identified with a code number and/or pseudonym, NOT my or my child's name and that my child's responses will be combined with other participants' responses and separated from his or her email address for the purposes of analysis. I consent to the publication of the study's results as long as the identity of all participants is protected. I have been advised that I may contact the researcher, Felicia Brown, at (860) 439-3442 or her advisor, Dr. Jennifer Fredricks, at (860) 439-2631 who will answer any questions I may have about the purpose or procedures of this study. I understand that information gathered from participant responses will be shared with the Johns Hopkins University Center for Talented Youth, and that this information may be used for research purposes within that institution, but will still remain anonymous. I understand that the Connecticut College Human Subjects Institutional Review Board (IRB) has approved this research and that concerns about any aspects of this study may be addressed to its chairperson, Professor Ann Devlin at (860) 439-2333.

Appendix E

Student Consent Statement for Student Survey

By completing the questions at the end of this email and returning the email to Felicia Brown, I consent to my participation in Felicia Brown's research on student perceptions of the Center for Talented Youth summer program. I understand that the results of this research may or may not contribute to society's understanding of summer camps for gifted students. I understand the survey will take approximately 20-25 minutes of my time and that there are no known risks or discomforts involved in this study. I understand that I may decline to answer any questions, and that I may withdraw from this study at any time without penalty. I understand that all information will be identified with a code number and/or pseudonym, NOT my name and that my responses will be combined with other participants' responses and separated from my email address for the purposes of analysis. I consent to the publication of the study's results as long as the identity of all participants is protected. I have been advised that I may contact the researcher, Felicia Brown, at (860) 439-3442 or her advisor, Dr. Jennifer Fredricks, at (860) 439-2631 who will answer any questions I may have about the purpose or procedures of this study. I understand that information gathered from participant responses will be shared with the Johns Hopkins University Center for Talented Youth, and that this information may be used for research purposes within that institution, but will still remain anonymous. I understand that the Connecticut College Human Subjects Institutional Review Board (IRB) has approved this research and that concerns about any aspects of this study may be addressed to its chairperson, Professor Ann Devlin at (860) 439-2333.

Appendix F

Source 3 – Student Survey Questions

1) How many times have you attended a CTY summer program?
2) What did you like the most about your CTY experience? Why did you like that part of the program?
3) What did you like best about the instructional aspects of the program? Why did you like that part of the academic program?
4) What did you like best about the social or residential aspects of the program? Why did you like it?
5) What improvements could be made to CTY to make your experience better?
6) What improvements could be made to the academic program?
7) What improvements could be made to the social or residential program?
8) Do you plan to return to a CTY summer program next summer? Why or why not?
9) Do you feel that you have benefited socially from your experience at CTY last summer? In what ways?
10) Do you feel that you have benefited academically from your experience at CTY last summer? In what ways?
11) What about your CTY experience is different from your experience in your regular school?
12) What about your CTY experience is the same as your experience in your regular school?
13) What is your gender?
14) What was your age on July 17, 2005 (the start of CTY session 2)?

Author Note

This research was completed as an undergraduate honors thesis in the department of Human Development at Connecticut College, with the cooperation of the CTY research and summer programs departments, under the direct supervision of Professor Jennifer Fredricks of Connecticut College.

I would like to acknowledge Dr. Carol Mills and the rest of the staff at the Center for Talented Youth in Baltimore, Maryland for their generous assistance with this project. Also, I would like to thank Professor Fredricks for lending her invaluable knowledge, time, and patience to me for four years and for recognizing my insanity and supporting and leading me through this project despite of it. Furthermore, I would like to thank my readers, Professor Sunil Bhatia and Professor Michael James, for their feedback, consideration, and advice and to Professor Michelle Dunlap for her help and encouragement with my IRB proposal. I would also like to give a special thank you to Professor Peggy Sheridan, who has listened, advised, nurtured, and encouraged my academic and personal development from my first day at Connecticut College to the successful completion of this culminating project. The faculty and staff of the Human Development department have served me as teachers, mentors, confidantes, supervisors, cheerleaders, advisors, and friends over the past four years. Any successes that I have met in my undergraduate academic career have only been made possible through their generosity and wisdom. Finally, I would like to recognize my family and friends who have loved and supported me and been so wonderfully understanding throughout my work on this project. Thank you all for opening your hearts and minds for my benefit.

Table 1

Overall Mean Values of Rating Measures

	Mean	Standard Deviation
Instructor's Effectiveness	4.44	.64
Instructor's Supportiveness	4.43	.71
Instructor's Overall Rating	4.44	.64
TA's Effectiveness	4.52	.70
TA's Supportiveness	4.48	.69
TA's Overall Rating	4.49	.66
Course Evaluation	4.40	.61
RA's Effectiveness	4.51	.66
RA's Supportiveness	4.57	.71
RA's Overall Rating	4.53	.66
Clarity of Community Expectations	4.46	.72
Community Respectfulness	4.50	.64
Community Overall Rating	4.48	.59
Activities Evaluation	3.62	.81

Table 2

Gender Differences in Ratings

	Boys	Girls	t
Instructor's Effectiveness	4.44 (.59)	4.45 (.69)	-.16
Instructor's Supportiveness	4.37 (.70)	4.48 (.72)	-1.16
Instructor's Overall Rating	4.40 (.61)	4.46 (.67)	-.71
TA's Effectiveness	4.41 (.75)	4.62 (.63)	-2.25*
TA's Supportiveness	4.34 (.77)	4.61 (.57)	-2.93**
TA's Overall Rating	4.37 (.74)	4.61 (.56)	-2.75**
Course Evaluation	4.40 (.56)	4.39 (.66)	.12
RA's Effectiveness	4.47 (.56)	4.55 (.61)	-1.01
RA's Supportiveness	4.55 (.56)	4.59 (.80)	-.45
RA's Overall Rating	4.49 (.56)	4.58 (.75)	-.98
Clarity of Community Expectations	4.31 (.81)	4.60 (.59)	-3.09**
Community Respectfulness	4.35 (.71)	4.63 (.53)	-3.33***
Community Overall Rating	4.36 (.67)	4.60 (.49)	-3.20**
Activities Evaluation	3.58 (.87)	3.66 (.76)	-.73

Note: *p < .05, **p<.01, ***p<.001

Table 3

Ethnic Difference in Ratings

	Asian American or Asian Origin	White or Caucasian	t
Instructor's Effectiveness	4.27 (.70)	4.52 (.60)	-2.62**
Instructor's Supportiveness	4.34 (.79)	4.50 (.60)	-1.53
Instructor's Overall Rating	4.30 (.71)	4.52 (.57)	-2.17*
TA's Effectiveness	4.53 (.64)	4.50 (.74)	.21
TA's Supportiveness	4.46 (.59)	4.49 (.75)	-.32
TA's Overall Rating	4.49 (.58)	4.50 (.72)	-.09
Course Evaluation	4.23 (.63)	4.46 (.62)	-2.38*
RA's Effectiveness	4.61 (.58)	4.46 (.75)	1.43
RA's Supportiveness	4.71 (.54)	4.47 (.83)	2.05*
RA's Overall Rating	4.64 (.55)	4.46 (.76)	1.66
Clarity of Community Expectations	4.62 (.52)	4.46 (.71)	1.62
Community Respectfulness	4.46 (.71)	4.57 (.46)	-1.18
Community Overall Rating	4.51 (.62)	4.53 (.48)	-.22
Activities Evaluation	3.63 (.84)	3.65 (.81)	-.16

Note: *p < .05, **p<.01, ***p<.001

Table 4

Age and Ratings Correlations

	Pearson Correlation
Instructor's Effectiveness	.02
Instructor's Supportiveness	.01
Instructor's Overall Rating	.01
TA's Effectiveness	.09
TA's Supportiveness	.06
TA's Overall Rating	.07
Course Evaluation	-.03
RA's Effectiveness	.08
RA's Supportiveness	.00
RA's Overall Rating	.05
Clarity of Community Expectations	-.06
Community Respectfulness	.10
Community Overall Rating	.03
Activities Evaluation	-.07

Note: *p < .05, **p<.01, ***p<.001

Table 5

Curricular Area Differences in Ratings

	Humanities	Math	Writing	Science	F
Instructor's Effectiveness	4.58[a] (.51)	4.41[b] (.59)	4.79[bc] (.27)	3.84[abc] (.79)	25.78***
Instructor's Supportiveness	4.45[a] (.70)	4.45[b] (.54)	4.76[c] (.33)	3.94[abc] (.99)	12.92***
Instructor's Overall Rating	4.51[a] (.57)	4.43[b] (.51)	4.78[bc] (.28)	3.89[abc] (.85)	20.52***
TA's Effectiveness	4.68[a] (.46)	4.11[ab] (.97)	4.64[b] (.54)	4.67[b] (.50)	10.29***
TA's Supportiveness	4.68[a] (.45)	4.07[ab] (.83)	4.63[b] (.63)	4.55[b] (.63)	11.43***
TA's Overall Rating	4.68[a] (.45)	4.09[ab] (.85)	4.63[b] (.57)	4.60[b] (.57)	11.86***
Course Evaluation	4.41[a] (.67)	4.44[b] (.47)	4.64[c] (.44)	4.00[abc] (.70)	10.02***
RA's Effectiveness	4.47 (.85)	4.25[b] (.67)	4.66[b] (.47)	4.75[b] (.37)	6.42***
RA's Supportiveness	4.55 (.94)	4.38[b] (.66)	4.64 (.59)	4.77[b] (.38)	2.94*
RA's Overall Rating	4.50 (.87)	4.29[b] (.87)	4.66[b] (.48)	4.76[b] (.35)	5.67***
Clarity of Community Expectations	4.32[a] (.70)	4.44 (.66)	4.77[ac] (.43)	4.33[c] (.98)	5.13**
Community Respectfulness	4.56 (.58)	4.40 (.62)	4.67[c] (.38)	4.30[c] (.90)	3.52*
Community Overall Rating	4.51 (.52)	4.43 (.56)	4.67[c] (.34)	4.28[c] (.87)	3.91**
Activities Evaluation	3.62 (.78)	3.59 (.83)	3.68 (.75)	3.60 (.94)	.15

Note: *p < .05, **p<.01, ***p<.001; values with the same superscript are significantly different from each other.