CTY IRELAND

IRISH GIFTED STUDENTS

Self, Social, and Academic Explorations

A Report Prepared for Centre for Talented Youth – Ireland

SUMMARY REPORT

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***Summary Report -** June 2022

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* The full report is available at www.dcu.ie/ctyi

Note that the majority of sources have been removed from this summary report. They can be found in the full report.

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Executive Summary

In 2011, Dr. Colm O'Reilly, the Director of the Irish Centre for Talented Youth (CTYI), and Dr. Tracy L. Cross, the Executive Director of the William & Mary Center for Gifted Education (CFGE) developed a partnership to conduct research with or on behalf of gifted students in Ireland.

Over the next ten years, numerous studies were conducted to learn about these students and about gifted education in the country via educators' and parents' beliefs and experiences. Two reports have been published on the former: *Gifted Education in Ireland: Educators' Beliefs and Practices and Gifted Education in Ireland: Parents' Beliefs and Experiences*, both available from CTYI. This report describes the findings of research conducted with CTYI students for the purpose of supporting the well-being and maximization of potential among Irish gifted students. It is divided into six chapters

The Studies

Ten studies were conducted with more than 2600 students attending CTYI programs, two with students in Greece and India. Nearly all participants were secondary students and 46% were female. Three studies were interviews and the remaining used questionnaires. Most students (44%) were from county Dublin, but every Irish county had some students represented. All other students scored at the 95th percentile and above.

The Psychology of Irish Gifted Students

The majority of CTYI secondary students (66%) had resilient personalities – they were sociable, agreeable, conscientious, emotionally stable, and open to new experiences. Nearly all students exhibited high levels of confidence in their academic abilities and most had confidence in all academic and social domains. About a third of students had potential risk factors indicating additional supports may be needed. These personality differences provide a framework for later analysis of students' social and academic experiences.

The Social Experience of Irish Gifted Students

In several studies, CTYI students confirmed the findings from previous research that their exceptional abilities can lead to challenges in their relationships with others. They reported experiences of hiding their abilities and conforming to others' behaviors to maintain positive relationships with peers. Their abilities were often visible to peers and being known as an advanced student was generally a positive experience. The frequent pressure to achieve and always be right was not as positive. Expressing one's gifted abilities could sometimes be a costly experience and some CTYI students preferred to lie over telling the truth in situations when their abilities might be exposed. Painful peer rejection occurred for some CTYI students, but most did not consider themselves to be ostracized. They preferred to work independently and considered themselves more serious about learning than peers. Being able to help peers with their exceptional abilities was positive, but older students sometimes felt the expectation to help was burdensome. CTYI programs gave them a welcome chance to spend time with intellectual peers whose high levels of interest in learning were similar to theirs.

During the COVID-19 pandemic, online school inhibited social connections, when peers withdrew behind muted cameras and microphones and there was little opportunity to interact in classes. This atmosphere had one advantage: bullying was not possible when there was no face-to-face interaction.

Students were positive about their family relationships and most students were confident they could get support from their parents to solve social or academic problems. About a quarter of students were less confident in their parents' support. Positive attitudes toward school were correlated with students' positive relationships with their parents.

The Academic Experience of Irish Gifted Students

An appropriate education is important not only for students' psychological well-being, but also for the maximization of their potential. CTYI students are capable of learning at an advanced level in some or all subjects. About half of them were confident in their abilities in all subject areas, but others had greater confidence in their abilities in either math, science, or humanities-related subject areas. In school, most CTYI students reported they rarely or never received differentiated lessons targeted at their ability level. They were often bored by lessons because they already knew the material. In interviews, students described a difficult learning environment, often focused on the needs of the typical student, who learned less rapidly and was less serious about their learning. CTYI students considered good teachers to be those with high expectations, who were enthusiastic and knowledgeable about their subjects, and had effective teaching strategies. While they may have had good teachers, they also gave many examples of times when they were not learning. Students readily shared their opinions about CTYI programs offering exciting opportunities for challenge in stimulating subjects.

Compared to in-person school, online school during the COVID-19 pandemic offered less support from teachers, was less motivating, and presented difficulties in managing their own learning. The majority of students were pleased to be back in their home school. CTYI's online classes were perceived by students to be much more motivating and CTYI teachers were perceived to be more supportive than those in their online school.

International Comparisons

Partners at the Center for Talented Youth-Greece (CTYG), at Anatolia College in Thessalonika, and the Jagadis Bose National Science Talent Search (JBNS) in Kolkata conducted studies to parallel a study with CTYI and CAT students. There were many more similarities than differences among the students in psychological comparisons. Socially, all students agreed they were more serious about learning than peers and preferred to work independently. Both CTYG and JBNS students appeared less concerned about hiding their ability from peers than CTYI or CAT students. In academic comparisons, JBNS students reported receiving more regularly differentiated assignments than the other students. While the amount of boredom differed by subject for each country, students in all programs reported being bored once a week or more often in some of their classes.

Conclusion

CTYI students represent a unique population, with social and academic experiences their peers do not share. While most CTYI students have positive, even exceptionally positive, psychological profiles, some students will require support for optimal well-being and, ultimately, achievement of their potential. Adults who work with and care for CTYI students should be aware of the social challenges presented by their abilities and the need to provide an appropriate curriculum, delivered at an appropriate pace. A talent development approach would be an inclusive, effective framework for gifted education in Ireland.

Chapter 1:

Introduction to the Research

There has been interest in the education of exceptionally capable students for centuries. Testing has long played an important role in finding this potential, from the Imperial Examinations to identify civil servants during the Han Dynasty (206 BCE-220 CE) in China (Zhang, 2017) to the IQ tests used by Lewis Terman (1925) in his study of 1000 "geniuses."

The Centre for Talented Youth-Ireland (CTYI) continues this tradition by utilizing standardized tests to find primary and secondary students who perform at the 95th percentile and above. These students are often not well served by school systems that focus on the development of average ability students, as is generally the case across Ireland (O'Reilly, 2013). Founded in 1992 based on the model of the Center for Talented Youth at Johns Hopkins University, CTYI has grown significantly over the past 30 years. It has served thousands of high-ability Irish students by offering enrichment courses that expose students to topics not covered in schools, allowing in-depth exploration. A fee-based program, CTYI has expanded its offerings to low-income students through scholarships and grant-funded courses. The Centre for Academic Talent (CAT) program offers courses for students whose test scores fall between the 85th and 94th percentile, opening CTYI opportunities to an even wider swath of highly capable Irish students. The only centre for gifted education in Ireland, CTYI provides an important educational and advocacy function.

In the fall of 2010, the directors of the CTYI and the William & Mary Center for Gifted Education (CFGE) began a conversation that developed into a strong relationship between the two organizations. The mutual desire to support the needs of gifted students led to numerous collaborative research projects, publications, and presentations around the world. Previous reports have highlighted the beliefs and experiences of educators and parents (J. Cross et al., 2014, 2019). In this report, we will describe the findings of the ten studies with CTYI students and two studies with international students conducted between 2012 and 2021. Table 1.1 includes a list of the studies and Tables 1.2 and 1.3 describe participating student demographics.

The Research Questions

Prior to 2012, very few studies had been published about Irish gifted students. In fact, only one study could be found that related to their psychology. In the mid-1990s, Mills and Parker (1998) studied students attending the new CTYI program and compared them with U.S. students participating in the Center for Talented Youth program at Johns Hopkins University. Much more is known about the psychology of gifted students in the US. Research with U.S. samples has considered their mental health, personality, self-concept, perfectionistic attitudes, achievement goal orientation, peer relationships, and attitudes toward their giftedness1. This research has led to a focus on the social and emotional needs of gifted students, along with recommendations for practice

One line of research began with Coleman (1985), who proposed that gifted students may encounter a stigma in society that interferes with their ability to be accepted and to develop normally. Coleman's stigma of giftedness paradigm (SGP) has three tenets:

1. Gifted students, like all students, desire normal interactions with their classmates;
2. as others learn of their giftedness, they will be treated differently; and
3. gifted students can increase their social latitude by managing the information others have of them.

Researchers found that gifted students did, indeed, sometimes attempt to hide their abilities from peers. The potential of such behaviors to impact students' psychological, social, and academic development makes this a valuable endeavor. In their influential monograph, Subotnik, Olszewski-Kubilius, and Worrell (2011) stress the importance of psychosocial variables in talent development. "Psychosocial variables are determining factors in the successful development of talent" (p. 7), they claim, citing copious research as evidence.

Our primary goal in this research project has been to support the well-being and maximization of potential among Irish gifted students. By learning more about them and their experiences, we hope to provide a foundation on which to build this support in their homes and schools. The questions driving the research in this collaboration emphasized three topics in relation to Irish gifted students:

1. Their psychology, in particular, their self-beliefs.
2. Their social experience
3. Their school experience

The research has been approached through both quantitative and qualitative methodologies, allowing for a broad perspective on students' psychology and experiences. Over the years, researchers in other talent search or gifted education programs have become interested in this project. As a result, we are able to draw comparisons with high-ability students in not only the US, but also South Korea, France, the United Kingdom, Greece, and India.

1 Sources for information throughout this document can be found in the full report, available online at www.dcu.ie/ctyi

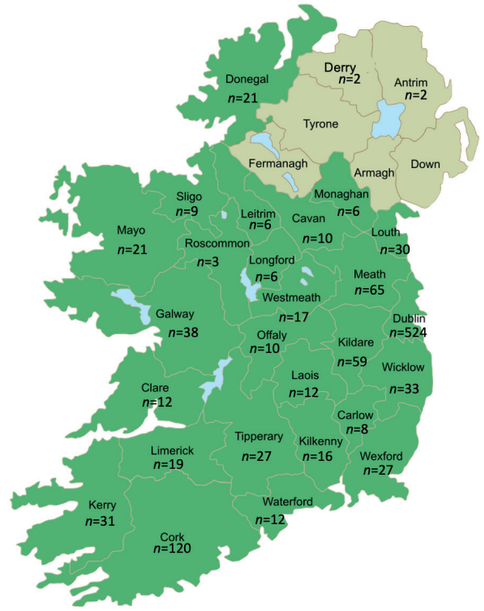
Table 1.1
Studies Conducted 2012 - 2021

Year	Level	Number of Participants	Method	Constructs Included
2012	Primary & Secondary	374	Survey	Self-Concept (SDQI); Social Coping, Social Dominance Orientation
2013a	Primary & Secondary	18	Interviews	Social Experience of Giftedness
2013b	Secondary	295	Survey	Implicit Theory, Ostracism, Self-efficacy, Self-Concept
2014	Secondary	163	Survey	Self-efficacy, Ostracism, Personality
2015	Secondary	494	Survey	Social Cognitive Beliefs Scale, Class challenge/depth, Personality, Self-efficacy, Perfectionism, Ostracism, Implicit Theory
2016	Secondary-CAT	351	Survey	Social Cognitive Beliefs Scale, Class challenge/depth, Personality, Self-efficacy, Perfectionism, Ostracism, Implicit Theory
2017	International-India	457	Survey	Social Cognitive Beliefs Scale, Class challenge/depth, Personality, Self-efficacy, Ostracism, Implicit Theory
2017	International-Greece	146	Survey	Social Cognitive Beliefs Scale, Class challenge/depth, Self-efficacy, Ostracism, Implicit Theory
2018	Secondary	559	Survey	Social Experience Scale, Personality
2019	Secondary	12	Interviews	School Experience
2021a	Secondary	326	Survey	Pandemic Academic Experience
2021b	Secondary	16	Interviews	Pandemic Social Experience

Student Demographics

Between 2012 and 2021, the students described in Table 1.1 participated in surveys and interviews. Tables 1.2 and 1.3 provide demographics of each dataset[2]. In all survey studies, student anonymity was preserved, with no identifying information collected. Data collected via interviews preserves students' confidentiality. Data was quite evenly distributed between males and females. To reflect changing societal recognition of gender fluidity, additional gender options were included in the surveys from 2018 on. Surveys of primary students were conducted only in 2012. The 2016 students surveyed were in the Centre for Academic Talent (CAT) program. These students scored between the 85th and 94th percentile on standardized achievement tests. All other students scored at the 95th percentile and above. In 2015, 2016, and 2021, students were asked to identify their home counties. Nearly all Irish counties, including several in Northern Ireland, were represented (see map in Figure 1.1). The majority of students were from County Dublin.

Figure 1.1
County Representation of CTYI (2015, 2021) and CAT (2016) Students



Interviews were conducted with students in 2013, 2019, and 2021. The 2013 interviews were part of a five-country cross-cultural study of the social experience of gifted students (J. Cross, Vaughn et al., 2019). In each country, three male and three female students at the elementary (4th and 5th Class), middle (2nd Year), and high school (4th and 5th Year) levels were interviewed, totaling 18 students. In 2019, six male and six female secondary level students (2nd through 6th Year) were interviewed about their school experiences.

The full report goes into detail with our findings, making the most of these students' time and openness. In this brief report, we will summarize the findings of the decades-long study of students participating in CTYI programs. It is our hope that this research is of benefit to Irish gifted students and their counterparts around the world.

2 Note that international student demographics are presented in Chapter 5.

Chapter 2:

The Psychology of Irish Gifted Students

One of the primary objectives of this research project has been to support the well-being of Irish gifted students. According to the dictionary of the American Psychological Association (APA), *well-being* is defined as:

> *"a state of happiness and contentment, with low levels of distress, overall good physical and mental health and outlook, or good quality of life" (APA, 2020).*

Well-being has rarely been studied among gifted students, but some studies have explored psychological constructs that lead to the opposite – high levels of distress – in this population3. For example, there appears to be no difference in rates of depression among academically gifted students compared to their nongifted peers, although rates of depression have been found to be higher among creatively gifted individuals. Some studies have found levels of anxiety to be lower among gifted students than non-gifted peers. Studies of suicidal ideation (thinking about killing oneself) among gifted students find no difference from comparative samples. Depression, anxiety, suicidal ideation – these negative psychological conditions are linked in research in the general population with personality differences, self-concept, perfectionism, self-efficacy, and even beliefs about the malleability of intelligence or personality. To best support Irish gifted students' well-being, we need to have a picture of their psychological make-up.

The most important lesson from our psychological research with CTYI students is that they are not a monolith. There is not one profile of an Irish gifted student that fits them all. This may seem obvious, but much previous research has attempted to explain the essence of a gifted student. By aggregating data, we can come up with an average profile, but such an average can be quite misleading. In his book, *The End of Average*, author Todd Rose (2016) described the efforts of the U.S. air force to create a cockpit that fit all pilots by using the average measurements of 4,000 pilots on 10 dimensions, such as arm and leg length, chest circumference, and so forth. After identifying the average, they discovered that not a single pilot was exactly average and fewer than 3.5% matched on just three dimensions. Keeping this lesson in mind, where possible, we have attempted to explore the data from a person-centered perspective. We first apply analyses in the aggregate, but then go deeper to examine clusters or classes of students who fit various profiles.

3 Please see the full report for sources not included in this brief version.

superscript 3

Positive Psychological Profiles

When we ask the question, "What is a person like?" there are many ways they can be described. We can describe their physical appearance, their abilities, their motivations, their patterns of behavior, or any number of other characteristics. Every individual is unique, but we often seek to find similarities that help us in making sense of others. Their personality, or their characteristic patterns of thoughts, feelings, and behaviors, are of particular importance to this sense-making.

In recent decades, personality research has consistently identified five dimensions: *Openness to new experience, Conscientiousness, Extraversion, Agreeableness, and Neuroticism* (OCEAN, the common mnemonic). These dimensions exist on a continuum, from open to closed to new experiences; from highly conscientious to disorganized and lacking in discipline; from outgoing (extravert) to reticent (introvert); from agreeable to disagreeable; and from emotionally stable to unstable (neurotic). Individuals will differ from others by degree on each dimension.

In personality comparisons, CTYI and CAT students from the 2015 and 2016 studies were *less extraverted* (outgoing) and *more conscientious* than the general population represented in the large international norm group. CTYI students were more introverted and less agreeable than CAT students, who tended to be more agreeable and less emotionally unstable (neurotic) than the general population. Numerous studies have found gifted students to have a stronger tendency toward introversion than the general population and this was confirmed in the CTYI and CAT samples.

Numerous studies have found three consistent profiles in personality characteristics:

- **Resilient** – low in neuroticism (emotional instability), high in other traits
- **Overcontroller** – high in neuroticism (emotional instability), low in extraversion (introvert)
- **Undercontroller** – high in extraversion, low in agreeableness, low in conscientiousness

Resilients are flexible and adapt well to changing situations, leading them to generally be well-adjusted. Overcontrollers, who were so named because of their strong tendency to control the expression of their emotional and motivational impulses, have been found to be more likely to experience internalizing symptoms, such as depression and anxiety. Undercontrollers have the opposite tendency – they do not try to control their impulses. This personality pattern is associated with externalizing problems such as aggression, hyperactivity, and acting out.

The personality profiles among CTYI students in the 2015 study were mostly consistent with these patterns, but with important differences. Instead of having three profiles, the CTYI students had four, with not one resilient class, but two: *moderate* and *high Resilients*. Both classes of Resilients were high in the characteristics associated with positive adjustment – sociable, agreeable, conscientious, emotionally stable, and open to new experiences – but the High Resilients were very high in these characteristics. Together, the two resilient classes make up two-thirds (66.3%) of the CTYI sample. The CTYI Undercontroller class, 9.6% of the sample, was different from those identified in the literature, as well. Like those found in the general population, this group was highly extraverted, lowest of the CTYI students in agreeableness, but with a moderate level of conscientiousness, which is likely how they met the testing requirement for entry to CTYI. The majority of Overcontrollers were female (63.8%) and the majority of Moderate Resilients were male (63.5%).

CTYI students shared their beliefs about other aspects of their lives as well. The instrument used to measure students' self-concept was the Self-Description Questionnaire I, which measured student perceptions of their Academic, Non-Academic, and General Selves. A majority of CTYI students in the 2012 study had overall high (n = 156; 44.2%) or moderately high (n = 86; 24.4%) levels of self-concept, with positive beliefs about their non-academic, academic, and general selves. Highest scores were seen among primary students and nearly all students had high reading self-concepts. Among secondary students, males had higher self-concept scores than females in most areas, with the exception of reading, parent relations, and general school.

What CTYI students will pursue as they develop will depend in part on what they believe about themselves.

Self-concept is one's perceptions of who they are, what they are interested in, and how they evaluate themselves: "Who am I?" "What do I like/dislike?" "Am I good/not good at ___?" These beliefs will likely have an impact on their academic pursuits. Another aspect of CTYI students' psychology is their self-efficacy: their perceptions of their capability to carry out an activity (Bandura, 1986). In other words, self-efficacy is a measure of confidence in different arenas. Self-efficacy goes beyond an evaluation of one's abilities to include their belief that they *can* carry out that activity, an important belief that will affect their motivation to pursue various activities. Table 2.1 presents the different areas measured by the Multidimensional Scales of Perceived Self-Efficacy scale (MSPSE; Bandura, 1989).

Table 2.1
Multidimensional Scales of Perceived Self-Efficacy sample items

Self-Efficacy Domain	Sample Item "How well can you..."
Academic Achievement	...learn algebra/reading and writing language skills?
Self-Regulated Learning	...plan your school work?
Social Self-Efficacy	...make and keep friends of the opposite sex?
Resisting Peer Pressure	...resist peer pressure to do things in school that can get you into trouble?
Enlisting Social Resources	...get teachers/another student/etc. to help you when you get stuck on schoolwork?
Assertive	...stand up for yourself when you feel you are being treated unfairly?
Meeting Other's Expectations	...live up to what your parents/teachers/peers/yourself expect of you?
Enlisting Parental and Community Support	...get your parent(s)/brothers and sisters/etc. to help you with a problem?
Leisure-Time Skill and Extracurricular Activities	...learn sports/dance/music skills?

Note: Response items: 1 = Not Well at All, 3= Not Too Well, 5 = Pretty Well, and 7 = Very Well

In an analysis of all the CTYI students who completed the MSPSE (N = 936), patterns of self-efficacy were identified (see Figure 2.3). Nearly three quarters of CTYI students (n = 681; 72.1%; the Confident Majority and Superstars classes) were confident in all domains, with one in four being extremely confident. Highly confident in their academic and social skills, ability to be assertive and to meet others' expectations, confidence among the Confident Majority only dipped slightly in their ability to manage their learning, garner social support when needed, and be successful in extracurricular or leisure activities. The Superstars class was confident in all these domains. The two most confident classes were made up almost exclusively of students with Resilient or High Resilient personality types, suggesting their flexibility in adapting to variable situations is associated with their confidence they will be successful in diverse activities.

One study of self-efficacy evaluated the 2015 students (N = 477) by their confidence in specific subject areas: general mathematics, algebra, biology, reading/writing, foreign language, and social studies (O'Reilly et al., 2018). While the largest subset of students had high self-efficacy in all subject areas (46% of the sample in that study), one subset (35%) had high confidence in their mathematics abilities, but low confidence in the other humanities-related subjects. CTYI students in the smallest subset (19%) lacked confidence in math, but were quite confident in science and the humanities.

Positive Perfectionism. Perfectionism, "the tendency to demand of others or of oneself an extremely high or even flawless level of performance" (APA, 2020, Perfectionism), among students with gifts and talents has been the focus of a great deal of research attention since the early 1990's. One of the most widely accepted models of perfectionism describes three types: self-oriented (having unrealistically high expectations of themselves); socially prescribed (perceiving others have unrealistically high expectations of them); and other-oriented (having unrealistically high expectations for others). Much recent research in perfectionism has explored these three types.

Striving for perfection can be a healthy approach to demands. In fact, *positive strivings* have been found to correlate with adaptive outcomes, such as positive mood and emotion (affect), conscientiousness, motivation to master a task, and a sense of personal agency (an internal locus of control). In the three-dimension model of perfectionism, positive strivings may be measured by self-oriented perfectionism. Among the CTYI and CAT students from the 2015 and 2016 studies, self-oriented perfectionism was high and did differ different by program. Females in both programs, however, had higher self-oriented perfectionism than males. The personality profiles differed significantly in their perfectionism scores. The High Resilients, the most adaptive and confident students, and the Overcontrollers, who tended to be less emotionally stable, had the highest self-oriented perfectionism scores. These two groups had very different scores in Socially Prescribed Perfectionism, however, which is likely to result in different outcomes.

A Needy Minority

The majority of CTYI students in these studies had a positive psychological profile. Two-thirds of them were confident and had desirable personality characteristics. A quarter to a third, however, may need support to bolster their self-beliefs and to flourish in their environments. Self-concept and self-efficacy develop from experiences. As a child engages with their environment, they have success or do not, they receive feedback from others: praise or criticism, encouragement or discouragement. Through these experiences, they develop beliefs about who they are and what they like and can do. Personality develops from an inborn temperament, shaped by the response of the child's environment. A newborn with fearful tendencies may experience a caring environment in which they can thrive or a less nurturant one in which their fearfulness is exacerbated. How adults and peers respond to the developing child will affect their beliefs about themselves, and how others respond is affected by the child's temperament.

Personality Challenges. The CTYI secondary students in the 2015 sample who were classified as Overcontrollers (24.2%) or Undercontrollers (9.6%) may experience challenges not faced by their resilient peers. Overcontrollers, a majority of whom – but not all – were female (63.8%), may be at particular risk for internalizing symptoms, such as depression and anxiety. They were highly introverted, meaning they prefer to avoid overstimulation, such as crowds and high-noise settings. Overcontrollers also tend to score high in neuroticism – they report being more likely to feeling depressed or to worry excessively. A supportive environment for Overcontrollers would recognize these differences, offering quiet spaces and activities with small groups or pairs. Professional counselors or attentive caregivers may help them reframe stressful events to reduce their anxiety.

Undercontrollers have been found to exhibit more externalizing problems, such as impulsivity, interpersonal conflict, and aggression[4]. Their high extraversion means they would likely seek out peers to interact with, but their high disagreeableness may make it more difficult to develop friendships. These students may benefit from social skills training and positive feedback when they behave in a friendly manner.

4 Please see the full report for sources not included in this version.

Their impulsivity can make peers uncomfortable. Teaching self-regulation directly and rewarding such behaviors may support Undercontrollers in developing friendships. Undercontrollers at CTYI were highly conscientiousness, which suggests they will have protection from some of the difficulties found among undercontrollers in the general population.

Self-Belief Challenges. Poor self-concept was found in 19.3% of CTYI students in the 2012 study, which included primary students, who tend to have positive self-concepts. Some CTYI students in the study had high self-concepts in all areas except their physical abilities. Self-concept can be boosted with affirmation, but having actual opportunities to succeed is more effective in changing self-beliefs. Challenge is important for these capable students, but succeeding at incrementally more difficult tasks at a lower level – working up to the ultimate challenge – will be better for self-concept development than repeatedly failing by attempting the ultimate challenge to start. In all cases, adults should be attending to what the child needs.

Academic self-efficacy was high among the CTYI secondary students and three of the classes with high self-efficacy included the majority of students: the Confident Majority (high self-efficacy across the board), the Confident Pushovers (high in all areas except ability to resist peer pressure), and the Superstars (very high in all areas). Three smaller classes, however, had less positive profiles. The Pushovers, the Insecure, and the Need a Boost classes made up 22.3% of the students in the 2013-2015 studies (N = 936). The Pushovers (n = 25) had relatively low scores overall, but were notably least likely to say they could resist peer pressure to engage in troubling behavior. The small group of Insecure students (n = 18) did not have concerns about peer pressure, but they had low self-efficacy in all other areas, with the exception of academics. The Need a Boost class (n = 165) lacked confidence in their learning skills, their ability to get help from others, and to do extracurriculars. In other areas, they had more confidence, but it was modest. An emphasis on how to get support from others would be beneficial to CTYI students in all three low-confidence classes: recognizing resources, learning how to ask for help when they need it, general social skills training.

Perfectionism Challenges. While self-oriented perfectionism has been found to be associated with positive outcomes, socially prescribed perfectionism has been linked to negative outcomes, including maladaptive motivational goals, negative affect, neuroticism, distress, eating disorders, and anxiety. The perception that others are expecting you to be perfect can be debilitating. Students in the Overcontroller class, who were high in positive expectations for their own perfection, were also high in their belief that others expect them to be perfect. These students, primarily female but including several males, are likely to be in need of psychological support.

Adult behavior, particularly that of parents, has been implicated in the development of perfectionistic beliefs, both positive and negative. Children may learn to strive for perfection or to be concerned about being evaluated negatively by observing the model of significant others or through being rewarded for such striving or punished for not doing so. They also learn through their own experience of striving for excellence, by thinking about what has occurred. Parents have an important role in their child's development of these concerns. Their responsiveness to the child's needs is critical to developing positive attitudes about their efforts to achieve. Research has supported the most positive outcomes for children raised with a balance between parents' demandingness and responsiveness. An excess of demandingness in parenting may contribute to an unhealthy concern that others are evaluating you. Responsive parents are willing to give in to their child at times, realizing that their child needs to have confidence in their own ability to make choices and affect their own lives. Such a sense of agency will not develop if parents are constantly demanding. Table 2.2 describes the path parents set for their child through their modeling, responsiveness, and demandingness. It is important to note that all contributing factors highlighted in Table 2.2 are based on the child's perceptions. An outsider may see a behavior as demanding or a model as positive or negative, but the child's own perceptions of the behavior or model are what matter.

Parental expectations

Table 2.2
Paths to Perfectionistic Striving or Concerns

Outcome: Striving	Outcome: Concerns
Parent expectations for high standards (demandingness)	Parent expectations for high standards (demandingness)
Parent models striving with positive attitudes toward failure / mistakes as part of learning	Parent models concerns with negative/ fearful attitudes toward failure / mistakes
Parent encourages high achievement via warm, positive messaging (responsiveness)	Parent demands high achievement via harsh, critical teaching (demandingness)
Parent is accepting of child's efforts	Parent is rejecting of child's efforts

Adapted from Fletcher & Speirs Neumeister, 2017

Implicit Theory

Many people believe that human characteristics, such as intelligence and personality, are fixed within a person, but substantial evidence indicates that, while generally stable, one's intelligence is affected by resources (e.g., exposure to books, access to technology, experience with excellent teachers, etc.) and that many aspects of one's personality can change in response to the environment. Dweck (2006) found that students who held the belief that intelligence was fixed (e.g., "I *am* smart.") were less likely to persist in the face of a difficult task, while those who believed it could be changed with opportunities for learning and practice were more likely to continue trying. She called these beliefs a *growth mindset*. Many schools have implemented programs to teach students about the significance of effort in achievement, attempting to overcome students' fixed mindsets.

Student's beliefs about intelligence

Among CTYI and CAT students, average scores were below 3.5, the point where beliefs would be considered "fixed". CTYI females had more fixed beliefs than the males in both CTYI and CAT. All students had slightly stronger beliefs in the fixedness of personality. Implicit beliefs were not different among the personality classes, but both the Pushovers and Confident Pushovers had the most fixed beliefs about intelligence. Learning about how both intelligence and personality can change may help these students who claimed to be unable to resist peer pressure.

Chapter 3:

The Social Experience of Irish Gifted Students

The ability to have positive, lasting significant relationships is a critical human need. People of all ages are motivated by this need[5]. They will avoid activities that come between them and people with whom they have (or wish to have) a connection and they will pursue activities that foster relationships.

Being excluded from peers contributes to increased aggression, anxiety, and depression. Even expecting to be rejected by peers can lead to social anxiety and withdrawal. One study found the experience of pain associated with social rejection is similar to that of physical pain. Students in the "brain" crowd of one study had an increase in internalizing distress as they transitioned from childhood to adolescence, suggesting these students faced uniquely difficult stressors.

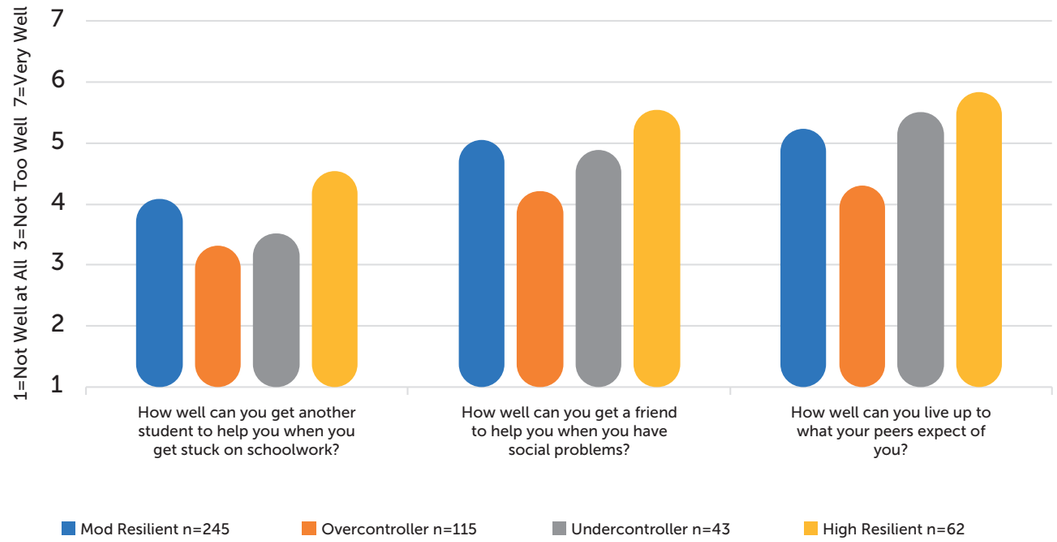
CTYI students have intellectual abilities different from their peers, as evidenced by their exceptional scores on standardized tests. They may not have intellectual peers in the same classroom or even the same school, creating challenges to friendship formation. Studies of popularity have found that high achievers in primary grades are often popular, but in secondary classes high achievers are less likely to be considered popular. Significant research, cited in Volume 2, Chapter 3, indicates potential challenges to friendship for CTYI students. Considering the importance of friendship to thriving in school, an important component of our studies with CTYI students focused on their relationships with peers.

5 Please see the full report for sources not included in this version.

Peer Relationships

Most CTYI students believed they had positive relations with peers, especially those with positive self-concepts in physical appearance and abilities. They had confidence in their ability to make friends "Pretty Well," to stand up for themselves among peers and to resist pressure to engage in unacceptable behavior. About 20% of students did not believe they could stand up for themselves or resist peer pressure, however. On average, CTYI secondary students believed they could get help from peers to solve a social problem, but they were less confident they could get help from a peer when they were stuck on schoolwork. Students in the Overcontroller personality class were less likely than others to believe they could get help from peers on social problems and also were not confident they could live up to peers' expectations (See Figure 3.1).

Figure 3.1
Self-Efficacy Peer Items by Personality Class (2015 CTYI Students)



A majority of CTYI students did not consider themselves to be ostracized; they did not believe they were ignored or excluded by peers. Many of the Overcontroller, who were highly introverted, did believe they were at least sometimes ostracized by peers. Students in the low self-efficacy classes – the Pushovers, the Need a Boost, and especially the Insecure – were more likely to perceive they were excluded than their more confident CTYI peers.

The Stigma of Giftedness

In the early 1980's, Larry Coleman and Tracy Cross spoke with hundreds of gifted students participating in the Tennessee Governor's Schools about their social experiences. Coleman had previously proposed that giftedness is stigmatizing, and gifted students know that if others become aware of their exceptional abilities, they will be unable to have normal social interactions. From conversations with the students, Coleman and Cross (1988) learned about the conditions that led students to manage information about themselves so they could have normal social interactions and how they went about it. Gifted students might allow their abilities to be highly visible; or they would disidentify from their giftedness, behaving in ways counter to how they perceive a gifted person would, such as rebelling; or they would attempt to make themselves or their giftedness invisible. One thing that came up repeatedly in their interviews was students' belief that they were different from peers. To further study this phenomenon, Coleman and Cross created a questionnaire that was modified for research with CTYI students. In the first part, questions asked how they believed others see them (the same as other students or different from other students) and how they considered themselves different from peers. Once again, the personality classes responded differently.

Overcontrollers and Undercontrollers were more likely to believe they were seen as different. Overcontrollers agreed most strongly that they get bored more quickly with small talk than others. Although the High Resilient students considered themselves most serious about learning, they did not believe peers get in the way of their learning. Undercontrollers, who were least agreeable, were also most likely to say other students get in the way of their learning. All CTYI students agreed that they prefer to work independently. CAT students had similar scores, except when it comes to viewing other students as getting in the way. They did not generally agree.

Other students getting in the way of thewr learning/or not

The second part of Cross and Coleman's questionnaire was based on their findings that the conditions under which the stigma of giftedness had its effects differed. Some situations were more threatening to being "outed" as a gifted student than others. They tested this finding quantitatively with a series of scenarios, carefully crafted to elicit a response to these varying threats. The least threatening situation was to publicly show they know a discrete fact that other students did not. The scenario they created was of students complaining about not knowing the meaning of the word *onomatopoeia*. Asked how they would respond if they knew the meaning, students could choose options along a continuum of telling the truth to lying. The response options were developed from information given in student interviews. Students may deflect attention from their true beliefs (truth) by placating (agreeing with some aspect of the comment, before exposing true feelings), copping out (changing the subject), or covering up by using words that are related to the conversation, but do not reveal anything about the person's self, or by giving a false response (lying). Another threatening scenario described a situation when others were not interested in learning, but the gifted student wanted to learn. For this situation, a scenario describes a substitute teacher being taunted by peers. The most threatening exposure is in the Biology Exam scenario, where others are complaining about the difficulty of a test the gifted student found easy. Cross et al. (1991) found many students responded to the Onomatopoeia scenario by saying they would tell the truth. The majority of students indicated they would placate in response to the Substitute Teacher scenario. The Biology Exam elicited the broadest range of responses, with some students comfortable telling the truth, but more being likely to cop out or even lie. Scenarios from the 2015 and 2016 surveys are in Figure 3.2. Responses of students in the original 1980's study are displayed in Figure 3.8.

Figure 3.2 Survey Scenarios

Please read the following scenarios and answer the questions thinking about what you would do in this situation. **Circle the option** that best describes what you would say.

Scenario #1

Setting: In the cafeteria line, several people from your class are discussing the life science exam.

Taisce: Man! Wasn't that test impossible? I must have spent 10 minutes trying to think of examples of the major biomes.

Corey: I blew the whole thing, even though I studied really hard.

Devin: I probably failed it too.

Devin says to **Shannon**, "I bet you breezed through it and didn't even open the book to study." Actually, Shannon spent several hours studying and thought it wasn't a difficult test.

If you were Shannon, what would you be MOST inclined to say?

Please **circle** your choice.

Scenario #2

Setting: A group of students is discussing a class lecture as they leave the classroom.

Brady: I think it's crazy that Mr. O'Reilly expects us to remember all of that material in Chapter 10 for the test in Literature!

Kieran: What does he think – that we have nothing better to do than memorize that stuff from the book?

Quinn: Some of those words are hard. I don't even understand what he means by "onomatopoeia," do you guys?

They all shake their heads, with the exception of Jamie (who has said nothing to this point). They turn to **Jamie**. Quinn says, "How about you, Jamie? Knowing you, you probably know it. Right?"

Jamie understands all of the terms and knows that onomatopoeia is nothing more than a word that describes a sound.

If you were Jamie, which would you be MOST inclined to say?

Please **circle** your choice.

Scenario #3

Setting: In the hallway, between classes:

Pat: Wasn't that substitute teacher for Mrs. Flannery awful? I couldn't figure out what she was trying to say about the Western Expansion. She really lost me.

Reagan: How about what Pete pulled on her, pretending he was sick and ready to throw up on her desk?

Aidan: She even believed it. I wish I had thought of that one! I would rather have spent the period in the clinic instead of sitting in that class.

Everyone but **Kelly** nodded their heads in agreement.

Reagan looked at Kelly and asked, "Didn't you think that was hysterical?" Kelly felt that the substitute had started an interesting topic, but Pete had made it impossible for her to teach. Kelly thought Pete had been unnecessarily rude.

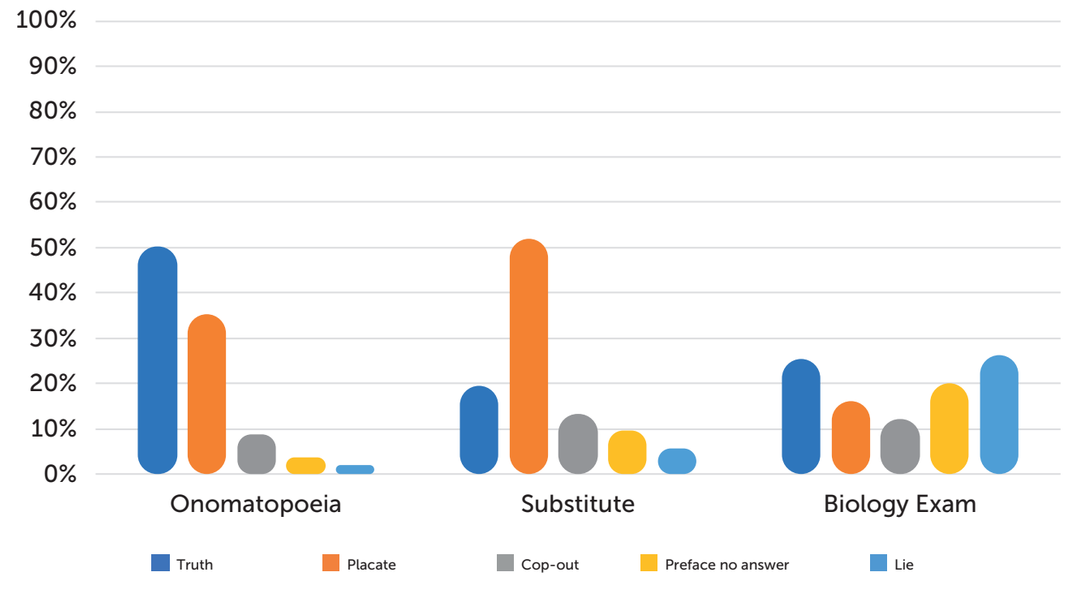
If you were Kelly, which would you be MOST inclined to say?

Please **circle** your choice.

CTYI and CAT students responded similarly to the scenarios (see Figure 3.3). As in the 1980's study, there were more truth-oriented responses in the Onomatopoeia scenario, more placating in the Substitute Teacher scenario, and a variety of responses in the Biology Exam scenario. Notably, 26% of the Irish students chose the "lie" option in the Biology Exam scenario, versus 12% of US students in Cross et al.'s (1991) study. The implication is that there is a high social cost to have one's giftedness exposed to peers among CTYI and CAT students. Interestingly, the more students believed they were seen as different from peers and were less like them, the less likely they were to respond evasively to scenarios (i.e., tell the truth). This was most true in the Substitute Teacher scenario and CAT students had stronger correlations than CTYI students. As they more strongly agreed that they preferred to work independently and were more serious about learning than their peers, the more likely they were to choose more truthful options about Petey disrupting their learning. Conversely, as they preferred to work with peers or did not agree they were more serious than peers, they were more likely to hide their true feelings from peers and chose less truthful options.

Displaying giftedness

Figure 3.3
CTYI and CAT Scenario Responses (2015 & 2016 Data; N = 852)



To help us better understand the social experience of gifted students, the cross-cultural study of 2013 explored this topic. In the 90 interviews conducted across elementary, middle, and high school aged[6], gifted students in five countries (Ireland, United States, United Kingdom, France, and Korea), the social experiences described fell into six themes:

- **Awareness of Others' Expectations**
- **Pressure**
- **Concerned About Peers' Feelings**
- **Comfortable Among Gifted Peers**
- **Confused by Response of Peers**
- **Positive Competition**

Positive Competition was only seen among UK and South Korean students, but the other themes described common experiences of all the students. Table 3.1 gives examples of CTYI students' comments in each social experience theme.

6 In the study, Irish primary school students were classified as elementary, Irish secondary school students at junior cycle as middle school and Irish secondary students at senior cycle as high school.

Table 3.1
Social Experience Themes Example Comments

Theme	Participant ID	Comment
Awareness of Others' Expectations	IRMM2	Sometimes after football training my Dad would ask me a maths question and I might get it wrong because I'm tired. And he would be surprised about this and also in school my teacher would be very surprised if I get anything wrong which puts extra pressure on me and raises expectations.
	IRMF1	The teacher was disappointed in me which made me a bit annoyed and sad.
Pressure	IRHF1	It's a struggle with school where girls in my class will just comment on it. If they get above me in a test, it's a big thing for them and they really, they don't let it go. Constantly there's pressure there to do well just so you're not pointed out in class for not doing well.
	IRMF1	That's why I don't think it's good to be the best, even though I want to be, because everyone expects a lot and when you don't reach it, people are disappointed.
Concerned About Peers' Feelings	IRMF1	If they asked me if I found it [an exam] easy, I'd say it wasn't that hard. I'd say I tried and I hope I do well but I wouldn't straight out say it was so easy and I can't believe you found it so hard because that's just mean. Q: Why is it mean if it's the truth? A: Even though you finding it easy made you feel good about yourself, if you put someone down for finding it hard. Finding it hard was stressful enough anyway so you're just adding to the badness. Q: You're worried about hurting people's feelings? A: I think it's because I was bullied for my intellectual abilities so I don't want to be mean to people because of theirs.
Comfortable Among Gifted Peers	IRHF1	I was really shocked. It was strange. My first class in Novel Writing we were discussing Ulysses and what was wrong with Twilight and it was crazy. Everyone had very similar interests to me and I fitted in very quickly.
Confused by Response of Peers	IRMM3	Sometimes they make a bit of fun of me because I always know the answer. It's not just me though, as they make fun of people who don't know any answers. It doesn't make sense really.
	IRHF2	I have a few friends who say that "2 weeks after DCU, you can talk about it but after that if you mention it I won't talk to you". I find that quite offensive because they have friends outside of school and they talk about them and I don't give out about that because people have other friends but they don't want to talk about CTYI because they don't want me to and I think it's a bit much.

Note: Participant ID is country code (IR=Ireland), age group (E = elementary, M = middle, H = high), sex (F = Female, M = Male), and subject reference number (1–3).

The stigma of giftedness was evident in all the countries of this study. Irish students' comments can be seen in Table 3.2. Students clearly wanted to have normal interactions, but were inhibited in some ways connected to their high abilities. CTYI students were keenly aware of their visibility as highly able and many reported being rejected by peers. Bragging, being "boasty," was viewed quite negatively by many of the students in the study. Concern for peers' feelings was often given as a reason for not drawing attention to one's performance.

Table 3.2
Stigma Subthemes Example Comments

Subtheme	Participant ID	Comment
Awareness of Visibility	IRMF3	I'm proud of being a nerd. Overall it is a positive experience.
	IRHM1	Your reputation precedes you. When you get introduced to things and they'd say this person did X and Y and you're seen as that rather than who you are. You don't want that to be seen as what defines you. You want to be seen as who you are.
Rejection by Peers	IREF2	My friend asks me for an answer and I tell her that I can't tell her because it's a test, sometimes, she like, doesn't play with me anymore
	IRHM3	Sometimes if I'm trying to be friends with someone and I'm smart, they might reject me a bit. They're more interested in being friends with someone who's good at sports or music.
Awareness of Jealousy	IREM2	I don't talk about it [my abilities], just like, in case there's people who might be jealous, so I just keep it to myself.
	IRMM3	Some of my friends are not that happy about how well I do in tests. I wouldn't mind, it's mostly the ones who are smart themselves. They can get obsessed with doing better than me.
Few Close Friends	IRHF1	They just have me around for a laugh over a random fact. I don't have any close friends I could talk to. I'm almost comedic to them. They find me a bit of a laugh.
	IREM1	At school, I don't have many friends and that's probably because of my ability.
Avoid Bragging	IRHM3	I don't like to flaunt my results and make people feel bad.
	IRHF3	I think I'd feel like I was bragging because others found it difficult and I wouldn't want them to feel bad because they clearly worked hard.

Note: Participant ID is country code (IR=Ireland), age group (E = elementary, M = middle, H = high), sex (F = Female, M = Male), and subject reference number (1–3).

The ways in which CTYI students cope with the stigmatizing effects of giftedness were consistent with those of students in the other countries. They hid their talents, conformed to others' behavior, helped peers when they could, and focused on themselves without regard for what others were expecting from them. Table 3.3 includes examples of CTYI students' coping strategies.

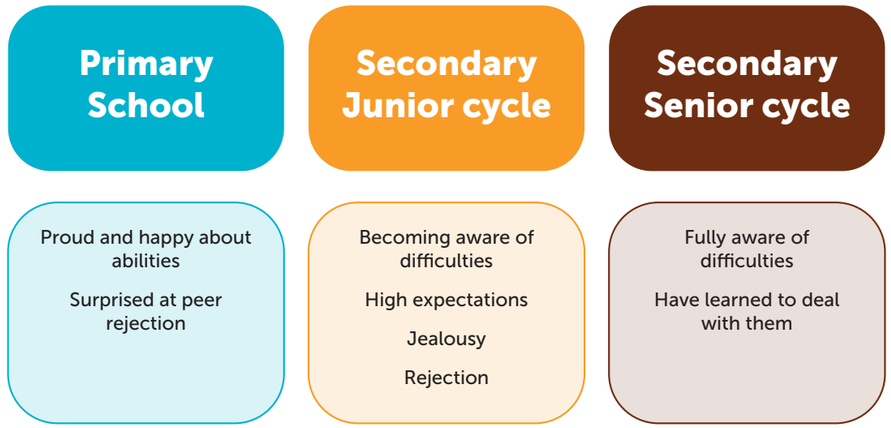
Table 3.3
Coping Strategies Example Comments

Theme	Participant ID	Comment
Hiding	IRHF1	My English teacher, because I'm good at essays, keeps pointing it out to the class and I've started not completing homework assignments because she always reads out mine.
	IRMM3	I'm trying to deflect attention away from myself. I can gauge their answer and fit mine in to what they tell me....It's easier not to draw attention to yourself.
Conformity	IREF3	I don't really think that I'm special and all. I just try and fit in.
	IREM2	Well, I...I just try and act like I'm just like everyone else.
Helping	IRMM1	I help people with stuff. They ask a lot of the time. If they're stuck on homework they might ask me.
	IRMF1	They slag me but I think they appreciate that I'm smart because I can help for tests and stuff and in class I can help them as well.
Self-focus	IRHF2	I'd rather feel under pressure from myself than other people because when it's from others, you can't fix it.
	IRHM2	You shouldn't let other people's opinions of how smart or enthusiastic you are affect how much you contribute.
	IRMF3	I'm really happy with myself. I take pride in my work. I'm not ashamed of doing well because of what people might think. Other people's opinions wouldn't stop me from doing well because there will always be people like me.

Note: Participant ID is country code (IR=Ireland), age group (E = elementary, M = middle, H = high), sex (F = Female, M = Male), and subject reference number (1–3).

We did find an age-related pattern among the gifted students participating in the study (see Figure 3.4). Elementary-aged students were proud of the recognition their outstanding abilities received. They were happy when their parents or teachers were proud of their achievements. By middle school, students began to express an awareness of problems associated with their abilities. They were subjected to higher expectations than peers from parents, teachers, and even classmates. They experienced peers' jealousy, rejection, and demands for help. By high-school age, these high-ability students had learned to accept these difficulties and developed coping strategies for dealing with them. Importantly, the high school students in the cross-cultural study were participating in gifted programs at the time of the research. It is likely that some students who learn in middle school about the challenges of higher expectations and peer rejection or demandingness will decide to leave such programs. Better understanding these difficulties and creating more positive environments will help more students achieve to their potential.

Figure 3.4
Coping with the Social Experience of Giftedness Over Time

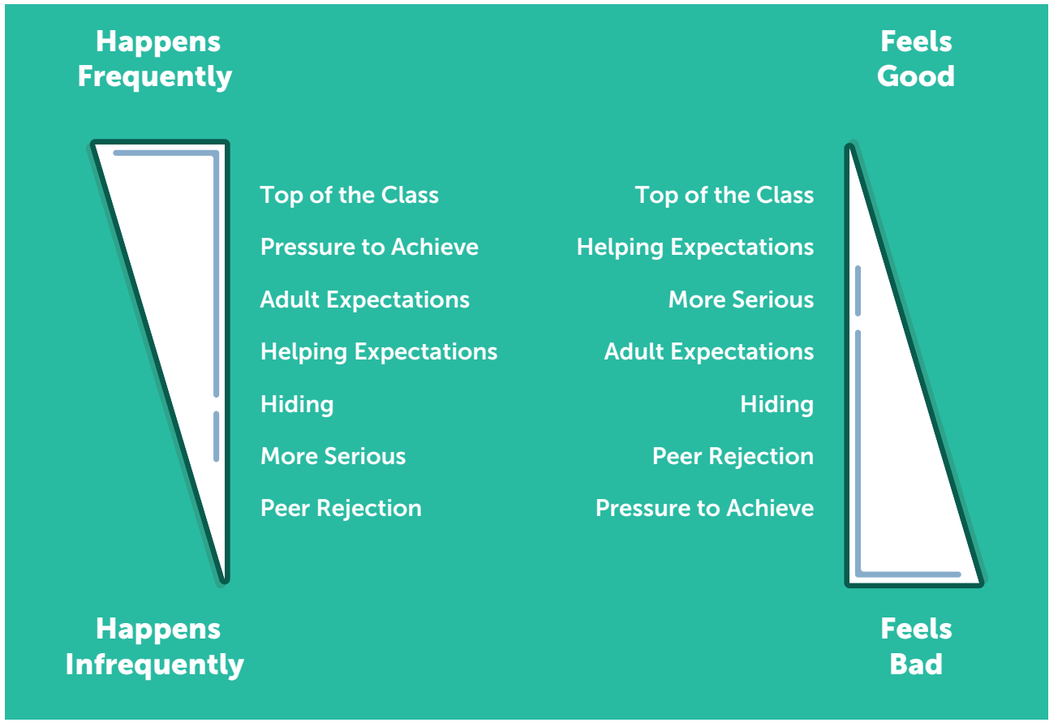


The information gathered in the cross-cultural study made it possible to create a questionnaire that explored social experiences in greater depth, with a larger number of students. In 2018, CTYI students completed the Social Experiences of Gifted Students Scale (SEGSS), which asked the frequency and emotional response to 53 experiences. From the 53 items of the SEGSS, 7 factors were identified;

Top of the Class: **Things that happen when smart; I perform better and other students know it.**	*Helping Expectations*: **My abilities lead others to expect sharing/helping; associated with their hurt feelings/envy.**
More Serious: **I don't get them because I'm more serious.**	*Pressure to Achieve*: **Pressure from others to always do well and be right.**
Peer Rejection: **I was rejected or made fun of.**	*Adult Expectations*: **Teachers and parents expect me to excel.**
Hiding: **Hiding behaviors so as not to be seen as different.**	

The most frequent experiences were related to being visible for their abilities, *Top of the Class*. These experiences were associated with the most positive feelings (3.10). CTYI students frequently experienced pressure from others to always do well and always be right (*Pressure to Achieve*) and this pressure was the experience that felt worst to the female CTYI students. *Adult Expectations* from parents and teachers to do well in school were frequent, but did not feel bad. Expectations that they would help peers occurred once in a while. For males, especially, this was associated with particularly good feelings. CTYI students had experienced the need to hide their abilities – less often for males than females and nonconforming students. It was not such a negative feeling for males. *More Serious* items were associated with confusion about other students' behavior – it made no sense that others wanted to get out of schoolwork or copy theirs. This happened sometimes, but not often. It felt mostly good when it did occur. Fortunately, CTYI students reported that *Peer Rejection* occurred infrequently, but this was accompanied by bad feelings.

Figure 3.10
Graphic Portrayal of Social Experiences Frequency and Feeling (2018 CTYI Students)



Source: J. Cross et al., 2020

Students were asked to "Please share below any comments about the experiences listed above or any other social experiences related to your high academic abilities." Through these comments (see Table 3.4), we see clear support for the experiences identified in the questionnaire. It is heartening that many students have positive social experiences in school (see the "All Good" section in Table 3.4), which can challenge the stereotype of the isolated, rejected "nerd". We know that a majority of students at CTYI are not likely to be socially awkward, based on the analysis of personality and self-efficacy in Chapter 2, but the experiences and emotions of those who do not have a resilient personality or high self-efficacy are important to understand.

Table 3.4
CTYI Student Responses to "Please share below any comments about the experiences listed above or any other social experiences related to your high academic abilities."

Factor	ID#	Year in School	Sex	Comment
				Top of Class
	10357	3	Female	I stand out. People, particularly my peers, expect me to never be wrong. It is a lot of pressure and can make me stressed or depressed.
	10110	3	Male	In some groups it's an annoyance to have to use simpler vocabulary and act
	10205	2	Female	I am often criticised for enjoying learning
	10476	2	Female	Everyone hated me in school because I read books.
	10113	5	Male	I wouldn't try answering a question I was not certain of the answer as if I'm wrong I often feel like the class gets excited at the act I was wrong. Makes me feel awkward embarrassed and that this is unfair. I should feel comfortable suggesting an answer I was unsure of.
	10156	6	Female	I don't like feeling pressured or feeling like I'm under a microscope. Sometimes people do better in tests and they shove it in my face because I'm the smart kid. I can't get 100% all the time despite what people may think. But I love helping people and I don't like to share any results so no one feels bad. Sometimes I study for half an hour and I get a B and they study for days and get a B. It's not what either of us are worth, it's just a B
	10260	5	Female	There were no classes for more advanced students. I am always forced into a class with people who are at a slower pace than me.
	10361	2	Female	I used to act like I didn't study because people would laugh at me for it.
	10326	3	Female	I went up a year in school and was bullied for it, but now I have lots of friends in school and am less bored. I found this very beneficial and I now enjoy school much more. I work hard and have so far gotten good grades.
				Pressure to Achieve
	10022	1	Female	When I get a lower result than what my friends expected me to get, I felt really disappointed. Sometimes my friends would playfully say that like "you'll be fine you have probably been up late all night studying!" I know they are only playing but sometimes it's just a little frustrating
	10030	2	Female	I do have quite a few friends but I do feel sometimes that people don't like me and I often feel pressured to do well in school

Factor	ID#	Year in School	Sex	Comment
	10070	5	Female	Felt pressure to constantly succeed or like there was an expectation to always be the best academically but never got much praise or encouragement
	10096	3	Male	People put too much pressure on me to get things right
	10115	4	Female	I feel under a lot of pressure about exams and tests and I sometimes think it makes me do worse
	10353	3	Female	My teachers push me a lot, resulting in me sometimes breaking down.
	10357	3	Female	I stand out. People, particularly my peers, expect me to never be wrong. It is a lot of pressure and can make me stressed or depressed.
	10410	1	Male	Other students often expect that I get everything correct/ high school/grade. I enjoy CTYI because it allows me to meet a lot of great minds and intellectuals.
	10428	2	Female	Teachers & parents often put unnecessary pressure on us.
	10431	3	Female	Everyone in school knows I'm smart but don't really care other than always expecting me to get everything right. It's annoying being in a school where everybody is fairly stupid. They don't care about their education and get in the way of my learning new topics.
	10506	5	Male	It stresses me out that I care more about doing well on tests & studying than my friends do. It really stresses me out when I perform below the high expectations that I have of myself.
	10510	5	Female	People like me for me, mostly not my brain, though I felt great pressure to perform (esp. in JC)
	10532	3	Female	I don't like girls in my school constantly needing to know my grades because I feel bad if they don't do as well as me. Girls always expect me to get so high and roll their eyes at me if I meet their expectations. I'm scared people will think of me differently if I tell them my grades.
	10559	4	Female	I don't have extremely high academic ability. I would not care about this so much, only everyone seems to overestimate my abilities. When my parents, teachers or peers mention how "smart" I am, I feel as though I'm letting them down. This has begun to bleed into other aspects of my life, and now I often find that I am critical of my abilities to do even the simplest of tasks.
	10223	3	.	I was better than the majority of my class but there were two better than me and I was quite worried that I would measure up. I was also under pressure from my family to socialise more.
	10237	3	Female	Classmates expect a lot from me academically.
	10247	3	Female	People make fun of me for using big words. I hate it. People expect me to do amazingly but I can't. People always ask to copy my work and I don't know how to say no.
	10163	1	Female	I get annoyed when people expect me to be perfect at everything

Factor	ID#	Year in School	Sex	Comment
	10120	4	Female	A lot of things only happened in primary school. But I think that is because my secondary school has an academic scholarship programme so people in my school don't really care as much about if someone is gifted. They admire people's talents rather than get jealous and be hurtful. In relation to other people's academic talents I rarely measure others up to myself and how they do academically has no bearing on my feelings. I do however measure myself up to others and am often upset when I don't do as well as I think I should.
	10511	4	Female	I'm just a private and quiet person. I don't talk much to my classmates unless they're good friends (about my achievements). I don't know if they're jealous. My biggest issue is that they sometimes view my level as something good to pass or overtake, like if I don't bother and I get a C, people are surprised and say, "Oh wow I did better."
	10554	2	Female	My friends often expect/predict that I would get high scores on tests.
Adult Expectations				
	10556	2	Female	When people (parents or teachers) expected me to do well it made me work harder and I felt happy that they had expectations of me.
	10450	5	Male	I enjoy helping. I never really care what people think. People have high expectations that I fail to meet often.
	10084	4	Female	I go to a quite academic school, and while others are praised for doing well, for me it is expected.
	10352	3	Female	People just expect you to do well sometimes idk
Helping Expectations				
	10027	3	Female	I like to feel challenged academically, I enjoy people having high standards of me and don't mind showing my academic ability as it is something I am proud of and embrace. I am happy to help classmates who struggle and do not mind them putting high expectations on me as it is a challenge I strive to meet. I never try to hide or feel embarrassed of my academic ability
	10562	2	Female	People copy my work, but I know it's because I will probably get the answers right. People assume that I will get high grades etc. and that makes me feel stressed.
	10048	2	Female	Some people in school hardly speak to me except to ask me for answers
	10245	3	Female	Sometimes I'd be saying something and my friends would stop me and go "Ok. I don't understand." or "English, please." I feel like I am known for being smart. "Of course you didn't find it hard", "Let me look at your homework/ Can you help me do this?/ What do I do?"``
	10213	2	Female	I suffer from Asperger's so I've always found it hard to make friends and understand people's feelings. I have regularly been asked to let someone copy my homework. I feel different from groups at school but in CTYI everyone is friendly and understandable.
	10025	1	Female	I hate when people ask me what I get in tests, they look at me weirdly. I don't tell them because I don't want them to feel bad. I also hate when people ask to copy my homework.

Factor	ID#	Year in School	Sex	Comment
	10215	3	Female	Many times people in my class have tried to copy my work. I never give them the answers. I try to help them through the work while allowing them to do it themselves. I then feel good because I have helped someone understand something
	10457	4	Female	I used to feel like the only reason people would come up and talk to me was because they wanted to copy my homework or ask me how to do something related to school work. I didn't think that they really liked me, or wanted to talk to me. It's alright now though.
Hiding				
	10240	3	Female	Some people just won't like you if you're smart. It makes it easy to be self-deprecating to fit in.
	10110	3	Male	In some groups it's an annoyance to have to use simpler vocabulary and act
	10019	1	Female	I changed my answers to the wrong ones in a Drumcondra test to fit in with my friends (a long time ago)
	10361	2	Female	I used to act like I didn't study because people would laugh at me for it.
	10427	2	Female	I try not to do too well in school so I don't offend/annoy people. I am not the only smart person in my class.
	10532	3	Female	I don't like girls in my school constantly needing to know my grades because I feel bad if they don't do as well as me. Girls always expect me to get so high and roll their eyes at me if I meet their expectations. I'm scared people will think of me differently if I tell them my grades.
	10227	2	Female	I tried to hide my academic abilities so others would not treat me differently. I moved schools in 4th class but before I moved the teacher and students always expected me to study all the time and love homework so I always got extra homework. When I moved school I tried hiding my abilities so I could be like everyone else
	10057	3	Male	Often I don't want to brag if I get good grades because I'm afraid the friends I do have will get annoyed so I often keep quiet. I feel like I'm holding myself back and I hate being isolated when I didn't want to be. That's why I love CTYI because there are so many likeminded people. I can openly be myself and have good conversations with everyone. I don't usually feel pressure from my parents or teachers but I often feel because I usually get good grades that my standards have raised so much I feel I'm disappointing people if I don't do well. People could often say I thought you were smart and it hurts my feelings.
	10519	2	Female	I tend to avoid competition so as to not being comparing myself to others. As well as this, I simultaneously try to hide myself and show myself off (in school, academically) so as to receive more challenge, but privately, with us ~competition~ from others (e.g., spelling bee) is not a "fun" challenge.
	10577	2	Female	I feel like a 'misfit' at school and I have a few friends, and when I talk to them, I have to 'dumb down.' Whenever I get good scores I try to hide them, but the other students find out anyway. I am envied for this but I feel horrible as I am treated very differently, like an outsider.
	10164	3	Female	I basically suppressed my abilities from 3rd class until 2nd year

Factor	ID#	Year in School	Sex	Comment
More Serious				
	10095	3	Female	I feel like my experiences were very different to a good few of the questions as my grades aren't the best, I'm just mature and a lot of the time I get annoyed at all the stupid drama school friends were creating but that's the extent of it.
	10300	4	Male	I have never cared about anyone's feelings or opinions of me regarding my ability academically or physically because those people lack any trait I value and are essentially useless
	10039	1	Male	Being so smart leads to power, and with power comes greed. Many of my classmates were jealous of my academic abilities and used to bully me quite a bit. Eventually they were used to it and didn't mind it.
	10431	3	Female	Everyone in school knows I'm smart but don't really care other than always expecting me to get everything right. It's annoying being in a school where everybody is fairly stupid. They don't care about their education and get in the way of my learning new topics.
	10448	4	Male	I've never been good at socializing but I'm getting better. I generally don't care what others think about me, they all have relationships and go to discos, but I don't do that stuff.
	10268	5	Female	Although I have had experiences with jealous students since primary school, as a whole, I have had good experiences with the vast majority of students. I have struggled with jealous students all my life. I'd be much harder on myself and my grades than any of my teachers or my parents.
	10026	2	Female	People copy homework A LOT. And they (immediately after we get tests results back) ask me what I got, and assume that I spend my life studying, when really I just retain information rather easily, and actually enjoy school/homework/learning. If I get an A, they judge. If I get a B, they also judge. It's like they can't handle me doing good nor bad. School is sometimes annoying because we have to go at a slow pace sometimes, and it gets boring having to repeat simple concepts. That's why CTYI is so good - learning is intense and work is challenging (a dream come true compared to real school! :))
Peer Rejection				
	10253	2	Female	I don't really like sharing my scores because I don't think it adds or subtracts from anything, from who I am, and I know others do care and I don't want to make them feel bad
	10077	6	Male	Lack of interests in common leads to social isolation
	10048	2	Female	Some people in school hardly speak to me except to ask me for answers
	10575	3	Female	Sometimes people treat me differently because I'm intelligent. They don't accept me in their circle.
	10112	5	Male	Certain other students become enraged at me, become aggressive over envy of my academic ability
	10019	1	Female	I changed my answers to the wrong ones in a Drumcondra test to fit in with my friends (a long time ago)
	10106	3	Male	Being sporty I was able to be more socially in tune than others of my academic ability

Factor	ID#	Year in School	Sex	Comment
	10229	3	Male	Other people treat you like you are different and make fun of you.
	10030	2	Female	I do have quite a few friends but I do feel sometimes that people don't like me and I often feel pressured to do well in school
	10324	2	Male	Yes; outcast in school, focuses energy on dreams and wishes, most friends are close, few acquaints
	10230	2	Female	I won a maths competition and everyone was talking about me badly and being jealous, until they heard the prize was only a maths book.
	10361	2	Female	I used to act like I didn't study because people would laugh at me for it.
	10102	3	Male	I went to a very small primary school where I was bullied a lot and had no friends but my social skills have been getting better
	10287	6	Male	School is depressing and lonely. 5th year was a totally exhausting experience.
	10205	2	Female	I am often criticised for enjoying learning
	10240	3	Female	Some people just won't like you if you're smart. It makes it easy to be self-deprecating to fit in.
	10409	3	Male	The Centre for Talented Youth, Ireland has relieved a lot of the worries pertaining to the social aspects. It allowed me to connect with other intellectuals of the same age. Ergo, I have a lot more likeminded individuals in my proverbial phonebook.
	10577	2	Female	I feel like a 'misfit' at school and I have a few friends, and when I talk to them, I have to 'dumb down.' Whenever I get good scores I try to hide them, but the other students find out anyway. I am envied for this but I feel horrible as I am treated very differently, like an outsider.
	10058	2	Male	It socially isolates you to be better at something no one cares about
	10059	5	Male	if you want to fit in you have to be not too smart or too stupid - not in ctyi
All Good				
	10027	3	Female	I like to feel challenged academically, I enjoy people having high standards of me and don't mind showing my academic ability as it is something I am proud of and embrace. I am happy to help classmates who struggle and do not mind them putting high expectations on me as it is a challenge I strive to meet. I never try to hide or feel embarrassed of my academic ability
	10097	3	Male	In school I am not ignored for my intelligence nor am I crowded by other students with questions. I am treated like everyone else and am happy with that.
	10211	4	Female	Like it's grand. Most things happen that may be good or sad but like so, it's fine.
	10254	2	Female	No one cares about grades in my school and no one gets upset about them.
	10261	5	Female	I usually don't care what other people think about my abilities and so I don't know what they think. Most of my friends are just as smart as me.
	10288	5	Female	Why is this all so stereotypical. My social interactions are fairly normal and uninteresting.
	10505	4	Male	So, none of these events taking place alter my mental state in any way. I've accepted them as a part of everyday life. It would be asinine to allow so many variables to make me feel any different, as then I would have to want to make others feel and act differently towards me, which is a fruitless endeavor.
	10419	4	Male	I don't like other people feeling bad because of me. I like feeling smart.
	10556	2	Female	When people (parents or teachers) expected me to do well it made me work harder and I felt happy that they had expectations of me.
	10246	2	Female	School is fun most of the time.
	10080	5	Male	Nobody really cared, like either about your work or study or you don't care. I go to a school with very little emphasis on academics. There's great teachers and high results, but about a third of students do LCA
	10388	5	Male	I don't care bro, got 'em.
	10496	3	Female	I am fine in school and I have a normal experience there. It is nice to come to CTYI to be around people like me.

Peer Relationships During the COVID-19 Pandemic

In 2020, Irish students – and most students around the world – had strictly curtailed social experiences with peers. Most students attended online school. For the majority, this was their first experience with virtual schooling. "Schools are," Tracy Cross says, "first and foremost a social enterprise, where some academic learning goes on" (2018; p. 184). What would that social enterprise be like among CTYI students in online school? Sixteen Irish students (88% female) participated in interviews designed to explore the social experience of online learning during the pandemic. When school was totally online, these students had very little interaction with peers. During school, many peers kept their video off, so students could often not see one another in class. The experience of online classes overall was different, "I think when you're in person you'll tend to like ask questions. When you have to go through the trouble of like turning your mic on and like putting your hand up, people just wouldn't, so the classes were very like silent. Some classes had like a different atmosphere to them" (6th Year Female, #2111). Some students saw only the teacher during the time their classes were online. When asked if classmates were more or less friendly in online school, one student responded, "They were mute in online school" (5th Year Male, #2113).

The effects of social comparison were different in online school. It was not even possible at times to know how another student was doing. In in-person school, body language could be a clue to whether a classmate needed help, but this clue was not accessible when school was online.

> ***"To be honest, you couldn't tell. I mean, like I said, some people weren't even on their computers and if their camera is off you really couldn't tell. And even if their cameras are on everybody has this like mutual blank expression where they just like stare off into the middle distance. That could be going in one ear and out the other or they could be understanding everything, or they could be understanding nothing because the breakout rooms were kind of few and far between a little bit scattered."***
>
> ***(5th Year Female)***

In contrast to the frequency of the Top of Class experience in person, it was also not possible for other students to know how well the CTYI students were doing. The stigma of giftedness and the social comparisons that underpin some of the threatening interactions students responded to with coping strategies simply did not happen in online school. Cameras and microphones off and few personal interactions, made for a comparatively sterile social environment.

Some students made opportunities to engage with peers outside of class, through texting, setting up their own online social groups, or joining in others' groups for activities such as online baking. Remote school may have been a place for introverts to flourish. The CTYI students interviewed were mixed on whether the year of online school during the pandemic was a lonely one. Ten of the sixteen said it was not. They maintained connections to friends ("I was able to talk with my friends. I found the ground." [5th Year Female]) or stayed active with extracurriculars:

> ***To be honest, I had like loads of things to keep me occupied. Because, like I have a book buying addiction and I need to finish the books that I've already bought, and like, I already have like lots of things on my to do list anyway. It was like, oh, learn how to skateboard and learn how to do anatomy or paint.***
>
> ***(3rd Year Female, #2115)***

Families also kept students from being lonely, "I would not say it was lonely because we have a big house - 6 people. So, no it wouldn't be lonely. So one of my sisters is real close in age and we get along very well. So definitely no, it wouldn't be lonely" (5th Year Female, #2102). Other students felt very lonely, even those who had made friends.

One positive outcome of this social isolation was that not a single student saw evidence of bullying while students were attending school remotely. There was no opportunity for this kind of negative interaction while schools dealt with the early stages of the COVID-19 pandemic. How these unusual experiences may affect the lives of high-ability students in the future remains to be seen.

Family Relationships

Relationships with parents and siblings are integral to CTYI students' well-being. Nearly all students in the studies of self-concept had positive perceptions of their relationship with parents, especially the primary students. On average, they agreed that their parents understand them, they get along well, and that "If I have children of my own, I want to bring them up like my parents raised me." When asked not just how well they like their parents or feel understood, but how well can they get their support when they need it, most students had high confidence they could get their parents to help with a problem or to take part in school activities. Students in the Overcontroller personality class (*high Neuroticism, low Extraversion*) consistently were least confident, however, and Resilient students were consistently most confident. Siblings can also be a resource when needed, but students in all personality classes were less confident of their support. Positive attitudes about parent relationships were related to positive attitudes toward school.

An inability to get help from parents may be an indication of overly busy parents or, perhaps, of low responsiveness in an authoritarian or neglecting parenting style. In any case, when a child does not perceive support from parents there may be negative outcomes. Forty-three percent of students in the Overcontroller personality class believed they could not get help from their parents when needed. To support these students, it may be important to provide a stable source of responsiveness. Social connections outside the family can also fulfill belonging needs. Four out of 10 students in the Undercontroller personality class (gregarious, disagreeable) did not think they could get help from siblings when they needed it, while 16% believed they could do so "Very Well." Although the majority of these Undercontroller students were quite confident their parents would be responsive to their needs, 20% of Undercontrollers did not believe they could get help from parents when needed.

Chapter 4

The Academic Experience of Irish Gifted Students

Gifted students usually enter school ready to learn, but schools are not always prepared to provide what they need (Coleman et al., 2015). Schools tend to be focused on the needs of the average students, who are, by definition, the majority of the student population.

Adams (2021) describes effective programs as having "the following clearly articulated elements: a philosophy, goals, a definition, an identification plan, a coherent curriculum, a scope and sequence, a professional development plan, and an evaluation plan" (p. 128). With appropriate administrative support and resources, such a program can provide the advanced curriculum needed for many gifted students. A new movement in the field of gifted education proposes an emphasis on talent development, a focus on developing talents in a specific domain, rather than creating general programs to serve all students at an advanced level. In their School-Based Conception of Giftedness and Talent Development, T. Cross and Cross (2021) go beyond programs to recommend a whole-school focus on the development of talent among all students, not only those identified as gifted. In this conception, all students receive opportunities to learn at an advanced level. Those who are successful and interested in the subject area are given the supports and resources they need to continue developing in that area, resulting in a motivated student who can learn at their own pace. The nascent stage of gifted education in Ireland suggests this may be a time when adopting a talent development model is possible.

The type of instruction that is most effective for gifted learners is not entirely different from what is effective for all students. What is known to be effective for all students is also known to be effective with gifted students, but there are critical differences. Gifted students need curriculum that is more challenging than that for average students, offered at a pace that matches their rate of learning (Tomlinson, 2005). They need advanced materials, and many prefer more abstract content and tasks than their peers. The ability to pursue topics of interest more broadly and deeply will satisfy their desire to learn in-depth, supporting their motivation in school. Many schools seek to cater for gifted students through *curriculum differentiation*. When differentiation is the framework for providing gifted education, teachers learn what their students already know through pre-assessments, then offer instruction at an appropriate level to groups or individual students in the same classroom. Effective curriculum differentiation requires a commitment of time and resources. Without strong support for teacher training, time for planning, and materials or assistance needed to teach a variety of lessons, differentiation will not be successful as a means of serving high-ability students (Hertberg-Davis, 2009).

Another effective method of providing the advanced instruction gifted students need is through acceleration. Grade-skipping is the form of acceleration that is best known, but there are actually many forms. Southern and Jones (2015) describe 20 different types, including grade-skipping, but also subject-matter acceleration, curriculum compacting, and concurrent/dual enrollment, for example. All of these practices, including grade-skipping, have been found to be very effective. Although grade-skipping is often avoided for fears of causing social and emotional harm to the accelerated student, research evidence supports the opposite: gains for students both academically and in the social/emotional realm (Rogers, 2015).

Gifted Education in Irish Schools

In a 2014 study of more than 800 Irish teachers, school leaders, and other staff from across the country (J. Cross et al., 2014), 73.4% of respondents reported that grade acceleration was not allowed in their school. Most teachers indicated they were differentiating their instruction for high-ability students, which they described as doing a few times per week through asking higher level questions, offering more challenging tasks and individual projects, and grouping students by ability level. A closer analysis of the teachers' reported practices (Hinch et al., 2018) focused on only those that were likely to be exclusively beneficial to students with high ability:

- assigning reading of more advanced level work,
- eliminating curricular material that students have mastered,
- and substituting different assignments for students who have mastered regular classroom work.

The number of teachers who reported regularly engaging in all three of these practices with gifted students, but not average students – actual differentiation – was only 3% of the total number of teachers. When teachers do not assign advanced level work, eliminate mastered material, and substitute different assignments when the work has been mastered, their gifted students will be receiving inadequate instruction.

A study of 1,440 parents about their 1,914 children who had attended CTYI (J. Cross, Cross et al., 2019) found a majority reported their children were happy in school (63.2%) and liked it (56.1%), but most parents (72.1%) were dissatisfied with their child's educational experiences. They did not believe their CTYI-attending children were being challenged in school. They reported more than half of the children (54.5%) were not receiving assignments targeting their ability level. Parents of 71% of the secondary students reported they never received more challenging or complex assignments than their classmates. Although 85% of teachers reported they were differentiating the curriculum for their high-ability learners (J. Cross et al., 2014), this study of parents suggests that figure was not representative of the experience of high-ability students across Ireland.

Beliefs about Academic Abilities

In general, CTYI students in these studies were confident in their academic abilities. Primary students, in particular, saw themselves as good at reading and mathematics. All students considered their reading abilities to be strong. In an examination of CTYI students' self-efficacy for learning in math, science, and humanities (O'Reilly et al., 2018), the majority of students had high self-efficacy in all subject areas (46%), one subset (35%) had high confidence in their mathematics abilities, but low confidence in the other humanities-related subjects. CTYI students in the smallest subset (19%) lacked confidence in math, but were quite confident in science and the humanities. Despite an average high confidence level, not all CTYI students will be confident in all subject areas.

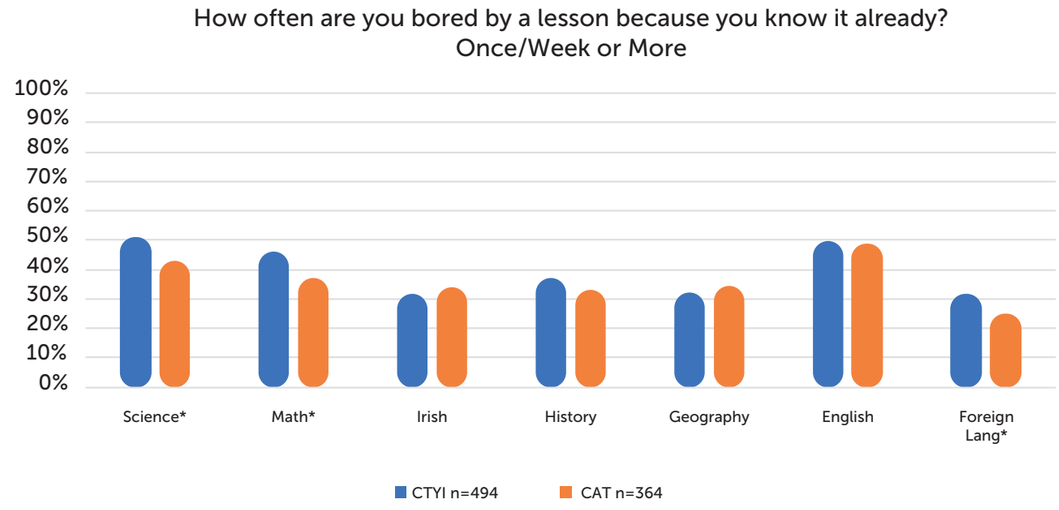
Irish Gifted Students' Experience of Differentiation and Boredom in the Classroom

Gifted students "have a right to learn something new every day" (Siegle, 2007). Waiting for others to learn material they already know is a common experience that can lead to boredom, frustration, underachievement, or even dropping out of school altogether. Curricular differentiation eliminates waiting by addressing students' different needs for pacing, complexity, and challenge.

CTYI students reported infrequently being given differentiated lessons – lessons more challenging or more complex than the assignments of their peers. A majority of CTYI and CAT students reported rarely or never receiving differentiated lessons in their classes. It is possible that teachers provide differentiated assignments in a manner that is not obvious to students, but it would be difficult for them to not be aware so much of the time. Considering that nearly 85% of Irish secondary teachers reported they differentiate lessons for their high ability students (J. Cross et al., 2014), there appears to be a significant disconnect.

A regular concern among educators in gifted education is that their exceptionally able students will be bored by repetitive lessons aimed at their more average ability peers. According to students in Kanevsky and Keighley's (2003) study of gifted high school dropouts, "(1) learning is the opposite of boredom, and (2) learning is the antidote to boredom" (p. 20). Among approximately half of CTYI students, boredom was most likely to occur from once a week to daily in their science, math, or English classes (see Figure 4.1). CAT students reported less frequent boredom in science and math classes, but a similar frequency of boredom in English. Irish and foreign language classes were less likely to be boring due to already knowing the material. These frequencies align with parents' reports of children being frequently unchallenged in school, a major source of dissatisfaction with their children's education (J. Cross, Cross et al., 2019). The picture painted in these studies of CTYI and CAT students is of infrequent differentiation, with quite a bit of redundancy in lessons.

Figure 4.1
Percent of CTYI and CAT Students Reporting Once/Week or More Frequently Being Bored Because They Know Lesson



*CTYI and CAT differ, $p < .05$

CTYI Students Speak About Their Education

To learn more about CTYI students' experiences of school, twelve CTYI students (50% female) were interviewed in the summer of 2019. In general, the interviews confirmed the findings of the 2015 and 2016 studies: Students rarely receive differentiated lessons and are often bored in school. Several students gave examples of differentiation, of excellent teachers, and of a positive academic experience. Nearly all students, however, described being bored, having poor teachers or an unstimulating curriculum. Peers were an important feature of their school lives. Friends were frequently named first when asked what they think about when they think of school. As we saw in their survey responses, sometimes peers do get in the way of their learning. CTYI students have varied reactions to their peers' slower learning, but in this study, they primarily viewed a deficient education as a result of curricular, teaching, or logistical breakdowns.

CTYI was a welcome change from school. One student was eloquent in his metaphorical description of the difference:

Sometimes it feels like when you're in school it's... Compared to here [CTYI], when I'm here it feels like I'm swimming in an ocean and you get this really hard wave coming at you and you have to really challenge yourself to get through it. But once you get through it, you've got the sort of nice atmospheric like relaxation where it's swaying, you can smell the seaweed and the salt. You can taste it in your mouth. It's a really nice moment. Where the education system is like a swimming pool. It's just easy the entire way through. No challenge, but then there's the stench of chlorine and almost as though nothing's... It doesn't feel very... It feels almost surreal or, yeah, it doesn't feel natural.

(M6)

Theme	Comment	Subtheme
Enjoyable Learning	I love science. I think we were learning about atomic structure and I was learning about the different subatomic particles, how everything interacts with each other, how different bonds form. And I found that very interesting.... I love language class as well. We were learning about, I think German in general. I find it very interesting. I'm rarely bored in German. There's always something new to learn. New prepositions, sentence structure. (F5)	Novelty
	Well in maths, when we were doing, it was some, it was algebraic fractions. I kind of at the start I didn't really understand them that much, so I felt it kind of challenging and I kind of liked that, because usually in maths I find it quite easy, and I kind of grasp it immediately. But then this time, I just couldn't seem to grasp it straight off the bat. So I kind of liked doing that because I felt that it was more of a challenge and I got to work more and I wasn't just bored of doing stuff. (F4)	Challenging
	I really loved my science classes in second and third year. Because my teacher obviously really loved what she was doing. (F3)	Teacher
	Well, I think TY is actually a pretty good example because there wasn't much traditional classroom setting. So, there was an opportunity to actually leave school and attend other programs, and I did do that, and I worked with Concern for about a week, the charity, just learning what they do there, and that was really good. That was a really enjoyable learning experience. (F6)	TY
Not Learning	I guess sometimes I may have to revise things, but if I kind of know them inside already, obviously I wouldn't be learning too much there. And in Irish as well actually. I've been in a Gaelscoil since like...I went to an Irish primary school, so a lot of the stuff that we touch on in Irish is like the back of my hand kind of a thing. (M5)	Prior knowledge
	A lot of the time in Irish. Yeah, and also in English our teacher kind of drags on. She will read one thing and then and then go on a big rant about it. I'm just sitting there like, "We don't need to know this." And she takes ages doing something so you get bored in what you're doing. We took months to read a book and you got bored of it, you know? When the teacher drags stuff out or it's just always talking, you have to listen and listen. (F2)	Teacher
	Sometimes, particularly in science and business, my teachers, they kind of like go very slow through what we're doing on. It kind of gets quite boring because they kind of need to repeat everything multiple times and maybe we'd even, I can remember we were doing the circulatory system, and we took, like it was a short enough chapter, and then we took like, I think it was three or four weeks to get it all done. And it just felt kind of boring because it was very repetitive, and it was basically the same thing that they were saying all the time. (F4)	Pacing
	There are also times where there are other people in the class who just aren't paying attention, and it's forcing us to, say on maybe a second or third day, go over a certain topic again and again. I find that incredibly boring. (M3)	Peers
	Our primary school covered a lot of Irish, way more Irish than most primary schools that my friends have been to. I don't find Irish particularly interesting, but I learn it because I have to. But a lot of the times in Irish class or in math class, I find myself doing nothing, kind of doodling in my sketch book. (F5)	Irish class

Theme	Comment	Subtheme
Challenge	I suppose if I have to actually think about something and work my way through it as opposed to just rote learning or this kind of copy and paste or just waffling. If I have to actually apply myself and use my brain. (F3)	Requires thinking
	Challenge is something I would associate with skill more so than anything. (M5)	Requires skill
	Almost every subject will present some sort of challenge, some more than others, like math and English, I think, will present bigger challenges, and geography, at least for the junior cert course, is always been easy. (M1)	Subject specific
	I'd say half and half as some subjects... Yeah, a lot of the subjects that are science lessons, the actual classes themselves, I don't feel very challenged in them. The history classes, I don't ever feel the challenge. I enjoy them because it's something that I'm interested in. But I don't feel challenged in them necessarily. (M6)	
Going in depth	I find science, I absolutely love it, but the teacher doesn't go as fast or as in-depth as I would like her to. So, a lot of science I find myself staring blankly at the board or doodling while the teacher's explaining something to the rest of the class and I've already got it down. I already understand it. Sometimes when I go home I would research more about it to learn more because if I find, especially the atomic structure, I will research more and learn more because I want to learn more. (F5)	Doesn't happen
	Especially, I think, in science, they don't go nearly as in-depth because what they've done is, now we've junior cert and junior cycle, because the courses changed. They didn't change it all at once, so some subjects have changed and some haven't. Science, for me, I was the first year of the new junior cycle, so they completely changed the course. One thing, what they've done is they've dumbed it down, basically, because a lot of people were struggling with science. They decided let's make it really, really, really simple. You'll have to learn loads of different topics, but you'll only need to know this much, just scratch the surface. Whereas, I'd rather do core topics that you need to know but go in-depth with them. If you read our science book, you'd probably cry. It's horrible. They only teach you about three or four organelles in a plant cell, when coming to CTY, you know that there's way more. They won't tell you that. (F1)	
	I think I like going in depth things, in depth with things, particularly in subjects like history, or geography, or science, or business. I mean because you kind of... it kind of feels easier to understand why it's happening. Like, say in science, for example, like reactions or something. Like if you just go over the very basics, you're like, "Why is that happening?" But then when they go much more in depth it's kind of easier to understand it. (F4)	Helps with learning

Theme	Comment	Subtheme
Good teachers	I think one really important thing is they command respect, that they don't have to be a certain way in order for you to listen to them and to follow the rules, how they want you to act, and to be liked at the same time. I think that's really important when they have to teach you something. (M3)	High expectations
	She does actually want you to learn and if you don't do well, she does get a bit disappointed in you. I've always got on well with her and I've always had her as a maths teacher so I've liked her as a teacher. (F3)	
	I suppose I'd define a good teacher as a teacher who can teach the lesson effectively and keep the class engaged, you know? If teacher is boring, then it's their fault if the kids don't listen. They have to hold them. (M5)	Interesting
	She definitely was strict, but she knew how to teach. She would explain things to us, go over them, she would quiz us, she would make sure that every single person in the class knew what she was talking about. I don't have a lot of teachers that do that. I find that that's a really good teacher. She explains things in terms, breaks everything down. She goes quite in-depth, as well. I like her. She jokes quite a bit and she jumps around quite a bit. (F5)	
	A teacher that values the efforts you put into their class and a teacher that values enthusiasm as well as knowledge. Also a teacher that can be open with people. Yeah, and a teacher that doesn't try and hold you back or a teacher that doesn't try and restrain your learning. (M6)	Accommodating
	Well probably like someone that they kind of say, "Oh." That they kind of understand that some... They'd understand that everyone works at different paces and they'd be able to facilitate both people who would be slower at grasping concepts and those who would be quicker. (F4)	
Bad teaching	And she takes ages doing something so you get bored in what's you're doing. We took months to read a book and you got bored of it, you know? When the teacher drags stuff out or it's just always talking, you have to listen and listen (F2)	Boring
	my history teacher, I remember he told us a few things that were just kind of wrong. Like, I remember I'd look in the history book and just be ... You want one who knows the right answer. (M5)	Incompetent
	She doesn't explain things as well as much as she should. She is very adamant about her particular style of learning, and tries to push that onto the class, which tends to be write out of many pages of notes. Read, write again. (M1)	Poor strategies
	This year, like higher level history, I think we watched like seven or eight movies all year, but that would be considered education. He'd be like, "So today we're moving on to teaching of about 1960, and here's a Michael Collins documentary, or here's a Michael Collins movie," whereas no one's going to be able to sit down and watch a movie and take in the facts. They have to be taught, I would say anyway. So that style of teaching is just not viable. (M4)	

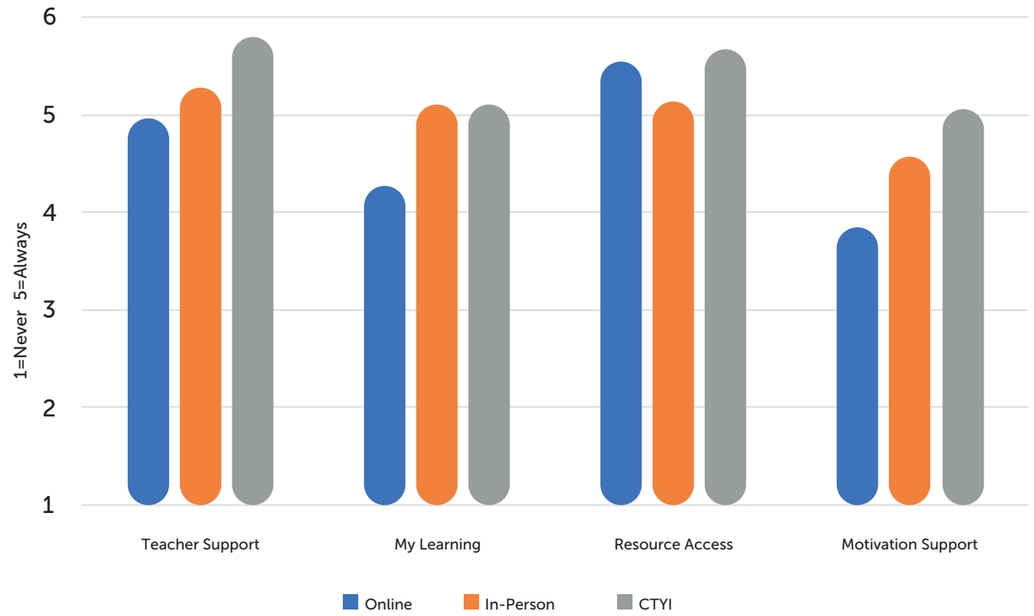
Theme	Comment	Subtheme
Boredom	I often find in school that I'm learning about things I already know or that a teacher dwells too long on a certain subject and I'm bored because I already understand it and the other students don't. (F5)	Already know it
	It's more so bored because of the delivery of the lesson, not more because I know it already. (F2)	Teaching style
	Yeah, science, history, English. French sometimes. Maths. They'd be subjects where, yeah... Especially in science and history, I can get quite bored in subjects and I will say to myself... Like sometimes when I'm in science I get so bored I will get in trouble for simply talking to my friend or for doing something like that. But I just don't see the appeal in learning about the respiratory system for the seventh time in the last term. ...There's a good few subjects I would feel bored in because we've covered it before. (M6).	Subject specific
	But then there are also times where there are other people in the class who are just aren't paying attention, and it's forcing us to, say on maybe a second or third day, go over a certain topic again and again. I find that incredibly boring. (M4)	Other students
Climate	I find the whole environment of my school is not something I particularly want to be a part of. It was the school nearest to me, so I'm going there. Like I said, with the teachers, you don't particularly feel included and with a lot of student life. It can be quite difficult because there's just a lot of people who aren't particularly focused on school, we'll say. (M4)	Nonacademic
	I think of people being loud and obnoxious. I suppose I read a lot in school, as well. (M5)	
	I like the social aspect of school and then some classes as well. Not all of them. Generally positive like... There's just a friendly atmosphere. (F3)	Good social experience
	I think most of the time the education part of school just kind of goes by in a blur, and it's only really the socializing that I remember. Because socializing, I mean every day it's something new. Learning, not all the time. (F5)	

Academic Experiences During the COVID-19 Pandemic

A dramatic shift in CTYI students' experience of school occurred in the spring of 2020. The emergence of the COVID-19 virus led to the shuttering of businesses, travel, and schools. During the pandemic, most education across Ireland and the world moved to a virtual platform, at least for some period of time. School was likely to be very different for CTYI students, not just socially, as described in Chapter 3, but also academically. In the summer of 2021, CTYI was fully in session, with all courses offered virtually. Students had been in virtual school early in the pandemic, but most students had moved to in-person school by this time. We took this opportunity to ask CTYI students about their pandemic-era educational experiences. What were their experiences like in online school, in in-person classes, and how was that different from their experiences of CTYI's online courses? More than 300 students participated in the online survey in the summer of 2021.

CTYI students reported that teachers more frequently made time for students' questions (the Teacher Support factor; see Figure 4.2) in in-person classes than online. Teachers more frequently motivated their students and classes were more interesting, challenging, and fun (the Motivation Support factor) in in-person classes than in online classes. Students more regularly believed they could work at a higher level and keep up with their learning, or manage their time (the My Learning factor) when in-person than online. In contrast to these more positive in-person experiences, students reported they were better able to access a computer or the internet when needed in online than in in-person classes. In general, however, CTYI students perceived a better learning environment in their in-person classes, with the possible exception of computer access in school. CTYI's virtual classes had even greater teacher availability and support for students' motivation than in-person classes.

Figure 4.2
Online, In-Person, and CTYI Factor Mean Scores (2021a CTYI Students)



Chapter 5

International Comparisons

In 2017, partners in two countries were interested in collaborating on the research being conducted at CTYI – the Center for Talented Youth-Greece (CTYG), at Anatolia College in Thessalonika, and the Jagadis Bose National Science Talent Search (JBNS) in Kolkata. CTYG employs a definition similar to CTYI, accepting students scoring in the 95th percentile on a standardized ability test.

JBNS participants were attending the Talent Search and Innovation in Science Pursuit for Inspired Research (INSPIRE) programs. Admission to the programs requires a top 1% score on the national board examinations or through aptitude testing and interviews. The survey used in the 2015 study was modified for the Greek and Indian contexts and data was collected in 2017 and 2018.

The CTYG students were evenly divided by gender (50.7% female). The majority of JBNS students were male (63.5%). Students in the JBNS sample were almost exclusively in the grade equivalent of 5th Year, whereas CTYG students were nearly all 1st through 3rd year. The comparison CTYI and CAT samples were more evenly distributed among males and females and by Junior and Senior cycle.

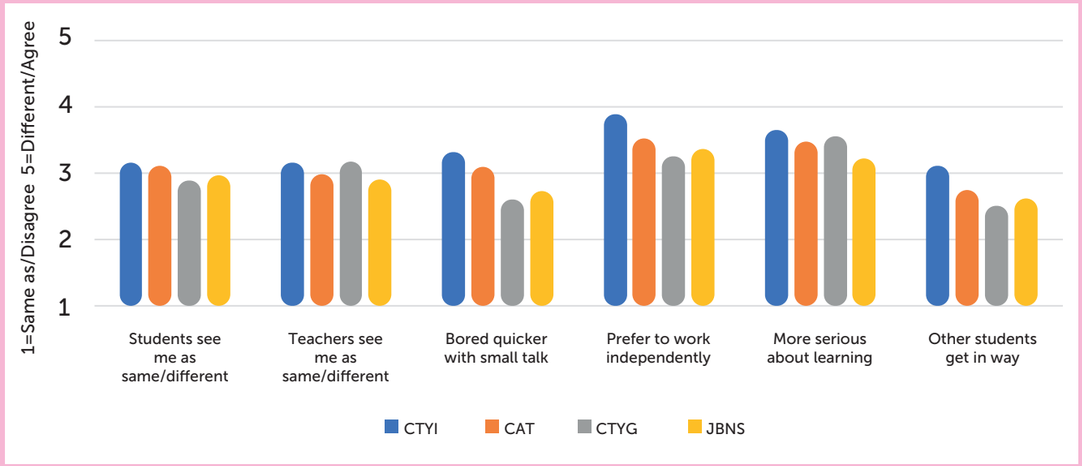
Cross-Cultural Psychology Differences

The personality measure was not available for CTYG students, but JBNS students could be compared with Irish students on the personality measure. The three samples – CTYI, CAT, and JBNS – were similar in Conscientiousness, Neuroticism, and Openness. JBNS students were more extraverted and more agreeable than CTYI students. Self-efficacy scores were available for all four samples. CTYG students, who tended to be younger than the students in the other countries, had self-efficacy scores that were consistently higher than the Irish students' scores, with the exception of self-efficacy to Resist Peer Pressure. JBNS students tended to have lower self-efficacy scores than CTYI and CAT students, but they were similar to CAT students in their Social and Self-Regulated Learning self-efficacy. Implicit Person Theory was similar among the four groups. All had median scores bordering on a fixed mindset, hovering around a 3. All scores were closer to an incremental mindset than a fixed one.

Cross-Cultural Social Differences

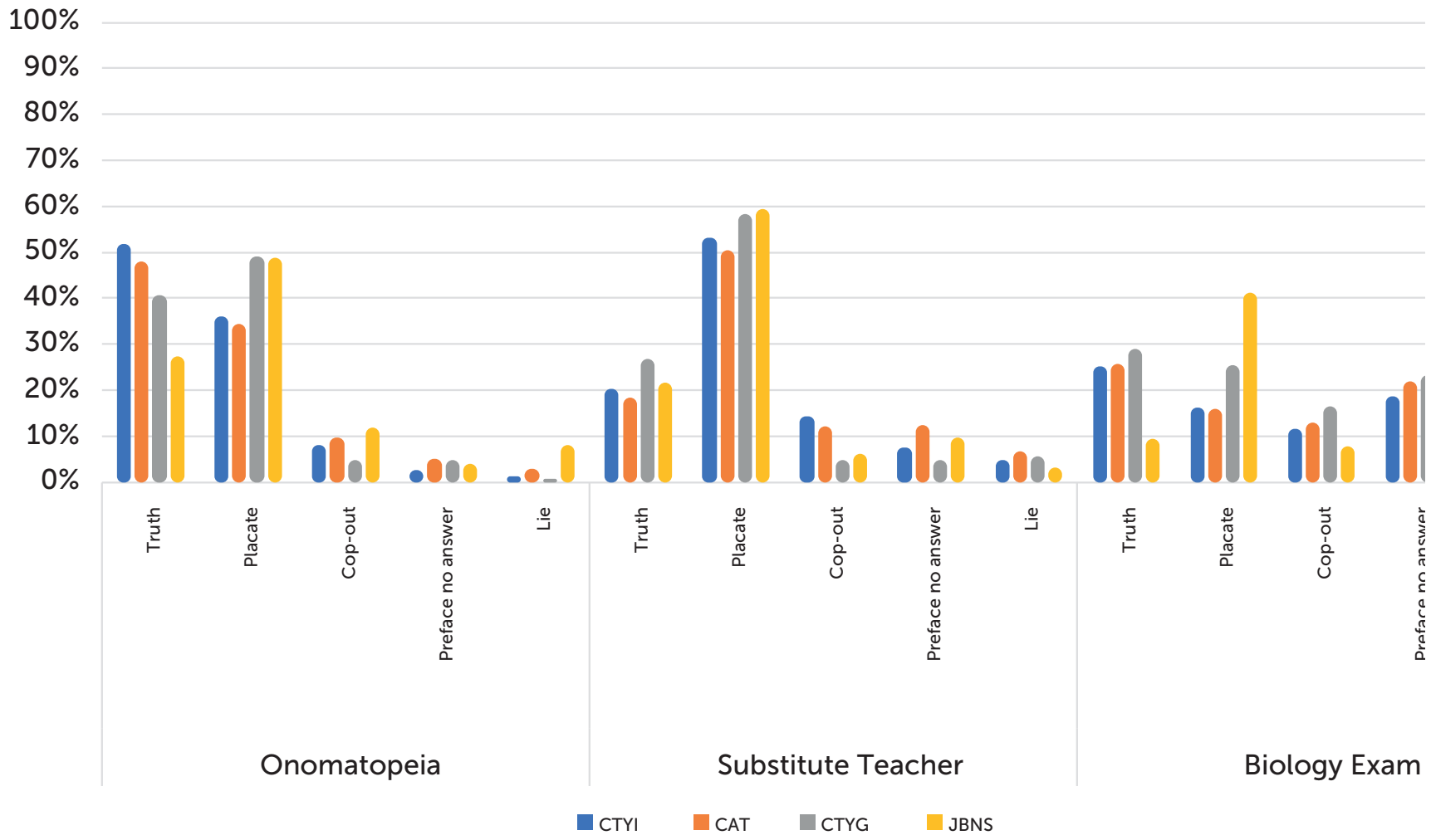
Students in the four countries varied most in their social cognitive beliefs (Figure 5.1) and response to the scenarios (Figure 5.2). CTYI students had a notably high preference for working independently and higher agreement that other students get in the way of their learning. CTYG and JBNS students were less likely to agree they get more quickly bored with small talk than peers or that other students get in the way of their learning. All students agree at least somewhat that they are more serious about learning and prefer to work independently.

Figure 5.1
Social Cognitive Beliefs Item Mean Scores by Program



The variability of responses to the scenarios, which carried different threats of exposure of their giftedness (see Chapter 3), followed the same pattern in all four programs (Figure 5.2). There was more truth-telling and placating in the two scenarios with lower threat, Onomatopoeia and Substitute Teacher. As in other studies of the scenarios, there was a greater spread of responses along the spectrum for the Biology Exam scenario. JBNS and CTYG students preferred the Placate response when the threat was low for their giftedness to be exposed, whereas only about one third of Irish students chose Placate. JBNS students were more likely than the other students to choose the Lie option for the low threat scenario. In the high-threat Biology Exam scenario, fewer JBNS students than expected chose more truthful options, preferring the Preface no answer option. JBNS students were less likely to choose Lie than CTYI and CAT students (13.7% vs 28.4% and 23.5%, respectively). Very few of the CTYG students (5.5%) chose the Lie option in the Biology Exam scenario.

Figure 5.2
Scenario Responses by Program



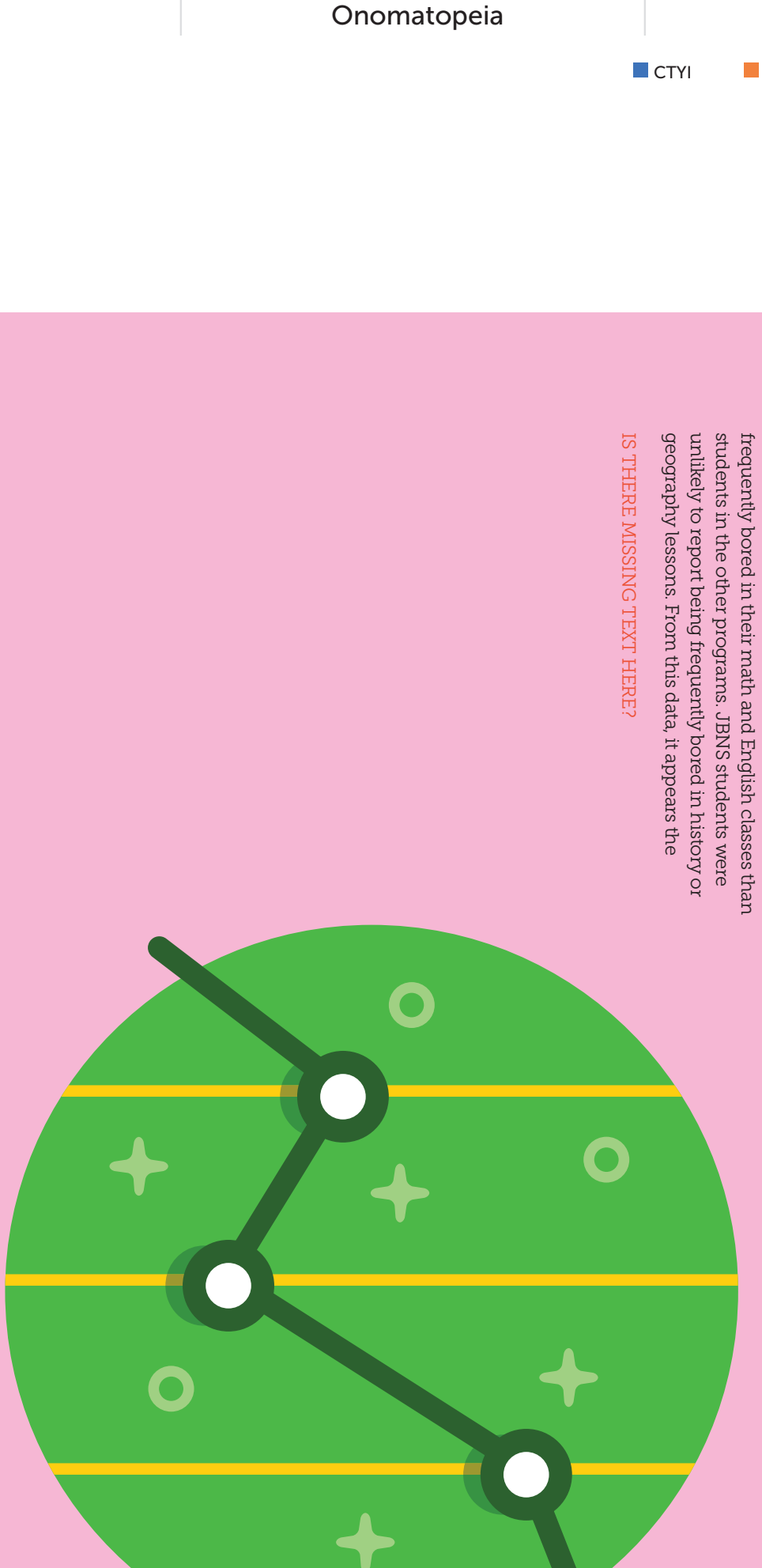
There may be cultural reasons for these differences, but development may also play a role. The younger CTYG students may not yet have faced situations where more truthful answers negatively affect their social latitude. The higher agreeableness among JBNS students may explain their preference for avoiding the truth, which may be hurtful for their peers to hear.

Ostracism scores were similar among CTYI, CAT, and JBNS students, but CTYG students reported being less ostracized. CTYG students felt less ignored and excluded from their peers than did the students in the other countries. This pattern held true even when comparing the younger sample of CTYG students with the same-aged students in the CTYI and CAT programs.

Cross-Cultural Differences in School Experiences

Students in Ireland were more likely than students in the other two countries to report that their assignments were rarely or never differentiated to target their ability level. JBNS students indicated they more regularly received differentiated assignments. Students in all programs reported being bored once a week or more often in their science classes. CTYG students were more frequently bored in their math and English classes than students in the other programs. JBNS students were unlikely to report being frequently bored in history or geography lessons. From this data, it appears the

IS THERE MISSING TEXT HERE?



Chapter 6

Recommendations and Conclusion

The research described in this report has the potential to affect Irish gifted students' well-being and improve the opportunities for the maximization of their potential. When we better understand their psychology and their social and academic experiences, we have an opportunity to strengthen their foundations of support at home and in school.

It is of paramount importance that others do not view them as monolithic, fitting a stereotype developed from media portrayals or experience with a few outliers recognizable for their intellectual talents. There is great diversity in this population, but the exceptional abilities they share may result in similar experiences in their environments. Attention to their internal differences and the effects these may have on their lived experiences can help adults fashion supportive environments.

Supporting CTYI Students Psychologically

The personality types identified among CTYI students are similar to those found in the general population, although the finding of a High Resilient group is a significant difference, as is the higher conscientiousness among students in the Undercontroller class. Personality is considered stable, but it is not impervious to change. In fact, studies have found less stability among adolescents, with truly stable personality occurring only in one's 40's. The CTYI students in our study may have a different personality profile as they mature. The majority of students fit the resilient type and will be able to adapt to most settings.

Gifted adolescents in general tend to be less extraverted than their typical peers. The CTYI students who are more introverted will flourish in calm, small-group settings that attend to their introversion by reducing irritating stimuli. Those who tend to be less emotionally stable (high neuroticism) will benefit when others encourage their resilience through caring and supportive messaging. Professional counseling may be needed to help the Overcontroller students in reshaping their concerns of being evaluated by others (socially prescribed perfectionism) and providing strategies for coping with stressful situations. CTYI students in the Undercontroller class will benefit from social skill development, including development of their perspective-taking skills. Their strong desire to engage with others (extraversion) may provide an inroad to teaching better strategies for interaction.

CTYI students tended to have strong confidence in their academic abilities, although this did vary by subject area. The students in the Superstars class, who made up 25% of the students in the 2013-2105 studies, had very high confidence across the board, but nearly all the other students could improve on their belief that they can enlist the support of parents, siblings, and community members to help them with a problem. Teaching students how to recognize the sources of support they can count on and how to persuasively articulate their needs may improve their beliefs about others' support for them. In other areas where confidence is lacking, students will benefit when they have opportunities to be successful, particularly after receiving constructive feedback, or seeing the model of others trying hard at a task. Boosting self-efficacy will improve students' well-being and their academic success. The importance of authentic praise, for students' actual behaviors and not just the end result, is helpful in developing self-efficacy and a growth mindset.

Nearly all CTYI students exhibited high levels of self-oriented perfectionism. This type of perfectionism is associated with positive striving, a good thing in terms of academic success and well-being. When CTYI students become concerned that they must be perfect to meet others' expectations, negative outcomes are likely to ensue. To avoid this concern, which was highest among the students in the Overcontroller class, it is important to foster an ethic of care, reducing unrealistic expectations. Knowing what is unrealistic for these students can be a challenge in itself, because they can do so much. In an atmosphere of trust, when they are not worried about being dismissed or criticized, these students will tell you what they think. Listening to them, encouraging them to be open with their feedback, will be successful only if adults are committed to being responsive to the students' needs. Greenspon (2021) recommends adults develop empathy for the student by attempting to learn how they see the world. Pointing out their likeable qualities, as opposed to their achievements, can draw attention away from the perfect products and behaviors the students have come to believe is so important. High expectations alone do not produce fearful perfectionists. When they are accompanied by adults who model a positive attitude toward failure as a learning opportunity, who are warm and accepting of the child's efforts, students will lose their fear of being evaluated negatively.

Fostering Positive Social Experiences

The majority of CTYI students in this research had indicators of positive peer relationships. These students are like many others who feel different from peers, especially in terms of their seriousness about learning. This is one reason programs like CTYI are so important. Students are able to find intellectual peers who are similarly motivated to learn. In a mixed-ability classroom, CTYI students may worry about the visibility of their exceptional cognitive abilities. They may be concerned about hurting their peers' feelings if they outperform them. Teachers who avoid talking about the academic hierarchy in the class (e.g., holding up one student's work as an example, pointing out who performed best) will reduce the cost of outperformance (Mikami et al., 2012).

Students can learn strategies for maintaining positive relationships with students who cannot perform as well. Most already know the strategies of *lowering oneself* (e.g., hiding their accomplishments, downplaying their success, etc.) and helping peers, as we learned in these studies. Other strategies that can be helpful are likely to be effective in supporting a mixed-ability relationship: simply being nice, complimenting the other person, and doing favors. A positive environment will be a natural outcome when all students are encouraged to engage in prosocial behaviors. Lowering oneself, while helpful to relationships in the moment, may result in underachievement and loss of opportunity.

Providing an Appropriate Education

An appropriate education for gifted students is one that has curriculum that is more challenging than average, which utilizes advanced materials with options for learning at greater breadth, depth, and level of abstraction, offered at a pace that matches their rate of learning (Tomlinson, 2005). Finding the right combination of these characteristics for each child requires significant teacher skill, time for planning, and access to resources. High percentages of CTYI students reported rarely or never receiving assignments more challenging or complex than their peers received, indicating that the 85% of Irish teachers in a 2014 study (J. Cross et al., 2014) who claimed to be differentiating instruction in

their classes were likely not doing so effectively. Many CTYI students reported being frequently bored in their classes and unable to go as in-depth as they would like.

Effective differentiation is only possible with appropriate professional development for teachers, adequate time for increased lesson planning, and the materials needed for this specialized instruction. All of this requires strong support from administrators. The contemporary movement in gifted education is toward a talent development approach (National Association for Gifted Children Talent Development Task Force, 2015), which takes a broad, inclusive perspective to offer advanced instruction to all students capable of achieving at that level. The focus is on providing opportunities to explore domains of talent early, with targeted instruction designed to develop students' abilities in areas where they show exceptional ability and are motivated to learn at a higher level than peers. Talent development as the framework for offering gifted education will be best accomplished when the whole school applies its principles (T. Cross & Cross, 2021a).

CTYI programs offer gifted students tremendous opportunities for enrichment in a stimulating, challenging environment. When gifted education is lacking in their home schools, CTYI students find great satisfaction in the advanced programs it offers and revel in the time spent with intellectual peers. CTYI does an outstanding job of attending to the needs of this population, but it is available only to students who can access classes at the Dublin City University campus or other satellite locations and who can afford the tuition. Making it more available to students across the country and providing scholarships to those who qualify would be a great boon to more gifted students in Ireland.

Enrichment programs like CTYI, motivating and challenging as they are, are not a substitute for a home school that addresses gifted students' needs. Advanced curriculum should be planned, with a scope and sequence that can be applied throughout the 13 years of schooling. To become expert in students' areas of talent, they must have a firm foundation for their later learning, with increasing challenge that leads to expert performance. Additionally, schools must attend to the psychosocial needs of their students, without which they are unlikely to persevere through difficulty or know the psychological and social strategies needed to succeed in their talent domain. Trained school counselors who are versed in the unique needs of gifted students and how to offer the support they need will be invaluable (T. Cross & Cross, 2021b).

Conclusion

Irish gifted students are not all alike. They differ in personality, confidence, social acumen, and interests. Among the students attending CTYI programs who participated in these studies were many confident, well-adjusted, and socially competent adolescents. There was also a subset of students who need extra support from adults who care about them and their well-being. It is important that we better understand these students and learn how to create environments that allow them to achieve their maximum potential while living a good life.

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