Inclusion of Developmentally Disabled Students in Summer Learning Programs

Jacqueline Thompson

Barnard College of Columbia University

Abstract

Notable debate has continued over the efficacy of placing developmentally disabled children in general education classrooms. Because developmentally disabled children, specifically those with autism spectrum disorders (ASD), can benefit from engaging with typically developing peers in an educational setting, many scholars argue that these students have a right to be included. This debate is often rooted in the least restrictive environment clause of the 1997 Reauthorized Individuals with Disabilities Education Act (IDEA). This research essay will focus on the inclusion of autistic students in summer learning programs, specifically the Breakthrough Collaborative program. While developmentally disabled students receive the majority of their services during the school day during the regular school year, the need for support services does not end when school lets out for summer. Effective teaching strategies and their generalizability dependent on the nature and severity of the child's disability are discussed.

Inclusion of Autistic Students in Summer Learning Programs

Throughout history, particularly in the public service sector, how the government spends its money has been a topic of great debate. Moreover, the discourse on how to measure whether or not a government-funded program is effective has triggered disagreement within every stratum of society. As a former employee and student alumna of the founding site of Breakthrough Collaborative, a national organization funded in part by Americorps, I worked closely with middle school students in and out of the classroom, some of whom had developmental disabilities. Through an examination of education assessment reports, research studies, and publications focusing on curriculum design, the qualities of a promising summer learning program, expressly one seeking to serve students with developmental disabilities simultaneously, are revealed.

What is now known as Breakthrough Collaborative began as "Summerbridge" in 1978 in San Francisco, California, at San Francisco University High School (Breakthrough, 2010). The program consisted of a six-week summer enrichment intensive in which low-income, high-potential middle-school students took academic classes in preparation for high school. High school upperclassmen and undergraduate college students taught all of the program's classes. In 1991, as the Summerbridge model was popularized and instituted in more locations, Breakthrough Collaborative was founded as "Summerbridge National" to oversee the local program sites (Breakthrough Collaborative, 2010). Presently, Breakthrough Collaborative serves 2,700 middle school students and 2,700 high school students across the United States and in Hong Kong (Breakthrough, 2010). Breakthrough Collaborative provides these students with college preparatory classes during the summer and after-school tutoring during the school year. Even so, the lasting effect that Breakthrough Collaborative's thorough efforts have on its students is difficult to ascertain, particularly for those students with developmental disabilities.

This essay identifies the effective components of summer learning programs that serve students with developmental disabilities as evidenced through research and analyzes the Breakthrough Collaborative program given these findings. The significance of tailoring summer learning programs for a specified focus group in order to address the unique needs of the participants is discussed. Next, consideration is given to how the curriculum of summer learning programs should be designed, citing examples of program models that have been proven effective. Following this examination is an outline of essential program features that would allow for the summer learning program curriculum to be implemented successfully with students with developmental disabilities. Examination of an extensive research study conducted by Stephen Mullin and Anita Summers (1983) presents insightful data regarding the effectiveness of government funded summer learning programs that pinpoint limitations of the Breakthrough Collaborative program. To narrow the research on Breakthrough Collaborative further, I present my own component of field work: a survey of Breakthrough Collaborative San Francisco student alumni. By reviewing a variety of academic sources in light of my research project, I probe further into the discourse of summer learning programs to not only discover the blemishes in the pristine portrayal of Breakthrough Collaborative programs, but also to impart recommendations for program improvement when serving students with developmental disabilities.

Summer Learning Program Participants

During the months out of school, the absence of support services, let alone scholastic programs, has resulted in a pressing need for summer learning programs for all students, with or without developmental disabilities. During the school year, developmentally disabled children have a free and guaranteed educational service, regardless of their family circumstances. In contrast, when school is not in session, "considerations of cost and proximity significantly limit the opportunities available to youth, [particularly those youth] living in poverty" (McLaughlin and Pitcock, 2009, p. 32). Irrespective of

socio-economic class, or whether their child is typical or atypical, all parents desire that their children spend their summer months partaking in valuable ventures, whether they are recreational, athletic, or

INCLUSION OF DEVELOPMENTALLY DISABLED STUDENTS IN SUMMER PROGRAMS

academic. Nevertheless, whether or not a child partakes in such an activity depends on the family resources. Therefore, for low-income households, especially those with developmentally disabled children, summertime services are not guaranteed (McLaughlin and Pitcock, 2009, p. 32; Terzian, Moore, and Hamilton, 2009, p. 21).

In order to have any lasting effect on a student, a summer learning program must decide on a focus group (i.e. middle school students, preschool age, low income elementary school students; McLaughlin and Pitcock, 2009, p. 5; Terzian, Moore, and Hamilton, 2009, p. 24), seeing as different student communities each have unique needs. To counteract the disparity between low- and high-income student participation in summer learning programs in particular, visionaries should target students of low-income households and/or students with low socio-economic status. Involvement in school-like activities are necessary for developmentally disabled children to improve upon personal, academic, and social goals and to counteract the detrimental effects of summer learning loss (Alexander, Entwisle, and Olson, 2007, p. 24). More than other children, developmentally disabled children with low-income depend on the provision of free or low cost services during out-of-school time (Alexander, Entwisle, and Olson, 2007, p. 24; Terzian, Moore, and Hamilton, 2009, p. 27).

Breakthrough Collaborative focuses on low-income, middle school students who are, by the program's standards, high achievers. The program recruits those students who have already surmounted the academic obstacles predetermined by their developmental disability or socio-economic status, subsequently excluding those low achieving students from enrichment opportunities; thus, in some ways, sustaining the achievement gap. Consequently, summer learning for some families becomes solely dependent on family and neighborhood conditions (Alexander, Entwisle, Olson, 2007, p. 14), and access to safe places, learning opportunities, caring adults, and meals are no guarantee. An ideally

inclusion of Developmentally Disabled Students in Summer Programs effective summer learning program though would broaden the scope of scholastic opportunity for its participants, while promoting character development that results in lifelong success (Terzian, Moore, and Hamilton, 2009, p. 22).

Summer Learning Program Curriculum

Fundamentally, a summer learning program is defined by its intent to develop in targeted youth the skills, attitudes, and behaviors that stimulate academic achievement and healthy development (McLaughlin and Pitcock, 2009, p. 5). What differentiates the numerous programs being offered today is how founding visionaries answer the following question: What is the purpose of summer? While many summer schools focus largely on remediation, summer camps are structured around the assumption that exercise and healthy living are indispensable for proper youth development. Summer learning programs are summoned to integrate these ubiquitous values and address them simultaneously. To assess whether a program is serving its students' needs, first there needs to be consensus around a "new vision for summer" (McLaughlin and Pitcock, 2009, p. 28).

The arduous task in designing summer learning programs that serve children with developmental disabilities is deciphering how to instill in students the skills needed to thrive academically and socially not just in the short term, but also when they re-integrate into their regular schools. Structural support of holistic child development has proven to be a common characteristic of effective summer learning programs (Alexander, Entwisle, and Olson, 2007, p. 26; Bell and Carrillo, 2007, p. 46; Terzian, Moore, and Hamilton, 2009, p. 17). In focusing on a developmentally disabled student's comprehensive growth, summer learning curriculum should aim to instill life values in program participants (Marks and Nystrand, 1981, p. 80; Terzian, Moore, and Hamilton, 2009, p. 22). An extensive model for an education program is deemed successful when it addresses areas of student development such as academic achievement, creative productivity and psychomotor activity (Juntine, 1981, p. 29). Such a curriculum was implemented in Hillsborough, California, at the Nueva Learning

Program where they distinguish between three kinds of learning. The first, "survival skills," which includes such subjects as writing and math, but also civil rights and responsibility; the second, "directed study," allows students to sample new experiences such as karate or ballet in order to harness decision making skills; the third learning style uses electives, such as gardening, to facilitate personal growth (Juntine, 1981, p. 22). The Nueva Learning Program was identified as a successful program on account of its diverse curriculum. An effective learning program supplements students' academic growth with acquisition of social cognitive skills that instill life values (Terzian, Moore, and Hamilton, 2009, p. 27).

Learning programs will succeed in strengthening students' principles by relating instructional material to the life experiences of program participants as a form of place- based education (Smith and Sobel, 2010, p. 38; Terzian, Moore, and Hamilton, 2009, p. 17). Especially when working with developmentally disabled students, program visionaries and directors can and should enhance the learning process by designing curriculum in terms of the "environmentally locatable experiences" (Marks and Nystrand, 1981, p. 81) of the program participants. By connecting instruction to real- world experiences (i.e. social issues, community lifestyle, cultural practices) the subject matter is endowed with meaning in students' lives, thus making them more likely to retain the material (Terzian, Moore, and Hamilton, 2009, p. 27).

One major obstacle inhibiting all summer learning programs from being of such high service quality as the one in South Windsor is that there are no curriculum or professional standards for out-of-school time programs (McLaughlin and Pitcock, 2009, p. 26). Teachers and related service professionals are faced with the daunting task of designing inclusion programs for learners with developmental disabilities in the absence of clear guidelines and procedural protocols (Simpson, 2003, p.116). An effective summer learning program's curriculum should complement the content of school-year instruction (Bell and Carrillo, 2007, p. 47; McLaughlin and Pitcock, 2009, p. 6; Terzian, Moore,

and Hamilton, 2009, p. 17), thereby reinforcing the lessons and skills necessary for developmentally disabled students to perform upon entering the next grade. To develop the creative ability and skill to implement such involved lessons, teachers of summer learning programs must engage in advanced, collaborative planning (Bell and Carrillo, 2007, p. 46). Breakthrough Collaborative emphasizes its "students teaching students" model as the core of its organization; yet, given the findings describing successful summer learning programs, it could be the very thing that inhibits the program from improving. To employ uncertified high school and college students to instruct classes consisting of typically developing students alongside students with developmental disabilities is a great undertaking. These student teachers have not been trained specifically to work with students with developmental disabilities, which makes it supremely difficult to address these students' regular need for modification of lessons and their insistence on environmental sameness (Simpson, 2003, p. 116). While a consensus in whether or not this is in fact Breakthrough Collaborative's main flaw has not been reached, nationwide research reveals other grim realities of summer learning programs.

In their article entitled, "Is More Better? The Effectiveness of Spending on Compensatory Education," Stephen Mullin and Anita Summers (1983) examine 47 research studies to analyze the efficacy of government funded supplementary programs. These compensatory education programs are intended to make up for the academic experiences that disadvantaged and developmentally disabled children lack due to their socio-economic and family background (Merriam-Webster Dictionary, 2010). In critiquing these studies, their design, and assessment methods, Mullin and Summers (1983) conclude that no program model is consistently successful over time. Mullin and Summers' findings not only give meaning to years of research, but also provide a lens through which summer programs like Breakthrough Collaborative can be evaluated for their success.

Mullin and Summers' research focused on three topics: compensatory education, assessments of achievement, and cost-effectiveness. After choosing 47 studies, which spanned more than fifteen years

of research, Mullin and Summers (1983) chose ten criteria for an "ideal" evaluation: 1) pre- and post-testing in the same month of the year; 2) a reasonable number of control variables; 3) criteria in addition to pretest scores for program participation; 4) inclusion of dropouts and students absent from the post-test in interpreting program results; 5) use of something other than grade-equivalent scores in evaluating changes over many years; 6) comparisons over time and across programs using the same standardized test; 7) pre- and post-test scores taken from the same students; 8) a reasonably large and random sample; 9) use of formal statistical techniques in analyzing the data; and 10) student-specific observations (p. 340). By determining these ten criteria, Mullin and Summers evaluated the 47 studies based on their distinct rubric.

Mullin and Summers made sure to highlight the methodological flaws in each of the studies as well. Such critiques were that many studies distinguished students solely by their participation in compensatory programs, ignoring the array of social, racial, developmental, and economical differences that would influence the students' performance (Mullin and Summers, 1983, p. 341). Additionally, Mullin and Summers criticized those studies that used pretest scores as selection tools for choosing student participants, because it is highly subjective, based on a student's performance on a particular day. This could result, as Mullin and Summers (1983) noted, in the inclusion of a student in a compensatory program who performed poorly on the test day, but is otherwise a satisfactory achiever (p. 341).

Mullin and Summers (1983) summarized their findings in a table which included the following information: the title and year of each study, the grade level of the students in the study, a brief description of the evaluation techniques employed in analysis, the achievement measures used to assess results, and the central findings of each study (p. 340). Of the eight studies that used middle school students (fourth through sixth grade) as subjects, three of them lacked control variables in analysis, and another three used grade equivalent scores. These pertinent flaws in these six evaluative studies reflect

the deficiencies in the analysis of education programs across the nation.

Mullin and Summers (1983) concluded that for middle school compensatory programs, there were no discernible positive effects for low achievers (p. 347). Potentially for this very reason, Breakthrough Collaborative restricts its services for "high achieving" students only (Breakthrough Collaborative, 2010). However, this does beg the question of under what circumstances are developmentally disabled then accepted to their program. Moreover, there was no clear evidence that the achievement score gains achieved by the student participants in a given year were sustained after exiting a compensatory education program (Mullin and Summers, 1983 p. 341). Breakthrough Collaborative prides itself on its ability to "launch...middle school students on the path to college" (Breakthrough Collaborative, 2010); yet, Mullin and Summer's investigation demonstrates that retention of such academic skills is infrequently maintained. Given their conclusions, Mullin and Summers (1983) posit that only those programs that are developed for specific categories of children with specific socio-economic backgrounds have the prospect of being effective (p. 342). In some ways, Breakthrough Collaborative has satisfied this stipulation however, the inclusion of developmentally disabled students in their program adds a complex dimension to their mission.

Mullin and Summers' analysis unveils many of the imperfections of compensatory education programs. Nevertheless, as a result of the wide scope of their project and the vast number of case studies researched, Mullin and Summers failed to paint a holistic portrait of the state of these programs. Because they studied 47 different programs, each serving different age groups in different geographic locations, Mullin and Summers could not formulate proposals for improvement, seeing as each program had different areas of strengths and weaknesses. Perhaps, by narrowing their study to programs in a specific location or those serving a fixed age group, the authors could have conceived of a more insightful conclusion. Mullin and Summers diligently outlined the hurdles facing compensatory education programs, but neglected to include recommendations to over-leap them.

In tandem with the findings aforementioned, Mullin and Summers' research quantify the supposed "success" of many compensatory programs across the nation, depicting a picture of student achievement that is reflective of reality -- not upward biases. Breakthrough Collaborative prepares high achieving middle school students, mostly students of color from low-income families, to succeed in college-preparatory high schools. Through a year-round program, Breakthrough Collaborative serves over five thousand students annually (Breakthrough Collaborative, 2010). Although the program has a clear target demographic, examination of Breakthrough Collaborative's mission in light of Mullin and Summers' findings suggests that students who participate in the Breakthrough program will not sustain their achievement gains. All the while, there is no mention of the specific successes of students with developmental disabilities who graduate from their program. Without this type of quantitative analysis, as Mullin and Summers demonstrate, enrichment programs such as Breakthrough Collaborative may merely project an "illusion of reform" and effective programming (Johnston and Borman, 1992, p. 30).

Breakthrough Collaborative, like all summer learning programs, must be assessed from multiple vantage points. Given my resources and in compliance with the principles of good evaluation -information passes tests of reliability, validity, and objectivity (Marks and Nystrand, 1982, p. 288) – I conducted a survey of recent graduates of the Breakthrough Collaborative program site in San Francisco.

Breakthrough Collaborative Student Student Alumni Survey

Participants

25 students completed the survey. All of the students were graduates of the Breakthrough Collaborative program site in San Francisco. 12 students from the 2009 graduating class and 13 students from the 2010 graduating class participated in the study. In total, 12 girls and 13 boys completed the survey. 2 of the boys and 1 girl were diagnosed with developmental disabilities. 10 INCLUSION OF DEVELOPMENTALLY DISABLED STUDENTS IN SUMMER PROGRAMS 12 students attend public schools, 10 students attend parochial schools, and the remaining 5 attend private schools (including the 3 students with developmental disabilities).

Procedure

The survey was organized in two parts (See Appendix A). The first part had four questions specifying gender, high school attending, grade level, and middle school attended. The second part of the survey asked students to rate each of the five statements on a scale of 1 (strongly disagree) to 5 (strongly agree). The five statements, which can be found in Appendix A, assessed how effectively Breakthrough Collaborative 1) enhanced students' academic independence, 2) prepared students academically for high school, 3) equipped students with skills they can use in high school, 4) enhanced students' self- confidence, and 5) taught students life values. The criteria was determined in consideration of the research reviewed, which posits that an effective summer learning program should ameliorate the achievement gap by better preparing students for the upcoming school year (in reference to statement two; supported by Alexander, Entwisle, and Olson, 2007). Additionally, if the Breakthrough Collaborative curriculum compliments school year curriculum (in reference to statement three; supported by Bell and Carrillo, 2007; McLaughlin and Pitcock, 2009; Terzian, Moore, and Hamilton, 2009), students are likely to use skills they learned during the summer throughout the school year. Statements four and five were designed in response to research conducted by Marks and Nystrand (1981) and Terzian, Moore, and Hamilton (2009) that suggests that effective summer learning programs build self-esteem and foster life values within program participants. Statement 1 intended to address a standard of summer learning programs that Harrower addresses in his article "Including Children with Autism in General Education Classrooms: A Review of Effective Strategies" (2001). The term "Summerbridge," as opposed to "Breakthrough Collaborative," was used because that is the program title at the San Francisco site.

Analysis

The mean ratings were calculated for each statement (See Appendix B). The mean rating was computed according to three categories: gender (boys, girls), typical or atypical development, and type of middle school (public, parochial, private). A criterion was considered achieved when the mean rating was above 3.0 (neutral), thus indicating Breakthrough Collaborative's effectiveness in the given area. A criterion was considered failed when the mean rating was below a 3.0 (neutral), thus indicating Breakthrough Collaborative's ineffectiveness in the given area.

Results

The mean ratings of the boys, girls, students with developmental disabilities and those without, and that of students who attended public and parochial middle schools all strongly suggest that the Breakthrough Collaborative program model is effective at achieving all five criteria. For each of the five statements, these six groupings' mean ratings were all greater than four (mildly agree).

The mean ratings of students who attending private middle schools for statements one, two, four, and five suggest that Breakthrough Collaborative was ineffective. For these four statements, the mean ratings were below 3.0 (neutral). Breakthrough Collaborative was effective in achieving only the third criterion (mean 4.0), instilling students with skills they can use in high school, for students who attended private middle schools.

Discussion

The data from the survey indicates that Breakthrough Collaborative effectively serves its public and parochial school students in accordance with the five criteria; however, the program only achieves one of the five criteria while serving the private school students. According to the data collected through this survey, Breakthrough Collaborative fails to enhance private school students' independence, to prepare this group academically for high school, enhance their self-confidence, and to teach these students life values. The significant disparity between the mean ratings of public and parochial school students compared to those of the private school students implies that there are academic and

INCLUSION OF DEVELOPMENTALLY DISABLED STUDENTS IN SUMMER PROGRAMS 14 psychological needs specific to private school students that the current program model does not address – perhaps because these students are receiving adequate services during the regular school year. It is also worth noting that the majority of students who attend private schools in this study also have developmental disabilities (3 of the 5 students). The data proposes that upon entering the Breakthrough Collaborative program, private middle school students are not reaping the same benefits from program participation as their peers who attend public and parochial middle schools.

Implications & Recommendations

The drastic differences in the results of the student survey raise questions for further research, not only for the San Francisco Breakthrough Collaborative site, but for the program on the national level. Given the time and resources, I would research if students with developmental disabilities are accepted at other Breakthrough Collaborative sites and if so, are these students being served effectively? Seeing as the current research provides insight into the particular obstacles facing the San Francisco Breakthrough Collaborative site, expanding the study to include other sites in different geographic regions would reveal whether the experience of these students is specific to San Francisco or one that is shared among other sites as well.

Harrower offers a plethora of powerful strategies that have successfully integrated students with developmental disabilities into general education settings. Assuming that the developmentally disabled students are of a high functioning level, two methods in particular seem most feasible for inexperienced teachers of the Breakthrough Collaborative program to implement: self-management and peer-mediated interventions. Self-management consists of teaching the student to (a) discriminate between appropriate and inappropriate behaviors, (b) evaluate her or his own behavior, (c) monitor her or his behavior over time, and (d) reinforce her or his behavior when pre-specified criteria are met (Harrower, 2001, p. 768). Peer-mediated interventions utilize typically developing peers to support academic and social

functioning of students with developmental disabilities through peer tutoring, mentoring, and cooperative learning (Harrower, 2001, p. 770-771).

Conclusion

Given my fieldwork sample, which was designed in light of past research, Breakthrough Collaborative is effectively serving the majority of its program participants. The student survey highlights new challenges that Breakthrough Collaborative has to face: How can Breakthrough Collaborative grow to be effective for all of its program participants? How can Breakthrough Collaborative ensure that each program site is providing high quality of service when the teachers are uncertified? Perhaps the inclusion of developmentally disabled students is not equitable at this stage of the program's development. Hopefully, in future years, the program's structure may develop such that students with developmental disabilities are not merely attending the program, but actually reaping the program's benefits.

References

- Alexander, K.L., Entwisle, D.R., & Olson, L.S. (2007). Summer learning and its implications: insights from the beginning school study. Wiley Periodicals: New Directions for Youth Development, (114), 11-32
- Bell, S.R., & Carrillo, N. (2007). Characteristics of effective summer learning programs in practice. Wiley Periodicals: New Directions for Youth Development, (114), 45-63.
- Breakthrough Collaborative. 2010. Breakthrough Collaborative. Retrieved from http://breakthroughcollaborative.org
- Breakthrough Collaborative. (2010, January). Middle school: The fork in the road to college. In Breakthrough Collaborative. Retrieved November 6, 2010
- compensatory education. 2010. In Merriam-Webster Online Dictionary. Retrieved from http://mw4.mw.com/dictionary/compensatory
- Harrower, J. K. (2001). Including children with autism in general education classrooms: A review of effective strategies. Behavior Modification, 25(5), 762-784. Retrieved from http://bmo.sagepub.com/content/25/5/762.short
- Johnston, J.W., & Borman, K.M. (Ed.). (1992). Effective schooling for economically disadvantaged students: school based strategies for diverse student populations. Norwood, New Jersey: Ablex **Publishing Corporation**
- Juntine, J. (1981). Successful programs for the gifted and talented. National Association for Gifted Children.
- Marks, W., & Nystrand, R. (Ed.). (1981). Strategies for educational change. Montclair, New Jersey: Macmillan Publishing Co., Inc.
- McLaughlin, B., & Pitcock, S. (2009). Building quality in summer learning programs: approaches and recommendations. National Summer Learning Association: The Wallace Foundation, 1-38.
- Mullin, S. P., & Summers, A. A. (1983). Is more better? The effectiveness of spending on compensatory education. The Phi Delta Kappan International, 64(5), 399-347. Retrieved from the JSTOR database.
- Raph, J.B., Goldberg, M.L., & Passow, A.H. (1966). Bright underachievers: studies of scholastic underachievement among intellectually superior high school students. New York: Teachers College Press
- Smith, G., & Sobel, D. (2010). Bring it on home. Educational Leadership, 68(1), doi: 38-43
- Simpson, R., de Boer-Ott, S. R., & Smith-Myles, B. (2003). Inclusion of learners with autism disorders in general education settings. *Topics in Language Disorders*, 23(2), 116-133. Retrieved from http://journals.lww.com/topicsinlanguagedisorders/Abstract/2003/04000/Inclusion of Learner s with Autism Spectrum.5.aspx
- Terzian, M., Moore, K.A., & Hamilton, K. (2009). Effective and promising summer learning programs and approaches for economically-disadvantaged children and youth. Child Trends: The Wallace Foundation, 1-42.

Appendix A

Student Survey

Hey SB grads! I am writing a research paper on SB for one of my classes and I NEED YOUR HELP!

The survey will take less than five minutes and anything you write will be completely confidential.

Thanks so much!!

PART ONE:

- 1) Gender: Male or Female?
- 2) What grade are you currently in?
- 3) What middle school did you attend?

PART TWO:

Please rate each statement on a scale from 1 to 5:

- 1 = strongly disagree 2 = mildly disagree 3= neutral 4 = mildly agree 5 = strongly agree
- 1) "Summerbridge enhanced my independence"
- 2) "Summerbridge prepared me academically for high school"
- 3) "I will use a skill I learned at Summerbridge in high school"
- 4) "Summerbridge enhanced my self-confidence"
- 5) "Summerbridge taught me life values"

Appendix B

Mean Ratings for Each Statement According to Participant Gender, Typical or Atypical Development, and Type of Middle School

Table 1 Statement 1: "Summerbridge enhanced my independence"

Boys	4.11
Girls	4.58
Typical Development	4.42
Atypical Development	2.9
Public Middle School	4.04
Parochial Middle School	4.7
Private Middle School	3

Table 2 Statement 2: "Summerbridge prepared me academically for high school"

Boys	4.23
Girls	4.42
Typical Development	4.08
Atypical Development	2
Public Middle School	4.54
Parochial Middle School	4.67
Private Middle School	2.33

Statement 3: "I will use a skill I learned at Summerbridge in high school"

٦.	1 Will	use	a skiii 1	ieurnea	ai Summer	briage	ın nıgn sen	901

Boys	4.46
Girls	4.83
Typical Development	4.62
Atypical Development	3.7
Public Middle School	4.58
Parochial Middle School	4.88
Private Middle School	4

Table 4

Table 3

Statement 4: "Summerbridge enhanced my self-confidence"

Boys	4.12
Girls	4.08
Typical Development	4.23
Atypical Development	2.5
Public Middle School	4.04
Parochial Middle School	4.56
Private Middle School	3

Table 5

Statement 5: "Summerbridge taught me life values"

Boys	4.23
Girls	4.17
Typical Development	4.15
Atypical Development	3
Public Middle School	4.46
Parochial Middle School	4.33
Private Middle School	2.67