

Chapter Five

TAGG Validity Evidence

Recommended APA-Style Citation

Martin, J., Hennessey, M., McConnell, A., Terry, R., & Willis, D. (2015). *TAGG technical manual*. Retrieved from <https://tagg.ou.edu/tagg/>

Chapter Five

TAGG Validity Evidence

The purpose of this chapter is to present the results of a series of studies completed to gain evidence of the validity of scores obtained from the three versions (i.e., professional, family and student) of the Transition Assessment and Goal Generator (TAGG).

This chapter will be organized in the following way:

- Relations between TAGG scores and demographic variables
 - Differences in TAGG scores by gender
 - Differences in TAGG scores by disability category
 - Differences in TAGG scores by socio-economic status
 - School-level measures of socio-economic status
 - Student-level measures of socio-economic status
- Relations between TAGG scores and other variables
 - Relations between TAGG scores and GPA
 - Relations between TAGG scores and the percentage of time students spend in the general education classroom

Unlike the data presented in Chapter 3, evidence for the validity of the scores will be presented based on the variables under investigation instead of by TAGG version so that an interpretation of relations between TAGG scores and each of the demographic or outcome variables can be made as a whole.

We will present validity evidence, as described in the introduction, relating to both student demographic characteristics as well as outside variables that may influence TAGG scores on each of the three versions of the TAGG (i.e., professional, family, and student). A description of the participants for each investigation and the independent variables used to assess validity evidence will first be given. Results will then be described, followed by conclusions for each piece of validity evidence.

Relations Between TAGG Scores and Demographic Variables

Relations Between TAGG Scores and Student Gender

In this section, we will present relations between TAGG scores and student gender. We will first give a description of the participants providing data and the specific

variables used in the investigation. Results and an interpretation of the evidence of validity obtained will conclude the section.

Professional participants. Seventy-two professional educators provided data about students they work with who have disabilities. Sixty-seven (93.1%) of those educators reported being female and 59 (81.9%) stated their ethnicity was Caucasian, with the second highest category being African American with 10 educators (13.9%). The majority of professional educators reported they either had Master's degrees (n = 25) or had taken some Master's level courses (n = 15) and most were special education teachers (n = 53). More demographic characteristics can be found in Table 1.

Family participants. Family participants consisted of 497 family members, 393 (79.1%) of whom identified themselves as being the mother of the student about whom they were responding to the TAGG-F items. Three hundred sixty eight family members (63.6%) reported being Caucasian, with the largest number of family respondents reporting their highest level of education was a high school diploma or GED (n = 204, 42.1%). More demographic data for family participants can be found in Table 2. Data from a subset of these participants was included in the MANOVA analyses (described below) due to missing data for some constructs on the family TAGG version (TAGG-F), and demographic information for only this subset of participants can be found in Table 2.

Student participants. Participants consisted of 691 students whose teachers have categorized them as having mild to moderate disabilities. Of those students, 380 (55.0%) were male and 305 (44.1%) were female, with six students not reporting

gender. Participants were in 9th (n = 114, 16.5%), 10th (n = 146, 21.1%), 11th (n = 182, 26.3%), and 12th (n = 242, 35.0%) grades across the two phases of this study. The majority of students were classified by their teachers as having a specific learning disability (n=411, 59.5%), with other disabilities being less frequently identified. A majority of students qualified for free or reduced-price lunches (n = 380, 55.0%). As with data from family participants, data from a subset of these student participants were included in the MANOVA analyses (described below) due to missing data for some constructs on the student TAGG version (TAGG-S). More demographic information can be found in Table 3.

Independent variable. In order to investigate the relations between TAGG scores and gender, we collected demographic information from the education professionals regarding the student's gender to use as a grouping variable. This information was collected from education professionals because we also collected a number of other pieces of demographic data, some of which came from student records and the students would not know the answers. Further, we felt that asking education professionals to respond to demographic questions would lessen the cognitive burden placed on our sample of students, enabling their responses to the TAGG questions to be a better indicator of their skill set in those areas.

Dependent variables. Scaled scores for each of the 8 constructs on the TAGG-P (professional TAGG) and TAGG-F versions and the 7 constructs on the TAGG-S version were used as dependent variables. See Chapter 4 for an explanation of the scaling methods used to develop these scores.

Results. To investigate the extent to which there were significant differences in TAGG construct scores as a result of gender, a series of MANOVAs were performed. Separate MANOVAs were performed on each version of the TAGG with all scaled construct scores (see Chapter 4 for an explanation of the scaling methods employed) used separately as dependent variables. Data for Phases 1 and 2 of the study were compiled. Descriptive statistics (i.e., means and standard deviations) for each scaled construct score for each version of the TAGG are provided in Tables 4 through 6.

Professional results. Results of the investigation using data obtained on the TAGG-P indicated no significant multivariate effect for construct scores [Hotelling's Trace ($df = 8, 660$) = .011, $p = .51$, partial $\eta^2 = .011$, power = .426]. Table 4 presents the results of follow-up univariate assessments at the construct level. As expected, there were no significant univariate results for construct scores for data obtained from the TAGG-P, suggesting professional educators do not rate students differently on the constructs assessed on the TAGG based on their gender.

Family results. Results of the investigation using data obtained on the TAGG-F did show a significant multivariate effect for construct scores [Hotelling's Trace ($df = 8, 466$) = .037, $p = .03$, partial $\eta^2 = .036$, power = .857]. An investigation of the follow-up univariate tests for each of the eight constructs of the TAGG-F can be found in Table 5. Results of the follow-up investigations showed significant differences in the ratings family members provided for Strengths and Limitations, Disability Awareness, and Persistence, with female students being rated higher than

males for all constructs by .166, .214, and .175 scale points, respectively.

Student results. Significant multivariate effects were also found when an investigation of data obtained from the TAGG-S was completed [Hotelling's Trace ($df = 7, 649$) = .025, $p = .03$, partial $\eta^2 = .024$, power = .846]. An investigation of the follow-up univariate tests for the seven constructs making up the TAGG-F is presented in Table 6. This investigation revealed that females rated themselves significantly higher than males on Student Involvement in the IEP by .164 scale points.

Conclusion. Overall, there were very little differences in the extent to which male and female students scored on the three versions of the TAGG. In other words, we do not see significant differences in the ratings of male and female students on the TAGG assessment. The most salient feature of this analysis is the extent to which there are not significant differences between males and females on the TAGG-P constructs.

Education professionals rated males and females similarly on all TAGG-P constructs; there were no significant differences to be found on that version of the assessment. There were, however, significant differences for some of the constructs on both the TAGG-F and TAGG-S versions of the assessment. Specifically, female students were rated as having higher awareness of their own strengths and limitations than male students by their family members. They were also rated as having higher levels of awareness of their disabilities and higher levels of persistence by family members than their male counterparts. Similar results were found when investigating construct-level scores for the ratings obtained from the TAGG-S. Specifically, female students rated themselves as having higher

involvement in their IEP meetings than their male counterparts.

Although these construct-level differences were found for scores from both the TAGG-F and TAGG-S versions, we feel that these differences do not constitute a problem with the validity of the TAGG battery of assessments for determining the behaviors and skills students should gain upon exiting high school. The greatest piece of evidence for this claim can be seen in the fact that there were no significant differences in any construct score on the Professional version of the TAGG. Professional educators do not observe male and female students to be acquiring the skills assessed by the TAGG differently from each other.

Relations Between TAGG Scores and Disability Category

In this section, we will present relations between TAGG scores and the category of the disability under which the student falls. For this investigation, a number of students had disabilities categorized that were not as common as the disabilities of other students. Students whose disabilities fall into those categories (i.e., multiple disabilities, orthopedic impairment, other, speech or language impairment, traumatic brain injury, hearing impairment, and deaf-blindness) had small enough numbers of students as to preclude their inclusion in the analysis here. Descriptive statistics for participants who are and are not included in this investigation are given in Tables 7 through 12. A description of the participants providing data and the specific variables used in the investigation is given below. Results and an interpretation of the evidence of validity obtained will conclude the section.

Professional participants. Professional participants for this study were the same as those for the gender study.

Family participants. The same family members participated in this study as those for the gender study described previously.

Student participants. Student participants for this study mirrored those as for the gender study.

Independent variable. In order to investigate the relations between TAGG scores and disability category, we collected demographic information from the education professionals regarding the student's disability category to use as a grouping variable. As with all student demographic information, this information was collected from education professionals.

Dependent variables. Scaled scores for each of the 8 constructs on the TAGG-P and TAGG-F versions and the 7 constructs on the TAGG-S version were used as dependent variables. See Chapter 4 for an explanation of the scaling methods used to develop these scores.

Results. To investigate the extent to which there were significant differences in TAGG construct scores as a result of disability category, a series of MANOVAs were performed. Separate MANOVAs were performed on each version of the TAGG with all scaled construct scores (see Chapter 4 for an explanation of the scaling methods employed) used separately as dependent variables. Data for Phases 1 and 2 of the study were compiled. Descriptive statistics (i.e., means and standard deviations) for each scaled construct score for each version of the TAGG are provided in Tables 7 through 9.

Professional results. Results of the investigation using data obtained on the TAGG-P indicated significant multivariate

effect for construct scores [Pillai's Trace (32, 2488) = .158, $p = .000$, partial $\eta^2 = .040$, power = 1.00]. Tables 13 through 20 present the results of follow-up univariate assessments at the construct level. Results showed significant differences in professional ratings on all constructs. For the *Strengths and Limitations* construct, mean professional ratings were lower for students with autism when compared with ratings for students with other health impairment or specific learning disability by .624, and .619, respectfully. Mean scores for students with an emotional disturbance were scored .454 lower than students with specific learning disability.

For the *Disability Awareness* construct, mean professional ratings for students with specific learning disabilities were higher than students with autism, emotional disturbance, and intellectual disability by .597, .520, and .289, respectively. Mean professional ratings for students with emotional disturbance were .475 lower than students with other health impairment.

Family results. Results of the investigation using data obtained on the TAGG-F showed a significant multivariate effect for construct scores [Pillai's Trace (32, 1736) = .174, $p = .00$, partial $\eta^2 = .044$, power = 1.00]. An investigation of the follow-up univariate tests for each of the eight constructs of the TAGG-F can be found in Tables 21 through 28. Results of the follow-up investigations showed significant differences in the ratings family members provided for all constructs, excluding Disability Awareness.

Student results. Significant multivariate effects were also found when an investigation of data obtained from the TAGG-S was completed [Pillai's Trace (28, 2456) = .117, $p = .00$, partial $\eta^2 = .029$, power = 1.00]. An investigation of the

follow-up univariate tests for the seven constructs making up the TAGG-S are presented in Tables 28 through 35. Results of the follow-up investigations showed significant differences in student ratings for all constructs, excluding Disability Awareness.

Conclusion. It is unsurprising that students having different disabilities are scored in diverse ways on the three versions of the TAGG assessment. Students having different disabilities vary in their needs and in the skills and behaviors they are able to attain during their high school careers. Nonetheless, some trends in the data can be seen. In general, students having less severe disabilities, such as those with a specific learning disability, scored higher on TAGG constructs than did those who had different types of disabilities, such as an intellectual disability or autism. These trends lead us to infer that although the TAGG produces different scores for students with different disabilities, the differences in TAGG scores are appropriate for those students.

Relations Between TAGG Scores and Socio-Economic Status

In this section, we will present relations between TAGG scores and SES as measured by individual and school-level free/reduced lunch status, family employment, and family education level. A rationale will first be given regarding the importance of determining the extent to which TAGG scores are related to students' SES status. This rationale will be followed by a description of the participants providing data and the specific variables used in the investigation. Results and an interpretation of the evidence of validity obtained will conclude the section.

Professional participants. Seventy professional educators participated in this

study. Professionals were 48.61 years old on average ($SD = 9.04$), and 65 (92.9%) were females. The overwhelming majority reported being Caucasian (84.3%), with 14.3% reporting they were African American, and 5.7% reporting they were Hispanic. Fifty-two classified themselves as special education teachers (74.3%) and 17 as transition specialists (24.3%), with other participants holding various positions related to special education. On average, professional participants reported an average of 15.4 years of experience teaching students with disabilities ($SD = 10.01$).

Family participants. Approximately 77.3% ($n = 286$) of the 370 family members who provided data about their socio-economic status and participated in this study were mothers or stepmothers, 11.9% were fathers or stepfathers ($n = 44$), and 5.1% were grandparents ($n = 19$). Participants were 43.53 years old on average ($SD = 10.23$). The majority of family members reported being Caucasian (71.4%), 11.4% reported being African American, 11.4% reported being Hispanic, and 8.4% reported being American Indian. Approximately 59.7% of family participants were married.

Student participants. The average age of the 370 student participants was 16.6 years ($SD = 2.5$), and 52.7% were males. Students from 9th through 12th grades completed the assessment, with 19.2% being in 9th grade, 20.5% being in 10th grade, 24.9% being in 11th grade, and 35.1% being in 12th grade. Students from a variety of disability categories completed the assessment, with 56.7% of students having learning disabilities, 13.4% having an intellectual disability, 11.9% having health impairments, and 5.6% having an emotional disturbance. Further, 11 students (2.4%) received support for English as a second language.

Independent variables. Before presenting data for this section, it is important to note the sample sizes for this study are smaller than those for other studies for two reasons. First, we included only those student participants who also had participating family members. Some of the information regarding socio-economic status was collected only from family members, so those students without participating family members were excluded. Second, not all family members responded to demographic questions regarding socio-economic status. Data for students whose socio-economic status could not be determined were eliminated from the analysis.

For this study, we investigated the impact each of four variables representing students' socio-economic status (i.e., student eligibility for free/reduced lunch, family employment status, family education level, and school-level free/reduced lunch status) had on TAGG scores. Three of the variables were at the level-1, or student level, and one of the variables was a level-2, or school level, variable. As described previously, all student demographic data was collected from educators to reduce the cognitive load on student participants. A brief description of each independent variable follows.

Eligibility for free/reduced lunch. Free/reduced lunch eligibility was a categorical variable indicating whether the student was eligible to receive either free or reduced lunches. Educators reported 240 students were eligible for free or reduced lunch and 123 were not. Data was missing for seven students.

Family employment status. Family employment was recorded for the person who completed the family demographic form. Family members responded as working full-time ($n = 183$), part-time ($n =$

47), not working (n = 104), or retired (n = 25). Data on this variable was missing for 11 participants.

Family education level. Because of the unique characteristics of each student's family situation, family education was coded as the highest level of education attained by one of the adult family members living in the student's household. After determining the highest level of education of the adults in the household where the student lived, family education level was coded into the following categories: less than high school completion (n = 36), high school diploma or vocational school completion (n = 198), Associate's or Bachelor's degree completion (n = 97), and graduate degree completion, including a Master's degree, Ph.D., or other professional degree (n = 30). Data was missing for nine participants because the data was either not given or was given only for a person who filled out the form who did not live with the student.

School-level free/reduced lunch status. Because socio-economic status is not just an individual-level variable but is also a representation of how the individual's economic situation compares with that of the greater community (Christie & Barling, 2010), we also collected information on the economic status of the 43 schools the participating students attended. For this study, the percentage of students receiving free or reduced lunch at the schools where the students were enrolled was used as a proxy for community economic status. School-level free/reduced lunch percentages were grand mean centered. We also collected information on the Title I status of each school; however, due to low variability in the data, this information was not used in the current study. In other words, virtually every school where students were enrolled received at least some Title I funding, so

almost all schools could be classified as Title I schools.

Dependent variables. Scaled scores for each of the 8 constructs on the TAGG-P and TAGG-F versions and the 7 constructs on the TAGG-S version were used as dependent variables. See Chapter 4 for an explanation of the scaling methods used to develop these scores.

School-level results. We conducted MLM analyses (Luke, 2004) using the percentage of students at the school receiving free or reduced-price lunches as a predictor for each of the TAGG constructs separately for the three versions of the assessment. Results of these analyses were similar for each TAGG version. Specifically, school-level FRL% did not predict a significant proportion of the variance for any TAGG-P or TAGG-F construct scores. The one exception to this was for the *Persistence* construct on the TAGG-S version; however, the lower bound of the 95% confidence interval was 0.00, leading us to believe this significant result may be due to larger sample size.

Student-level results. We then investigated the extent to which each of the three student-level variables (i.e., free/reduced lunch eligibility, family employment, and family education) influenced TAGG construct scores for the three versions of the assessment using a series of MANOVAs. Free/reduced lunch eligibility did not produce significant results for either the TAGG-P [Pillai's Trace = .036, $F(8,351) = 1.626$, $p = .116$] or the TAGG-S [Pillai's Trace = .022, $F(7,352) = 1.706$, $p = .333$]. A significant multivariate effect was found for scores on the TAGG-F [Pillai's Trace = .080, $F(8,345) = 3.754$, $p = .000$].

Univariate follow-up tests showed scores were significantly different on the *Strengths*

and Limitations [$F(1,352) = 5.751, p = .009$], and the *Goal Setting and Attainment* [$F(1,352) = 4.058, p = .006$] constructs for students with free/reduced lunch eligibility. Family employment status did not produce significant results on any of the TAGG constructs for any version of the assessment [TAGG-P: Pillai's Trace = .129, $F(32,1392) = 1.451, p = .050$; TAGG-F: Pillai's Trace = .131, $F(32,1372) = 1.449, p = .051$; TAGG-S: Pillai's Trace = .081, $F(28,1400) = 1.032, p = .419$].

Results for Family education differed; there was a significant multivariate effect for scores on the TAGG-P [Pillai's Trace = .143, $F(24,1044) = 2.181, p = .001$]. Univariate follow-up tests showed significant results on the *Strengths and Limitations* [$F(3,353) = 3.136, p = .026$] and *Disability Awareness* [$F(3,353) = 5.625, p = .001$] constructs. There was also a significant multivariate effect for scores on the TAGG-S [Pillai's Trace = .095, $F(21,1050) = 1.623, p = .036$], but only the *Goal Setting and Attainment* construct showed significant univariate differences [$F(3,354) = 3.555, p = .015$]. There was a significant multivariate effect for scores on the TAGG-F [Pillai's Trace = .152, $F(24, 1029) = 2.284, p < .001$] with many constructs showing significant differences between the groups {*Strengths and Limitations* [$F(3,348) = 3.849, p = .010$]; *Disability Awareness* [$F(3,348) = 4.019, p = .008$]; *Persistence* [$F(3,348) = 3.657, p = .013$]; *Goal Setting and Attainment* [$F(3,348) = 5.958, p = .001$]; *Student Involvement in the IEP* [$F(3,348) = 3.855, p = .010$]; *Supports* [$F(3,348) = 3.132, p = .026$]}. Almost all of the differences between groups occurred between those parents who were at the highest level of education (Master's/Ph.D./other professional degree) and those who were at the lowest level of education (less than HS). These

differences resulted in an increase of anywhere from .29 to .74 scaled score points.

Conclusion. Results indicated that, in general, a student's SES does not systematically predict TAGG scores. Contrary to much of the SES literature, the amount of poverty in the schools as indicated here by school-level FRL% was not a significant predictor of student TAGG scores. This may be due to assessing student skills and behaviors instead of academic variables. Additionally, it is encouraging that Family employment did not impact student TAGG scores, and a student's eligibility for free/reduced lunch had only minimal effects on the non-academic behaviors identified as important to college and career readiness for students with mild to moderate disabilities. This study did identify that family members with advanced degrees rated students as exhibiting more college and career readiness behaviors than those with less education, but the other two sources of data suggest that they may exhibit inflated scores. Overall, these results show little effects of SES on student TAGG scores. Our aim was to determine the extent which variables related to student SES could predict TAGG scores. These results provide validity evidence that TAGG scores are due to individual student differences, and not difference in SES variables.

Relations Between TAGG Scores and Other Variables

Relations Between TAGG Scores and Grade Point Average (GPA)

In this section, we will present relations between TAGG scores and student GPA. A rationale will first be given regarding the importance of determining the extent to which TAGG scores are related to students'

GPA. This rationale will be followed by a description of the participants providing data and the specific variables used in the investigation. Results and an interpretation of the evidence of validity obtained will conclude the section.

Rationale for Investigation

The term “college and career readiness” has been freely used in recent years in relation to academic standards (Conley, 2007). Student GPA is used as an indicator of students being college and career ready and GPA is a major criterion for postsecondary school admission and initial employment opportunities (Camara & Echternacht, 2000; Test, Mazzotti, Mustian, Fowler, Kortering, & Kohler, 2009). Academic achievement has been found to predict post-school employment (McDonnall & Crudden, 2009). McDonnall and Crudden (2009) and Raskind, Goldberg, Higgins, and Herman (1999) reported academic achievement as a predictor of post-school employment for students with disabilities. Other studies have found low GPAs prohibited students from attending postsecondary education, and GPA predicted employment (i.e., Horn, Berktold, & Bobbitt, 1999; Leonard et al., 1999).

Rarely, however, are the non-academic skills needed to fully become college and career ready identified nor are any non-academic skills included in the various college and career readiness standards. Axiomatically, non-academic student behaviors must also be associated with post-high school education and employment, and numerous studies have identified non-academic indicators of post-school success for students with disabilities (e.g., Benz, Lindstrom, & Yovanoff, 2000; Fourquarean, Meisgeier, Swank, & Williams, 1991; Halpern, Yovanoff, Doren, & Benz, 1995; Test et al., 2009).

Student GPAs appear to predict post-school employment and education for students with disabilities (Adelman, 2006; Baer et al., 2003; Blackorby et al., 1993; DaDeppo, 2009; Heal & Rusch, 1994; Heal & Rusch, 1995; Oakes & Saunders, 2007; White & Weiner, 2004). Yet, no research has examined how GPAs relate to non-academic behaviors associated with student post-school employment and education. This investigation looked at the relations between students’ GPAs and construct-level scores on all three versions of the TAGG. If a meaningful relation between TAGG scores and student GPA exists, educators could use GPA instead of using the TAGG to assess academic and non-academic college and career readiness. If a relation does not exist, this demonstrates a need for the TAGG because it assesses the non-academic behaviors researchers identified students with disabilities need for postsecondary education and employment. To answer this question, data from Phases 1 and 2 of the study presented in Chapter 3 have been compiled. The number of participants is not equal to those given in Chapter 3, because data to calculate GPA (described below) were collected from student transcripts and transcripts were missing for a number of participants. Below, demographic characteristics of both professional and student participants are given and are separated by study, but data for Phases 1 and 2 of the study were compiled to complete the analysis.

Professional participants. The majority of the professional participants identified themselves as female (93%) special education teachers (74%) with an average of 16.1 years of teaching experience. See Table 1 for more professional demographic information. Professional educators responded to the TAGG-P separately for each student participant, resulting in 650

responses. Please note that the investigation of GPA was completed in conjunction with the investigation of relations between TAGG-P scores and percentage of time a student spends in general education classes.

Family participants. Seventy-nine percent of family member participants identified themselves as mothers or stepmothers, 8% as fathers or stepfathers, and 4% as grandmothers. Approximately 98% of the family member participants reported that the student participant lived in the home with them. Four hundred seventy one family members responded to the Family version of the TAGG. See Table 36 for family member demographic information.

Student participants. Professional participants completed demographic information for student participants and reported all of the 650 high school student participants received special education services with the majority being identified as having a specific learning disability (59%) or labeled under other health impairment (13%). The sample contained slightly more males (55.4%) than females and the average age of the students was 16.7 years ($SD = 2.38$). Each of the 650 student participants completed the TAGG-S version. See Table 37 for additional student demographic information.

Independent variable and protocol for calculating GPA. Transcripts were obtained for 342 participating students across eight states and the unweighted method was used to calculate GPA. The first step was to calculate GPA on a 4-point scale where an A earned a value of four, a B earned a value of three, a C earned a value of two, a D earned a value of one, and an F earned a value of zero. The use of qualifiers such as “+” or “-” that split every grade into 3 sub-grades such as “B+”, “B”, and “B-”

were eliminated from consideration because they were not present in all transcripts. Average unweighted overall GPA and GPA for core classes (i.e., mathematics, English, social studies, and science) were calculated for each student based on the number of credits assigned to the student by the school. Due to local school control to determine which classes are considered in determining GPA, and number of credit hours assigned to each class, we did not attempt to make judgments inconsistent with the local school. For example, some schools counted driver’s education as an elective course, and students received a letter grade and course credit. Other schools simply assigned a “P” for “passed” as the letter grade for driver’s education and did not award graduation credit for the course. Driver’s education was entered as an elective for the student from the first school and was not entered for the student in the second school.

One researcher entered all overall GPAs and core GPAs for each student. To assess interrater agreement of GPA calculation, a second researcher used randomly selected transcripts and coded 30% of the student sample ($n = 209$). Student GPAs were considered in agreement if each fell within the same range. The eight ranges used for GPA are as follows (a) 0.0 - 0.49, (b) 0.5 - 0.99, (c) 1.0 - 1.49, (d) 1.5 - 1.99, (e) 2.0 - 2.49, (f) 2.5 - 2.99, (g) 3.0 - 3.49, (h) 3.50 and higher. Allensworth and Easton (2007) suggested these GPA ranges in their study that found freshman GPA was directly related with graduation rate. Interrater agreement was 94%, ensuring that the GPA protocol was clear, could be reproduced, and the scoring system produced reliable scores (Cooper, Heron, & Heward, 2007).

Dependent variables. Scaled scores for each of the 8 constructs on the TAGG-P and TAGG-F versions and the 7 constructs on the TAGG-S version were used as dependent variables. See Chapter 4 for an

explanation of the scaling methods used to develop these scores.

Results. Relations between student GPA as calculated using the above method and construct-level scores on the three TAGG versions were assessed using zero-order correlations. Jackson (2006) asserts Pearson's product-moment correlation coefficients between .29 and -.29 to have a weak strength and coefficient of determination below .16 to be too low to be considered meaningful, and these guidelines were used in the interpretation of the results. The students in this sample, on average, earned a GPA of 2.49 (SD = .60). The overall scores provided by educators and students did not provide statistically significant correlations or account for meaningful variance, $r(646) = .072$, $p > .05$; $r(637) = -.045$, $p > .05$, respectively.

Overall family TAGG scores yielded weak, negative correlations and were significant, yet did not provide a meaningful coefficient of determination $r(460) = -.101$, $p < .05$. Student GPA accounted for a small percentage of variance in overall TAGG scores provided by educators (0.6%), family members (1%), and students (0.2%). Table 38 presents correlations between TAGG scores and student GPA for each of the TAGG constructs for all three versions of the TAGG assessment. R^2 values, or coefficients of determination characterizing the percentage of variance jointly explained by the two variables, are included in Table 38 to aid in interpretation.

Conclusion. A student's high school GPA is often used as a criterion for admittance into postsecondary education and as a determination for scholarships. A low GPA could cause a student to not seek postsecondary education. Job resumes and applications often include an applicant's

GPA and could attribute to the employability of an individual. Student GPA and the courses used to calculate GPA vary from school to school. A 4.0 on a 4.0 scale is vastly different from a 4.0 on a 5.0 scale, yet most applications require only a numeric value without knowing what the value actually represents. A student who participated in advanced classes may have scored lower than a person who did well in remedial class, and the student in remedial classes may have a higher GPA. Still, GPA is an important determination in admittance into postsecondary education and may be a deciding factor between job applicants.

Many times, students with high GPAs are thought to possess all needed skills to succeed after high school, yet very little was found in the way of meaningful relations between student GPA and TAGG scores. Specifically, student GPA and overall TAGG-F scores yielded a weak, significant negative correlation that did not provide a meaningful coefficient of determination. TAGG scores provided by educators and students showed no relations to GPA and where significant correlations were found, the percentage of variance in TAGG scores explained by students' GPAs was not meaningful. The results of this analysis show the TAGG assesses behaviors different than behaviors associated with student GPA.

Relations Between TAGG Scores and Percentage of Time Spent in General Education

In this section, we will present relations between TAGG scores and the percentage of time students spend in general education classrooms. A rationale will first be given regarding the importance of determining the extent to which TAGG scores are related to the percentage of time spent in general education classrooms. This rationale will be followed by a description of the specific

variables used in the investigation. Results and an interpretation of the evidence of validity obtained will conclude the section.

Because this study used the same sample as that of the investigation of relations between TAGG scores and student GPA, no details of the participants will be given here. Readers are directed to Tables 1, 36, and 37, as well as the participant description in the previous section of this chapter for more information on the participants for this investigation.

Independent variable. In the course of giving demographic information about the students, professionals indicated the number of periods in each student's school day. The professional educator then indicated the number of periods in which each student received educational instruction in the general education setting. We calculated percent of time in general education by dividing the number of periods professionals indicated the students spent in general education by the number of total periods in the student's school day and then multiplied the quotient by 100.

Dependent variables. Scaled scores for each of the 8 constructs on the TAGG-P and TAGG-F versions and the 7 constructs on the TAGG-S version were used as dependent variables. See Chapter 4 for an explanation of the scaling methods used to develop these scores.

Results. As with the previous investigation of relations between TAGG scores and GPA, relations between TAGG scores and percentage of time spent in a general education classroom were also assessed using zero-order correlations and the rules of interpretation provided by Jackson (2006). The students in this sample received

approximately 70% of instruction in the general education setting ($SD = 26.35$).

Overall TAGG scores provided by professional educators, family members, and students provided significant positive correlations too low to be meaningful with the students' percent of time in general education [TAGG-P: $r(651) = .102, p < .01$; TAGG-F: $r(468) = .096, p < .05$; TAGG-S: $r(640) = .091, p < .05$]. Table 39 provides correlation coefficients for all versions between TAGG scores and the percentage of time students spend in general education for all constructs, along with R^2 values to aid in interpretation.

The domain *Interacting with Others* yielded the highest correlations for all three versions, $r(649) = .232, p < .01$; $r(466) = .176, p < .01$; $r(640) = .150, p < .01$, respectively, yet these correlations did not account for enough variance to be considered meaningful ($R^2 = .054$), ($R^2 = .030$), ($R^2 = .023$), respectively. Percent of time students received instruction in the general education setting accounted for very small percentage of variance in overall TAGG scores provided by educators (1%), family members (.9%), and students (.8%).

Conclusion. The percent of time students received instruction in the general education setting ranged from 0% to 100% and had very little impact on the total TAGG scores provided by educators, family members, and students. Overall TAGG scores provided by educators, family members, and students provided very weak significant positive correlations too low to be meaningful with the students' percent of time in general education. At the construct level, students who received more instruction in the general education setting tended to score slightly higher in the area of Interacting with Others, yet the low correlations suggest no

meaningful relation. The large sample size could have caused the correlations to show significance even when a meaningful correlation did not exist.

The results of this analysis show the TAGG assesses behaviors different than behaviors associated with the percent of time students receive instruction in the general education classroom.

The only construct to yield a small significant relation to educational setting was Interacting with Others. Interacting with others requires students to successfully intermingle with others in a variety of settings. Students who can get along with others will be more likely to be successful in group work, requesting assistance from teachers and peers, and spend less time out of the classroom due to disciplinary issues. A teacher may be more likely to give assistance, extra-time, and allowances to a student who is amicable than to a student who is defiant and does not interact well with others, and this could be reflected in the student's educational placement. Including students in the general education setting may be important to meet college entry requirements, but the curriculum may not include systematic teaching of non-academic skills needed for post-school employment and education.

References

- Adelman, C. (2006). *The toolbox revisited: Paths to degree completion from high school through college*. Washington, D.C.: U.S. Department of Education.
- Allensworth, E. M., & Easton, J. Q. (2007). *What matters for staying on-track and graduating in Chicago public high schools: A close look at course grades, failures, and attendance in the freshman year*. Chicago, IL: University of Chicago, Consortium on Chicago School Research. Retrieved from <http://ccsr.uchicago.edu/publications/07%20What%20Matters%20Final.pdf>
- Baer, R. M., Flexer, R. W., Beck, S., Amstutz, N. Hoffman, L., Brothers, J., et al. (2003). A collaborative followup study on transition service utilization and post-school outcomes. *Career Development for Exceptional Individuals*, 26, 7-25.
- Benz, M., Lindstrom, L., & Yovanoff, P. (2000). Improving graduation and employment outcomes of students with disabilities: Predictive factors and student perspectives. *Exceptional Children*, 66, 509-529.
- Blackorby, J., Hancock, G. R., & Siegel, S. (1993). *Human capital and structural explanations of post-school success for youth with disabilities: A latent variable exploration of the National Longitudinal Transition Study*. Menlo Park, CA: SRI International.
- Camara, W. J. & Echternacht, G. (2000). *The SAT and high school grades: Utility in predicting success in college*. College Entrance Examination Board, Office of Research and Development. New York, NY: College Board.
- Christie, A. M., & Barling, J. (2010). Beyond status: relating status inequality to performance and health in teams. *Journal of Applied Psychology*, 95, 920.
- Conley, D. T. (2007). *Toward a more comprehensive conception of college readiness: Prepared for the Bill and Melinda Gates foundation*. Retrieved from: www.collegiatedirections.org/2007_Gates_CollegeReadinessPaper.pdf
- Cooper, J. O., Heron, T. E., & Heward, W. L. (2007). *Applied behavior analysis* (2nd ed.). Upper Saddle River, NJ: Pearson.
- DaDeppo, L. (2009). Integration factors related to the academic success and intent to persist of college students with learning disabilities. *Learning Disabilities Research and Practice*, 24, 122-131.
- Fourqurean, J., Meisgeier, C., Swank, P., & Williams, R. (1991). Correlates of postsecondary employment outcomes for young adults with learning disabilities. *Journal of Learning Disabilities*, 24, 400-405.
- Halpern, A., Yovanoff, P., Doren, B., & Benz, M. (1995). Predicting participation in postsecondary education for school leavers with disabilities. *Exceptional Children*, 62, 151-164.
- Heal, L. W., & Rusch, F. R. (1994). Prediction of residential independence of special education high school students. *Research in Developmental Disabilities*, 15, 223-243.
- Heal, L. W., & Rusch, F. R. (1995). Predicting employment for students who leave special education high school programs. *Exceptional Children*, 61, 472-487.
- Horn, L., Berkold, J., & Bobbitt, L. (1999). *Students with disabilities in postsecondary education: A profile of preparation, participation, and outcomes (NCES 1999-187)*. Washington, DC: U.S. Department of Education, National Center for Educational Statistics.
- Jackson, S. L. (2006). *Research methods and statistics: A critical thinking approach*. Belmont, CA: Thomson Wadsworth.

- Leonard, R., D'Allura, T., & Horowitz, A. (1999). Factors associated with employment among persons who have a vision impairment: A follow-up of vocational placement referrals. *Journal of Vocational Rehabilitation, 12*, 33-43.
- Luke, D. A. (Ed.). (2004). *Multilevel modeling* (Vol. 143). Thousand Oaks, CA: Sage Publishing, Inc.
- McDonnall, M. C., & Crudden, A. (2009). Factors affecting the success of transition-aged youths with visual impairments. *Journal of Visual Impairments and Blindness, 103*, 329-341.
- Oakes, J. & Saunders, M. (2007). Multiple pathways: School reform that promises to prepare all students for college, career, and civic responsibility. *UCLA's institute for democracy, education, & access. Multiple perspectives on multiple pathways series*. Retrieved from <http://repositories.cdlib.org/idea/mp/mp-rr002-0207>
- Raskind, M., Goldberg, R., Higgins, E., & Herman, K. (1999). Patterns of change and predictors of success in individuals with learning disabilities: Results from a twenty-year longitudinal study. *Learning Disabilities Research & Practice, 14*, 35-49.
- Test, D. W., Mazzotti, V. L., Mustian, A. L., Fowler, C. H., Kortering, L. J., & Kohler, P. H. (2009). Evidence-based secondary transition predictors for improving post-school outcomes for students with disabilities. *Career Development for Exceptional Individuals, 32*, 160-181.
- White, J., & Weiner, J. S. (2004). Influence of least restrictive environment and community based training on integrated employment outcomes for transitioning students with severe disabilities. *Journal of Vocational Rehabilitation, 21*, 149-156.

Table 1

Professional Demographics for Gender, Disability Category, GPA, and Percent of Time in General Education Studies

Characteristic	n	%
Gender		
Male	5	6.9
Female	67	93.1
Race or Ethnicity		
White or Caucasian	59	81.9
Black or African American	10	13.9
Other Hispanic, Latino, or Spanish	3	4.2
American Indian	4	5.6
Mexican, Mexican American, Chicano	1	1.4
Highest Level of Education		
Bachelor's degree	9	12.5
Some Master's Courses	15	24.2
Master's Degree	25	34.7
Ed.S.	6	8.3
Some Ph.D. or Ed.D. Courses	4	5.6
Missing Data	3	4.2
Position		
Job Coach	2	2.8
Rehabilitation Counselor	1	1.4
Special Education Director	4	5.6
Special Education Teacher	53	73.6
Other	16	22.2

Note. When totals are less than 72, data are missing. For this sample, $M = 48.2$ ($SD = 10.1$) for age and $M = 16.1$ ($SD = 10.9$) for number of years teaching students with disabilities.

Table 2

Family Demographics for Gender and Disability Category Studies

Characteristic	Entire Sample		MANOVA study	
	n	%	n	%
Relationship to Student				
Mother	393	79.1	369	80.2
Father	56	11.3	50	10.9
Grandmother	4	4.6	20	4.3
Legal Male Guardian	4	.8	3	.7
Legal Female Guardian	5	1.0	4	.2
Grandfather	2	.4	1	.2
Brother	1	.2	1	.2
Sister	2	.4	2	.4
Aunt	3	.6	3	.7
Other	8	1.6	7	1.5
Race or Ethnicity				
Caucasian	368	63.6	344	64.2
African American	50	8.6	46	8.6
American Indian	42	7.3	38	7.1
Other Hispanic, Latino, or Spanish	32	5.5	29	5.4
Mexican, Mexican American, Chicano	19	3.3	17	3.2
Cuban	2	.3	1	.2
Other	10	1.7	10	1.9
Highest Level of Education				
Less than high school	60	12.4	55	12.2
High school diploma or GED	204	42.1	191	42.5
Bachelor's Degree	61	12.6	53	11.8
Associate's Degree	75	15.5	72	16.0
Vocational or technical Certification	58	12.0	54	12.0
Master's Degree	20	4.1	18	4.0
Doctorate or other professional degree	6	1.2	6	1.3

Note. For entire sample, when totals are less than 497, data are missing. For this sample, $M = 43.88$ ($SD = 9.974$) for age. For MANOVA sample, when totals are less than 460, data are missing. For this sample, $M = 43.65$ ($SD = 9.858$) for age.

Table 3

Student Demographics for Gender and Disability Category Studies

Characteristic	Entire Sample		MANOVA study	
	n	%	n	%
Gender				
Male	380	55.0	360	55.7
Female	305	44.1	283	43.8
Race or Ethnicity				
Caucasian	475	68.7	447	69.2
African American	100	14.5	96	14.9
American Indian	60	8.7	55	8.5
Other Hispanic, Latino, or Spanish	31	4.5	48	7.4
Mexican, Mexican American, Chicano	31	4.5	25	3.9
Other	7	1.0	6	.9
Grade				
9 th	114	16.5	106	16.4
10 th	146	21.1	137	21.2
11 th	182	26.3	173	26.8
12 th	242	35.0	227	35.1
Primary Disability				
Specific Learning Disability	411	59.5	411	63.6
Intellectual Disability	86	12.4	86	13.3
Other Health Impairment	87	12.6	87	13.5
Emotional Disturbance	40	5.8	40	6.2
Autism	22	3.2	22	3.4
Multiple Disabilities	11	1.6	--	--
Orthopedic Impairment	5	.7	--	--
Other	5	.7	--	--
Speech or Language Impairment	5	.7	--	--
Traumatic Brain Injury	4	.6	--	--
Hearing Impairment	6	.9	--	--
Deaf-Blindness	1	.1	--	--
Receives Free or Reduced Lunch				
Yes	380	55.0	355	55.0
No	248	35.9	233	36.1
Missing	63	9.1	58	9.0

Note. For entire sample, when totals are less than 691, data are missing. For this sample, $M = 16.72$ ($SD = 2.351$) for age. For MANOVA sample, when totals are less than 646, data are missing. For this sample, $M = 16.69$ ($SD = 2.371$) for age.

Table 4

Descriptive Statistics and Univariate Follow-Up Tests for Gender and TAGG-P Scores

Construct	Descriptives		Univariate tests	
	Male	Female	<i>F</i>	<i>p</i>
Strengths and Limitations	-.03 (.90)	.03 (.92)	.784	.376
Disability Awareness	-.01 (.83)	.02 (.92)	.199	.656
Persistence	-.05 (.92)	.06 (.99)	2.014	.156
Interacting with Others	-.05 (.89)	.05 (.82)	2.079	.150
Goal Setting and Attainment	-.01 (.94)	.04 (.98)	.472	.492
Employment	.05 (.91)	-.04 (1.11)	1.386	.239
Student Involvement in the IEP	-.01 (.94)	.03 (.90)	.326	.568
Support Community	-.20 (.98)	-.13 (.97)	.824	.364

Table 5

Descriptive Statistics and Univariate Follow-Up Tests for Gender and TAGG-F Scores

Construct	Descriptives		Univariate tests	
	Male	Female	<i>F</i>	<i>p</i>
Strengths and Limitations	-.08 (.92)	.08 (.86)	4.150	.042
Disability Awareness	-.09 (.84)	.13 (.93)	6.985	.008
Persistence	-.07 (.98)	.10 (.90)	4.080	.044
Interacting with Others	-.03 (.75)	.03 (.70)	.947	.331
Goal Setting and Attainment	-.03 (1.68)	.28 (2.35)	1.755	.186
Employment	.16 (1.28)	-.05 (1.15)	3.592	.059
Student Involvement in the IEP	-.03 (.90)	.06 (.93)	1.214	.271
Support Community	-.03 (.77)	.06 (.80)	1.729	.189

Table 6

Descriptive Statistics and Univariate Follow-Up Tests for Gender and TAGG-S Scores

Construct	Descriptives		Univariate tests	
	Male	Female	<i>F</i>	<i>p</i>
Strengths and Limitations and Support Community	.03 (.80)	-.02 (.76)	.496	.482
Disability Awareness	.01 (.80)	-.01 (.76)	.242	.623
Persistence	.06 (.88)	-.05 (.88)	2.296	.130
Interacting with Others	.03 (.68)	-.01 (.67)	.553	.457
Goal Setting and Attainment	.09 (1.06)	-.04 (.82)	2.916	.088
Employment	.07 (.86)	-.02 (.78)	2.034	.154
Student Involvement in the IEP	-.08 (.89)	.09 (.86)	5.692	.017

Table 7

Descriptive Statistics for TAGG-P Scores for Included Cases by Disability Category

Construct	Autism	Emotional disturbance	Intellectual disability	Other health impairment	Specific learning disability
Strengths and Limitations	-.51 (1.0)	-.34 (.93)	-.19 (.86)	.11 (.97)	.11 (.86)
Disability Awareness	-.47 (.78)	-.40 (.99)	-.17 (.86)	.08 (.83)	.12 (.82)
Persistence	-.30 (1.13)	-.60 (1.09)	-.28 (.89)	.03 (.94)	.13 (.93)
Interacting with Others	-.48 (.62)	-.69 (.94)	-.00 (.70)	-.15 (.79)	.10 (.87)
Goal Setting and Attainment	-.42 (.85)	-.50 (1.05)	-.40 (.89)	.14 (.85)	.18 (.93)
Employment	-.43 (1.00)	-.38 (1.10)	-.07 (.87)	-.06 (.94)	.14 (1.03)
Student Involvement in the IEP	-.54 (1.04)	-.23 (1.09)	-.16 (.95)	.07 (.85)	.10 (.89)
Support Community	-.48 (.92)	-.69 (.94)	-.10 (1.03)	-.23 (.98)	-.10 (.95)

Table 8

Descriptive Statistics for TAGG-F Scores for Included Cases by Disability Category

Construct	Autism	Emotional disturbance	Intellectual disability	Other health impairment	Specific learning disability
Strengths and Limitations	-.69 (.77)	-.35 (.81)	.03 (.90)	.00 (.88)	.13 (.85)
Disability Awareness	-.42 (.76)	-.18 (.77)	-.08 (.85)	.10 (.91)	.09 (.90)
Persistence	-.41 (.94)	-.51 (.68)	-.14 (.82)	-.20 (.97)	.20 (.97)
Interacting with Others	-.37 (.79)	-.40 (.70)	-.03 (.64)	.09 (.76)	.06 (.72)
Goal Setting and Attainment	-.81 (.84)	-.63 (.88)	.10 (3.17)	-.06 (.89)	.41 (2.05)
Employment	-.50 (.92)	.19 (2.54)	-.23 (.79)	.03 (.75)	.21 (1.21)
Student Involvement in the IEP	-.80 (.87)	-.22 (.93)	-.08 (.85)	-.10 (.88)	.16 (.89)
Support Community	-.53 (.82)	-.15 (.76)	-.19 (.82)	-.09 (.70)	.17 (.74)

Table 9

Descriptive Statistics for TAGG-S Scores for Included Cases by Disability Category

Construct	Autism	Emotional disturbance	Intellectual disability	Other health impairment	Specific learning disability
Strengths and Limitations and Support Community	-.39 (.80)	-.20 (.72)	-.20 (.82)	.22 (.75)	.08 (.74)
Disability Awareness	-.10 (.69)	-.18 (.71)	.05 (.71)	.03 (.86)	.03 (.77)
Persistence	-.18 (.84)	-.18 (1.01)	-.17 (.94)	.09 (.66)	.10 (.88)
Interacting with Others	-.14 (.69)	-.25 (.60)	-.13 (.68)	.14 (.64)	.04 (.67)
Goal Setting and Attainment	-.28 (1.07)	-.30 (.79)	-.16 (.94)	.14 (.82)	.11 (.99)
Employment	-.46 (.89)	-.17 (.76)	-.26 (.73)	.32 (1.15)	.07 (.74)
Student Involvement in the IEP	-.65 (.83)	-.38 (.86)	.15 (.81)	.00 (.10)	.03 (.84)

Table 10

Descriptive Statistics for TAGG-P Scores for Excluded Cases by Disability Category

Construct	Deaf-Blindness	Hearing impairment	Multiple Disabilities	Other	Orthopedic Impairment	Speech language impairment	Traumatic Brain injury	Visual Impairment
Strengths and Limitations	.64	.59 (.65)	-1.24 (.81)	-.72 (.77)	-.42 (.44)	-.01 (.54)	-.35 (.69)	-.08
Disability Awareness	-.14	.94 (.59)	-1.49 (.53)	-.56 (.43)	-.19 (.86)	-.42 (.67)	-.20 (.58)	.90
Persistence	.69	.51 (1.07)	-.17 (.64)	-.70 (1.07)	-.69 (.40)	-.12 (.61)	-.03 (.33)	.90
Interacting with Others	-.28	.12 (.79)	.62 (.79)	-.69 (.60)	-.52 (.46)	.39 (.59)	.24 (.93)	.41
Goal Setting and Attainment	.41	.83 (.91)	-.89 (.78)	-1.30 (.49)	-.50 (.76)	-.11 (.58)	-.20 (.98)	.97
Employment	-.03	-.05 (.44)	-.03 (.82)	-.27 (1.00)	-1.30 (.68)	-.24 (.40)	-.16 (1.25)	1.25
Student Involvement in the IEP	.17	-.06 (.89)	-.49 (.74)	-.62 (.58)	-.66 (.38)	-.22 (.51)	.63 (1.49)	2.24
Support Community	-1.61	.27 (1.18)	.05 (.84)	-.84 (.70)	-.98 (.41)	-.69 (.85)	-.09 (1.44)	1.27

Note. Categories Deaf-blindness and Visual Impairment N = 1

Table 11

Descriptive Statistics for TAGG-F Scores for Excluded Cases by Disability Category

Construct	Deaf-Blindness	Hearing impairment	Multiple Disabilities	Other	Orthopedic Impairment	Speech language impairment	Traumatic Brain injury	Visual Impairment
Strengths and Limitations	-.78	.51 (.77)	-1.11 (.82)	-1.39 (.37)	-.71 (.94)	-.14 (.59)	.33 (.91)	.51
Disability Awareness	1.08	.48 (.71)	-.80 (.82)	-.14 (1.11)	-.53 (.37)	.16 (.53)	.08 (.79)	.53
Persistence	.69	.14 (1.09)	-.66 (.80)	-.46 (1.00)	-.79 (1.31)	.08 (.88)	.55 (.88)	.69
Interacting with Others	1.13	.21 (.64)	-.41 (.55)	-.00 (.09)	-.87 (1.04)	.51 (.57)	.42 (.49)	.62
Goal Setting and Attainment	1.18	.13 (.84)	-1.19 (.70)	.15 (.52)	-.90 (.92)	-.08 (.92)	.57 (.91)	.85
Employment	.66	-.50 (.50)	-.34 (.90)	-.39 (1.45)	-1.26 (.85)	.04 (1.12)	.04 (.68)	-.34
Student Involvement in the IEP	1.34	.33 (.72)	-1.04 (.75)	-.26 (.40)	-.21 (.55)	.12 (.95)	.14 (.90)	1.13
Support Community	1.48	.21 (.91)	-.75 (.48)	-.82 (1.05)	-.56 (.53)	.02 (.49)	.05 (.86)	.95

Note. Categories Deaf-blindness and Visual Impairment N = 1

Table 12

Descriptive Statistics for TAGG-S Scores for Excluded Cases by Disability Category

Construct	Deaf-Blindness	Hearing impairment	Multiple Disabilities	Other	Orthopedic Impairment	Speech language impairment	Traumatic Brain injury	Visual Impairment
Strengths and Limitations	1.45	-.61 (1.12)	-.36 (1.10)	-.89 (.55)	.27 (.78)	-.08 (.54)	-.42 (.65)	-1.14
Disability Awareness	1.70	.37 (.91)	-.71 (.76)	-.48 (.70)	-.73 (.44)	-.08 (.74)	-.09 (.74)	-1.27
Persistence	.55	-.62 (1.12)	-.58 (1.04)	-.48 (.70)	-.73 (.44)	-.08 (.74)	-.09 (.74)	-1.27
Interacting with Others	.97	-.49 (.86)	.47 (.54)	-.48 (.22)	.06 (.95)	.29 (.18)	-.52 (.99)	-.38
Goal Setting and Attainment	1.54	.24 (.54)	-.59 (1.20)	-.45 (.30)	.13 (1.24)	.28 (.91)	.12 (1.08)	-.99
Employment	.25	-.17 (.98)	.27 (.20)	-.78 (1.34)	-.21 (.63)	.21 (.40)	.38 (.14)	.25
Student Involvement in the IEP	1.47	.61 (.91)	-.42 (.87)	-.15 (.39)	.28 (1.46)	.38 (.87)	.03 (.59)	-.60

Note. Categories Deaf-blindness and Visual Impairment N = 1

Table 13

Mean Differences Between Scores for Students Having Different Disabilities for the Strengths and Limitations Construct on the TAGG-P

	Autism		ED		ID		OHI	
	Diff.	p	Diff.	p	Diff.	p	Diff.	p
ED	-.16	1.00	--	--	--	--	--	--
ID	-.32	1.00	-.15	1.00	--	--	--	--
OHI	-.62	.03*	-.46	.08	-.30	.27	--	--
SLD	-.62	.02*	-.45	.02*	-.30	.05	.01	1.00

Note: Difference is calculated by subtracting the mean scaled score of the students with disability categories in the row from the mean scaled score of the students with disability categories in the column. * represents $p < .05$. ED = Emotional disturbance, ID = Intellectual disability, OHI = Other health impairment, and SLD = Specific learning disability.

Table 14

Mean Differences Between Scores for Students Having Different Disabilities for the Disability Awareness Construct on the TAGG-P

	Autism		ED		ID		OHI	
	Diff.	p	Diff.	p	Diff.	P	Diff.	p
ED	-.08	1.00	--	--				
ID	-.31	1.00	-.23	1.00	--	--		
OHI	-.55	.06	-.48	.04*	-.24	.61	--	--
SLD	-.60	.01*	-.52	.00**	-.29	.04*	-.04	1.00

Note: Difference is calculated by subtracting the mean scaled score of the students with disability categories in the row from the mean scaled score of the students with disability categories in the column. * represents $p < .05$. ** represents $p < .01$. ED = Emotional disturbance, ID = Intellectual disability, OHI = Other health impairment, and SLD = Specific learning disability.

Table 15

Mean Differences Between Scores for Students Having Different Disabilities for the Persistence Construct on the TAGG-P

	Autism		ED		ID		OHI	
	Diff.	p	Diff.	p	Diff.	p	Diff.	p
ED	.30	1.00	--	--				
ID	-.02	1.00	-.32	.78	--	--		
OHI	-.33	1.00	-.63	.01*	-.31	.35	--	--
SLD	-.43	.38	-.73	.00**	-.41	.00**	-.10	1.00

Note: Difference is calculated by subtracting the mean scaled score of the students with disability categories in the row from the mean scaled score of the students with disability categories in the column. * represents $p < .05$. ** represents $p < .01$. ED = Emotional disturbance, ID = Intellectual disability, OHI = Other health impairment, and SLD = Specific learning disability.

Table 16

Mean Differences Between Scores for Students Having Different Disabilities for the Interacting with Others Construct on the TAGG-P

	Autism		ED		ID		OHI	
	Diff.	p	Diff.	p	Diff.	p	Diff.	p
ED	.22	1.00	--	--				
ID	-.47	.19	-.69	.00**	--	--		
OHI	-.33	1.00	-.54	.01*	.15	1.00	--	--
SLD	-.58	.02*	-.79	.00**	-.11	1.00	-.25	.13

Note: Difference is calculated by subtracting the mean scaled score of the students with disability categories in the row from the mean scaled score of the students with disability categories in the column. * represents $p < .05$. ** represents $p < .01$. ED = Emotional disturbance, ID = Intellectual disability, OHI = Other health impairment, and SLD = Specific learning disability.

Table 17

Mean Differences Between Scores for Students Having Different Disabilities for the Goal Setting and Attainment Construct on the TAGG-P

	Autism		ED		ID		OHI	
	Diff.	p	Diff.	p	Diff.	p	Diff.	p
ED	.07	1.00	--	--				
ID	-.02	1.00	-.10	1.00	--	--		
OHI	-.56	.11	-.64	.00**	-.54	.00**	--	--
SLD	-.60	.03*	-.68	.00**	-.58	.00**	-.04	1.00

Note: Difference is calculated by subtracting the mean scaled score of the students with disability categories in the row from the mean scaled score of the students with disability categories in the column. * represents $p < .05$. ** represents $p < .01$. ED = Emotional disturbance, ID = Intellectual disability, OHI = Other health impairment, and SLD = Specific learning disability.

Table 18

Mean Differences Between Scores for Students Having Different Disabilities for the Employment Construct on the TAGG-P

	Autism		ED		ID		OHI	
	Diff.	p	Diff.	p	Diff.	p	Diff.	p
ED	-.05	1.00	--	--				
ID	-.35	1.00	-.30	1.00	--	--		
OHI	-.36	1.00	-.31	1.00	-.01	1.00	--	--
SLD	-.56	.11	-.51	.02*	-.21	.85	-.20	.99

Note: Difference is calculated by subtracting the mean scaled score of the students with disability categories in the row from the mean scaled score of the students with disability categories in the column. * represents $p < .05$. ED = Emotional disturbance, ID = Intellectual disability, OHI = Other health impairment, and SLD = Specific learning disability.

Table 19

Mean Differences Between Scores for Students Having Different Disabilities for the Student Involvement in the IEP Construct on the TAGG-P

	Autism		ED		ID		OHI	
	Diff.	p	Diff.	p	Diff.	p	Diff.	p
ED	-.31	1.00	--	--	--	--	--	--
ID	-.38	.83	-.07	1.00	--	--	--	--
OHI	-.62	.05	-.31	.81	-.24	.93	--	--
SLD	-.64	.01*	-.33	.31	-.26	.18	-.02	1.00

Note: Difference is calculated by subtracting the mean scaled score of the students with disability categories in the row from the mean scaled score of the students with disability categories in the column. * represents $p < .05$. ED = Emotional disturbance, ID = Intellectual disability, OHI = Other health impairment, and SLD = Specific learning disability.

Table 20

Mean Differences Between Scores for Students Having Different Disabilities for the Support Community Construct on the TAGG-P

	Autism		ED		ID		OHI	
	Diff.	p	Diff.	p	Diff.	p	Diff.	p
ED	.20	1.00	--	--				
ID	-.38	.99	-.59	.02*	--	--		
OHI	-.25	1.00	-.45	.16	.13	1.00	--	--
SLD	-.39	.67	-.59	.00**	-.01	1.00	-.14	1.00

Note: Difference is calculated by subtracting the mean scaled score of the students with disability categories in the row from the mean scaled score of the students with disability categories in the column. * represents $p < .05$. ** represents $p < .01$. ED = Emotional disturbance, ID = Intellectual disability, OHI = Other health impairment, and SLD = Specific learning disability.

Table 21

Mean Differences Between Scores for Students Having Different Disabilities for the Strengths and Limitations Construct on the TAGG-F

	Autism		ED		ID		OHI	
	Diff.	P	Diff.	p	Diff.	p	Diff.	p
ED	-.34	1.00	--	--	--	--	--	--
ID	-.72	.01*	-.38	.56	--	--	--	--
OHI	-.69	.02*	-.35	.80	.02	1.00	--	--
SLD	-.82	.00**	-.48	.06	-.10	1.00	-.13	1.00

Note: Difference is calculated by subtracting the mean scaled score of the students with disability categories in the row from the mean scaled score of the students with disability categories in the column. * represents $p < .05$. ** represents $p < .01$. ED = Emotional disturbance, ID = Intellectual disability, OHI = Other health impairment, and SLD = Specific learning disability.

Table 22

Mean Differences Between Scores for Students Having Different Disabilities for the Disability Awareness Construct on the TAGG-F

	Autism		ED		ID		OHI	
	Diff.	p	Diff.	p	Diff.	P	Diff.	p
ED	-.23	1.00	--	--				
ID	-.34	1.00	-.11	1.00	--	--		
OHI	-.51	.24	-.28	1.00	-.18	1.00	--	--
SLD	-.51	.12	-.27	1.00	-.17	1.00	.01	1.00

Note: Difference is calculated by subtracting the mean scaled score of the students with disability categories in the row from the mean scaled score of the students with disability categories in the column. ED = Emotional disturbance, ID = Intellectual disability, OHI = Other health impairment, and SLD = Specific learning disability.

Table 23

Mean Differences Between Scores for Students Having Different Disabilities for the Persistence Construct on the TAGG-F

	Autism		ED		ID		OHI	
	Diff.	p	Diff.	p	Diff.	p	Diff.	p
ED	.10	1.00	--	--				
ID	-.27	1.00	-.36	.86	--	--		
OHI	-.20	1.00	-.30	1.00	.06	1.00	--	--
SLD	-.61	.03*	-.71	.00**	-.35	.07	-.41	.03*

Note: Difference is calculated by subtracting the mean scaled score of the students with disability categories in the row from the mean scaled score of the students with disability categories in the column. * represents $p < .05$. ** represents $p < .01$. ED = Emotional disturbance, ID = Intellectual disability, OHI = Other health impairment, and SLD = Specific learning disability.

Table 24

Mean Differences Between Scores for Students Having Different Disabilities for the Interacting with Others Construct on the TAGG-F

	Autism		ED		ID		OHI	
	Diff.	p	Diff.	p	Diff.	p	Diff.	P
ED	.03	1.00	--	--				
ID	-.34	.60	-.37	.24	--	--		
OHI	-.45	.13	-.49	.04*	-.12	1.00	--	--
SLD	-.43	.08	-.47	.01*	-.09	1.00	.02	1.00

Note: Difference is calculated by subtracting the mean scaled score of the students with disability categories in the row from the mean scaled score of the students with disability categories in the column. * represents $p < .05$. ** represents $p < .01$. ED = Emotional disturbance, ID = Intellectual disability, OHI = Other health impairment, and SLD = Specific learning disability.

Table 25

Mean Differences Between Scores for Students Having Different Disabilities for the Goal Setting and Attainment Construct on the TAGG-F

	Autism		ED		ID		OHI	
	Diff.	p	Diff.	p	Diff.	p	Diff.	p
ED	-.18	1.00	--	--				
ID	-.90	.82	-.72	1.00	--	--		
OHI	-.75	1.00	-.57	1.00	.15	1.00	--	--
SLD	-1.21	.09	-1.03	.13	-.31	1.00	-.46	1.00

Note: Difference is calculated by subtracting the mean scaled score of the students with disability categories in the row from the mean scaled score of the students with disability categories in the column. ED = Emotional disturbance, ID = Intellectual disability, OHI = Other health impairment, and SLD = Specific learning disability.

Table 26

Mean Differences Between Scores for Students Having Different Disabilities for the Employment Construct on the TAGG-F

	Autism		ED		ID		OHI	
	Diff.	p	Diff.	p	Diff.	p	Diff.	p
ED	-.68	.56	--	--				
ID	-.27	1.00	.41	1.00	--	--		
OHI	-.53	.95	.16	1.00	-.26	1.00	--	--
SLD	-.71	.11	-.02	1.00	-.44	.11	-.18	1.00

Note: Difference is calculated by subtracting the mean scaled score of the students with disability categories in the row from the mean scaled score of the students with disability categories in the column. ED = Emotional disturbance, ID = Intellectual disability, OHI = Other health impairment, and SLD = Specific learning disability.

Table 27

Mean Differences Between Scores for Students Having Different Disabilities for the Student Involvement in the IEP Construct on the TAGG-F

	Autism		ED		ID		OHI	
	Diff.	p	Diff.	p	Diff.	p	Diff.	p
ED	-.58	.25	--	--				
ID	-.72	.01*	-.14	1.00	--	--		
OHI	-.70	.02*	-.12	1.00	.02	1.00	--	--
SLD	-.97	.00**	-.39	.31	-.25	.48	-.27	.42

Note: Difference is calculated by subtracting the mean scaled score of the students with disability categories in the row from the mean scaled score of the students with disability categories in the column. * represents $p < .05$. ** represents $p < .01$. ED = Emotional disturbance, ID = Intellectual disability, OHI = Other health impairment, and SLD = Specific learning disability.

Table 28

Mean Differences Between Scores for Students Having Different Disabilities for the Support Community Construct on the TAGG-F

	Autism		ED		ID		OHI	
	Diff.	P	Diff.	p	Diff.	p	Diff.	p
ED	-.38	.84	--	--				
ID	-.34	.75	-.04	1.00	--	--		
OHI	-.45	.21	-.07	1.00	-.11	1.00	--	--
SLD	-.71	.00**	-.33	.33	-.37	.01*	-.26	.21

Note: Difference is calculated by subtracting the mean scaled score of the students with disability categories in the row from the mean scaled score of the students with disability categories in the column. * represents $p < .05$. ** represents $p < .01$. ED = Emotional disturbance, ID = Intellectual disability, OHI = Other health impairment, and SLD = Specific learning disability.

Table 29

Mean Differences Between Scores for Students Having Different Disabilities for the Strengths and Limitations and Support Community Construct on the TAGG-S

	Autism		ED		ID		OHI	
	Diff.	P	Diff.	p	Diff.	p	Diff.	p
ED	-.19	1.00	--	--				
ID	-.19	1.00	.00	1.00	--	--		
OHI	-.61	.01*	-.42	.04*	-.42	.00**	--	--
SLD	-.47	.05	-.27	.30	-.28	.03*	.14	1.00

Note: Difference is calculated by subtracting the mean scaled score of the students with disability categories in the row from the mean scaled score of the students with disability categories in the column. * represents $p < .05$. ** represents $p < .01$. ED = Emotional disturbance, ID = Intellectual disability, OHI = Other health impairment, and SLD = Specific learning disability.

Table 30

Mean Differences Between Scores for Students Having Different Disabilities for the Disability Awareness Construct on the TAGG-S

	Autism		ED		ID		OHI	
	Diff.	p	Diff.	p	Diff.	P	Diff.	p
ED	.08	1.00	--	--				
ID	-.15	1.00	-.23	1.00	--	--		
OHI	-.13	1.00	-.21	1.00	.02	1.00	--	--
SLD	-.13	1.00	-.21	1.00	.02	1.00	.00	1.00

Note: Difference is calculated by subtracting the mean scaled score of the students with disability categories in the row from the mean scaled score of the students with disability categories in the column. ED = Emotional disturbance, ID = Intellectual disability, OHI = Other health impairment, and SLD = Specific learning disability.

Table 31

Mean Differences Between Scores for Students Having Different Disabilities for the Persistence Construct on the TAGG-S

	Autism		ED		ID		OHI	
	Diff.	p	Diff.	p	Diff.	p	Diff.	p
ED	.00	1.00	--	--				
ID	-.01	1.00	-.01	1.00	--	--		
OHI	-.28	1.00	-.28	1.00	-.27	.49	--	--
SLD	-.28	1.00	-.28	.54	-.27	.11	.00	1.00

Note: Difference is calculated by subtracting the mean scaled score of the students with disability categories in the row from the mean scaled score of the students with disability categories in the column. ED = Emotional disturbance, ID = Intellectual disability, OHI = Other health impairment, and SLD = Specific learning disability.

Table 32

Mean Differences Between Scores for Students Having Different Disabilities for the Interacting with Others Construct on the TAGG-S

	Autism		ED		ID		OHI	
	Diff.	p	Diff.	p	Diff.	p	Diff.	p
ED	.11	1.00	--	--	--	--	--	--
ID	-.01	1.00	-.12	1.00	--	--	--	--
OHI	-.28	.71	-.40	.02*	-.28	.08	--	--
SLD	-.18	1.00	-.30	.08	-.17	.33	.10	1.00

Note: Difference is calculated by subtracting the mean scaled score of the students with disability categories in the row from the mean scaled score of the students with disability categories in the column. * represents $p < .05$. ED = Emotional disturbance, ID = Intellectual disability, OHI = Other health impairment, and SLD = Specific learning disability.

Table 33

Mean Differences Between Scores for Students Having Different Disabilities for the Goal Setting and Attainment Construct on the TAGG-S

	Autism		ED		ID		OHI	
	Diff.	p	Diff.	p	Diff.	p	Diff.	p
ED	.03	1.00	--	--				
ID	-.12	1.00	-.14	1.00	--	--		
OHI	-.42	.68	-.44	.16	-.30	.44	--	--
SLD	-.39	.64	-.41	.10	-.27	.22	.03	1.00

Note: Difference is calculated by subtracting the mean scaled score of the students with disability categories in the row from the mean scaled score of the students with disability categories in the column. ED = Emotional disturbance, ID = Intellectual disability, OHI = Other health impairment, and SLD = Specific learning disability.

Table 34

Mean Differences Between Scores for Students Having Different Disabilities for the Employment Construct on the TAGG-S

	Autism		ED		ID		OHI	
	Diff.	p	Diff.	p	Diff.	p	Diff.	p
ED	-.28	1.00	--	--				
ID	-.20	1.00	.08	1.00	--	--		
OHI	-.78	.00**	-.50	.02*	-.58	.00**	--	--
SLD	-.52	.03*	-.24	.76	-.33	.01*	.25	.09

Note: Difference is calculated by subtracting the mean scaled score of the students with disability categories in the row from the mean scaled score of the students with disability categories in the column. * represents $p < .05$. ** represents $p < .01$. ED = Emotional disturbance, ID = Intellectual disability, OHI = Other health impairment, and SLD = Specific learning disability.

Table 35

Mean Differences Between Scores for Students Having Different Disabilities for the Student Involvement in the IEP Construct on the TAGG-S

	Autism		ED		ID		OHI	
	Diff.	p	Diff.	p	Diff.	p	Diff.	p
ED	-.27	1.00	--	--	--	--	--	--
ID	-.80	.00**	-.53	.02*	--	--	--	--
OHI	-.65	.02*	-.38	.23	.14	1.00	--	--
SLD	-.68	.00**	-.41	.05	.11	1.00	-.03	1.00

Note: Difference is calculated by subtracting the mean scaled score of the students with disability categories in the row from the mean scaled score of the students with disability categories in the column. * represents $p < .05$. ** represents $p < .01$. ED = Emotional disturbance, ID = Intellectual disability, OHI = Other health impairment, and SLD = Specific learning disability.

Table 36

Family Member Demographics for GPA and Percent of Time in General Education Studies

Characteristic	n	%
Relationship to Student		
Mother	394	79.3
Father	56	11.3
Grandmother	23	4.6
Legal Male Guardian	4	0.8
Legal Female Guardian	5	1.0
Grandfather	2	0.4
Brother	1	0.2
Sister	2	0.4
Aunt	3	0.6
Other	8	1.6
Race or Ethnicity		
Caucasian	368	74.0
African American	50	10.1
American Indian	42	8.5
Other Hispanic, Latino, or Spanish	33	6.6
Mexican, Mexican American, Chicano	19	3.8
Cuban	2	0.4
Other	11	2.2
Number who chose 2 ethnicities	25	5.0
Number who chose 3 ethnicities	4	0.8
Number who chose 4 ethnicities	1	0.2
Number who chose none	90	18.1
Highest Level of Education		
Less than high school	60	12.1
High school diploma or GED	204	41.0
Vocational or technical Certification	58	11.7
Associate's Degree	75	15.1
Bachelor's Degree	61	12.3
Master's Degree	20	4.0
Doctorate or other professional degree	6	1.2

Note. When totals are less than 497, data are missing. For this sample, $M = 43.8$ ($SD = 9.89$) for age.

Table 37

Student Demographics for GPA and Percent of Time in General Education Studies

Characteristic	n	%
Gender		
Male	380	55.0
Female	305	44.1
Race or Ethnicity		
Caucasian	475	68.7
African American	80	11.6
American Indian	60	8.7
Other Hispanic, Latino, or Spanish	50	7.2
Mexican, Mexican American, Chicano	31	4.5
Other	10	1.4
Number who chose 2 ethnicities	35	5.1
Number who chose 3 ethnicities	3	0.4
Number who chose none	6	0.9
Grade		
9 th	114	16.5
10 th	146	21.1
11 th	182	26.3
12 th	242	35.0
Primary Disability		
Specific Learning Disability	429	62.1
Intellectual Disability	86	12.4
Other Health Impairment	87	12.6
Emotional Disturbance	40	5.8
Autism	22	3.2
Multiple Disabilities	11	1.6
Orthopedic Impairment	5	0.7
Other	5	0.7
Speech or Language Impairment	5	0.7
Traumatic Brain Injury	4	0.6
Hearing Impairment	6	0.9
Deaf-Blindness	1	0.1
Receives Free or Reduced Lunch		
Yes	380	55.0
No	248	35.9
Missing	63	9.1

Note. When totals are less than 691, data are missing. Six participants did not complete demographic forms. For this sample, $M = 16.77$ ($SD = 2.38$) for age.

Table 38

Correlations Between TAGG Scores and Student GPA

Construct	TAGG-P		TAGG-F		TAGG-S	
	<i>r</i>	R ²	<i>r</i>	R ²	<i>r</i>	R ²
Strengths and Limitations	.018	.000	-.096*	.008	-.082*	.007
Disability Awareness	.041	.002	-.123**	.015	-.064	.004
Persistence	.103**	.011	-.029	.001	.030	.001
Proactive Involvement	.112**	.013	.059	.003	-.010	.000
Goal Setting and Attainment	.068	.005	-.111*	.012	.014	.000
Employment	.072	.005	-.054	.003	.018	.000
Involvement in the IEP	-.016	.000	-.102*	.010	-.091*	.008
Support Community	.080*	.006	-.079	.006	-.082*	.007
Total TAGG Score	.076	.006	-.101*	.010	-.045	.002

Note. ** Correlation is significant at the .01 level (2-tailed). * Correlation is significant at the .05 level (2-tailed).

Table 39

Correlations for Percent of Time in General Education and TAGG Scores

Construct	TAGG-P		TAGG-F		TAGG-S	
	<i>r</i>	R ²	<i>r</i>	R ²	<i>r</i>	R ²
Strengths and Limitations	.028	.001	.003	.000	.118**	.014
Disability Awareness	-.024	.001	-.005	.000	-.075	.006
Persistence	.113**	.013	.063	.004	.069	.005
Interacting with Others	.232**	.054	.176**	.030	.150**	.023
Goal Setting and Attainment	.094*	.009	.088	.008	.076	.006
Employment	.052	.003	.087	.008	.074	.005
Involvement in the IEP	.110**	.012	.091	.008	.035	.001
Support Community	.034	.001	.115*	.013	.118**	.014
Total TAGG Score	.102**	.010	.096*	.009	.091*	.008

Note. ** Correlation is significant at the .01 level (2-tailed). * Correlation is significant at the .05 level (2-tailed).