

The Devereux Student Strengths Assessment and its Relationship to Academic Achievement

Amanda Ball, Professional Psychology Trainee 2008-2009

Recently, a significant amount of attention has been focused on the link between social-emotional competency and academic achievement. The Collaborative for Academic, Social, and Emotional Learning (CASEL) recently published a meta-analysis that consolidated the findings of 207 studies conducted in school settings that support the relationship between these two constructs. The meta-analysis concluded that students in schools with social-emotional learning (SEL) programming scored 11 percentile points higher on academic achievement tests than students in schools that did not offer SEL programming (CASEL, 2008). According to CASEL, “socially and emotionally competent students are better able to take advantage of classroom learning opportunities and experiences and facilitate rather than disrupt the learning of their peers” (CASEL, 2008). Enhancing social-emotional competency in children has a positive effect on the child as well as the classroom.

Given these findings, there have been an increasing number of states that have adopted, or are in the process of developing SEL standards. Illinois was the first state to promulgate social-emotional competence standards. The Illinois Children’s Mental Health Act (ICMHA) of 2003 requires the development of school policies for SEL as well as the assessment of a child’s progress in meeting those standards. Many state legislatures and departments of education have followed this example, using CASEL’s SEL framework as the basis of their SEL standards.

In the past, the development, refinement and replication of effective programs for enhancing SEL has been limited by the lack of a well-developed, empirically sound, and widely available measure of social-emotional competency in children. New SEL standards require a measure of social-emotional competence that will guide programming strategies and techniques. The measure must be contextually valid, which encompasses characteristics such as being easy-to-use and teacher administered.

The Devereux Student Strengths Assessment (DESSA; LeBuffe, Shapiro, & Naglieri, 2009) was developed to meet these needs and increase accountability to state and district requirements. The DESSA is a measure of social-emotional competency that evaluates the frequency of 72 positive behaviors that comprise eight social-emotional competency scales. This strength-based assessment was normed on a nationwide, representative sample of 2,500 children in grades K-8.

In light of the evidence that establishes the relationship between social-emotional competency and academic achievement at a school-wide level, an individual student's score on an assessment of social-emotional competency should relate to his/her academic achievement scores. The purpose of this study was to establish the concurrent validity of the DESSA as a measure of social-emotional competency by investigating its relationship with measures of academic achievement.

Project Design

Fifty-five teachers from the Anchorage, Alaska School District (ASD) participated. Twenty-one elementary and middle schools from the district were represented. After a one-hour web-based DESSA training, teachers used the DESSA to conduct assessments on each student in their classroom. Assessments were administered within a four week span of the TerraNova (N = 260) and Anchorage Standards Based Assessment (SBA; N = 146) academic achievement tests. The TerraNova is a

standardized, norm-referenced test that measures student competency in the areas of reading, language, and mathematics. The SBA is a standardized test that is designed to estimate student mastery of reading, writing, and mathematics in terms of Alaska's grade level expectations. Students are deemed proficient or not proficient in these areas. Along with these standardized test scores, ASD's Assessment and Evaluation Department provided researchers with student reading grades ($N = 924$) based on level of student proficiency as evaluated by teachers.

Results

A correlation analysis yielded a significant positive correlation between total TerraNova scores (normalized curve equivalents [NCE]) and DESSA social-emotional composite (SEC) scores ($r = .400$, $r^2 = .16$, $p < .01$) as well as the TerraNova reading score NCE and the DESSA SEC ($r = .325$, $r^2 = .11$, $p < .01$). Correlations of these magnitudes are considered medium effects (Cohen, 1988).

A significant positive relationship was also found between the SBA reading standard score and the DESSA SEC ($r = .615$, $r^2 = .378$, $p < .01$), indicating a large effect size (Cohen, 1988). A Chi-Square analysis was used to investigate the relationship between the DESSA SEC and level of reading proficiency as determined by the SBA. A significant relationship was found ($X^2 = 16.3$, $df = 1$, $p = .01$, $\Phi = .334$).

Finally, a significant positive relationship was found between the reading grade as assessed by the student's teacher and the DESSA SEC (Spearman rho = $.463$, $p < .01$).

The DESSA SEC accounts for enough of the variance in the other academic scores for social-emotional competency to be taken into consideration when looking at academic struggles or deficiencies. These findings serve to establish the concurrent validity of the DESSA in regards to its

relationship with academic achievement. Future research calls for the examination of this relationship under intervention conditions.

References

- Cohen, J. (1988). *Statistical power analysis in the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.
- Illinois Children's Mental Health Act, 93-0495 SB 1951 (2003)
- LeBuffe, P.A., Shapiro, V.B., & Naglieri, J.A. (2009). *Devereux Student Strengths Assessment: a measure of social-emotional competencies of children in kindergarten through eighth grade*. Lewisville, NC: Kaplan Early Learning Company Publishing.
- Payton, J., Weissberg, R.P., Durlak, J.A., Dymnicki, A.B., Taylor, R.D., Schellinger, K.B., & Pachan, M. (2008). *The positive impact of social and emotional learning for kindergarten to eighth-grade students: Findings from three scientific reviews*. Chicago, IL: Collaborative for Academic, Social, and Emotional Learning.