

## Devereux Student Strengths Assessment (DESSA) Spanish Equivalency Study

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### Abstract

This study investigated the cultural and linguistic appropriateness of the Spanish translation of the Devereux Student Strengths Assessment (DESSA), a standardized, norm-referenced, strength-based measure of social-emotional competence of children in kindergarten - eighth grade. The study aimed to determine whether the norms developed from the standardization data collected in English are appropriate to use with the Spanish translation of the assessment. Bilingual parents and teachers completed Spanish and English versions of the DESSA and scores were correlated. Stability of the scores was also considered. Findings support the use of the Spanish DESSA to address the needs of an increasingly diverse U.S. population.

### Background

In recent years, increasing attention has been placed on the value of social-emotional learning (SEL) programs within schools, before- and after-school programs, and other child-focused settings. These programs, designed to enhance the social-emotional competencies of children, have been linked to a variety of academic, personal, and social improvements for children, as well as decreases in problem behaviors when implemented with fidelity (Durlak et al., 2011; Payton et al., 2008). To aid in the delivery of SEL, program administrators and mental health professionals need well-developed and empirically sound measures to monitor progress, guide planning, and evaluate program outcomes.

The Devereux Student Strengths Assessment (DESSA; LeBuffe, Shapiro, & Naglieri, 2009) was developed to meet these needs. The DESSA is a 72-item standardized, norm-referenced, strength-based behavior rating scale that assesses the social-emotional competencies of children in kindergarten - eighth grade. The DESSA yields eight scale scores and a total social-emotional composite (SEC) score. The reliability and validity of the DESSA have been well-established (LeBuffe, Shapiro, & Naglieri, 2009); however, in order to meet the needs of an increasingly diverse population, it is essential to adapt the DESSA to ensure successful implementation with all children, families and child-serving professionals.

According to the U.S. Census Bureau (2009), at least 12% of the U.S. population (approximately 34 million individuals) above the age of five uses Spanish as the primary language in the home. Given the growing number of Spanish-speaking families in the U.S., there is an increasing need to provide culturally and linguistically appropriate methods of assessment (Cofresi & Gorman, 2004). To address these needs, the DESSA has been translated into Spanish. However, translation alone does not ensure that the norms and standard scores derived with English-speaking raters

during standardization are appropriate when children are rated in Spanish. Therefore, a study demonstrating the equivalency of scores obtained using the English and Spanish forms of the DESSA is necessary. The present study was designed to establish the appropriateness of the Spanish version of the DESSA.

## Methods

### *Translation of the DESSA into Spanish*

The translation of the DESSA into Spanish was initially conducted by a professional translation service. The translation was then reviewed by a group of 6 translation professionals representing a variety of Hispanic cultures. These professionals identified as Cuban-American, Mexican-American, Central-American, South American, European Spanish and Puerto Rican. The terminology preferences for each culture were addressed through a process called “Harmonization,” and discrepancies were corrected by changing the wording to a more universal form of Spanish. This final version was then back-translated and compared to the original English version of the DESSA. According to Marin & Marin (1991), this process is necessary due to the many Spanish cultures and dialects in the U.S. where words may have different meanings. It helps to ensure that the assessment is appropriate for a variety of U.S. Spanish-speaking cultures.

### *Study Design*

Bilingual Spanish and English-speaking parents and teachers of children from kindergarten to eighth grade were invited to participate in the equivalency study. A single-bilingual group design was utilized, in which all participants rated a single child on both the Spanish and English versions of the forms.

Participants first completed the Language Use Questionnaire, which consisted of 16 questions aimed at assessing participants’ language use and ensuring their bilingualism. Sample items on the questionnaire included “Do you consider yourself to be a bilingual person,” and “What language do you use the majority of the time.” Participants then completed both a Spanish and English DESSA form that were presented in counterbalanced fashion across participants to control for effects of order, such as practice and fatigue effects.

### *Sample*

*Parents.* A total of 76 parents participated in the study, completing ratings on 35 male and 41 female children. Parents identified their cultural backgrounds as Mexican ( $n = 31$ ), Dominican ( $n = 1$ ), Puerto Rican ( $n = 13$ ), Cuban ( $n = 4$ ), European ( $n = 9$ ), Central American ( $n = 2$ ), South American ( $n = 11$ ), and Other ( $n = 5$ ), and hailed from all four regions of the U.S. (Northeast, Midwest, South and West). The mean age of the children rated by parents was 8.83 years with a minimum of 5.0 years and a maximum of 14.3 years. (See Table 1).

*Teachers.* A total of 100 teachers/afterschool staff participated in the study, completing ratings on 59 male and 41 female children. Teachers identified their cultural backgrounds as Mexican ( $n = 33$ ), Dominican ( $n = 2$ ), Puerto Rican ( $n = 5$ ), Cuban ( $n = 5$ ), European ( $n = 28$ ), Central American ( $n = 6$ ), South American ( $n = 13$ ) and other ( $n = 8$ ). These participants also resided in all four regions of the U.S. The students rated by teachers ranged from age 5.0 years to 14.8 years old with an average age of 8.6 years. (See Table 1).

### *Analysis*

All analyses were conducted separately for parent and teacher raters. In order to examine the relationship between scores obtained for the same child on the Spanish and English DESSA forms, Pearson product-moment correlations were conducted on the eight DESSA scales and the SEC scores. However, high positive correlations alone would only indicate that the scores received by children on both versions of the DESSA co-vary, and would not demonstrate that they are necessarily similar in actual value. In order to ensure there is no bias in the Spanish form (i.e., children do not consistently receive a higher *T*-score on one version), score stability was also examined. To examine the stability of the ratings, the English *T*-score for each child on each scale was subtracted from the corresponding Spanish *T*-score. Using this approach, identical scores on the two versions would result in a value of 0. Mean score differences and standard deviations were examined to determine the extent to which children received similar scores on both language forms.

## **Results**

Pearson product-moment correlations between the SEC on the Spanish and English forms were statistically significant for both parent ( $r = .95, p < .01$ ) and teacher ( $r = .97, p < .01$ ) raters. Correlations for each of the eight DESSA scales were also significant and high in magnitude, with correlations ranging from .86 to .92 ( $p < .01$ ) for parent raters and from .91 to .95 ( $p < .01$ ) for teacher raters (See Table 2).

Mean score difference calculations between the Spanish and English forms were found to be small, with all eight scales and the SEC for both parent and teacher raters less than or equal to 1.25 *T*-scores points. Parent raters differed, on average, by about .53 *T*-score points on the eight scales and by .01 *T*-score points on the SEC. Teachers were also very consistent, differing on average by about .54 *T*-score points on the eight scales and by .50 *T*-score points on the SEC (See Table 2). The *d*-ratio (Cohen, 1988) for all mean score differences was negligible.

## **Conclusions**

This study provides evidence for the psychometric integrity of scores obtained with the Spanish and English versions of the DESSA. Results indicate that the translation was culturally and

linguistically appropriate and when children are rated using both the Spanish and English DESSA, the scores were highly correlated and similar in magnitude. These results indicate that the norms and standard scores developed with the English version are appropriate for use with the Spanish version. Furthermore, the validity data for the English version can also be applied to the Spanish Version. These findings allow DESSA users to confidently measure the social-emotional competencies of a growing Spanish-speaking population, and will contribute to collaboration between child-serving professionals and parents from diverse backgrounds. These abilities will help administrators and mental health professionals to build the strengths and address the needs of children and youth in an increasingly diverse U.S. population.

### References

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**Tables**

Table 1. Sample Demographics by Rater

	Parents ( <i>n</i> = 76)		Teachers ( <i>n</i> = 100)	
	<i>n</i>	%	<i>n</i>	%
<b>Cultural Background</b>				
Mexican	31	40.8	33	33.0
Dominican	1	1.3	2	2.0
Puerto Rican	13	17.1	5	5.0
Cuban	4	5.3	5	5.0
European	9	11.8	28	28.0
Central American	2	2.6	6	6.0
South American	11	14.5	13	13.0
Other	5	6.6	8	8.0
<b>Geographic Region</b>				
Northeast	15	20.0	20	20.0
Midwest	14	18.7	19	19.0
South	37	49.3	38	38.0
West	9	12	23	23.0
<b>Child Gender</b>				
Male	35	46.1	59	59.0
Female	41	53.9	41	41.0
Mean Age of Child (years)	8.83		8.63	

Table 2. English and Spanish DESSA Correlations and Difference Scores by Rater

Parent Raters	English		Spanish		<i>r</i>	Mean Difference Score	Mean Difference SD
	Mean	SD	Mean	SD			
Personal Responsibility	50.7	9.4	51.5	9.8	0.91	-0.82	4.1
Optimistic Thinking	50.1	10.1	50.0	11.0	0.91	0.05	4.7
Goal-Directed Behavior	50.9	9.0	49.7	8.9	0.86	1.25	4.7
Social-Awareness	51.0	9.9	51.7	9.6	0.89	-0.66	4.7
Decision Making	49.9	10.1	50.2	10.0	0.90	-0.12	4.6
Relationship Skills	49.8	10.7	50.1	10.1	0.92	-0.24	4.2
Self-Awareness	50.2	11.1	50.0	10.6	0.89	0.41	5.2
Self-Management	50.3	10.2	51.0	10.3	0.89	-0.66	4.9
Social-Emotional Composite	50.4	10.0	50.7	9.9	0.95	-0.01	3.1

Teacher Raters	English		Spanish		<i>r</i>	Mean Difference Score	Mean Difference SD
	Mean	SD	Mean	SD			
Personal Responsibility	49.9	10.8	50.6	10.8	0.93	-0.76	4.1
Optimistic Thinking	49.7	11.6	49.7	11.4	0.94	0.04	4.0
Goal-Directed Behavior	49.4	11.0	48.8	10.9	0.95	0.34	3.6
Social-Awareness	50.9	11.8	51.6	12.1	0.91	-0.73	5.0
Decision Making	48.9	11.2	49.3	11.2	0.94	-0.51	3.8
Relationship Skills	50.0	10.7	50.4	10.9	0.95	-0.57	3.3
Self-Awareness	49.8	10.6	50.3	11.6	0.92	-0.49	4.6
Self-Management	48.9	11.2	49.7	11.5	0.95	-0.91	3.5
Social-Emotional Composite	49.5	11.1	49.8	11.4	0.97	-0.50	2.7

All significant at the  $p < .01$  level.