

## Introduction

### Purpose

To explore developmental skills and supports of students who receive special education services relative to those who do not. We also explore the associations among these skills and supports relative to educational behaviors and outcomes. These questions speak to the validation of the Intended Use Arguments for selected Social and Emotional Learning (SEL) measures.

### Rational for study

Although interest in SEL has increased rapidly both in research and teaching settings, the conversations occurring around adoption of SEL initiatives continue to focus on GenEd and much less so on its potential impact on SpEd. We know less about the SEL development of students in SpEd or how these characteristics are associated with important educational outcomes and behaviors.

### Developmental supports and skills

- The measures used were previously developed by the Minnesota Youth Development Research Group using Minnesota Student Survey data, based on the Developmental Assets Framework (Search institute 2013).

Developmental Support	Developmental Skills
<ul style="list-style-type: none"> <li>Teacher/School Support</li> <li>Family/Community Support</li> <li>Empowerment</li> </ul>	<ul style="list-style-type: none"> <li>Social Competence</li> <li>Positive Identity</li> <li>Commitment to Learning</li> </ul>

- Technical information regarding the development and validity of these measures, and other measures not used in this current study, can be found at <https://www.mnydr.org>

### Minnesota Student Survey (MSS)

- Designed by MN Departments of Education, Health, Human Services, and Public Safety.
- Monitors important trends and supports planning efforts of school districts and the four collaborating agencies.

### Participants

- 168,733 students in 5<sup>th</sup>, 8<sup>th</sup>, 9<sup>th</sup>, and 11<sup>th</sup> grade in 2016.
- 17,555 (10.4%) self identified as receiving SpEd services or having an IEP.
- In 2016, approximately 85% of MN school districts participated in the MSS.

## Research Questions

- Do the levels of selected developmental skills and supports differ between students in SpEd and GenEd?
  - Method: Standardized mean differences between groups.
- Do skills and supports vary across grades?
  - Method: Standardized mean differences across grades.
- Do skills and supports differentially predict educational outcomes and behaviors for students in SpEd and GenEd?
  - Method: Regression models to investigate differential prediction of outcomes (school grades, college plans, being disciplined in school, skipping school, and suspension) by SpEd status.

## Results

### Result 1: Levels of skills and supports

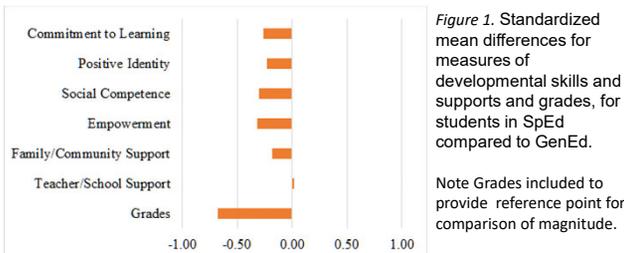


Figure 1. Standardized mean differences for measures of developmental skills and supports and grades, for students in SpEd compared to GenEd.

Note Grades included to provide reference point for comparison of magnitude.

- Students in SpEd show lower levels of all SEL skills and supports (approximately .25 SD lower), except for teacher/school support.

### Result 2: Trends across years

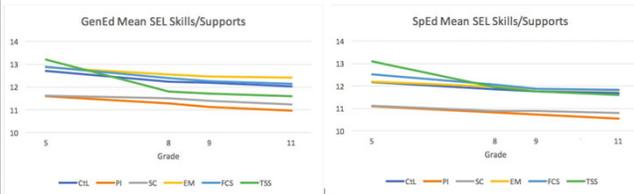


Figure 2. Mean scores on developmental skills and supports across grades for students in GenEd and SpEd.

- Both groups follow similar trends.
- Decreases from 5<sup>th</sup> to 8<sup>th</sup> grade reflect transition to secondary school.

## Results

### Result 3: Differential prediction

Table 3  
Regression Results of School Grades on Developmental Skills & Supports and SpEd Status (Standardized Coefficients)

	B (measure coefficient)	B (SpEd status coefficient)	B (interaction coefficient)	R <sup>2</sup>
Commitment to learning	.370*	-.300*	.122*	.184
Positive identity and outlook	.245*	-.159*	-.034	.102
Social competence	.301*	-.102*	-.080*	.131
Empowerment	.270*	-.172*	-.011	.115
Family/community support	.228*	-.178*	-.018	.095
Teacher/school support	.229*	-.283*	.075*	.098

\*  $p < .001$ .

- Students in SpEd have lower school grades (negative SpEd status coefficients).
- The three significant interaction terms (due to large samples) are small.
- The largest is Ctl (.122); the association (slope) between Ctl and school grades depends on SpEd status – the slope is slightly higher for students in SpEd (.374 + .122 = .496), indicating that although students in SpEd achieve lower school grades, the positive effect of Ctl is stronger for these students.
- There is a small level of differential prediction for Ctl, SC, and TSS, oddly, in favor of students in SpEd (resulting in slightly steeper slopes).
- Regression analysis of other outcomes showed no statistically significant interaction effects or effect sizes that were practically negligible.

## Discussion

**Conclusions:** developmental skills and supports are lower but follow similar trends for students across grades in SpEd compared to students in GenEd. The magnitude of this difference is approximately 0.25 SD. The exception is teacher and school support where students in SpEd report slightly higher Teacher and School support than their peers in general education.

Regression analyses indicate that developmental skills and supports predict outcomes for students in GenEd and SpEd similarly. For Ctl and TSS, SpEd status moderates and increases the positive effects of SEL; for SC, SpEd status slightly reduces the positive effects of SEL.

**Limitations:** The MSS did not provide data needed to identify disability categories. This somewhat limits specific inferences due to the heterogeneity and important differences in students who receive SpEd services.

**Further research:** investigation of developmental skills supports and associations of these skills and supports for other special populations (students in alternative schools or juvenile corrections settings). Deeper evaluation of measurement invariance of SEL measures for students in SpEd, including differential item functioning would be warranted.