



EXECUTIVE SUMMARY: A PILOT STUDY OF SOCIAL-EMOTIONAL SKILL MEASURES FOR JUMPSTART PRESCHOOLERS AND CORPS MEMBERS

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EXECUTIVE SUMMARY

Research has demonstrated the importance of students' social-emotional and executive function competencies for future success. Skills such as self-regulation, emotional awareness, and inhibitory control have been shown to be crucial factors in early childhood development. These skills are particularly important for preschoolers' successful transition to kindergarten and can lead to positive future academic outcomes. In older students, social-emotional competencies – both intrapersonal and interpersonal skills – have been found to positively affect college and labor market outcomes. The well-established research base showing the importance of social-emotional competencies, along with Jumpstart's focus on the development of these competencies for preschoolers and Corps members alike, provide a strong rationale for identifying appropriate assessments of social-emotional and executive function competencies to administer nationally to Jumpstart preschoolers and Corps members.

This study builds upon prior studies of the Jumpstart model to further investigate which assessments can provide valid and reliable measures of preschoolers' and Corps members' social-emotional and executive function skills. Transforming Education first developed a unifying theory of action for each group in order to both prioritize a set of skills to assess and explicate the ways in which Jumpstart's model is hypothesized to affect those skills. Next, we worked with experts and reviewed literature to identify appropriate assessments of the prioritized skills. We then provided guidance to the Jumpstart national team on the administration of those assessments in Jumpstart sites throughout the US. Finally, we analyzed the results from post-intervention survey administration to understand both how the new measures administered to preschoolers and Corps members performed and what the data can tell us about Jumpstart preschoolers' and Corp members' social-emotional skills.

Identification of Measures

The main goal of the pilot study was to recommend assessments for future years that can be used to evaluate Jumpstart's impact on preschoolers' and Corps members' social-emotional competencies.

For preschoolers, we prioritized both social-emotional skills and executive function skills. In collaboration with Jumpstart, we chose two measures to pilot. The first was the Devereaux Early Childhood Assessment (DECA), which is an indirect (i.e., teacher-reported) assessment of preschoolers' school-emotional skills, including self-regulation, attachment/relationship skills and initiative. The second was the Minnesota Executive Function Scale (MEFS), which is a direct assessment of preschoolers' executive function, including such skills as inhibitory control, working memory and cognitive flexibility. For the pilot study, 8 sites opted into administering the DECA, and 2 of those sites administered the MEFS as well.

Jumpstart currently administers the Jumpstart School Success Checklist (JSSC) as a pre- and post-test to all preschoolers participating in Jumpstart who have received parental permission to be assessed. The JSSC is a 15-item observational protocol derived from the HighScope Educational Research Foundation's Preschool *Child Observation Record*. It has been administered nationally to Jumpstart preschoolers since the 1999-2000 school year, and is intended to capture preschooler literacy skills and prosocial skills. The TOPEL, a direct assessment of preschoolers' early literacy skills, is also administered to preschoolers, though only in select sites. For TOPEL, preschoolers receive scores on the subdomains of print knowledge, definitional vocabulary, and phonological awareness, as well as an overall, composite score known as the Early Literacy Index (ELI).

For Corps members, we identified and prioritized constructs that Jumpstart is hypothesized to impact and that have been shown to be important for future adult success: growth mindset, self-management and cultural awareness. We sought scales that captured individuals' perceptions of their own skills in order to include them on Jumpstart's end-of-year Corps member Survey. Two of these scales, growth mindset and self-management, had already been developed through our work with the Boston Charter Research Collaborative, a multi-year partnership between six Boston-area charter schools or charter management organizations (CMOs), Harvard University, MIT, and TransformEd. While both scales had been developed for teachers, they were easily adaptable to Jumpstart Corps members. The final scale of cultural awareness was chosen after a thorough review of validated measures. We selected items from the Teacher Multicultural Attitude Survey because it was developed for use with pre-service teachers who tend to have some similar experiences to Corps members, and many of the items aligned to the Corps member experience.

We summarize our findings on both sets of measures below.

Summary of Findings: Preschooler Study

What do the results from this pilot study suggest about Jumpstart preschoolers' social-emotional and executive function skills?

Jumpstart preschoolers had, on average, higher rated social-emotional skills compared to the national sample of preschoolers with DECA scores. Jumpstart preschoolers had, on average, lower executive function scores, compared to the nationally-normed group of preschoolers who were administered the MEFS. However, the small and non-representative sample size of Jumpstart preschoolers who took the MEFS makes it difficult to generalize results to the entire Jumpstart population.

Is the Jumpstart School Success checklist identifying preschoolers' social-emotional skills, executive function skills, or early literacy skills?

While the JSSC is a highly reliable tool, it does not appear to be a strong measure of the social-emotional skills measured by the DECA (initiative, self-control, and attachment) nor the specific early literacy skills measured by the TOPEL (print knowledge, definitional vocabulary, and phonological awareness). However, the JSSC appears to identify aspects of preschoolers' executive function skills as measured by the MEFS. That said, it would be incorrect to extrapolate from this finding that the JSSC is measuring executive function in preschoolers, since the sample size of those with MEFS scores is small and non-representative, and the correlation between the two sets of scores is only moderate in size.¹

To what degree do Jumpstart preschoolers' social-emotional skills and executive function skills predict their early literacy skills?

Executive function appears to be a strong predictor of preschoolers' definitional vocabulary skills, while self-regulation is moderately predictive of preschoolers' phonological awareness.

Summary of Findings: Corp Member Study

Do the newly administered scales provide reliable scores of Corps member social-emotional skills?

The newly administered scales on the Corps member survey meet typical thresholds required to demonstrate reliability.

How do Corps members report on their social-emotional skills, and are there meaningful differences in self-reports across subgroups?

Corps members reported, on average, positive perceptions of their growth mindset, self-management skills and cultural awareness. Further, we find that Corp member college students who have two or more years of service reported higher self-management scores compared to those with only one year of service, a difference that is not driven by differences in the grade-level of those with two or more years of service versus one year of service.

Do the newly administered social-emotional scales provide information not already captured by the Corps Member Survey?

The newly administered scales provide additional information on Corps members' social-emotional skills, as demonstrated by the fact that Corps members' responses on the scales do not correlate with their responses on questions already being asked in the Corps Member survey.

¹ A moderate to strong correlation does not necessarily mean that the two assessments are measuring the same underlying construct, only that the sample of individuals who took both assessments scored similarly on both.

Recommendations

We offer four primary recommendations for Jumpstart based on results from this pilot study.

- 1. Ensure that Jumpstart's theory of action is refined and updated as needed to be useful as an overarching framework to guide organizational decisions;*
- 2. Consider administering the DECA, MEFS and Corps member social-emotional measures at greater scale, in the fall and the spring, in order to assess change in skills over time;*
- 3. Conduct future studies examining (a) the effect of Jumpstart's curriculum on preschoolers' social-emotional and executive function skills; (b) the characteristics of sites in which preschoolers exhibit strong growth in social-emotional and executive function skills; (c) the effect of participating in Jumpstart on Corps members' self-management, growth mindset, and cultural awareness development; and (d) the experiences of Corps members showing strong growth in social-emotional skills through their participation in Jumpstart;*
- 4. Consider additional revisions to the Jumpstart model to more fully integrate social-emotional and executive function skill development into their programming.*