

KIDSTEPS II



RESULTS FOR KINDERGARTEN PRINCIPALS AND TEACHERS Funded by US Department of Education/Institute for Education Sciences Early Learning Efficacy Study # R305A130336

This study involves 64 preschool and Head Start classrooms in Worcester County over four years and follow-up of three cohorts of children into kindergarten. We are evaluating if a new preschool Second Step Early Learning curriculum (Committee for Children) helps children develop better social skills and executive functioning; if this affects their preliteracy and math skills; and if participation in the curriculum affects their kindergarten readiness and performance. Some classrooms, selected at random, receive the SSEL curriculum and some deliver their usual curriculum. This report provides preliminary findings of the kindergarten follow-up of the first year of graduates, as well as outcomes during preschool of the first two years of the study.

PRELIMINARY KINDERGARTEN OUTCOMES

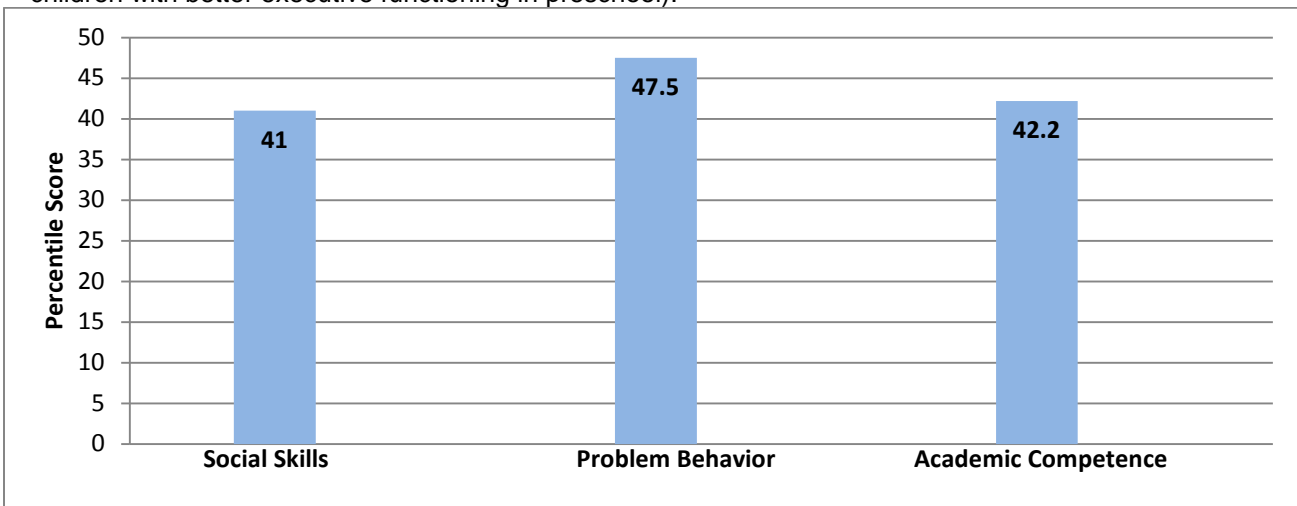
Thanks to cooperation from over 90 kindergarten teachers and 13 school systems we were able to collect Social Skills Improvement System questionnaires for 232 kindergarteners in our study who were still in Central MA.

Demographic characteristics: Children attended 34 preschool classrooms in Worcester/Gardner/Devens:

- 53% of the children were male; 46% Hispanic, 47% white and 19% Black
- 59% of families had income under \$20,000 and 25% were married couples
- 48% of parents had a high school education or less

Kindergarten SSIS teacher ratings of social skills, problem behavior and academic competence:

- Children as a whole were rated somewhat below the population mean (50th percentile) on social skills (mean at 41st percentile) and academics (mean at 42nd percentile), and a little higher but still below the population mean for problem behavior (mean at 47th percentile)-see graph.
- There were no statistical differences overall in teacher ratings of intervention versus control children, although the intervention children scored slightly higher in social skills and academic competence, but also slightly higher for problem behavior.
- Children who scored in the lowest group for social-emotional functioning in preschool had statistically significantly poorer ratings for academic competence by kindergarten teachers (M=34th percentile versus 46th percentile).
- A similar pattern, but only marginally statistically significant, was found for children with the lowest executive functioning in preschool (M=36th percentile in kindergarten academic competence versus 45th percentile for children with better executive functioning in preschool).

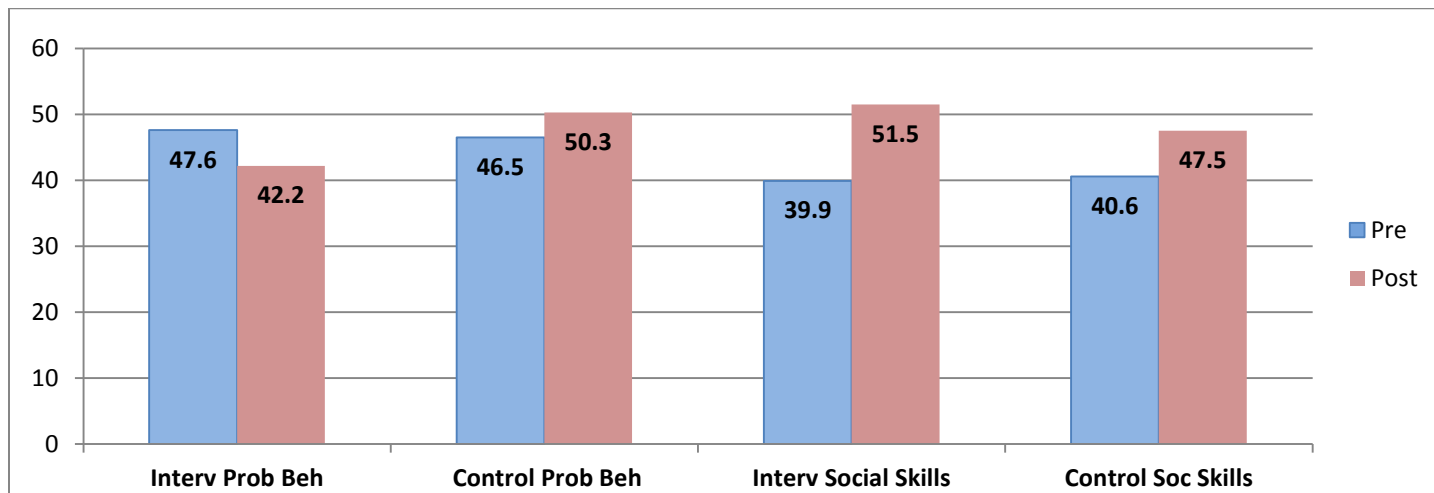


Promotion to first grade, special services and standard kindergarten screening: We can't report on these variables yet since we are still awaiting receiving data on about 25 children from last year. We are hoping to update you soon.

What does this mean? We don't have strong findings about changes in kindergarten performance from the first group of children who went through the study. Because they went through the intervention program when the preschool teachers were just learning how to deliver it, we expected this and anticipate that this year's follow up will show more differences. We already have found strong effects for the intervention in the preschool data we have gathered for Year 2 of the study and we expect this coming year's kindergarten outcomes to be stronger!

PRELIMINARY PRESCHOOL OUTCOMES

Preschool teacher SSIS ratings: In Year 1 there were no statistically significant differences in preschool teacher ratings of children's change in social skills or behavior problems by intervention condition, however, in Year 2, intervention children made statistically significant gains in social skills compared to control children (11.6 points versus 6.9 points). They also had lower ratings of problem behavior than did control children but this was not statistically significant (intervention children decreased by 5.4 points, while control children increased by 3.8 points)-see graph.



Study assessments of four year olds: Combining all four year olds over the two years, children in the intervention curriculum made significantly more gains in a composite social emotional functioning score as well as in a composite executive functioning score compared to children in the control classrooms who received other early childhood curricula.

Statistical modeling of how social and executive functioning skills affect school readiness skills:

Controlling for baseline socio-emotional and executive functioning skills, 4 year old children in the intervention classrooms had greater end of preschool socio-emotional and executive functioning skills than children in control classrooms. These socio-emotional and executive functioning skills, in turn predicted better end of preschool school readiness outcomes (including pre-math, pre-literacy, understanding directions and vocabulary).

Effects on preschool classroom quality: Using classroom observations with the CLASS measure (a well-respected classroom quality measure) with half the sample classrooms in Year 2, we found moderate to large improvements (although not statistical significance due to the small sample) that favored intervention classrooms on all summary scores and the following variables:

- Instructional Learning Formats (materials, effective facilitation and clarity of learning objectives)
- Quality of Feedback (providing scaffolding, feedback loops, information and encouragement)
- Productivity (maximizing learning time and managing transitions)
- Regard for Student Perspectives (flexibility/student focus, autonomy, leadership, expression)

Implementation fidelity: 14 of 16 intervention classrooms in Year 2 met an adequate standard for delivering the curriculum based on monthly study staff observations.

- 73.4% of intervention teachers felt well or very well trained in the curriculum and 77% said they would be continuing with the curriculum even though not in the study; 83% said it improved classroom environment
- Best aspects of the curriculum: the puppets, story cards, story books, using think time, and help for children's behavior. Challenging were the brain games, and integrating with other requirements.

What does this mean?

The preschool classrooms are of high quality so demonstrating that a different curriculum increases classroom quality and/or children's skills is challenging. However, we found that children in the intervention classrooms improved more in socio-emotional and executive functioning skills than children in the control classrooms, and that these skills were predictive of better school readiness. Intervention classrooms also were rated better on climate and instructional quality than control classrooms. While we did not find significant kindergarten differences in our first year follow up, because the second year outcomes are stronger we are looking forward to working with you to collect data this coming year on the next group of graduates from our study.

THANK YOU FOR YOUR CONTINUED SUPPORT OF THE KIDSTEPS II STUDY!

Questions: Please call or email Dr. Carole Upshur, Department of Family Medicine and Community Health, University of Massachusetts Medical School, Carole.Upshur@umassmed.edu or 774-443-7267

Check out our new study website: <http://www.umassmed.edu/fmch/research/kidsteps-ii/>