

Full-Day Kindergarten Research

Does Full-Day Kindergarten Make a Difference?

A Summary of Research

Overall Findings

Student achievement

- Test scores in kindergarten measuring reading, spelling, and handwriting, and individual skills (e.g., identification of colors, shapes, numbers and letters) are higher for students in full-day/full-week programs than students in half-day programs (Plucker et al., 2004).
- Test scores in math and reading during the third and eighth grades tend to be higher for students who participated in full-day/full-week kindergarten programs than their peers in half-day programs (Mueller, 1977; Nieman & Gastright, 1981a; Plucker et al., 2004).

Grade retention and special education referrals

- Students who participated in full-day/full-week kindergarten programs are less likely to be held back in first grade (Stofflet, 1998) and 17-55% less likely to be held back after first grade than their half-day kindergarten peers (Cryan et al, 1992).
- Students from full-day/full-week kindergarten programs are half as likely to be referred to special education services (Nieman and Gastright, 1981a, 1981b).

Social and behavioral effects

Impacts on social skills are mixed, according to several studies.

- According to several studies, students in full-day/full-week kindergarten programs develop a greater sense of independence (Puleo, 1988) and a greater degree of active engagement (Elicker & Mathur, 1997).
- According to Hoffman & Daniels (1986) personal and social development is more pronounced for students in half-day kindergarten programs.
- No differences in maturity levels were found between full-day and half-day students in research by Jones, Pollock, and Marockie (1988).

Students who most benefit

- The greatest benefit from full-day kindergarten programs is for at-risk children and children from low socio-economic backgrounds (Clark, 2001; Clark & Kirk, 2000; Fusaro, 1997; Jones, Pollock, & Marockie, 1988; Karweit, 1992; Koopmans, 1991; Pasco School District, 1987; Puleo, 1988; Rothenberg, 1984).
- Although all children tend to do better in a full-day/full-week program, gains made in math are greater for children at or above the poverty line than for children below the poverty line (Walston et al, 2002).

Full-Day Kindergarten Research

Other findings

- Regularity of exposure to learning activities is important: Children who participated in part-time kindergarten programs performed better in half-day/full-week programs than in full-day/alternating day programs, even though they spent the same amount of time in the classroom (Plucker, et al., 2004).
- Minority children in full-day/full-week programs make even greater gains in reading when an instructional aide as well as the classroom teacher is present in the classroom. However, the presence of an aide does not affect gains in mathematics (Walston et al., 2002).
- Academic progress made in kindergarten tends to decline if upper grade curricula are not adjusted to reflect kindergarten improvements (VanFleet, 2002).

Individual School District Studies

Evansville-Vanderburgh Longitudinal Study

Illinois, 1978-1986

Description:

Four schools in Evansville, IL started full-day, full-week kindergarten programs in 1978. Children in half-day kindergarten programs from four different school districts were used as the control group to measure the effectiveness of full-day kindergarten. Children in the control group were randomly selected from schools with comparable socio-economic backgrounds as the schools with full-day kindergarten. Two cohorts of students were measured from kindergarten to seventh grade according to attendance, academic achievement, grade level retention, special education referrals, and social and behavioral effects. Standardized test scores, report cards, school records, questionnaires, and interviews, were all used to track student progress. (Plucker et al., 2004)

Results:

Student achievement

- Full-day students scored 15% higher than the control group on the Boehm Test of Basic Concepts.
- Full-day students scored significantly higher on the Gates-MacGinitie Reading Tests in first and third grade
- Full-day students scored significantly higher on the Comprehensive Test of Basic Skills in third, fifth, and seventh-grade in all 14 areas tested.
- Half-day students scored higher on the Cursive Evaluation Scale assessing handwriting.

Grade retention and special education placement

- Full-day students were half as likely to be held back a grade between kindergarten and third grade.

Full-Day Kindergarten Research

- Differences in special education placement were not statistically significant.

Attendance

- Differences in attendance were not statistically significant

Teacher and student perceptions

- 64% of elementary teachers believed that students from the full-day kindergarten programs were more independent and better able to follow directions than students from half-day programs.
- 38% of elementary teachers believed that students from the full-day kindergarten programs showed greater academic ability than students from half-day programs, while an equal number of teachers believed there was no difference.
- Full-day students scored higher on the Piers-Harris Children's Self-Concept scale in second and third grade.

Montgomery County Public Schools Kindergarten Initiative

Maryland, 2000-2002

Description:

In response to a large number of students not meeting standards in third grade, the Kindergarten Initiative was launched for at-risk children. Seventeen schools were selected to be pilot schools based on the number of children who qualified for free/reduced price lunch and the number of children learning English. In these schools, full-day kindergarten was provided along with reduced class sizes, revised curriculum, and professional development for teachers.

The curriculum, called the Early Success Performance Plan, included a 90-minute block of literacy activities and a 60-minute block of math skills activities. Kindergarten class size was limited to 15 students and first and second grade class sizes were limited to 17 students. Teachers in the program received 100 hours each of professional development in the new curriculum and in how to check student progress. Diagnostic tests were given to students three times a year (Bridges-Cline, 2002).

Results:

- 51% of low-income students in the full-day kindergarten program met reading standards in first grade, compared to 45% of low-income students in the half-day kindergarten program.
- As teachers became more proficient in the new curriculum and continued to receive professional development, test scores improved: Students in the second cohort of full-day kindergarten outperformed students in the first cohort of full-day kindergarten in letter identification, concepts about print, and word recognition.
- Students learning English did not make gains on reading benchmarks.

Minneapolis Public Schools Kindergarten Assessments

Full-Day Kindergarten Research

Minnesota, 2001-2002

Description:

In response to the No Child Left Behind Act, Minneapolis Public Schools provided optional full-day kindergarten in all schools. Teachers received intensive professional development and the Marilyn Adams kindergarten curriculum for phonemic awareness was included in the standard kindergarten curriculum. Students were assessed at several points in the year on vocabulary skills, rhyming, onset phonemes, letter sounds, oral comprehension, and concepts of print. Teachers with students who were struggling the most received additional assistance and professional development from a half-time Reading Support teacher (Heistad, Casey, & Deno, 2001).

Results:

- African American, American Indian, and Hispanic students in the full-day kindergarten mastered 30% more letter sounds than their peers in half-day programs. Students in classrooms targeted for additional assistance made even greater gains.
- Hispanic students in the full-day program were able to identify twice as many letters as their peers in half-day programs.
- Students of all races in the full-day kindergarten program made significant gains on their peers in half-day programs in letter naming, letter sounds, vocabulary, and rhyming.

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Full-Day Kindergarten Research

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Full-Day Kindergarten Research

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