

EDMONTON PUBLIC SCHOOLS

March 12, 2002

TO: Board of Trustees

FROM: A. McBeath, Superintendent of Schools

SUBJECT: The Kindergarten Study: Report on 2000-2001 Cohort

ORIGINATOR: M. de Man, Department Head

RESOURCE

STAFF: Susan Bell, Gloria Chalmers, Mike Falk, Edgar Schmidt

INFORMATION

Background: With the introduction of full-day kindergarten at Norwood School in 1998-1999, a partnership was developed with Dr. Joe da Costa, professor of Educational Policy Studies at the University of Alberta, to study the effect of this strategy. Dr. da Costa, with assistance from Susan Bell, Consultant, Reading Recovery and Early Childhood Education in the district, has continued this work. The first year of the research focused on comparing the outcomes of the Norwood School full-day kindergarten program with those of another city centre half-day kindergarten program. In 1999-2000, a second full-day kindergarten was introduced and the study compared the literacy effects of full-day kindergarten in these two schools versus half-day in another school (the comparison school had two classes of half-day kindergarten). The expansion in 2000-2001 of full-day kindergarten to 15 schools through AISI funding, provided an opportunity to include significant numbers of students in the study, to meet an AISI requirement for evaluation and to assist the district in quantifying the range of student literacy preparedness when entering kindergarten. The study is being replicated this school year (2001-2002).

The 2000-2001 Study: The study involved 31 district kindergarten classes situated in 30 schools, 15 kindergartens offering full-day and 16 offering half-day programs. The half-day kindergartens were selected to include low, middle and high needs schools. Pre-test data were collected from 670 students and post-test data from 554 who remained from the original group. The analysis is based on the 554 who participated in both pre and post testing. The testing was performed by district Reading Recovery trained teachers and involved pre-and post-test administration of the tasks in Marie Clay's Observation Survey of Early Literacy Achievement (book reading level, letter identification, ready to read word test, concepts about print, writing vocabulary, concepts about print, hearing and recording sounds in words). A side benefit of the measures selected is that it provided teachers with useful information for student programming. The study addressed the following questions:

1. What is the range of achievement and the distribution of scores obtained from kindergarten children at the beginning and the end of the school year?
2. What differences exist between kindergarten students in high needs schools (low SES) and those attending non-high needs schools (middle to high SES) at the beginning and at the end of the school year?

3. What differences exist between male and female kindergarten students at the beginning and at the end of the school year?
4. What differences exist between younger than average and older than average kindergarten students at the beginning and at the end of the school year?
5. After adjusting for prior knowledge, gender, age, and level of school need, what are the differences between the full-day kindergarten children and the half-day kindergarten children in the literacy skills exhibited at the end of the school year?

The conclusions from the 2001-2002 study are:

1. Most children enter kindergarten without the ability to read. A large proportion of children do enter kindergarten with much of the prerequisite knowledge to enable them to become emergent readers (e.g., children are able to identify many letters, they have a good idea of how print can represent sounds and words, they understand it is print and not pictures that provide messages, they understand that in Western language one reads from top to bottom and left to right).
2. Given the role that initial reading skills appear to play on low SES children's ability to develop the ability to read well by the end of the kindergarten year, it is prudent to provide these children with opportunities to experience literacy enriched environments prior to becoming of kindergarten age.
3. Low SES children enter kindergarten with less developed pre-requisite skills for reading than do middle or high SES children; however, SES does not appear to be a differentiating factor of a child's actual reading ability (e.g., book reading) upon entry to kindergarten.
4. By the end of the school year all advantage attributed to SES can be eliminated by providing low SES children with full-day kindergarten opportunities.
5. It is clear that the full-day kindergarten experience enabled pupils of low SES or educationally disadvantaged backgrounds to catch up to and, in almost all cases, exceed the skills pre-requisite to reading acquired by pupils of higher SES or of educationally more advantaged backgrounds. This appears to be the result of teachers taking on the role of providing necessary experiences to socialize and educate pupils that may not be as readily available in the home environment of pupils coming from low SES or educationally disadvantaged backgrounds.
6. Upon entry to kindergarten, it is clear that female students are better able than male students to identify letters, write, hear and record sounds in words. Girls also have a better understanding of the conventions of print than boys.
7. The initial advantage enjoyed by girls over boys in their ability to read and write is evidenced at the end of the year also. Although boys quickly develop an understanding of the concepts of print which is similar to that held by girls, they are eclipsed by the skills developed by girls in the areas of letter identification, writing, hearing and recording sounds in words, readiness to read words, and actual book reading.
8. Differences in student abilities also seem evident upon entry to kindergarten. As can be expected, older children outperform younger children on all measures early in the kindergarten year. By the end of the kindergarten year differences between older and younger children disappear.
9. It appears that children attending schools serving communities of middle to high SES have much to benefit from attending full-day kindergarten programs. This is true not only in terms of acquiring the basic skills required to become emergent readers but in terms of actually becoming emergent readers.

10. Children in the full-day kindergarten program experienced significantly greater growth in the pre-requisite skills for reading than did children in the half-day kindergarten program. This is particularly true in terms of the development of skills enabling pupils to (a) identify letters of the alphabet, (b) develop understandings of the conventions regarding printed language, (c) assemble a repertoire of words necessary to become readers, (d) correctly sequence letters to form words from memory, and (e) move from oral language to printed language by being able to record sounds using letters.

The study has been provided to the schools involved, to the AISI team and now to the board of trustees. Dr. da Costa and Susan Bell will hold an information session for all participants to enable them to converse with the researchers regarding the findings.

Next Steps: The plan includes replicating the study this school year and following both cohort groups (2000-2001 and 2001-2002) for a minimum of three years to determine the long-term impact of full-day kindergarten. A report will be prepared for board based on the 2001-2002 study and the first year follow-up of the 2000-2001 cohort.

GC:ee

ATTACHMENT I - Full-day and Half-day Kindergarten Programming: A Comparison of the Effects by Socio-Economic Status, Gender, Age and Program