

As Easy As ABC?

COMPARING READING RESULTS IN KINDERGARTEN PROGRAMS

By Peggy Antifaeff, Darren Mitzel, Janet Porowski, and Jodie Sussex

Kindergarten isn't the play school people might remember. Rookie students do more than nap, eat graham crackers and learn their ABCs. They learn to read, write in journals, even tackle some early algebraic concepts. Most of them do it in a half-day of school. (Young, 2004, p. A1)

As pressure for academic achievement in elementary schools grows, we are seeing greater demands being placed on our kindergarten students and teachers. Naps are unheard of and play is diminishing as students are expected to make progress in reading, writing, and mathematics while also learning about science, social studies, social responsibility, art, drama, dance, music, and more. Increasing curricular demands and testing regimens consume much of the kindergarten day and educators are looking for ways to maintain developmentally appropriate programs while satisfying new academic demands. "Calls for more developmentally-appropriate programming in kindergarten, more integrated curriculum approaches, more child-initiated activity in classrooms, and more attention to curriculum content beyond 'the three R's'" (Elicker & Mathur, 1997, p. 461) have resulted in two initiatives: full-day kindergarten and literacy outreach programs.

Currently, the province of British Columbia funds full-day kindergarten to four groups of students. Many districts in British Columbia also offer full-day kindergarten to students not covered by ministry funding. These programs are supported through user pay systems, "piggybacking" non-funded students in classes with high numbers of provincially funded students, and by allocating district funds to provide full-day support to at-risk, inner-city kindergarten students. These creative funding strategies demonstrate cost considerations when implementing a full-day kindergarten program.

In addition to lengthening the kindergarten day, educators are looking to literacy outreach programs. Family dynamics have changed (Gullo, 1990) and more and more children are being raised by non-family members. Parents are expecting more of educators and educators are beginning to expect more of parents. Accordingly, schools are exploring ways to train and support parents so that they can supplement their child's educational program from home. These outreach initiatives also require financial considerations.

At this time, it appears that districts are proceeding with kindergarten reform on a trial-and-error basis. We believe that a comparative analysis of academic literature on the effects of full-day kindergarten, half-day kindergarten, and literacy support in the home is needed. We prepared this analysis and went one step further by testing our findings through research on examples of these kindergarten programs in local school districts. The goal of this study was to help districts make informed decisions on where district and provincial funding could be allocated in order to have the greatest positive impact on kindergarten reading results.

For the purposes of this paper, the term *literacy* refers only to reading. We also limit the definition of *literacy outreach programs* to include programs that "bring both the child and parent together to teach parents specific strategies for interacting with their children in ways that support

literacy development which can help parents improve the skills, attitudes, values and behaviours linked to reading” (Sauriol, 2001).

Research Methods

The objective of this study was to perform comparative research of four different kindergarten programs (see Table 1) regarding the effectiveness and costs. Using a mixed methods approach, we combined quantitative analyses of costs and reading results with qualitative descriptions of program content and delivery. Our research instruments included a parent questionnaire, a teacher questionnaire, and in-depth interviews with educators. Data obtained from participating districts and schools included program information, demographic data, financial data, and reading assessment data. Eight classrooms from seven schools made up the sample for this research. Four of these classrooms were located in the Langley School District and four were located in the Abbotsford School District.

Table 1
Comparison Group Names, Locations, and Characteristics

Half-Day Kindergarten¹ without Literacy Outreach	Full-Day Kindergarten² without Literacy Outreach	Half-Day Kindergarten with Literacy Outreach	Full-Day Kindergarten with Literacy Outreach
<ul style="list-style-type: none"> Langley School District student demographics vary 	<ul style="list-style-type: none"> Abbotsford School District funded by district typically have low socioeconomic status (inner-city school) 	<ul style="list-style-type: none"> Langley School District PALS³ outreach program student demographics vary 	<ul style="list-style-type: none"> Abbotsford School District PALS outreach program typically have a high number of ESL students

Notes:

¹ *Half-Day Kindergarten* refers to a 0.5 full-time equivalent educational program.

² *Full-Day Kindergarten* refers to a 1.0 full-time educational program. This should not be confused with programs that operate as alternate-day full-day kindergartens.

³ *Parents as Literacy Supporters (PALS)* is an educational outreach program developed by Jim Anderson and Fiona Morrison.

Parent surveys were distributed to the “with Literacy Outreach” subgroups. The questionnaire assessed parent perceptions of the effectiveness of the PALS program. We received 28 questionnaires from the two subgroups (n=28) giving us a total response rate of 36%. The teacher questionnaire determined the developmental appropriateness of each kindergarten program and was completed by six teachers and one administrator (n=7).

We followed the questionnaire phase with in-depth teacher interviews (n=6). Our primary focus was to confirm the developmental appropriateness of all eight classes. Our secondary focus was to gain insight into each program and the professional experiences of the teachers and administrator involved. Reliability and validity were increased through the following measures: a uniform outline of questions and prompts; pilot interviews; two researchers present for three out of six interviews; tape-recording and transcribing verbatim, with transcripts confirmed by the interview subjects.

Findings

Our analyses of data collected through teacher questionnaires and interviews confirmed that teachers in all four subgroups provided a developmentally appropriate kindergarten program.

Programs contained a strong balance between social/play activities and literacy skills throughout the day. This determination allowed us to include these groups in our study.

The results of our parent questionnaire clearly demonstrated the positive parent perceptions towards the effectiveness of the PALS literacy outreach program. All of the full-day kindergarten parent respondents (n=14) agreed that they learned and applied new reading strategies while 71% of half-day kindergarten parents (n=14) learned new reading strategies and 77% applied them at home. Figure 1 shows the percentage of parents who responded that PALS has helped their child to read.

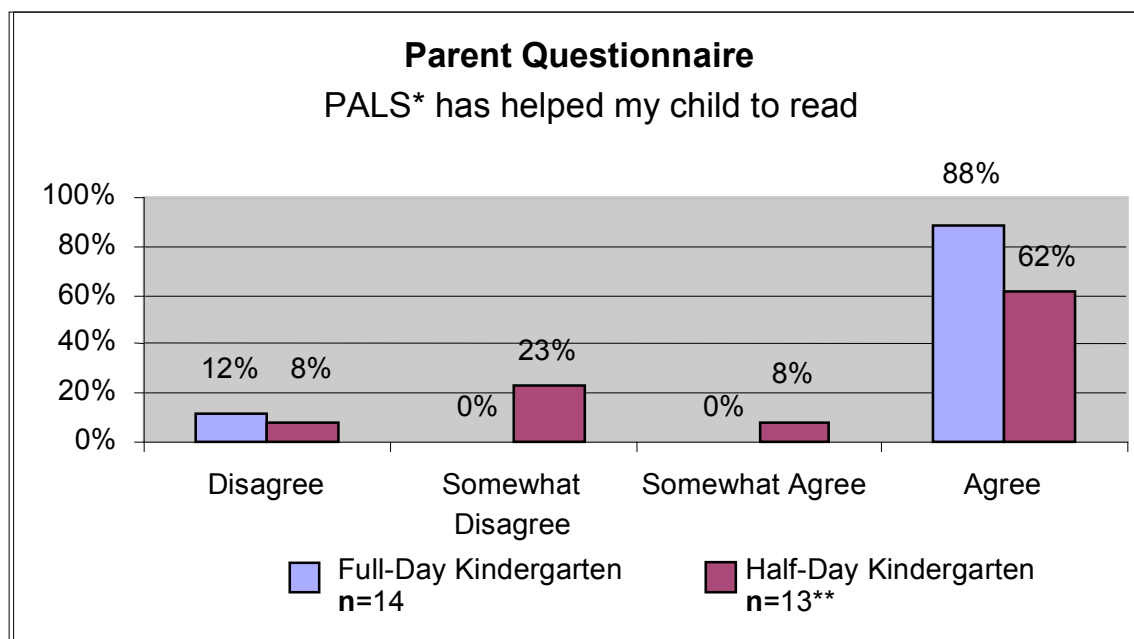


Figure 1 Parent Questionnaire: PALS has helped my child to read

*PALS: Parents as Literacy Supporters

** one parent did not respond to this question

Our analysis of financial data, gathered from our administrator interview and district sources, demonstrates the dramatic differences in costs across programs. Table 2 outlines the additional costs of the literacy interventions studied. Please note that the additional costs of offering PALS differed in the two programs as the Half-day with PALS was offered in the Langley School District and funded through the school, and the Full-day with PALS was offered in the Abbotsford School District and was privately sponsored by Envision Financial.

Table 2
Comparison Additional Costs of Literacy Intervention Programs

Subgroup	Half-Day	Half-Day with PALS	Full-Day	Full-day with PALS
Additional Cost	\$0	\$2,750	\$39,300	\$47,740

Our initial goal in terms of reading results data was to acquire an early-fall kindergarten assessment and an end-of-year kindergarten assessment. These criteria would also ensure a consistent measure (change score) of reading achievement across classrooms and districts, since they were defined using an equivalent time span. Unfortunately, we were unable to achieve this goal for all subgroups. We also quickly determined that the district year-end assessment used in

our two districts were not consistent with one another. For this reason, our analysis of kindergarten reading scores consisted of a separate comparison within each district.

When comparing kindergarten reading scores in half-day kindergarten programs with and without PALS, we looked at skill development in five areas: initial and final sounds, rhyming, blending, and clapping. We also compared these results with the Langley School District average (see Figure 2).

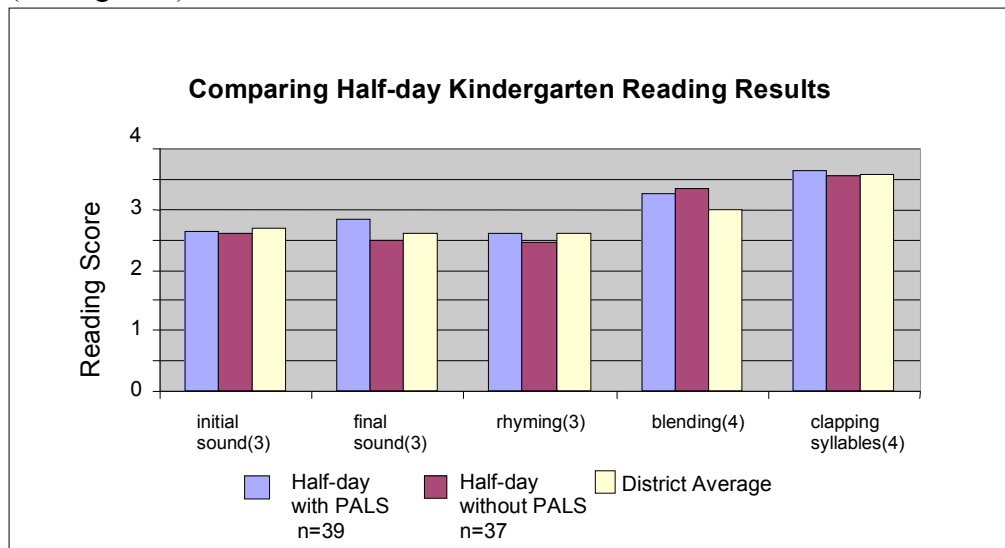


Figure 2 Comparing Half-day Kindergarten Reading Results

When comparing the full-day programs with and without PALS, the findings were unexpected (see Figure 3). The full-day kindergarten without PALS subgroup indicated 100% of these students were meeting expectations. This subgroup also exceeded the district average in all areas. Conversely, the full-day kindergarten with PALS subgroup was below average in four of the five skill areas.

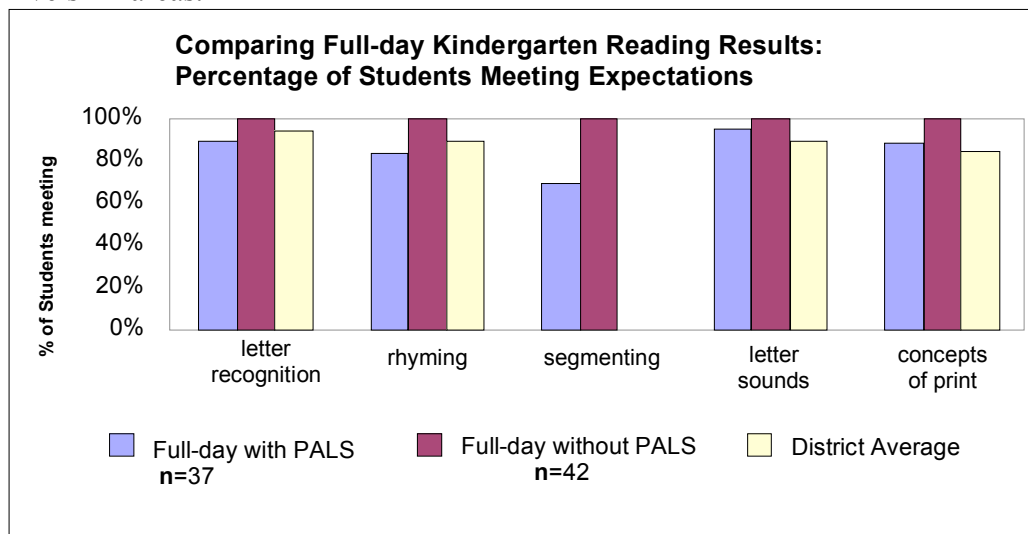


Figure 3 Comparing Full-Day Kindergarten Reading Results

We attributed the lower reading results for the full-day with PALS subgroup to the 100% ESL demographic. Our need to understand this result led us to one school’s growth plan which

discusses the research on second language acquisition. The growth plan states that it could take nine years for these students to develop language proficiency (Antak & Jensen, 2005). Our administrator interview also revealed that these results might have been affected by the fact that “many of [these] students go on extended vacations [to India].” Tables 3 and 4 simplify the reading results for all four subgroups.

Table 3
Percentage of Half-day Kindergarten Students Meeting Expectations in Reading Skill Areas

Kindergarten Program	Phonemic Awareness Skill Area					Average % Meeting
	Initial sound	Final sound	Rhyming	Blending	Clapping	
Half-day without PALS N=37	86	86	92	95	100	91.2
Half-day with PALS N=37	95	97	92	86	97	93.4

Source: Langley School District.

Note: Meeting expectations includes a range of minimally meeting or fully meeting expectations.

Table 4
Percentage of Full-day Kindergarten Students Meeting Expectations in Reading Skill Areas

Kindergarten program	Phonemic Awareness Skill Area					Average % Meeting
	Letter Recognition	Rhyming	Segmenting	Letter sounds	Concepts of print	
Full-day without PALS N=42	100	100	100	100	100	100
Full-day with PALS N=37	100	84	70	95	89	87.6

Source: Abbotsford School District.

Note: Meeting expectations includes a range of minimally meeting, meeting, or exceeding expectations.

Conclusions and Recommendations

Our findings led us to several conclusions and recommendations for the districts involved in this study and for other similar districts.

1. Students living in socio-economically at-risk neighbourhoods experienced substantial benefit from literacy intervention provided through full-day kindergarten programs. Blades and Tarr (2004) noted that additional time in full-day kindergarten allowed teachers to provide more of the experiences necessary to socialize and educate students that may not be as readily available in the home environment of students coming from low socioeconomic or educationally disadvantaged backgrounds. Blades and Tarr (2004) concluded that the full-day kindergarten experience enabled these students from a disadvantaged background to catch up to and, in most cases, exceed the skills prerequisite to reading acquired by pupils of higher socioeconomic or of educationally more advantaged backgrounds.

- Districts should consider providing full-day kindergarten for all schools with an inner-city designation.
- Districts should consider providing full-day kindergarten at satellite schools for all students at-risk for learning, who are not in the low socio-economic demographic.

- Districts should provide additional resources and professional development for teachers to support the extension of their developmentally appropriate half-day kindergarten programs to full-day programs

2. Participation in literacy outreach programs led to literacy benefits for students in a half-day program. Research by Neuman et al. (1993) showed that children who were identified as at-risk for learning or came from families of low-socioeconomic status benefited from the knowledge provided to parents to help their children be successful at school. These families had strong goals for their children, but needed help with knowing how to participate in their children's literacy development at home.

- Districts should continue to support and develop consistent long-term literacy outreach programs, such as PALS.
- Districts could show support for literacy outreach programs by funding them fully so that independent fundraising at the school level is no longer necessary.

3. Full-day kindergarten with a literacy outreach component is the most expensive intervention and the reading results were inconclusive. The full-day kindergarten classes with PALS had an almost 100% ESL student configuration. David et al. (2000) states that working with ESL students for a full day integrates them more quickly with English-speaking children, thus increasing the speed with which they gain these language skills. However, in the full-day kindergarten with PALS classes, the 100% ESL students are not able to learn the English language from their peers.

4. The financial cost of full-day kindergarten may be reasonable for students at-risk of literacy achievement, and the cost of literacy outreach programs may be justified for all kindergarten children.

- Districts and researchers should consider conducting longitudinal studies of the long-term effects of these kindergarten interventions.

In summary, this study gathered data from two districts with similar demographics, but different implementation of kindergarten initiatives. The results of this study show that care must be taken to assess both the individual and collective needs of kindergarten students when implementing any program changes. From our study, we believe the greatest need is for educators to follow recommendations that best meet the needs of students identified as being at-risk for literacy achievement in order to shrink the achievement gap. It is our hope that further studies will be undertaken to provide additional evidence of best intervention practice for literacy development and that future researchers will particularly look for evidence of the long-term effects of these intervention programs.

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