Project Early Kindergarten-Early Reading First

Evaluation report on the first year of a Saint Paul Public Schools initiative

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March 2008

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Acknowledgments

The Project Early Kindergarten-Early Reading First (PEK-ERF) evaluation is led by
Dan Mueller and Edith Gozali-Lee of Wilder Research, working in conjunction with
Marian Heinrichs of Saint Paul Public Schools' Department of Research, Evaluation and
Assessment. This report synthesizes program information and evaluation findings
presented in several public reports and internal program documents. Authors of
individual reports and documents summarized here include the following: Marian
Heinrichs of Saint Paul Public Schools; Lisa Gruenewald of PEK-ERF; Laura Justice of
the University of Virginia Preschool Language and Literacy Lab; and Susan Kimmel of
the University of Oklahoma Center for Early Childhood Professional Development. Lisa
Gruenewald, PEK-ERF project coordinator, provided extensive information and support
in the preparation of this report. Some of the information on PEK and the Project for
Academic Excellence presented here came from a companion report prepared for PEK.
Ann Lovrien, PEK assistant director, provided much of that information. We also wish
to thank PEK-ERF staff, teachers, parents, and children who give their time and support
to the program and study.

The following Wilder Research employees helped in conducting child assessments,
processing and analyzing data, and producing this and other reports referenced here:

Mark Anton
Cheryl Bourgeois
Jackie Campeau
Rena Cleveland
Marilyn Conrad
Philip Cooper
Louann Graham
Melissa Hansen
Margaree Levy
Jennifer Lee Schultz
Dolores Martin
Ryan McArdle
Wayne Ramsden
Annette Shtivelband
Dan Swanson

Executive summary

Program overview

The federal Early Reading First program provides financial support to transform early childhood centers into "centers of excellence" that promote language and cognitive skills and a strong early reading foundation. In 2006 Saint Paul Public Schools received a three-year, $3.8 million grant through the initiative. Saint Paul used its funds to expand its Project Early Kindergarten (PEK) program to an additional two schools and two child care centers.

Project Early Kindergarten – Early Reading First (PEK-ERF) is a partnership between Saint Paul Public Schools, Wilder Child Development Center, and Bethel University King Family Foundation Child Development Center. The program provides pre-kindergarten education to 3- and 4-year-olds in Saint Paul, and targets those who are low-income, English Language Learners, or need Special Education services.

PEK-ERF takes a rigorous academic approach to early education, aligning pre-kindergarten education with the district's K-12 academic reform model, the Project for Academic Excellence. The program emphasizes standards-based learning, extensive professional development, parent education and support, and a community-wide approach involving both schools and child care settings. Participating schools and child care centers implement the literacy-rich *Doors to Discovery* curriculum.

PEK-ERF served a total of 119 children during its first year of programming, from January 8, 2007, to July 31, 2007. The grant funds services through September 30, 2009.

Research methods

Wilder Research conducts an independent evaluation of PEK-ERF, working in conjunction with Saint Paul Public Schools' Department of Research, Evaluation and Assessment. Research-based assessment tools measure children's academic progress and classrooms' support for language and literacy. Assessments conducted in the spring of children's pre-kindergarten year also provide measures of their school-readiness.

Activities and results

In the spring, a federal site visitor found PEK-ERF "to be an exceptional program that is well on its way to achieving excellence." The site visitor commended the program for its experienced staff and their diligence in program implementation, and for teachers' commitment to the program. The program achieved a number of successes during its initial year:

- Almost all participants fell into one or more of the program's three target categories.

- Overall, teaching staff were positive about their involvement with the program and its training and coaching.

- Teachers showed overall improvement in their early literacy knowledge.

- Observations found that overall, teachers provided strong emotional and instructional support to students, and actively engaged children in learning activities.

- Classrooms showed overall improvement in the extent to which they promote literacy and language development.

- All classrooms observed were found to have fully or partially implemented a majority of the indicators of alignment with the Project for Academic Excellence.

- Compared to their peers nationally, 4-year-olds in both school and child care settings made faster progress in English receptive vocabulary on average.

- Based on teachers' ratings of oral language, reading, and writing, PEK-ERF participants appeared to make faster progress than peers in a national sample.

- Additional assessments measuring alphabet knowledge, print and word awareness, and other measures of early language and literacy also showed improvements for both 3- and 4-year-olds on average, although it is difficult to know at this point how progress compares to typical development.

Issues for consideration

PEK-ERF launched its initial program year with strong implementation efforts. Implementation is an ongoing process, and the program gathered valuable information during its first year on ways to continue strengthening these efforts. Staff can use the following evaluation insights to inform future planning.

- Based on feedback from teaching staff, the program may want to consider expanding the coaching that is provided to teaching assistants.

- Teachers communicated that future professional development can now delve deeper into program elements, and that they can also benefit from additional professional development on working with English Language Learners.

- Teachers voiced strong appreciation for opportunities to connect with each other,

and program staff may want to consider additional ways to foster these connections.

- Some teachers provided feedback that they did not always have the supplies and props needed to implement the curriculum.

- Variations existed among classrooms in the extent to which they were literacy-rich, their alignment with the Project for Academic Excellence, and teacher-student interactions. Staff can use classroom-level results to target coaching to individual classrooms.

- Program staff can explore ways to boost school-based children's progress. Across assessments, children at school sites generally seemed to be further from attaining benchmarks than child care children. Differences could in part reflect the higher percentage of children at school sites with a home language other than English, and researchers will be examining that further in the future.

- The program can continue to work toward increasing parents' understanding of how best to support their children's learning, including how often they read to their children and allow their children to watch television.

Looking ahead

Data gathered during the second and third years will enable evaluators to assess the program's attainment of annual benchmarks when children attend a full year. Future evaluation results for PEK and PEK-ERF will also provide valuable information as the district pursues a larger initiative to ensure consistency across 4-year-old programs and to align them with the Project for Academic Excellence.

Introduction

> *"The mission of Early Reading First is to ensure that all children enter kindergarten with the necessary language, cognitive, and early reading skills for continued success in school."*
> —(U.S. Department of Education, 2007a)

National Early Reading First

The federal No Child Left Behind Act of 2001 added two new reading programs to the Elementary and Secondary Education Act. Reading First supports evidence-based reading instruction in kindergarten through third grade (USDOE, 2007b). Early Reading First (ERF) supports high-quality early education for preschool-age children. ERF awards grants to help improve early childhood centers serving primarily low-income children, with the goal of transforming them into "centers of excellence" that promote language and cognitive skills and an early reading foundation (USDOE, 2007a). As stated by the U.S. Department of Education in its own language (USDOE, 2007a), ERF funds must be used to do the following:

- Enhance children's language, cognitive, and early reading skills through professional development for teachers;

- Provide early language and reading development and instructional materials as developed from scientifically based reading research;

- Provide preschool-age children with cognitive learning opportunities in high-quality language- and literature-rich environments;

- Use screening assessments to effectively identify preschool-age children who may be at risk for reading failure; and

- Improve existing early childhood programs by integrating scientifically based reading research into all aspects of the program (including instructional materials, teaching strategies, curricula, parent engagement, and professional development).

Local Early Reading First

In 2006 Saint Paul Public Schools (SPPS) received a three-year, $3.8 million ERF grant. The program began serving children in January 2007, with a shorter initial programming year spanning January 8 through July 31, 2007. The grant funds services through September 30, 2009. The 2008-09 school year will mark the third year of the program. The current grant builds on the work of the district's previous ERF project, Children Have Opportunities in Centers of Excellence (CHOICE). Personnel from CHOICE assisted in the development of the proposal for the current ERF grant and have been involved in its implementation. Learning from the previous grant has also informed the current initiative.

Expanding Project Early Kindergarten

Saint Paul used its ERF funds to expand its Project Early Kindergarten (PEK) program. PEK began in 2005 and provides pre-kindergarten education primarily to low-income children, English Language Learners, and children needing Special Education services in Saint Paul. PEK takes a rigorous academic approach to early education, aligning pre-kindergarten education with the district's K-12 academic reform model, the Project for Academic Excellence. The program emphasizes standards-based learning, extensive professional development, parent education and support, and a community-wide approach involving both schools and child care settings. At the time of this report, 10 Saint Paul schools, 4 child care centers, and 13 family child care homes offered PEK. The program is funded primarily by Saint Paul Public Schools and The McKnight Foundation, with the Minnesota Early Learning Foundation contributing funds to the child care portion.

With the federal ERF grant, the district extended the PEK approach to an additional two schools (Eastern Heights and Highwood Hills) and two child care centers (Bethel University King Family Foundation Child Development Center and Wilder Child Development Center). The local ERF evaluation and this report focus on these two schools and two child care centers. Hereafter, PEK-ERF refers to the portion of Project Early Kindergarten covered by the federal ERF grant, and PEK refers to the portion of Project Early Kindergarten funded by the district and McKnight.

PEK-ERF

PEK-ERF follows the "Early Childhood Workshop," a preschool classroom framework developed for PEK. With sensitivity to young children's developmental needs, the framework emphasizes standards-based early education and alignment with the Project for Academic Excellence. The Early Childhood Workshop provides daily rituals and routines that structure the daily activities of participating classrooms. While both PEK-ERF and PEK implement the Early Childhood Workshop framework in all sites, with variations based on individual sites' needs, the programs differ somewhat in their curricula. In conjunction with the Early Childhood Workshop, PEK-ERF implements the literacy-rich *Doors to Discovery* curriculum in both elementary school and child care settings. In PEK, child care centers implement *Doors to Discovery,* school teachers develop lesson plans to use within the Early Childhood Workshop framework, and family child care providers follow a theme-based curricular model developed specifically for them. As with PEK, PEK-ERF also provides extensive professional development in the form of teacher training sessions and on-the-job coaching, and promotes parent involvement in children's learning.

Children who are 3 or 4 years old as of September 1 of the program year may participate in PEK-ERF. Some children may attend the program for two years. While PEK offers the program to 4-year-olds at school sites and 3- and 4-year-olds at child care sites, all PEK-ERF sites offer the program to 3- and 4-year-olds. Both programs target children who are low-income, English Language Learners, or need Special Education services. PEK-ERF children participate in the full-day, five-day-a-week program at their child care center or one of the participating schools. At school sites, the six-and-a-half-hour day mirrors the length of the regular school day. Program services are offered year-round, including the summer months. PEK schools differ somewhat in that they offer a half-day program following the traditional school calendar.

Each PEK-ERF location has two classrooms offering the program, for a total of eight classrooms. The program selected these sites based on their history of serving populations targeted by the program and an analysis of their potential to be transformed into "centers of excellence." The program cites the quality, commitment, and education of staff as one of the key strengths across sites. School sites also bring with them the district's commitment to strengthening early education programs and aligning programs with the Project for Academic Excellence. Program staff value participating child care centers' formal associations with professional teacher preparation (Bethel University) and research (Wilder) institutions.

Contents of the report

This report provides an overview of PEK-ERF and summarizes implementation and outcomes results following the program's initial year of operation, which spanned January 8, 2007, to July 31, 2007. Information on the program and its first-year results has been presented in several different reports and internal documents. These reports and documents were prepared by the PEK-ERF project coordinator; researchers from Wilder Research, Saint Paul Public Schools, and the University of Virginia; and a federally commissioned site visitor from the University of Oklahoma. This report synthesizes information available in these separate documents. Individual reports and documents referenced here are included in the References section at the end of the report.

The following section describes program components and goals, and research methods for assessing progress toward those goals. The report then summarizes first-year evaluation results, starting with a section on program implementation followed by a section on program outcomes. Both the implementation and outcomes sections begin with a summary of early results and conclude with a list of issues that can be considered in future program planning. Because this report covers the program's initial year of operation, and because initial outcomes do not reflect a full year of programming, most issues for consideration pertain to program implementation. Throughout the report are references to figures appearing in the main body of the report and the Appendix.

Program components and goals

This section provides an overview of program components and goals, as well as research methods used to assess progress toward those goals. Key components of the program include alignment with the Project for Academic Excellence, involving implementation of the Early Childhood Workshop framework; literacy-rich instruction using the *Doors to Discovery* curriculum; extensive ongoing professional development; parent education and support; and contributions to district efforts to streamline 4-year-old programs. The program established six overarching goals, with annual benchmarks supporting attainment of those goals. An independent evaluation assesses progress toward those goals and benchmarks.

Program components

Alignment with the Project for Academic Excellence

With differences based on young children's developmental needs, PEK and PEK-ERF bring children's preschool experience into alignment with the educational experience they will have in their K-12 years in Saint Paul Public Schools. This educational experience centers on the Project for Academic Excellence. The district introduced the Project for Academic Excellence in 2001 as a comprehensive academic reform model. Since that time, the Project for Academic Excellence has expanded from a pilot project in selected elementary schools to a district-wide approach implemented in every grade level.

The Project for Academic Excellence emphasizes standards-based education and extensive professional development. It aligns the district's curriculum model with state and national standards in reading, writing, math, and science. It also provides ongoing training for teachers and administrators based on national standards for effective training. Professional development includes best practices in standards-based instruction of core academic subjects. The model also emphasizes on-the-job coaching to help teachers develop lessons with clearly defined learning goals. Principals play an important role as instructional leaders who are involved in classrooms and oversee classrooms' implementation of the model (Saint Paul Public Schools, 2005). In the case of PEK-ERF, this role also extends to child care center directors. Underlying the model are Principles of Learning developed by the University of Pittsburgh's Institute for Learning. These principles emphasize the role of effort-based education, rather than aptitude, in educational achievement (Saint Paul Public Schools, n.d.-a).

In the district's own language, following are the 10 core components of the Project for Academic Excellence (Saint Paul Public Schools, n.d.-b):

1. Standards-based curriculum and instruction as the foundation of reform;

2. Extensive continuing professional development for teachers and administrators;

3. Focus on a small number of core academic skills;

4. Demonstration sites to promote replication;

5. A shared sense of instructional leadership across the school and district;

6. Content-based coaching of teachers, principals, and district leaders;

7. Availability of essential materials for learning;

8. Peer support for teachers;

9. Standards-based assessment to monitor progress; and

10. Increasing to scale across the district.

Early Childhood Workshop

PEK-ERF classroom instruction and routines are guided by the Early Childhood Workshop, a preschool classroom framework developed for PEK by local and national experts in early childhood development. Materials are geared toward the developmental needs of young children and are based on best practices in early childhood education. The framework aligns instructional methods and classroom routines with the Project for Academic Excellence and emphasizes specific standards in personal and social development, language and literacy, mathematical thinking, and physical development and health. The Early Childhood Workshop is presented in a comprehensive implementation manual for teachers. Last summer, PEK-ERF teachers participated in Level II Early Childhood Workshop training along with PEK staff and received the Level II version of the implementation manual.

The program identified the following best practices that teachers are expected to follow in their implementation of the Early Childhood Workshop framework:

■ Designing a print-rich environment;

■ Following a predictive schedule with rituals and routines;

■ Planning standards-based lessons in a monthly area of study;

■ Implementing clearly defined centers, organized around an area of study;

- Scheduling a 50-60 minute center-based learning block;

- Adult interaction during active learning time;

- Incorporating shared reading and interactive writing techniques;

- Conducting repeated readings of classroom literature;

- Conducting three read alouds per day;

- Introducing at least three new vocabulary words each day;

- Engaging children in purposefully planned and targeted-skill small groups each day; and

- Using a variety of strategies on an ongoing basis to facilitate the home-school connection.

As addressed in the best practices, classrooms follow a structured daily classroom schedule under the Early Childhood Workshop framework (Figure A1). Rituals and routines, materials, and activities are based on research on developing language, cognitive, and early reading skills. The core of the framework is implemented in a two-and-a-half-hour morning block, and includes the following four main components:

1. *Community circle time:* Teachers deliver standards-based lessons in core content areas to the full group of students. Teachers can use a variety of techniques to deliver the lesson, including read alouds, shared reading, interactive writing, and calendar activities.

2. *Active learning time:* Teachers help children engage in hands-on learning through independent and small group activities around the room during active learning time, considered the central part of the workshop. Learning centers offer literacy props and activities designed to extend the day's lesson.

3. *Small groups:* An expectation for daily small group instruction allows teachers to differentiate instruction based on information gathered through their assessments of individual children. The literacy coach helps teachers group children based on needs identified in the assessments, and change groups over time based on changing needs. Small groups also provide children opportunities to practice cooperation and problem-solving skills.

4. *Regroup to revisit:* At the end of the workshop, students gather for a closing meeting, where the full group of children regroups and revisits the day's lesson and their work. During this time, the class may also make plans to extend an area of learning in the afternoon or on the following day.

PEK-ERF extended the Early Childhood Workshop schedule to accommodate a full day of programming. This extension includes two additional literacy blocks in the afternoon: a block of time for extended learning and projects, and a block of time for additional small groups. Teachers plan instruction for these blocks that follows the needs and interests of the children and fits within the areas of study. The extended learning and projects block provides time for children to deepen their understanding and skills, encounter new problems, and incorporate newly mastered skills into their play. Teachers are encouraged to follow the children's lead and interests, while using the additional time to talk, read, and write with children. The afternoon small group block is used for an additional five-day read aloud. Teachers read the same book for five days and follow a protocol that targets different book and print skills each day, including comprehension. On the fifth day, teachers are encouraged to have children share the stories in fun and meaningful ways.

Doors to Discovery curriculum

In both elementary school and child care settings, PEK-ERF implements *Doors to Discovery,* a complete, literacy-focused curriculum. *Doors to Discovery* promotes oral language skills, phonological awareness, alphabet knowledge, print concepts, and a love of books in pre-kindergarten children. Literacy-enriched learning centers, referred to as "Discovery Centers," are used to integrate the curriculum into active learning activities (Wright Group/McGraw-Hill, n.d.).

The curriculum provides teachers with defined lessons organized by themes or areas of study. The PEK-ERF literacy coach works with teachers to help them incorporate the theme into classroom learning centers. Teachers supplement the curriculum with five-day read alouds. As described above, these involve reading the same book for five days with a different teaching point each day. Some PEK-ERF teachers have also chosen to supplement the curriculum with math and science lessons they developed.

PEK-ERF purchased a variety of classroom materials to support curriculum implementation and promote children's literacy skills. For example, in addition to books and picture cards, program staff felt that English Language Learners needed real objects that could be manipulated during active learning time to help them master new vocabulary words. Materials purchased for participating classrooms include books related to areas of study; book kits with puppets and other props; concept- and

vocabulary-building kits and games; audio tapes; alphabet and word puzzles; alphabet and number games; book easels for shared reading; writing tools; music and disc players; children's magazines; stamps, stencils, and dry erase boards; and computers and printers for classrooms that did not already have them.

Professional development

As with the Project for Academic Excellence, PEK-ERF emphasizes extensive ongoing professional development. Program standards for professional development include that it be research-based, aligned with the principles of the Project for Academic Excellence, and focused on helping teachers build skills in the four areas of preschool literacy: oral language, phonological awareness, print awareness, and alphabet knowledge. Professional development activities aim to improve the quality of teaching, model instruction after research-based best practices, improve the classroom environment, provide strategies for engaging families, and help teachers inform their instruction with information gathered in student assessments.

The program's professional development takes place both in the form of formal training sessions and coaching of teachers. Training sessions are conducted by professional trainers, including consultants from the California-based Foundation for Comprehensive Early Literacy Learning (CELL), a national *Doors to Discovery* trainer, and an educational consultant formerly with the Minnesota Early Literacy Training Project. During the program's initial year, a consultant from the University of Virginia's Preschool Language and Literacy Lab also provided staff professional development on interpreting and using results from the Classroom Assessment Scoring System PreK (CLASS PreK).

A literacy coach also works individually with school and child care teachers and assistants each week to help them incorporate strategies and activities from the training provided. The literacy coach reinforces training topics by observing classrooms, modeling strategies learned in training, and coaching teachers one-on-one based on their individual needs. The coach also works with teachers to establish goals and to plan their weekly lessons. The program views strong relationships as integral to successful coaching, and the coach works to establish a rapport with teachers, assistants, child care center directors, and school principals. The coach, in turn, also receives ongoing training on coaching.

Parent education and support

As with PEK, PEK-ERF emphasizes parents' involvement in their children's learning. Professional development provided during the first year included training on informing and involving families in a child's school readiness. The program provides parents with information and support aimed at encouraging parents to engage their children in literacy activities at home, and expanding parents' understanding of school-readiness expectations. According to program staff, both child care and school-based teachers have the opportunity to talk with many parents on a daily basis. Teachers also share results of child assessments with parents to help parents understand children's early academic skills, progress, and needs.

Streamlining district 4-year-old programs

Before PEK and PEK-ERF, Saint Paul Public Schools' early childhood programs reflected varying funding sources and populations served. Different departments administered the programs, and programs differed in their curricular approach. School programs also operated in a separate sphere from community child care programs, with no formal attempts to link curriculum or instructional practices. In 2005, the district established a planning committee to improve consistency and quality across programs for 4-year-olds. With the goal of aligning early childhood education with the Project for Academic Excellence, the committee established district standards for 4-year-old programs. The district's 2006-2011 Strategic Plan for Continued Excellence now specifies early childhood program consolidation in alignment with the Project for Academic Excellence as a key action step (Saint Paul Public Schools, 2007).

It is within the context of this larger initiative to streamline early childhood programs that the district pursues PEK and PEK-ERF. Both emerged from this initiative, and also serve as a catalyst within it by implementing the curricular approach and professional development that is being promoted across 4-year-old programs. Over the next few years, PEK and PEK-ERF will also inform these efforts through their evaluation results. Results can help determine whether program strategies warrant replication within and beyond Saint Paul. In a report to the federal government, PEK-ERF staff described the program's role in district efforts to align pre-kindergarten programs as follows:

> *"PEK-ERF is an important step in the ongoing district wide effort in Saint Paul to align and set consistent criteria for all district preschool programs through the work of the district's 4-Year-Old Planning Committee. The outcomes and findings from Project ERF will inform and guide future decisions about how to structure programs and allocate resources."*
> —PEK-ERF program staff in report to federal government

Goals and benchmarks

PEK-ERF established six overarching program goals to guide its work. The goals, categorized by whether they pertain to program implementation or outcomes, follow:

Implementation goals

1. *Staff capacity:* Improve staff capacity to provide effective literacy instruction, and improve staff qualifications.

2. *Curriculum and instruction:* Improve instructional practices, curricula, and materials at each preschool site to meet the assessed needs of pre-K students.

3. *Classroom environment:* Improve the classroom environment to ensure an oral language and print-rich environment that is meaningful and culturally and linguistically appropriate.

4. *PAE alignment:* Increase standardization of practices and environments and improve student transition to kindergarten through alignment with Saint Paul's school-based reform model, the Project for Academic Excellence.

Outcomes goals

5. *Student achievement:* Increase the early readiness skills of students and ensure that all students learn the language, cognitive, and early reading skills they need to succeed in kindergarten and beyond, including the specific reading skills of oral language, phonological awareness, print awareness, and alphabet knowledge.

6. *Parent capacity:* Increase parent/family involvement in family literacy activities.

For each goal, the program established measurable annual benchmarks that can be used to assess progress. Figure 1 shows benchmarks aligned with each program goal. It should be noted that Figure 1 abbreviates the titles of formal assessment tools used by the program, and complete names and descriptions of tools are provided in Figure 2.

1. PEK-ERF goals and benchmarks

Goals	Benchmarks
1. Staff capacity	■ 80% of classroom teachers and assistants who participate in both training and coaching will attend at least 10 days of professional development each year ■ Increased teachers' knowledge and skills
2. Curriculum and instruction	■ 90% of classrooms will achieve at least a 4 on ELLCO language, literacy, and curriculum subscale ■ 90% of classrooms will achieve an average score of 3.75 or higher on ELLCO general classroom environment subscale ■ 90% of classrooms will achieve an average score of 5 or higher on CLASS PreK ■ The current curriculum theme will be represented in 7 out of 9 Discovery Centers in all of the classrooms
3. Classroom environment	■ 18 out of 20 on ELLCO book subscale ■ 19 out of 21 on ELLCO writing subscale
4. PAE alignment	■ All classrooms and teachers will demonstrate alignment with PAE
5. Student achievement[a]	■ 60% of 4-year-olds will attain target scores or better on each of the three IGDI tests[b] ■ 75% of 4-year-olds will score at the 50th percentile or above on TROLL based on norming sample ■ 90% of 4-year-olds will identify at least 14 of the 26 letters (PALS) ■ 90% of 4-year-olds will correctly identify 7 out of 10 possible items in the print and word awareness task (PALS) ■ Children will gain 4 standard score points or more on PPVT
6. Parent capacity	■ All parents will have at least 75% of responses scored as acceptable or model on Family Learning Strategies Survey ■ 90% of parents will attend a school-sponsored event

[a] *For student achievement benchmarks, this table focuses on 4-year-olds' attainment of program targets.*

[b] *Targets were based on scores attained by children entering kindergarten in Minneapolis schools.*

Research methods

Wilder Research and Saint Paul Public Schools' Department of Research, Evaluation and Assessment conduct the evaluation of PEK-ERF, with Wilder Research serving as the independent evaluator. The evaluation assesses the extent to which PEK-ERF achieves the implementation and outcomes goals established for the program. Ultimately, the evaluation will provide insights into how well a high-quality preschool program emphasizing early literacy skills and aligned with the Project for Academic Excellence prepares children for kindergarten. The program's evaluator from Saint Paul Public Schools focuses on program implementation, and Wilder Research focuses on program outcomes.

The evaluation uses research-based assessment tools to measure children's academic and social skills, to assess the quality of teachers' interactions with students, and to gauge the extent to which classrooms promote literacy and language development (Figure 2). The evaluation also uses several data-collection tools and methods developed or shaped specifically for PEK-ERF. These local tools and methods gather information on teachers' early literacy knowledge, teachers' perceptions of professional development and other program components, classrooms' alignment with the Project for Academic Excellence, parent involvement, and children's prior preschool and child care experience. These tools and methods include teacher interviews and focus groups, parent and teacher self-administered questionnaires, and a classroom observation tool used to check alignment with the Project for Academic Excellence. The evaluation also uses program and district records to report participant demographics, participant attendance, teachers' attendance at professional development, and parent attendance at school events and conferences.

Children are assessed at the beginning and end of program years, and also during the year on some assessments, to provide measures of their progress and school readiness. In the case of the Peabody Picture Vocabulary Test III (PPVT) and the Teacher Rating of Oral Language and Literacy (TROLL), participants' progress can be compared to that of peers in national samples. Assessments conducted at the end of children's pre-kindergarten year provide measures of their school readiness just before kindergarten entry.

2. Research-based assessment tools used in PEK-ERF evaluation

Tool	Area measured	Administration/timeline
Peabody Picture Vocabulary Test III (PPVT)	Children's receptive vocabulary (Goal 5)	Wilder Research staff administer to children age 4 and older
		Beginning and end of program year (administered at kindergarten entry for Year 1 school children)
Phonological Awareness Literacy Screening (PALS)	Children's alphabet knowledge and print and word awareness (Goal 5)	Teachers administer to 3- and 4-year-olds
		Every two months for the upper alphabet task and beginning and end of program year for the print and word awareness task in Year 1; in Year 2, both tasks administered monthly for children below the 25th percentile and four times a year for all children
Teacher Rating of Oral Language and Literacy (TROLL)	Children's oral language, reading, and writing (Goal 5)	Teachers administer to 3- and 4-year-olds
		Beginning and end of each program year
Social Skills Rating System (SSRS)	Children's social skills and problem behaviors (Goal 5)	Teachers complete for 4-year-olds beginning in Year 2
		Beginning and end of program year
Work Sampling System (WSS): Developmental Checklist[a]	Children's growth in personal and social development, language and literacy, and mathematics (Goal 5)	Teachers complete three times each program year (fall, winter, spring) beginning in Year 2
Individual Growth and Development Indicators (IGDIs)	Children's progress in picture naming, alliteration, and rhyming (Goal 5)	Administered to 3- and 4-year-olds by teachers or literacy coach
		Approximately every two months in Year 1; in Year 2, monthly for children below the 25th percentile and four times a year for all children
Early Language Literacy and Classroom Observation (ELLCO)	Classrooms' support of literacy and language development (Goals 2 and 3)	Independent consultant conducts for SPPS
		Beginning and end of each program year
Classroom Assessment Scoring System PreK (CLASS PreK)	Quality of instructional and social-emotional interactions between teachers and students (Goal 2)	Independent consultant conducts for SPPS
		Beginning and end of each program year

[a]   During Year 1, WSS assessments were completed for the first time in June and therefore cannot be used to assess progress over the course of the first year. For this reason, WSS results are not presented in this report.

Note: It is important to note that because the initial program year was a shorter year (January 8 to July 31), assessments administered at the beginning and end of that year span a shorter time period than will assessments administered at the beginning and end of subsequent program years.

Implementation results

This section profiles students participating in the program's first year and discusses the program's progress toward implementation goals. The program's use of child and classroom assessments is also discussed. Progress toward outcomes goals is described in the next section of the report. Both sections present information in the following order: 1) an overview of progress, 2) detailed information on progress toward specific goals, 3) and issues for consideration. The overview section summarizes progress toward goals and specific benchmarks established for the program. In the section presenting detailed results, information is organized by goal, and within goals by data-collection method. For example, results for the staff capacity goal are organized by the teacher knowledge survey, teacher satisfaction survey, federal site visit, and teacher focus group. The section on issues for consideration discusses ways the program can continue to strengthen services.

It is important to note that because the initial program year was a shorter year spanning January through July, the program did not have a full year to work toward attainment of its annual benchmarks. Changes from pre- to post-test should be viewed in the context of this shorter time period. Future years' reports will be able to examine the extent to which benchmarks were attained when students attended the program for a full year.

Overview

Program activities and changes seen from the beginning to the end of the year suggest strong implementation efforts during PEK-ERF's initial year. As intended, the program offered extensive professional development and served children at risk of poor academic success. From the beginning to the end of the program year, overall improvements were seen in teachers' early literacy knowledge, their instructional support, and classrooms' supports for language and literacy learning. By the end of the year, classrooms also met a number of the indicators of alignment with the Project for Academic Excellence. A federal site visitor commended the program for its strong implementation efforts:

> *"I found this to be an exceptional program that is well on its way to achieving excellence. The critical aspects of program implementation identified in the original proposal are underway and appear to be of the highest quality. I saw few deviations between the activities planned (per the original proposal) and the activities currently underway. The project staff is to be commended for their hard work in implementing this project in a timely manner. If all aspects of implementation continue at the present rate and at the current level of quality, the involved centers will surely achieve a status of excellence by the end of the grant period."*
> —quote from summary of site visit commissioned by U.S. Department of Education (Kimmel, 2007)

Teachers also indicated they were very enthusiastic about the program. In the spring, the Saint Paul Public Schools evaluator conducted a focus group with a group of PEK-ERF teaching staff. Five teachers and three teaching assistants were chosen to represent the four program sites and the two levels of teaching staff. Participants were also selected based on their ability to convey their opinions and those of their colleagues. Overall, participants were very positive about their involvement with PEK-ERF, communicating that they had advanced their practice as a result of their participation in the program (Heinrichs, 2007b). Following are a couple of comments describing an overall positive experience with the program:

> *"I say just keep doing what we're doing... four months we've been here, oh my goodness, the stuff that we've [learned] in four months, and the kids. I just can't imagine what these kids will look like at the end of this grant. I can't imagine. We even said this to the kindergarten teachers – you're going to have to step it up [because] our 3-year-olds are going to be like, "oh boring." It's just cool to see that we're not drilling it into them. We're doing it the right way. We're doing what the research says. It works. Just continue to be supportive [of] the professional development, and just commit to it, and not bite off more than we can chew..."*
> —May 2007 focus group participant (as quoted in Heinrichs, 2007b)

> *"We've talked a lot with a couple of other teachers at our center [about] how lucky we are. Just the resources we've [been given], the support we've got. Not a lot of centers get something like that. I really treasure it."*
> —May 2007 focus group participant (as quoted in Heinrichs, 2007b)

The following list summarizes first-year progress toward implementation goals, followed by a figure summarizing initial progress toward annual benchmarks associated with those goals. Even though first-year implementation efforts appear strong, implementation is an ongoing process that can be informed by the evaluation's ongoing feedback mechanisms. Areas of implementation that can be strengthened or adjusted as the program matures and pursues its annual benchmarks are discussed at the end of this section.

- A federal site visitor highly commended PEK-ERF for its experienced staff and their diligence in implementing the program, communication among key staff, the timing and content of professional development, and teachers' positive outlook and commitment to the program.

- Almost all participants (92%) fell into one or more of the program's three target categories, meaning they were low-income, English Language Learners, or received Special Education services.

- As intended, the program provided intensive professional development in the form of weekly coaching and monthly training sessions.

- Overall, teachers' responses to a survey assessing their early literacy knowledge indicated improvement from the beginning to the end of the program year.

- Teaching staff who participated in a spring 2007 focus group were very positive about their involvement with PEK-ERF, communicating that they had advanced their practice as a result of their participation in the program.

- Teaching staff also provided positive feedback about the program's training and coaching through the focus group, a spring satisfaction survey, and their communications with the federal site visitor.

- On average, classrooms showed improvement from beginning to end of the program year on each of the four ELLCO subscales, indicating overall improvement in the extent to which classrooms promoted literacy and language development.

- All seven classrooms observed in the spring were found to have fully or partially implemented a majority of the indicators of alignment with the Project for Academic Excellence.

- Spring CLASS PreK observations found that overall, teachers provided strong emotional and instructional support, and actively engaged children in learning activities. Spring scores were generally in the upper mid-range, and variability among classrooms was generally relatively low.

- The program also improved substantially in the CLASS PreK instructional support domain, which based on winter observations was the domain most in need of improvement.

- Figure 3 summarizes the program's progress toward annual implementation benchmarks during the shorter initial program year. Areas that can be strengthened as the program works toward these annual benchmarks are summarized at the end of this section under "Issues for consideration."

3. Progress toward PEK-ERF implementation goals and benchmarks, Year 1

Goals	Benchmarks	Year 1 progress[a]
1. Staff capacity	■ 80% of classroom teachers and assistants who participate in both training and coaching will attend at least 10 days of professional development	■ All 18 teaching staff who participated in training/coaching and who were with the program from the beginning of the year into the summer attended more than 10 days
	■ Increased teachers' knowledge and skills	■ Teachers' responses to a survey assessing early literacy knowledge indicate improvement from baseline
2. Curriculum and instruction	■ 90% of classrooms will achieve at least a 4 on ELLCO language, literacy, and curriculum subscale	■ 0/7[b] classrooms met target; classrooms improved on average from baseline
	■ 90% of classrooms will achieve an average score of 3.75 or higher on ELLCO general classroom environment subscale	■ 2/7 classrooms (29%) met ELLCO target; classrooms improved on average from baseline
	■ 90% of classrooms will achieve an average score of 5 or higher on CLASS PreK	■ 5/7 classrooms (71%) attained target for CLASS PreK; spring scores were generally in upper mid-range
	■ The current curriculum theme will be represented in 7 out of 9 Discovery Centers in all of the classrooms	■ 7/7 classrooms met target, as observed by literacy coach
3. Classroom environment	■ 18 out of 20 on ELLCO book subscale	■ 6/7 classrooms met target; classrooms improved on average from baseline
	■ 19 out of 21 on ELLCO writing subscale	■ 3/7 classrooms met target; classrooms improved on average from baseline
4. PAE alignment	■ All classrooms and teachers will demonstrate alignment with PAE	■ 7/7 classrooms had fully or partially implemented a majority of the indicators of alignment
		■ Variations existed among classrooms, and several indicators did not show a high rate of implementation

[a] *The initial program year spanned January 8 to July 31, 2007, providing less time to attain annual benchmarks.*

[b] *One classroom was not observed in the spring because the teacher was on maternity leave.*

Student demographics and attendance

Between January 8, 2007, and July 31, 2007, Saint Paul's PEK-ERF program served a total of 119 preschool-age children. Sixty-five children were served in four classrooms at the two elementary schools and 54 children in four classrooms at the two child care centers (Figure 4) (Gozali-Lee, 2007).

4. Number of children by location, Year 1

Program site		Number of children
Elementary school sites	Eastern Heights	34
	Highwood Hills	31
	Total	**65**
Child care centers	Wilder Child Development Center	37
	Bethel University King Family Foundation Child Development Center	17
	Total	**54**

Note: Year 1 spanned January 8, 2007, to July 31, 2007.

Source: Gozali-Lee, 2007.

Representation of target populations

Almost all of the 119 participants (92%) fell into one or more of PEK-ERF's target categories, meaning they were low-income, English Language Learners, or received Special Education services. As shown in Figure 5, nearly all of the children were low-income, defined here as eligible for free or reduced-price lunch (91% at both schools and child care centers). Approximately a quarter (24%) had a primary home language other than English. While most of the child care children (93%) had English as their primary home language, 37 percent of school children had a primary language other than English (Figure A2). Three to five children (6-8%) in each setting received Special Education services (Figure A2) (Gozali-Lee, 2007).

5. Children's income status and home language, Year 1 (N=119)

Income status	Home language

Income status:
- Not eligible 9%
- Eligible for free or reduced-price lunch 91%

Home language:
- Spanish 5%
- Other/bilingual 3%
- Somali 16%
- English 76%
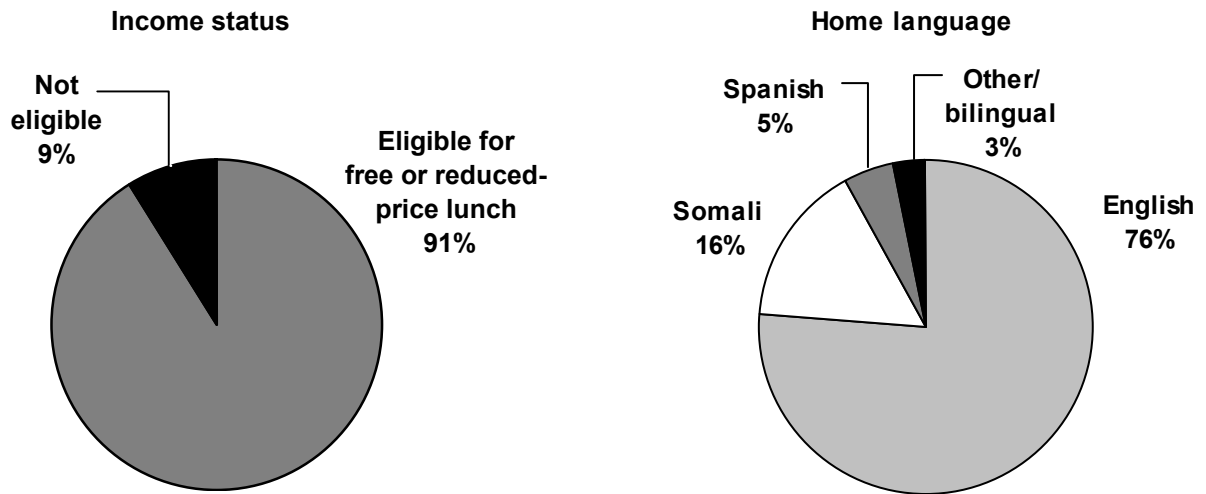
Source: *Gozali-Lee, 2007.*

Race/ethnicity

Almost all students (92%) were students of color (91% at schools and 93% at child care centers). At both the schools and child care centers, the most common racial/ethnic group was Black (65% at schools and 83% at child care centers). One in five school children (20%) were Latino, compared to 6 percent at the child care centers. The proportions of White students were similar at both settings (9% at schools and 7% at child care centers). Fewer than 10 percent of children at either setting were Asian (6% at schools and no children at child care centers) or American Indian (4% at child care centers and no children at schools) (Figures 6 and A2) (Gozali-Lee, 2007).

6. Children's race/ethnicity, Year 1 (N=119)

Race/ethnicity

Asian
3%

American Indian
2%

White
8%

Black
73%

Latino
13%
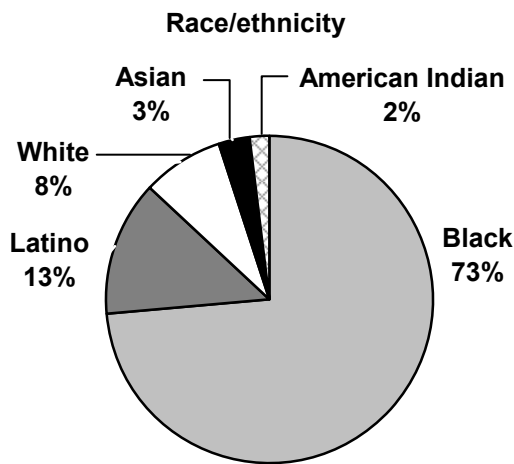
Source: *Gozali-Lee, 2007.*

Age and prior school experience

All first-year children were age 3 or 4 by September 1, 2006, with the exception of one 5-year-old. At schools there were almost equal proportions of 3- and 4-year-olds (49% and 51%, respectively). Child care centers had a slightly lower proportion of 4-year-olds (43%) than 3-year-olds (57%) (Figure A2). Eight children at child care centers (15%) and nine children at elementary school sites (14%) had attended a preschool, Head Start, or a child care center before participating in PEK-ERF (Gozali-Lee, 2007).

Attendance

Between January 8, 2007, and July 31, 2007, the elementary school sites offered 116 days of PEK-ERF programming and the child care centers offered 144 days. The median number of days attended by same-age children was slightly lower at the schools than the child care centers. Three-year-olds attended a median of 93 days at the schools and 116 days at the child care centers. Similarly, 4-year-olds attended a median of 92 days at the schools and 121 days at the child care centers. Overall, 37 percent of school children and 68 percent of child care children attended more than 100 days. Although school children attended somewhat fewer days, attendance rates (i.e., the proportion of the number of days attended to the number of days offered) were comparable across the two settings. On average, attendance rates for 3-year-olds were 77 percent at schools and 76 percent at child care centers. For 4-year-olds, they were 79 percent at schools and 78 percent at child care centers (Figure A3) (Gozali-Lee, 2007).

Goal 1: Staff capacity

> Goal: Improve staff capacity to provide effective literacy instruction, and improve staff qualifications.

Activities

During its initial program year, PEK-ERF provided research-based professional development to school and child care teachers in the form of monthly training sessions. The program also provided intensive teacher coaching to help teachers translate knowledge and skills gained from professional development into their classroom instruction. Each week, a literacy coach worked individually with classroom teachers and staff to help them incorporate strategies and activities from the training provided.

The coach worked with all eight classrooms, conducting coaching sessions one-on-one and with classroom teams. The coach met with each teacher four times a month for four to six hours each time. During each session, the coach reviewed a goal-setting form with teachers. The coach also conducted classroom observations using an observation form and provided feedback to teaching staff. Teachers were also videotaped, and the coach met with teachers to discuss positive literacy behaviors and areas of growth identified in this videotaping. The coach also helped teachers incorporate progress-monitoring, reviewing results from child and classroom assessments (i.e., IGDI, TROLL, PALS, ELLCO, and CLASS PreK) and exploring ways they could inform instruction and the classroom environment.

Training topics

Training topics during the program's first year included the following (Figure A4):

- SEEDS of Early Literacy;

- the *Doors to Discovery* curriculum;

- the Project for Academic Excellence;

- read alouds;

- data-driven decision making: effective small group instruction;

- active learning;

- oral language and vocabulary development;

- emergent literacy with a focus on standards;

- the Early Childhood Workshop framework; and

- print-rich environments.

Progress toward attendance benchmark

Based on its strong emphasis on teacher professional development, PEK-ERF established the annual benchmark that 80 percent of classroom teachers and assistants would participate in at least 10 days of professional development, including attendance at formal training sessions as well as work with the program's coach. The program's shorter initial year, which spanned January 8 to July 31, provided less time for the program to attain the annual target. However, all 18 of the teaching staff who were with the program from the beginning of the year into the summer and who participated in coaching completed the equivalent of more than 10 days of professional development, with every six hours of professional development counting as a day. Teaching staff who did not participate in coaching, as well as a few who joined the program in late spring or summer, were not counted in the calculation of progress toward this benchmark.

Teacher knowledge survey

One of the program's key objectives for its professional development is to increase the capacity of teaching staff to provide effective literacy instruction. PEK-ERF staff developed a survey to assess teachers' early literacy knowledge and changes in their knowledge while participating in the program. The survey was administered to teachers at the beginning of the program and again at the end of the school year. At the end of the year, 13 of the 18 teachers on staff at the time who had also completed a pre-test completed the post-test. Teachers' responses were scored as follows: 0=participant does not attempt to answer or provide details to demonstrate understanding of the idea or concept; 1=participant demonstrates a poor understanding of the idea or concept; 2=participant demonstrates a basic understanding of the idea or concept and provides some details to support that understanding; and 3=participant demonstrates a thorough understanding of the idea or concept and provides maximum details to support that understanding. The test included 10 open-ended questions, for a total possible score of 30 (Heinrichs, 2007c).

From pre-test to post-test, average total scores increased for all but one teacher. The average total score at pre-test was 13.1, with a range of 2 to 23. The average total score at post-test was 19.4, with a range of 8 to 26. Looking at the number of respondents scoring at the basic level or higher (i.e., 2 or 3) on individual items, all but two teachers had more responses scored at post-test than at pre-test as showing at least a basic level of

understanding of the idea or concept. At pre-test, respondents had an average of 4.2 responses scored at the basic level or higher, with a range of 0 to 9. At post-test, respondents had an average of 7.1 responses scored at the basic level or higher, with a range of 2 to 10. Figure 7 provides results for individual survey questions (Heinrichs, 2007c).

7.   Teacher early literacy knowledge survey results, Year 1 pre - post (N=13)

Questions	Average[a] across all teachers pre - post	Percentage of total score over total possible pre - post
What is emergent literacy?	0.5 - 1.3	18 - 44%
What is meta-cognition, and how can you model the strategy for your students?	0.5 - 1.4	18 - 46%
A challenge for teachers can be reaching both the social and academic needs of children. Describe how you are able to do this.	1.0 - 1.5	33 - 49%
What are your goals for children's language and literacy learning during active play in the dramatic play and block areas?	1.3 - 1.6	44 - 54%
What is explicit instruction?	0.8 - 1.9	26 - 64%
Define phonological awareness and list three activities you can do in the classroom to promote phonological awareness for your students.	1.3 - 2.1	44 - 69%
What can you do to help parents in their role as "their child's first teacher"?	1.8 - 2.1	59 - 69%
With respect to children's behavior, list three to five things you can look for that demonstrate children's developing understanding of language/literacy skills.	2.0 - 2.5	67 - 82%
List some ways you can foster oral language skills for preschool children.	2.2 - 2.5	74 - 85%
List important book and print rules preschool children should know to ensure they will become readers.	1.7 - 2.5	56 - 85%

[a]   *The possible range is 0-3.*

Notes: *Pre-tests were administered at the beginning of the program, and post-tests at the end of the school year. Questions are ordered from lowest to highest average score at post-test.*

Source: *This table was taken in its entirety with very minor modifications from Heinrichs, 2007c.*

Teacher satisfaction survey

In May 2007, PEK-ERF administered a survey to teaching staff to gather their feedback on the professional development provided by the program. Nineteen of the 22 eligible teachers and teaching assistants completed the survey, for a response rate of 86 percent. The survey asked teaching staff to rate their agreement with statements relating to the following: SEEDS of Early Literacy, a training program that helps early childhood educators create literacy-rich environments; the program's support for teaching literacy skills; coaching; program support for building literacy-rich classrooms; the *Doors to Discovery* curriculum; PEK alignment components and practices; and the use of child and classroom assessments. Most teaching staff provided favorable responses throughout the survey (Heinrichs, 2007e).

All respondents indicated agreement with statements that the assistance they received from the program in building a literacy-rich environment was helpful, and that building a literacy-rich environment is an important skill in their program. All but one indicated agreement with a statement that they had received enough support with building a literacy-rich environment to continue on their own. Most respondents also responded positively about SEEDS of Early Literacy. Asked about the specific literacy skills of vocabulary and background knowledge, phonological awareness, book and print rules, alphabet knowledge, and conversation skills, all but one respondent indicated that the training and coaching they had received was very helpful across these skill areas. Most respondents also responded favorably about the program's coaching, rating their agreement with statements addressing the impact of coaching on their teaching practice, the impact of coaching on the program's ability to prepare children for school, the assistance from coaching in setting goals, the importance of goal setting in their teaching, and their progress toward goals. Despite the mostly favorable ratings, it may be noteworthy that three teaching staff did not indicate they had made significant progress toward accomplishing their goals, and therefore may benefit from additional coaching in this area (Heinrichs, 2007e).

Based on some similar feedback provided during the teacher focus group, it may also be noteworthy that a couple of teaching staff responding to this survey indicated in their written comments that they would like to see more support for teaching assistants. As one respondent wrote, "I believe that the assistant teachers need to be considered in the whole process. They are just as important as the lead teachers. I believe that this is a very important curriculum to implement" (Heinrichs, 2007e).

Federal site visit

In May 2007, a researcher from the University of Oklahoma's Center for Early Childhood Professional Development conducted a site visit of PEK-ERF commissioned by the U.S. Department of Education. According to the visit summary, "both the timing and content of [professional development] activities appeared consistent with scientifically-based reading research, state standards, and the description of such in the grant proposal." The site visitor also met with 11 of the program's teachers and indicated teachers provided positive feedback on the professional development, including that it increased their knowledge of language and literacy development. The summary also noted that "the teachers also provided unequivocally positive reports concerning the roles the coach plays." These roles, as described by teachers, included providing ideas for implementing lesson plans, modeling ways to teach, answering questions, helping with planning, and serving as a resource. The summary also advised that the program differentiate future professional development based on varying needs of teaching staff, and noted that teachers communicated they could benefit from more professional development on working with English Language Learners (Kimmel, 2007).

Teacher focus group

Training sessions

In the spring focus group held with five teachers and three teaching assistants, teaching staff communicated that they viewed the professional development they received as an integral part of the program (Heinrichs, 2007b). One participant described teachers' experience with the monthly training sessions as follows:

> *I like the way that the trainings are set up, where we go over things, get to implement it, and then come back and talk about it. Instead of just going to a boring training, going blah, blah, blah, here's your handout, you're actually doing what you're talking about. We leave our trainings, and we go right back to the center, write down exactly what we learned – how are you going to use this next week, how are you going to do this, what can you change. And you remember it, and you're able to use it instead of, oh yeah, I think we talked about that a month ago, but I don't really remember it. We implement it right away, so it's fresh in your mind. That's something you won't get anywhere else.*
> —May 2007 focus group participant (as quoted in Heinrichs, 2007b)

Participants also communicated that now that they understand and have put into place the basic program elements, there is room for future professional development to delve deeper into those topics (Heinrichs, 2007b). Asked to provide feedback on how professional development can better serve teaching staff, one participant commented as follows:

> *Now that we know what it is we're doing, just getting a little more in depth. Okay, we know this is how you do community circle, now how can we make it better, or how can you really enhance the active learning time, [because] you know you should have this set up, this set up, and this set up, but how can you really make it more engaging? Because we're doing it, but we want to just make it a little bit more.*
> —May 2007 focus group participant (as quoted in Heinrichs, 2007b)

Coaching

Focus group participants also indicated they appreciated the coaching provided by the program (Heinrichs, 2007b). Many participants agreed with the following sentiment:

> *I think [the coach is] a great help. She gives a lot of suggestions. She's very positive with her feedback, and it makes you feel like you're really doing what you're supposed to be doing.*
> —May 2007 focus group participant (as quoted in Heinrichs, 2007b)

Suggestions for ways to strengthen coaching in the future also emerged from the discussion. Participants suggested that the coach notify them in advance about the focus of upcoming visits and who would be observed. Another suggestion was to offer all-day coaching to teaching assistants in addition to teachers (Heinrichs, 2007b). One teaching assistant commented as follows:

> *I think my opinion is a little different [from the teachers' opinions] about the coaching, just because we didn't really receive the benefit. We only had a half day, so we didn't have enough time – I felt like we didn't have a lot of time to look back and reflect and think about what it was or kind of go back and revisit the goals. What do you think happened with this goal? Do you think you met this goal? What would you do differently? Based on the half day I don't feel that we had the [chance] to process it. So we had support, physical support in the classroom, and some modeling. Maybe in the school setting [there are] different challenges than being in the other setting, too. I never felt this supported.*
> —May 2007 focus group participant (as quoted in Heinrichs, 2007b)

In the future, teaching staff would also like coaching to provide support for other classroom issues, in addition literacy. Teaching staff from schools expressed a desire to have coaching support for behavioral issues in particular (Heinrichs, 2007b). One participant commented as follows:

> *What's the highest pressing need if we have kids running around standing on tables, doing things? What do we need to take care of first so we can move into literacy?*
> —May 2007 focus group participant (as quoted in Heinrichs, 2007b)

Communication among teaching staff

Spring 2007 focus group participants communicated that at some sites, staff seemed to be working as a team and there seemed to be shared accountability for implementing the program. Other sites still struggled to facilitate communication among teaching staff to make planning a team effort, or between teachers and other classroom assistants to ensure all shared a consistent understanding of the implementation strategies taught in training sessions (Heinrichs, 2007b). The following comments convey some of the different experiences with internal site communication:

> *I know for me, what I've done different is, instead of me sitting down every week and writing the lesson plan and just saying here this is what we're doing next week, I'm giving choices to the other staff in my room and saying here's our theme, how can we work this, what are we going to do, and [I'm] making sure they're accountable for their group, their reading, their whatever. Just making sure that everyone is working on it together, because I don't want there to be a day where I'm gone, let's say, and I have two teachers in the room that have no idea what's going on. It's just keeping everyone in the room accountable, because everyone's gone through the same training. I may be the lead, but I want everyone to get the same experience from it.*
> —May 2007 focus group participant (as quoted in Heinrichs, 2007b)

> *I think as a team, we're functioning as a team in the classroom, but in terms of planning and planning together, I haven't quite figured out the best way to do that. I'm trying to take responsibility for the environment, and some teachers are taking responsibility for their small groups, but we haven't really figured out a good way to communicate about what we are doing so we are all on the same page and we know the objectives of what's happening and we know what's happening in the classroom today. Sometimes it's like coming in, I have my plan written and here we go; kids are coming in ten minutes. You're doing small group, okay. You're doing this, great. I'm doing interactive. That piece of communication – it's something to think about for next year so we can actually make it more of a team planning effort.*
> —May 2007 focus group participant (as quoted in Heinrichs, 2007b)

Teaching staff from different sites also viewed each other as important resources and said it was important to have opportunities to connect with each other on a frequent basis. They said training sessions provided important opportunities to exchange ideas and problem-solve with each other. A suggestion emerging from the discussion was for the program to implement a website or blog where teaching staff could exchange information. Participants discussed how it could be used to share ideas, to solicit advice on issues teachers faced with a particular unit, to share needed materials, and to offer additional support to each other, for example (Heinrichs, 2007b). Along the same lines, the federal site visitor addressed the importance of finding ways to support teachers as a means for maintaining current levels of enthusiasm. The visit summary noted that while

teachers "are a positive and committed group who feel grateful to be part of this program," several said they felt overwhelmed at times during the year (Kimmel, 2007).

Goal 2: Curriculum and instruction

> Goal: Improve instructional practices, curricula, and materials at each preschool site to meet the assessed needs of pre-K students.

ELLCO

To assess the extent to which PEK-ERF classrooms promote literacy and language development, Saint Paul Public Schools hired an independent consultant to conduct observations using a research-based tool for preschool classrooms, the Early Language Literacy and Classroom Observation (ELLCO). ELLCOs are divided into three sections: 1) a literacy environment checklist, 2) a classroom observation and teacher interview, and 3) a literacy activities rating scale. Results from the first two sections are used to calculate scores for four subscales: 1) book, 2) writing, 3) general classroom environment, and 4) language, literacy, and curriculum.

The book and writing subscales are scored using the literacy environment checklist, a checklist of indicators related to classrooms' organization of book and writing materials. With the program's focus on literacy, targets were set high for these subscales. Indicators for the remaining two subscales – general classroom environment and language, literacy, and curriculum – are scored based on a grading rubric ranging from "deficient" (1) to "basic" (3) to "excellent" (5). Program expectations are that classrooms will be rated at higher than the basic level in these areas (Heinrichs, 2007a).

PEK-ERF established targets for the assessment's four subscales. The general classroom environment and language, literacy, and curriculum subscales are used to assess progress toward the curriculum and instruction goal. The book and writing subscales pertain to Goal 3 and are discussed in that section.

ELLCOs were conducted in all eight PEK-ERF classrooms at the beginning of the initial program year, and again in seven of the eight classrooms at the end of the year. One classroom was not observed in the spring because the teacher was on maternity leave and the substitute had not participated in all of the training the program provided. Analyses of ELLCO results compare changes among only those seven classrooms observed at both pre- and post-test.

Progress toward general classroom environment benchmark

The general classroom environment subscale includes six items addressing the organization of the physical environment, the organization and content of classroom materials and displays, opportunities for children's choice and initiative in their learning, classroom management, and classroom climate. The PEK-ERF benchmark establishes a target that classrooms will score above the basic level, with an average of 3.75 or higher. Again, the grading rubric ranges from "deficient" (1) to "basic" (3) to "excellent" (5) (Smith & Dickinson, 2002; Heinrichs, 2007a).

Two of the seven classrooms assessed in the spring met the target, up from zero classrooms at the beginning of the program year. On average, classrooms scored above the basic level in the spring, with an average score of 3.5. This overall average represents an increase from the average of 3.0 at the beginning of the year. Individual classrooms' spring scores ranged from 2.8 to 4.4. Two classrooms experienced a slight overall decline in this subscale, with one scoring below the basic level (2.8) in the spring (Figures 8 and A5).

8.   ELLCO results for subscales pertaining to Goal 2, Year 1 pre - post

Subscale (possible points)	Pre-test[a]	Post-test
Language, literacy, and curriculum (5)		
Average	2.9	3.3
Range	2.5 - 3.4	3.0 - 3.6
No. of classrooms reaching target	0/7	0/7
General classroom environment (5)		
Average	3.0	3.5
Range	2.6 - 3.6	2.8 - 4.4
No. of classrooms reaching target[b]	0/7	2/7

[a]   During the program's first year, baseline ELLCO assessments were conducted of all eight classrooms between October 2006 and January 2007 (pre-test), and follow-up assessments were conducted of seven classrooms in May 2007 (post-test). One was not observed in the spring because the teacher was on maternity leave. This analysis compares only those seven observed at both pre- and post-test.

[b]   The program established target scores of 3.75 for the general classroom environment subscale and 4.0 for the language, literacy, and curriculum subscale on average.

Note: Saint Paul Public Schools hired an independent consultant to conduct ELLCO assessments.

Looking at individual indicators within the subscale, classrooms scored the lowest on average in the area of classroom management strategies, with an average of 3.0 ("basic") for that indicator.[1] Two of the classrooms scored only a 2.0 for that indicator. Classrooms also scored below 3.75 on average on indicators related to the content and organization of classroom materials and displays (3.4), opportunities for child choice and initiative (3.4), and classroom climate (3.6), although individual classrooms scored at least 3.0 for each of these indicators. Classrooms scored an average of 4.0 on the indicator addressing the organization of the classroom, although the classroom with the lowest overall average scored only a 2.0 on this indicator (Figure A6).

Progress toward language, literacy, and curriculum benchmark

The language, literacy, and curriculum subscale includes 10 items addressing teacher-student interactions; the use of books to support learning; teachers' approaches to reading and writing instruction and book reading; curriculum integration; the active use of classroom diversity as a basis for learning; interactions between teachers and families; and the use of ongoing child assessments. Again, the PEK-ERF benchmark establishes a target that classrooms will score above the basic level, with an average of 4.0 or higher on this subscale (Smith & Dickinson, 2002; Heinrichs, 2007a).

Classrooms improved their overall average from 2.9 to 3.3 on this subscale, and all scored at least at the basic level in the spring. Individual classrooms ranged from average scores of 3.0 to 3.6 for this subscale in the spring, falling below the program's target. One classroom showed an overall decline from initial to follow-up assessments (Figures 8 and A5).

Averages for individual indicators within the subscale also fell below 4.0, with a low of 2.9 for the indicator related to actively using classroom diversity as a basis for learning. Two classrooms scored below the basic level for this indicator with scores of 2.0. Other indicators, arranged from low to high, averaged the following: facilitating home support for literacy (3.0), approaches to assessment (i.e., the use of ongoing child assessments to inform instruction) (3.0), approaches to children's writing (3.1), oral language facilitation (3.3), curriculum integration (3.3), approaches to book reading (3.6), and presence of books (3.9). Individual classrooms varied in their ranking of individual indicators. For example, both curriculum integration and approaches to assessment had a classroom scoring only 2.0 in those areas, although curriculum integration was not the lowest-ranking indicator for classrooms overall. The literacy coach can use individual classrooms' scores to target coaching to their individual needs (Figure A6).

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[1] Classrooms scored an average of 2.7 on the indicator related to the presence and use of technology, but that indicator was not used when calculating the subtotal for general classroom environment as recommended in the *ELLCO Toolkit* (Smith & Dickinson, 2002).

Classroom Assessment Scoring System PreK (CLASS PreK)7

To assess classrooms' instructional quality, videotapes were taken of PEK-ERF classrooms in January and May 2007 and sent to researchers at the University of Virginia's Preschool Language and Literacy Lab for independent analysis. Again, only seven of the eight classrooms participated in spring observations because one teacher was on maternity leave. Single videotaped observations of individual classrooms were assumed to represent typical interactions in that classroom. Videotapes were analyzed using CLASS PreK, a tool for assessing the quality of teacher-student interactions in preschool classrooms. CLASS PreK is used to examine classrooms based on interactions between all adults and all students in the classroom, providing a picture of a typical student experience in the room rather than assessing the experiences of individual children and with individual adults (Justice, June 2007).

CLASS PreK encompasses 11 subscales organized into three domains: emotional support, instructional support, and student engagement. Subscales include the following: positive climate, negative climate, teacher sensitivity, regard for student perspectives, and behavior management (emotional support domain); productivity, concept development, instructional learning formats, quality of feedback, and language modeling (instructional support domain); and student engagement (CLASS PreK manual cited in Justice, June 2007). Subscales are scored on a 7-point scale, ranging from "not at all characteristic of a classroom" (1) to "highly characteristic of a classroom" (7). Scores of 1-2 are generally considered low-range, 3-5 mid-range, and 6-7 high range. The negative climate scale is an exception to this scoring system. Scores for this scale are reversed, with 1 representing "highly characteristic of a classroom" and 7 representing "not at all characteristic of a classroom" (Justice, June 2007).

In a report to PEK-ERF on results, University of Virginia researchers addressed the validity of CLASS PreK as an observational tool:

> *The CLASS instrument has been widely used in large-scale studies of preschool classrooms across the United States. Such studies show that preschool classrooms typically are rated highly on measures of emotional support, and are related lower on measures related to instructional support. Importantly, scores on all dimensions of the CLASS are predictive of children's short- and long-term academic and social success, and thus represent an important area to address within professional development.*
> —(Justice, June 2007)

Progress from pre- to post-test

As with the ELLCO, analysis of CLASS PreK changes focuses on only those seven classrooms observed at both pre- and post-test. Figure 9 shows spring 2007 results and changes in mean (average) scores between winter and spring. Spring observations found that overall, classrooms provided strong emotional and instructional support, and actively engaged children in learning activities. Across the three domains, spring scores were generally in the upper mid-range, and variability among classrooms was generally relatively low (Figure A7). Spring observations also found overall improvements in areas identified in February as in greatest need of improvement (Figure 9) (Justice, February & June 2007).

9. CLASS PreK means by subscale, Year 1 pre - post

Subscale	Mean score at pre-test	Mean score at post-test[a]
Emotional support		
Positive Climate	6.3	6.0
Negative Climate[b]	1.3	1.7
Teacher Sensitivity	4.3	5.6
Regard for Student Perspectives	4.0	5.0
Behavior Management	4.6	5.1
Instructional support		
Productivity	4.3	5.6
Concept Development	2.1	5.3
Instructional Learning Formats	2.7	5.7
Quality of Feedback	1.4	4.7
Language Modeling	2.4	5.3
Student engagement	5.6	5.9

[a]   Seven of the eight classrooms participated in the May 2007 observations (post-test). One was not observed because the teacher was on maternity leave. All eight participated in January 2007 (pre-test). This analysis compares only those seven observed at both pre- and post-test.

[b]   Negative climate is reverse scored, with 1=high and 7=low. Therefore, lower scores are better for this scale.

Note: During the program's initial year, CLASS PreK assessments were completed by researchers at the University of Virginia's Preschool Language and Literacy Lab based on classroom videotapes taken in January and May 2007.

Source: This figure was created based on classroom-level data presented in Justice, February and June 2007.

For emotional support, mean scores for the positive and negative climate subscales were in the upper-mid or high range in the spring, meaning classrooms generally displayed characteristics of a positive climate. For the remaining three subscales, mean scores were in the upper mid-range. Regard for student perspectives and behavior management showed the lowest mean scores in the spring (5.0 and 5.1, respectively), although were still in the upper mid-range. Researchers also compared changes in mean scores between winter and spring for the seven classrooms observed at both times. Mean scores in this domain remained relatively stable between winter and spring, with the largest increases seen in the teacher sensitivity and regard for student perspectives subscales. Slight declines were seen in positive and negative climate mean scores, although both remained in the upper-mid or high range (Figure 9) (Justice, February & June 2007).

As with emotional support, spring 2007 results also showed PEK-ERF classrooms to generally be providing strong instructional support to students. The lowest-rated subscale in this domain, quality of feedback, showed a mean in the mid-range (4.7). Winter observations showed instructional support as the domain most in need of improvement, and mean scores for the instructional support subscales showed more movement than those in other domains between winter and spring. In the winter, means for the quality of feedback, concept development, language modeling, and instructional learning formats subscales fell below the mid-range. Increases of more than two points were seen in the mean scores for these four subscales, and of more than one point in the mean for the productivity subscale (Figure 9) (Justice, February & June 2007).

Spring 2007 observations also found classrooms to be actively engaging children in learning activities. The student engagement subscale had a mean score in the upper mid-range (5.9) in the spring, and no classrooms received scores in the low range in this area (Figures 9 and A7).

Progress toward program benchmarks

PEK-ERF established a program target for 90 percent of classroom teachers to achieve an average CLASS PreK score of 5 or higher. As shown in Figure A8, five of the seven classrooms (71%) assessed in the spring attained the target.

Teacher focus group

Teaching staff indicated in the spring focus group that they appreciated the *Doors to Discovery* curriculum, including its strong literacy approach and its helpfulness in planning and preparing lessons. Some teachers indicated they felt the need to supplement the curriculum with their own science and math lessons. There was disagreement about the age-appropriateness of vocabulary words used in the curriculum, with some teaching

staff perceiving words as at the right level and others perceiving them as too basic for their students (Heinrichs, 2007b).

Additionally, participants communicated that they did not always have the supplies and props needed to implement the curriculum. Having sufficient supplies was particularly problematic for teachers at newly started school programs. At centers where there had been a different literacy program in place in the past, teaching staff struggled more to find dramatic-play props than literacy props (Heinrichs, 2007b). One school teacher commented as follows:

> *I really like the curriculum, and I feel prepared through that, but as the materials go, I mean that has been a struggle. A lot of these props for stuff... we just don't have a lot of it. Now I've gone out and bought it... you know other people aren't in that situation... Sometimes it's frustrating because [the coach] will come and say, "Well, you should do this and this," and it's like, yeah, I know I should do that ... but I don't have that. I don't have a lot of the things to integrate the whole theme throughout the whole classroom – we just don't have a lot of that stuff, so that's been kind of frustrating from that respect.*
> —May 2007 focus group participant (as quoted in Heinrichs, 2007b)

Federal site visit

After meeting with 11 of the PEK-ERF teachers, the federal site visitor also noted that teachers provided favorable feedback on the program's literacy-focused curriculum:

> *In terms of the curriculum,* Doors to Discovery, *the teachers unequivocally viewed it as an asset to their instruction. They felt that the curriculum was very useful for setting standards for their classrooms, particularly for those teachers working in childcare settings. These teachers noted that participation in this program and use of the curriculum in their classrooms has been motivating.*
> —quote from summary of site visit commissioned by U.S. Department of Education (Kimmel, 2007)

Teacher satisfaction survey

The May 2007 survey completed by 19 teaching staff also addressed *Doors to Discovery* and teachers' implementation of the curriculum. Most respondents provided favorable ratings, indicating agreement with statements that the curriculum is a useful tool for implementing early literacy in the classroom, the curriculum is easy to implement, having the curriculum made planning easier, the curriculum improved their practice, children enjoy activities from the curriculum, the curriculum provides meaningful learning opportunities for children, and they received enough support to successfully implement the curriculum (Heinrichs, 2007e).

Literacy coach observations

As another way to improve curriculum and instruction, PEK-ERF established a benchmark that literacy props, activities, or materials reflect the area of study in seven out of nine Discovery Centers in all of the classrooms. Discovery Centers are learning centers that children use during the Early Childhood Workshop's active learning time. They may include block, writing, dramatic play, reading, math, science, sensory, computer, or art centers. In the spring, the literacy coach observed that the target was met in all seven classrooms included in the end-of-year observations.

Goal 3: Classroom environment

> Goal: Improve the classroom environment to ensure an oral language and print-rich environment that is meaningful and culturally and linguistically appropriate.

Early Language Literacy and Classroom Observation (ELLCO)

PEK-ERF uses the ELLCO book and writing subscales to assess progress toward the classroom environment goal. Again, this section presents results for only those seven classrooms assessed at both pre- and post-test.

Progress toward book benchmark

The book subscale includes 12 indicators organized in the categories of book area, book selection, and book use. These indicators address the content of books, their location around the room, and the environment of designated book areas. Out of a possible score of 20 points on this subscale, the PEK-ERF benchmark strives for classrooms to achieve a score of at least 18 (Smith & Dickinson, 2002; Heinrichs, 2007a).

Six of the seven classrooms assessed met the target in the spring, up from only one at the beginning of the program year. The classroom not meeting the book subscale target in the spring improved its score from 10 to 15, but lost points in the book use category (scoring 4 out of a possible 9), which looks at the number of books available in different areas of the room. Other classrooms may also benefit from additional support in this area. Their scores for book use ranged from 7 to 9 out of a possible 9, while all classrooms scored the maximum number of points for the other two areas within the subscale (i.e., book area and book selection). As a group, classrooms averaged 13.7 points on this subscale at the beginning of the year and 18.0 in the spring, with all classrooms assessed showing overall improvement (Figures 10, A5, and A6).

Progress toward writing benchmark

The writing subscale includes 13 indicators organized into the categories of writing materials and writing around the room. These indicators address displays of print around the room, the variety and availability of writing tools and their location around the room, and the designation of a writing area. Out of a possible 21 points, the PEK-ERF benchmark establishes a target of at least 19 (Smith & Dickinson, 2002; Heinrichs, 2007a).

Three of the seven classrooms met the target in the spring, up from one classroom at the beginning of the year. Those not meeting the target were between one and three points away. Classrooms increased their average on this subscale from 12.7 points at pre-test to 18.3 at post-test, although one classroom showed an overall decline on this subscale from pre- to post-test. Classrooms showed the most variation in their scores for the category addressing writing around the room, which encompasses varieties of writing on display, the availability of writing tools in dramatic play or block areas, and the availability of alphabet and word puzzles (Figures 10, A5, and A6).

10. ELLCO results for subscales pertaining to Goal 3, Year 1 pre - post

Subscale (possible points)	Pre-test[a]	Post-test
Book (20)		
Average	13.7	18.0
Range	9 - 18	15 - 20
No. of classrooms reaching target	1/7	6/7
Writing (21)		
Average	12.7	18.3
Range	7 - 19	16 - 20
No. of classrooms reaching target[b]	1/7	3/7

[a] During the program's first year, baseline ELLCO assessments were conducted of all eight classrooms between October 2006 and January 2007 (pre-test), and follow-up assessments were conducted of seven classrooms in May 2007 (post-test). One was not observed in the spring because the teacher was on maternity leave. This analysis compares only those seven observed at both pre- and post-test.

[b] The program established target scores of 18 for the book subscale and 19 for the writing subscale.

Notes: Saint Paul Public Schools hired an independent consultant to conduct ELLCO assessments.

Progress across ELLCO benchmarks

Looking at all four ELLCO subscales, including those addressing Goal 2 as well as those addressing Goal 3, classrooms generally improved from their initial scores at the beginning of the program year. One classroom experienced declines in its overall scores for three of the four subscales and another experienced a slight decline in one subscale, whereas the other five classrooms experienced improvements in each subscale. None of the seven classrooms assessed in the spring met targets for all four subscales (Figure A5).

Federal site visit

The spring site visit commissioned by the U.S. Department of Education found that a few classrooms were not literacy-rich at that time. While not all classrooms were observed during the site visit, as with ELLCO observations, variations were noted among those that were. The visit summary referenced differences in how much print was evident in the room, the availability of books, the quality of book and writing areas, the availability of materials and supplies, and how inviting the classrooms appeared overall. The summary recommended directing attention to strengthening book and writing areas; the availability, quality, and use of materials; and the variety and use of materials in dramatic play areas, including literacy props that are functional in nature. Observations of teacher-led storybook reading sessions at two sites also revealed differences in the extent to which teachers used intentional strategies to extend learning (Kimmel, 2007). Program staff have worked to address these areas in the time since the federal site visit. A training on print-rich literacy environments was provided in the fall, and program staff worked individually with classrooms in this area over the summer. The literacy coach also worked individually with teachers on book reading, and a training scheduled for March 2008 will focus on book reading.

Goal 4: PAE alignment

> Goal: Increase standardization of practices and environments and improve student transition to kindergarten through alignment with Saint Paul's school-based reform model, the Project for Academic Excellence.

PAE observation

Working with the program's evaluator from Saint Paul Public Schools, PEK and PEK-ERF staff developed an observational tool to assess classrooms' alignment with Project for Academic Excellence principles. The tool delineates expectations for alignment based on the content of professional development and coaching provided during the program's first year. The tool will be modified as needed in subsequent program years to

reflect ongoing teacher training and coaching. Observations were conducted by the program's evaluator from Saint Paul Public Schools, and teachers were notified of when observations would take place. In April 2007, observations were conducted of seven of the eight classrooms, with observations taking place for an entire morning or afternoon in each classroom (Heinrichs, 2007d). One classroom did not participate in spring observations because the teacher was on maternity leave and the substitute had not participated in all of the training the program provided.

Progress toward program benchmark

PEK-ERF established the benchmark that all classrooms and teachers will demonstrate alignment with the Project for Academic Excellence. While variations existed among classrooms, spring 2007 observations found that overall, teachers were implementing a number of the components of the Early Childhood Workshop and introducing its routines and rituals into their daily practice. All seven classrooms were found to have fully or partially implemented a majority of the indicators of alignment with the Project for Academic Excellence. Classrooms were found to have fully or partially implemented an average of 20.4 of the 26 indicators, with individual classrooms ranging from 18 to 23 indicators fully or partially implemented. Individual classrooms varied in the specific indicators they had fully implemented, and most indicators were fully implemented by a majority of classrooms (Figure A9) (Heinrichs, 2007d).

The program considered an indicator to have a high level of implementation if it was fully implemented in at least five of the seven classrooms. Based on this definition, several indicators did not show a high rate of implementation. These include having a word wall that is used by children, evidence of shared writing, having a lesson plan that is posted and followed, implementing the "regroup to revisit" portion of the Early Childhood Workshop, establishing clear classroom expectations, minimizing down time, displaying a visual schedule and using it to provide support for self-regulation, and conducting at least two read alouds (Figure A9) (Heinrichs, 2007d).

Use of child and classroom assessments

While not associated with a formal program goal, ongoing progress-monitoring is an important part of the program's efforts to continually inform its services. PEK-ERF assesses classrooms and children on an ongoing basis, using the research-based assessment tools described in Figure 2. Classroom assessments include the following: the ELLCO, used to assess the extent to which classrooms support language and literacy; the locally developed PAE observation tool, used to check classrooms' alignment with the district's Project for Academic Excellence; and CLASS PreK assessments of teacher-student interactions. Teachers also monitor individual children's progress on an ongoing

basis by administering IGDIs, PALS, and TROLL assessments. Teachers also use Work Sampling System assessments, which were conducted for the first time in June of the initial program year and therefore are not presented in this report as a measure of student progress. Evaluators conduct additional child assessments, including the PPVT (assessing English receptive vocabulary) and, in future years, the SSRS (assessing social skills).

The program intends to use these results to inform implementation efforts, including professional development and classroom instruction and activities. Professional development during the program's initial year included training on data-driven decision making, which involves using data to inform instruction and target teaching in small groups of students. Teachers also began using assessment data during the initial year. The program has expanded its use of progress-monitoring in the second year.

Federal site visit

The federally commissioned site visitor noted that the program was still in the process of implementing progress-monitoring in the spring of the first year. The visit summary noted that plans were for progress-monitoring tools to be fully implemented over the summer and fall (Kimmel, 2007). Since the spring, the program has provided additional training on progress-monitoring, including three days of training on using informal formative assessment on an ongoing basis to provide differentiated instruction to students. Progress-monitoring is also being conducted on a more frequent basis during the program's second year. Teachers now administer IGDIs and PALS assessments four times a year for all children, including those meeting program targets. For children below the 25th percentile on areas measured through either assessment, teachers now assess children in those areas on a monthly basis.

Teacher satisfaction survey

The May 2007 survey completed by 19 teaching staff also asked teachers and teaching assistants to rate their agreement with statements about child and classroom assessments. Even though progress-monitoring may not have been fully implemented at the time, responses provide evidence of teachers' use of child and classroom assessments during the initial program year. All respondents indicated agreement with all three statements in this area, including that the information about children's scores was helpful in informing their teaching, the student achievement goals set by the program are achievable, and the ELLCO has been a useful tool that informed their practice (Heinrichs, 2007e).

Teacher focus group

Focus group participants voiced appreciation for both the child and classroom assessments used in PEK-ERF. These teaching staff reported using information gathered through their assessments of individual children to differentiate instruction in small groups based on different needs of different children (Heinrichs, 2007b). Working with a literacy coach, the teachers used results from child assessments to tailor their instruction to meet children's specific needs (Gozali-Lee, 2007). Information from child assessments was also shared with children's parents. Participants also reported making changes to their classroom's physical environment based on the ELLCO, which in turn changed how children used materials in the room (Heinrichs, 2007b). One participant from a child care center described using child assessment results as follows:

> *We use ours with the scores or results that we've gotten to plan our groups, to plan activities, to learn who needs a little bit more help here, because they've already got those skills, and it's really helped us to tailor those activities to the kids. It's been a big help. And we've used the results with our [parents] for the conferences, which is really good for the parents, because before we were just using our Work Sampling, which isn't really in depth – it's either they do it or they don't. [For example,] this is where they're at, and this is where they need to be in five months, and the parents are real encouraged to know, wow, my kid's going to be ready for kindergarten.*
> —May 2007 focus group participant (as quoted in Heinrichs, 2007b)

A participant described the impact of changes made based on the ELLCO as follows:

> *Once we started making little changes here and there, all the boys are not in block area anymore. They're writing, or they're looking at the books. We had our books in the community circle too. All our books were there. All we did was turned it the other way and blocked it off a little bit. Now everyone wants to look at books. It's just those little changes that we wouldn't have known without the ELLCO.*
> —May 2007 focus group participant (as quoted in Heinrichs, 2007b)

Participants also suggested conducting assessments on a more frequent basis in the future, such as administering them three times a year rather than twice a year (Heinrichs, 2007b). One participant commented as follows:

> *Assessments like, as far as specifics, like ELLCO – there'll be a pre, a mid, and a post, right? I like to see things in the middle, too. Kind of see where are we, what have we accomplished so far, and I suppose that's part of the points of coaching, so...*
> —May 2007 focus group participant (as quoted in Heinrichs, 2007b)

The following comment also addressed the frequency of assessments:

> *Parents were very interested in how their children were doing, and I think the other thing we have done is, we have a lot of pre kindergarteners who are going to kindergarten this fall who were quite behind, and so I've actually been doing assessments more frequently to see the progress that they're making and what, you know, are they changing, are they learning, and if they're not then we better figure something out because those are the kids that are going to kindergarten and they need to be ready. And so it has really helped us target specific children that we know that we're not going to have access to much longer. You know, the 3-year-olds, they're going to be in the program, ... but the ones that we're really concerned about are the 4-year-olds, and so we've been able to really focus our attention on them, so then we are able to change our teaching and make it so that they will hit those target goals.*
> —May 2007 focus group participant (as quoted in Heinrichs, 2007b)

Issues for consideration

PEK-ERF launched its initial program year with strong implementation efforts. Implementation is an ongoing process, and the program gathered valuable information on ways to continue strengthening implementation through several feedback mechanisms during the initial year. As the program engages in ongoing planning efforts, the following evaluation insights can be considered in relation to the experiences of program staff and teachers. Because these results pertain to the program's initial year, and the second year of program services is well underway, program leaders and staff may have already made adjustments in some of these areas.

- *Professional development.* Based on feedback from the spring focus group and federal site visitor, the program may want to consider whether more can be done in the following areas when planning future professional development:

  - Delving deeper into program elements covered during the initial year.

  - Differentiating professional development based on varying needs of teaching staff.

  - Providing additional training on working with English Language Learners.

- *Coaching.* Program staff can take into consideration the following coaching suggestions based on feedback from the spring focus group and teacher satisfaction survey, as well as findings from classroom observations:

- Using classroom-level results from the ELLCO, CLASS PreK, and observations for alignment with the Project for Academic Excellence to target coaching to individual classrooms' needs.

- Expanding the coaching that is provided to teaching assistants. In addition to addressing feedback from some teaching staff that teaching assistants should receive more coaching or be more fully involved in the process, efforts in this area may also contribute to improved internal site communication.

- Providing coaching support for other classroom issues such as behavioral concerns.

■ *Opportunities for teachers to connect.* In the spring focus group, teachers voiced strong appreciation for the opportunities training sessions provide to connect with each other to share ideas and problem-solve. Program staff may also want to consider additional ways they can foster opportunities for staff at different sites to connect with each other. Efforts in this area may also help sustain teachers' enthusiasm for the program.

■ *Classroom supports for language and literacy.* In working toward ELLCO targets, the program may want to consider the following strategies for helping classrooms strengthen supports for language and literacy:

- Focusing on improvements in results on the ELLCO language, literacy, and curriculum subscale, including strengthening the extent to which classrooms actively use classroom diversity as a basis for learning, facilitate home support for literacy, and use ongoing child assessments to inform instruction. Classrooms were overall furthest from attaining the program target for this ELLCO subscale.

- Providing additional support in strengthening classroom management strategies. On average, classrooms scored at the basic level on this indicator.

- Increasing the varieties of writing on display around the room and the availability of writing tools in dramatic play areas. Variation was seen in this area on the ELLCO writing subscale, and the federal site visitor also recommended strengthening the variety and use of materials in dramatic play areas.

■ *Curriculum support.* Based on teachers' feedback to the federal site visitor and in the spring focus group, program staff can continue supporting curriculum implementation in the following ways:

- Continuing to help teachers access the supplies and props needed to implement the curriculum.

- Providing assistance to any teachers who may need support in supplementing the curriculum's math and science content or vocabulary words.

■ *Alignment with the Project for Academic Excellence.* To continue strengthening alignment with the Project for Academic Excellence, future coaching can address the following indicators not showing a high rate of implementation across classrooms:

- Having a word wall that is used by children;

- Evidence of shared writing;

- Having a lesson plan that is posted and followed;

- Implementing the "regroup to revisit" portion of the Early Childhood Workshop;

- Establishing clear classroom expectations;

- Minimizing down time;

- Displaying a visual schedule and using it to provide support for self-regulation; and

- Conducting at least two read alouds.

Outcomes results

This section assesses initial progress toward the program's outcomes goals. As in the section on implementation results, this section begins with an overview summarizing progress toward goals and specific benchmarks, followed by a presentation of detailed results organized by goal and within goals by data-collection method, and concluding with issues for consideration. First-year outcomes should be viewed in the context of the shorter initial year, which spanned January through July. Future years' reports will be able to examine the extent to which outcomes benchmarks were attained when students attended the program for a full year.

Overview

Assessments conducted during the program's initial year show academic progress among participants, including improvements in their early literacy skills and alphabet knowledge. Results for the Peabody Picture Vocabulary Test III (PPVT) suggest children experienced accelerated progress in their English receptive vocabulary. TROLL results suggest that on average, participants made faster progress while in the program than their peers in a national sample. Children also showed progress on IGDI and PALS assessments, although it is difficult to know at this point how progress corresponds to that which would be expected based on typical growth and development. Despite this progress, the program generally did not attain annual outcomes benchmarks. Again, it is important to note that PEK-ERF benchmarks are for a full-year of programming, and this report reflects children's progress from January through July 2007.

The following list summarizes first-year progress toward overall outcomes goals, followed by a table summarizing initial progress toward annual benchmarks. Areas that can be strengthened are discussed at the end of this section.

■ On average, both 3- and 4-year-olds improved on all three IGDI areas of picture naming, rhyming, and alliteration, with the highest overall improvement in picture naming and the lowest in alliteration.

■ Based on teachers' TROLL assessments, children improved on average in alphabet knowledge and all three subscales, including oral language, reading, and writing. The most improvement was seen in reading and alphabet knowledge. Overall, 67 percent of children scored at or above the 50th percentile at post-test based on a norming sample of children with similar socioeconomic status. Results suggest that on average, children made faster progress while in the program than their peers in a national sample.

- On average, children showed improvement in both alphabet knowledge and print and word awareness based on PALS assessments, with the largest gains in alphabet knowledge.

- PALS provides spring developmental ranges for 4-year-olds. Based on a preliminary analysis, these ranges reflect scores of 4-year-olds who tended to be at the low end of those defined as successful readers in first grade (Invernizzi et al., 2004). At the end of the program year, PEK-ERF 4-year-olds were on average at the upper end of the developmental range for uppercase alphabet knowledge and in the middle of the developmental range for print and word awareness.

- Results from the PPVT indicate that 4-year-olds in both school and child care settings made faster progress than their peers nationally in English receptive vocabulary. Child care children showed the most progress, and improved their average (mean) score from below to slightly above the national mean.

- Figure 11 summarizes the program's progress toward annual outcomes benchmarks during this shorter initial program year. Areas that can be strengthened as the program works toward these benchmarks are summarized at the end of this section under "Issues for consideration."

11. Progress toward PEK-ERF outcomes goals and benchmarks, Year 1

Goals	Benchmarks	Year 1 progress[a]
5. Student achievement[b]	■ 60% of 4-year-olds will attain target scores or better on each of the three IGDI tests[c]	■ 48-52% of all 4-year-olds attained target scores for individual tests; results show overall improvement from baseline ■ At child care centers, 60% of 4-year-olds attained target score for picture naming, 60% for rhyming, and 50% for alliteration ■ At elementary school sites, 47% attained target for picture naming, 40% for rhyming, and 50% for alliteration
	■ 75% of 4-year-olds will score at the 50th percentile or above on TROLL based on norming sample	■ 78% scored at or above 50th percentile
	■ 90% of 4-year-olds will identify at least 14 of the 26 letters (PALS)	■ 81% identified at least 14 letters ■ Results show overall improvement from baseline
	■ 90% of 4-year-olds will correctly identify 7 out of 10 possible items in the print and word awareness task (PALS)	■ 77% of 4-year-olds identified at least 7 items ■ Results show overall improvement from baseline
	■ 4-year-olds gain 4 standard score points or more on PPVT	■ 59% attained target ■ Overall, children showed accelerated progress compared to peers based on national norms
6. Parent capacity	■ All parents will have at least 75% of responses scored at acceptable level or higher on Family Learning Strategies Survey	■ At post-test, 53% of parents had at least 75% of responses at acceptable level or higher. Results should be viewed with caution due to relatively low response rate.
	■ 90% of parents will attend a school-sponsored event	■ Progress toward this benchmark was not tracked during the initial year because the program was not yet operational in the fall.

[a] The initial program year spanned January 8 to July 31, 2007, providing less time to attain annual benchmarks.

[b] For student achievement benchmarks, this table focuses on 4-year-olds' attainment of program targets. In cases where separate targets were established for 3-year-olds, their attainment of targets is discussed in the body of the report.

[c] Targets were based on scores attained by children entering kindergarten in Minneapolis schools.

Goal 5: Student achievement

> Goal: Increase the early readiness skills of students and ensure that all students learn the language, cognitive, and early reading skills they need to succeed in kindergarten and beyond, including the specific reading skills of oral language, phonological awareness, print awareness, and alphabet knowledge.

Individual Growth and Development Indicators (IGDIs)

Teachers use Individual Growth and Development Indicators (IGDIs) to monitor individual children's early language and literacy development over time. Preschool IGDIs measure children's progress in three areas: picture naming, alliteration, and rhyming. To conduct the assessments, teachers hold up cards with color pictures. During picture naming, children are presented with pictures of objects (e.g., a book, glue, a cake, a rabbit). Children are told to name the pictures as quickly as possible, and their score reflects the number identified correctly in one minute. During rhyming, children are presented with a series of cards each showing four pictures. At the top of the card is a picture depicting the stimulus word (e.g., bees), followed underneath by a row of three other pictures (e.g., a house, pants, and cheese). The teacher points to and says the name of each picture, and tells the child to point to the picture that rhymes with or sounds the same as the stimulus. The child's score reflects the number of correctly identified rhymes in two minutes. Alliteration also uses cards with a stimulus picture at the top followed by three pictures underneath. Children are asked to find the picture that starts with the same sound as the stimulus picture, and their score reflects the number of correct responses in two minutes. IGDIs provide teachers with feedback on individual children's progress over time toward developmental outcomes, and alert teachers when additional interventions may be needed (ECRIMGD, 1998; Get It! Got It! Go! website, n.d.).

Progress from pre- to post-test

During PEK-ERF's initial year, teachers administered IGDIs every two months. Figure 12 presents results for 98 3- and 4-year-old children for whom assessments were completed in both January and June 2007 (82% of all children). On average, both 3- and 4-year-olds improved in all three IGDI areas from pre-test to post-test. Both groups experienced the highest overall improvement in picture naming. Four-year-olds also experienced a high average improvement in rhyming. Both groups improved the least in alliteration on average (Gozali-Lee, 2007).

12. IGDI scores, Year 1 pre - post

IGDI area	Average score		Difference
	Pre-test	Post-test	
Age 3 (N=48)			
Picture Naming	12.15	18.17	+6.02
Rhyming	1.33	3.98	+2.65
Alliteration[a]	0.73	2.75	+2.02
Age 4 (N=50)			
Picture Naming	17.70	24.06	+6.36
Rhyming	5.14	10.74	+5.60
Alliteration[a]	2.98	6.77	+3.79

[a]   *N=40 for age 3 and N=44 for age 4*

Note: *During the program's first year, teachers administered IGDIs every two months. This figure presents results for children administered IGDIs in both January 2007 (pre-test) and June 2007 (post-test).*

Source: *Gozali-Lee, 2007.*

Evaluators also looked for relationships between the number of days 3- and 4-year-olds attended in each setting (i.e., the "dosage") and changes their in IGDI scores. Overall, these 98 children attended a median of 105 days, with a range of 48 to 143 days. Comparisons were made between those attending 100 days or more and those attending fewer than 100 days. Relationships were found between the number of days attended and test score improvements in picture naming for 3-year-olds at elementary school sites and in rhyming for 4-year-olds at child care centers. Relationships were not detected for other groups. However, due to the small number of children in each group, caution should be applied when interpreting these results (Gozali-Lee, 2007).

Progress toward program benchmarks

PEK-ERF established target scores for each of the three IGDI areas. Program benchmarks strive for 60 percent of 3- and 4-year-olds to reach the target for each test. Targets for 4-year-olds are 26 for picture naming, 12 for rhyming, and 8 for alliteration, and for 3-year-olds are 18 for picture naming, 7 for rhyming, and 5 for alliteration. Four-year-old targets were based on scores attained by children entering kindergarten in Minneapolis schools. Three-year-old targets reflect the 50th percentile for children under the age of 48 months who were assessed as part of a Minnesota Early Literacy Training Project. Figure 13 shows the percentage of 4-year-olds attaining the target score or better in each of the three areas at the beginning and end of the initial program year. It is not

known how much children would have been expected to progress during this time in the absence of participation in PEK-ERF.

13. Percent of 4-year-olds meeting IGDI target scores, Year 1 pre - post

Notes: During the program's first year, teachers administered IGDIs every two months. This figure presents results for 4-year-olds administered IGDIs in both January 2007 (pre-test) and June 2007 (post-test). It is not known how much children would have been expected to progress in the absence of PEK-ERF.
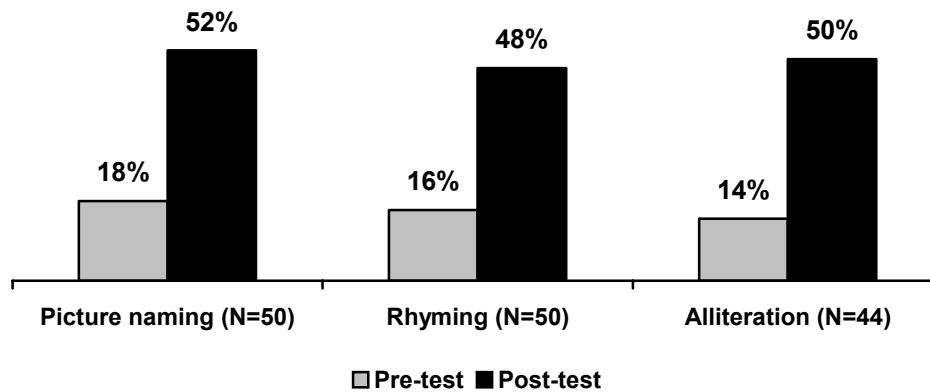
Source: Gozali-Lee, 2007.

In January, 18 percent of 4-year-olds met the picture naming target, 16 percent the rhyming target, and 14 percent the alliteration target. In June, 52 percent met the picture naming target, 48 percent the rhyming target, and 50 percent the alliteration target. In other words, between 32 and 36 percent more 4-year-olds met the targets in June than in January (Figures 13 and A10). Three-year-olds also showed progress, with between 23 and 42 percent more 3-year-olds meeting targets in June than in January. In January, 17 percent of the 3-year-olds met the picture naming target, 4 percent met the rhyming target, and 3 percent the alliteration target. In June, 58 percent met the picture naming target, 27 percent the rhyming target, and 28 percent the alliteration target (Figure A10) (Gozali-Lee, 2007).

Results in Figure A10 show that during the initial program year, PEK-ERF did not meet the goal of having 60 percent of children reaching target scores overall. However, 3-year-olds at child care centers did achieve the target in one of the three areas, and 4-year-olds at child care centers in two of the three areas. In June, 73 percent of 3-year-olds at child care centers met the picture naming target. Additionally, 60 percent of 4-year-olds at child care centers met the picture naming target, and 60 percent met the rhyming target. In both school and child care settings, 50 percent of 4-year-olds met the alliteration target in June. Four-year-olds at elementary schools were further from program targets, with 47 percent meeting the picture naming target and 40 percent the

rhyming target at post-test (Gozali-Lee, 2007). It is important to note that differences between school and child care sites could in part reflect the higher percentage of children at school sites with a home language other than English, and researchers will be examining that further in the future (Figure A2).

Teacher Rating of Oral Language and Literacy (TROLL)

The Teacher Rating of Oral Language and Literacy (TROLL) is a research-based observational assessment tool designed to help teachers monitor children's language and literacy development. Teachers can complete the assessment in about 5 to 10 minutes per child, and without interrupting regular classroom activities. Teachers rate children on items in three subscales: oral language, reading, and writing (Dickinson et al., 2001). In addition to reporting on these three subscales, PEK-ERF also reports separately on one question asking how many letters the child recognizes. Due to the program's shorter initial year, PEK-ERF teachers conducted baseline TROLL assessments from late January to mid-February 2007, and conducted follow-up assessments from late May to mid-June 2007. This allowed about four months between assessments (Gozali-Lee, 2007). Subsequent program years will allow for more time between pre- and post-assessments.

Progress from pre- to post-test

Teachers completed both baseline and follow-up assessments for 92 children (77% of all children). As shown in Figure 14, on average children improved on all three subscales and the question addressing alphabet knowledge. Looking at total scores, which combine scores for the three subscales, 3-year-olds improved 13.17 total score points on average and 4-year-olds improved 13.87 total score points on average out of a possible score of 98. Both 3- and 4-year-olds improved the most in reading and alphabet knowledge (Gozali-Lee, 2007).

14. TROLL average scores, Year 1 pre - post

Subscale (highest possible score)	Average score		Difference
	Pre-test	Post-test	
Age 3 (N=47)			
Oral language (32)	16.55	20.68	+4.13
Reading (42)	20.74	26.06	+5.32
Writing (24)	8.55	12.28	+3.72
Alphabet knowledge[a]	4.93	11.35	+6.41
Total score (98)[b]	45.85	59.02	+13.17
Age 4 (N=45)			
Oral language (32)	21.04	25.02	+3.98
Reading (42)	25.78	31.22	+5.44
Writing (24)	13.09	17.53	+4.44
Alphabet knowledge[a]	13.63	20.40	+6.77
Total score (98)[b]	59.91	73.78	+13.87

[a]   *N=46 for children age 3 and N=43 for children age 4*

[b]   *Total scores combine oral language, reading, and writing scores, and can range from a minimum of 24 to 98 total possible points (Dickinson et al., 2001).*

Notes: *Teachers complete the TROLL for individual students. During the program's initial year, teachers conducted baseline TROLL assessments from late January to mid-February 2007 (pre-test), and follow-up assessments from late May to mid-June 2007 (post-test).*

Source: *Gozali-Lee, 2007.*

A TROLL technical report places total scores in the context of percentiles based on a norming sample of low-income, high-risk children (Dickinson et al., 2001).[2] Corresponding percentiles (i.e., 10th, 25th, 50th, 75th, and 90th percentiles) are provided for separate ages and for the fall and spring of the year. PEK-ERF conducted TROLL assessments in the winter and spring; however, to provide a measure of progress in the context of typical development, pre-test scores are viewed in light of fall percentiles and post-test scores in light of spring percentiles (Figure 15). This method likely underestimates actual progress because children's baseline percentiles would likely be lower had initial assessments occurred earlier in the year, or had pre-test scores been compared to spring percentiles. At pre-test, 3-year-olds' average score of 45.85 was slightly higher than the 25th percentile score of 44 for the fall. At post-test, 3-year-olds'

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2   The technical report notes norms are "provisional" based on the sample, although especially useful for comparisons with low-income children (Dickinson et al., 2001, 3-4).

average score of 59.02 fell between the 50th percentile (56) and 75th percentile (62) for the spring. Looking at 4-year-olds, at pre-test their average score of 59.91 fell just below the 50th percentile (61) for the fall. At post-test, 4-year-olds' average score of 73.78 was at the 75th percentile (74) for the spring. These results suggest that on average, PEK-ERF participants made faster progress while in the program than their peers.

15. PEK-ERF total TROLL scores compared to TROLL norming sample, Year 1 pre - post

	PEK-ERF Average TROLL scores[a]		Norming sample TROLL scores[b]		
	Winter	Spring	Fall	Spring	Percentiles
3-year-olds			40	44	10th percentile
	45.85		44	49	25th percentile
			51	56	50th percentile
		59.02	61	62	75th percentile
			68	69	90th percentile
4-year-olds			43	46	10th percentile
	59.91		52	55	25th percentile
			61	66	50th percentile
		73.78	71	74	75th percentile
			80	84	90th percentile

[a] N=47 for 3-year-olds and N=45 for 4-year-olds.

[b] For 3-year-olds, N=115 in the fall and N=55 in the spring. For 4-year-olds, N=336 in the fall and N=234 for in the spring. TROLL raw total scores were converted to percentiles to provide total TROLL scores that correspond to particular percentiles based on a norming sample of low-income, high-risk children. The TROLL technical report providing the scores and percentiles notes that norms are "provisional" based on the sample (Dickinson et al., 2001, 3-4).

Notes: Teachers complete the TROLL for individual students. During the program's initial year, teachers conducted baseline TROLL assessments from late January to mid-February 2007 (pre-test), and follow-up assessments from late May to mid-June 2007 (post-test).

Researchers also examined relationships between improvements in TROLL scores and the number of days attended by children in each age group in each setting. These 92 children attended a median of 103 days, ranging from 56 to 143 days. As with the IGDI analysis, comparisons were made between those attending 100 days or more and those attending fewer than 100 days. Results indicate there is no significant relationship between the number of days attended and gain in TROLL score. That is, children who attended PEK-ERF more days did not show significantly more improvement in their TROLL scores (Gozali-Lee, 2007).

Progress toward program benchmarks

As with other assessments, PEK-ERF established benchmarks for TROLL results. The program's annual target is for 75 percent of the children to obtain a TROLL total score (i.e., across the three subscales) that is at the 50th percentile or above based on the assessment's norming sample of low-income, high-risk children. In this case, scores at the 50th percentile indicate children are making average progress for their age compared to peers of similar socioeconomic status. The 50th percentile for 3-year-olds in the spring is 56 and for 4-year-olds in the spring is 66 (Dickinson et al., 2001). To facilitate comparisons, this section examines pre- to post-test changes in attainment of the *spring* 50th percentiles that are targeted by the benchmark.

Figure 16 shows the percentages of 3- and 4-year-old children meeting program targets for the assessment at baseline and follow-up. At baseline, 28 percent of the 3-year-olds and 42 percent of the 4-year-olds scored at or above the 50th percentile for the spring of their year. At follow-up, 57 percent of the 3-year-olds and 78 percent of the 4-year-olds scored at or above the spring 50th percentile. That is, 29 percent more 3-year-olds and 36 percent more 4-year-olds scored at or above the 50th percentile at post-test than at pre-test. In both age groups, elementary school sites showed more improvement in terms of the proportion of children moving from under to at or above the 50th percentile, although child care centers still had a larger proportion of children at or above the 50th percentile at post-test.

Overall, 67 percent of the children scored at or above the 50th percentile in the spring. While this falls slightly below the target of 75 percent, the target was attained for 4-year-olds in both school and child care settings. While 3-year-olds in neither setting attained the target, those at elementary school sites were further, with only 48 percent scoring at or above the 50th percentile compared to 70 percent of 3-year-olds at child care centers (Figure A11) (Gozali-Lee, 2007). As previously described, differences between school and child care sites could in part reflect the higher percentage of children at school sites with a home language other than English (Figure A2).

16. Percent of children meeting TROLL target scores, Year 1 pre - post
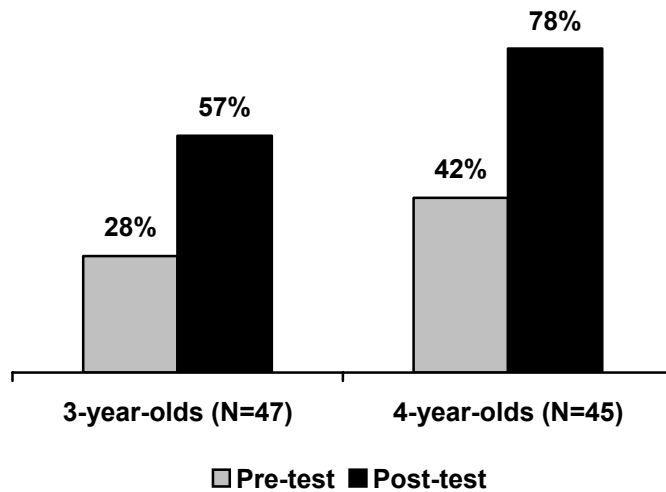
Notes: Teachers complete the TROLL for individual students. For each age group, both winter and spring scores were compared to the spring 50th percentiles based on a norming sample of low-income, high-risk children (Dickinson et al., 2001). During the program's initial year, teachers conducted baseline TROLL assessments from late January to mid-February 2007 (pre-test), and follow-up assessments from late May to mid-June 2007 (post-test).

Source: Gozali-Lee, 2007.

Phonological Awareness Literacy Screening (PALS)

Teachers use Phonological Awareness Literacy Screening (PALS) to assess children's knowledge of the alphabet and their awareness of print concepts. In the alphabet knowledge subtest, teachers ask children to name the 26 upper-case letters presented in random order.[3] In the print and word awareness subtest, teachers read a familiar nursery rhyme printed in a book and ask each child to point to different components in the book (e.g., pictures, letters, and words) (Gozali-Lee, 2007). PALS also includes name writing, beginning sound awareness, rhyme awareness, and nursery rhyme awareness tasks, but those are not used in the PEK-ERF program (PALS, n.d.).

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[3] The *PALS-PreK Teacher's Manual* cites data indicating upper-case letter naming as a more developmentally appropriate task for preschool children, although the assessment also offers a lower-case alphabet recognition task for children able to identify 16 or more upper-case letters (Invernizzi et al., 2004, p. 49). PEK-ERF administers only the upper-case task.

Progress from pre- to post-test

PALS baseline assessments were conducted in mid-January to mid-February 2007, and end-of-year assessments were conducted in mid-July to mid-August 2007, giving about six months between pre- and post-assessments due to the program's shorter initial year. Both pre- and post-tests were completed for 72 children (61% of all children). On average, both 3- and 4-year-old PEK-ERF children showed improvement in both alphabet knowledge and print and word awareness from baseline to follow-up. Both age groups showed the largest gains in alphabet knowledge. On average, 3-year-olds improved by 7.46 points and 4-year-olds by 8.35 points out of a possible 26 points for alphabet knowledge. In the area of print and word awareness, children showed an average gain of almost 2 points out of a possible 10, with 3-year-olds improving by 1.76 points on average and 4-year-olds by 1.97 on average (Figure 17) (Gozali-Lee, 2007).

17. PALS average scores, Year 1 pre - post

Task (highest possible score)	Average score		
	Pre-test	**Post-test**	**Difference**
Age 3			
Alphabet knowledge[a] (26) (N=35)	6.80	14.26	+7.46
Print and word awareness (10) (N=29)	4.03	5.79	+1.76
Age 4			
Alphabet knowledge (26) (N=37)	11.65	20.00	+8.35
Print and word awareness (10) (N=35)	6.00	7.97	+1.97

[a]   *PEK-ERF administers only the upper-case task. PALS also offers a lower-case alphabet recognition task for children able to identify 16 or more upper-case letters (Invernizzi et al., 2004).*

Notes: *Teachers administer PALS assessments to children. During the program's initial year, baseline assessments were administered in mid-January to mid-February 2007 (pre-test), and follow-up assessments in mid-July to mid-August 2007 (post-test).*

Source: *Gozali-Lee, 2007.*

Researchers also examined relationships between improvements in PALS scores and the number of days attended by children in each age group in each setting. These 72 children attended a median of 107 days, ranging from 56 to 143 days attended. As with analyses of other assessments, researchers made comparisons between children who attended 100 days or more and children attending fewer than 100 days. For 4-year-olds at PEK-ERF elementary school sites, results suggest significant relationships between the number of days attended and improvements in PALS scores for both alphabet knowledge and print and word awareness. That is, 4-year-olds at elementary schools who attended the

program more days improved more than those who attended fewer days from baseline to follow-up on PALS. Similar results were not found for 3-year-olds or for children attending child care centers. These results should be interpreted with caution, however, due to the small number of children in each group (Gozali-Lee, 2007).

Progress toward program benchmarks

PEK-ERF also established benchmarks for PALS assessments. The program target for alphabet knowledge strives for 90 percent of children identifying at least 14 of the 26 letters. The target for print and word awareness strives for 90 percent of children identifying 7 out of the 10 possible items. These targets can be viewed in light of the following spring developmental ranges for 4-year-olds' scores presented in the *PALS-PreK Teacher's Manual* (Invernizzi et al., 2004): 12 to 21 for uppercase alphabet knowledge, and 7 to 9 for print and word awareness. The manual cautions readers that ranges are based on a preliminary analysis of approximately 350 children, and that it should not be assumed that those falling below the ranges are at risk and that those above do not need additional literacy instruction. In the manual's own language, ranges are described as follows:

> *In this analysis, we found that PALS-PreK scores within the spring developmental ranges ... were typical of students in the bottom quartile of those who were later defined as successful readers in first grade. That is, preschool children scoring within these developmental ranges tended to be those who just met the definition of successful reader in the fall of first grade.*
> —(Invernizzi et al., 2004, p. 63).

On average, 4-year-olds were in the middle of the developmental range for print and word awareness (with an average of 7.97) and at the upper end of the developmental range for uppercase alphabet knowledge (with an average of 20.00). Figure 18 shows the percentages of 3- and 4-year-old children meeting PEK-ERF's targets for PALS at baseline and follow-up. Results show that for alphabet knowledge, 23 percent of the 3-year-olds and 38 percent of the 4-year-olds met the target (i.e., correctly identified 14 letters) at pre-test and 54 percent of the 3-year-olds and 81 percent of the 4-year-olds at post-test. For print and word awareness, 14 percent of the 3-year-olds and 46 percent of the 4-year-olds met the target (i.e., correctly identified 7 or more items) at pre-test and 41 percent of the 3-year-olds and 77 percent of the 4-year-olds at post-test. Despite these improvements, the program fell short of the 90 percent goals established in the benchmarks (Gozali-Lee, 2007).

18.   Children meeting PALS target scores, Year 1 pre - post
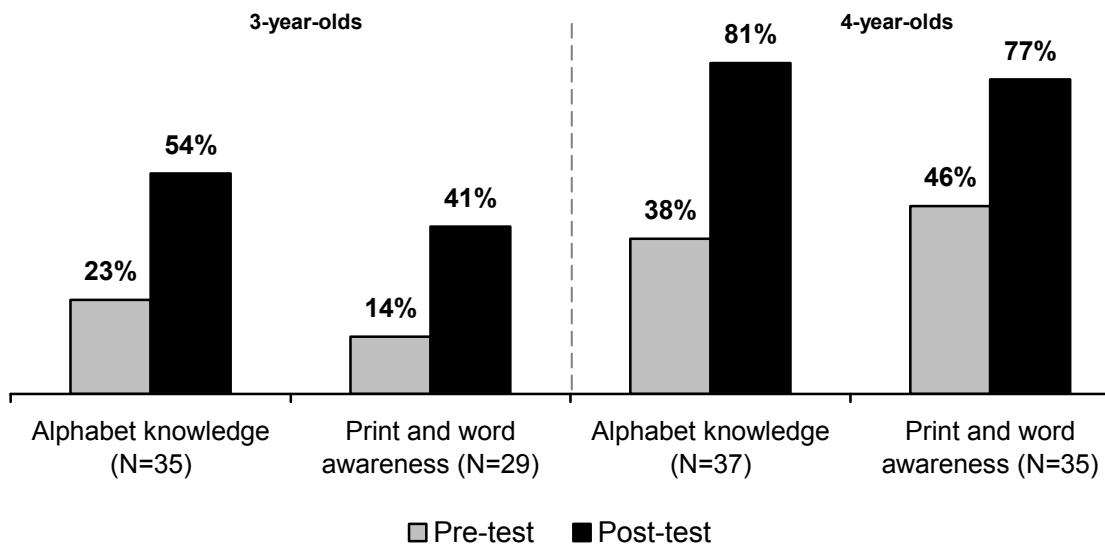
Notes: *Teachers administer PALS assessments to children. During the program's initial year, baseline assessments were administered in mid-January to mid-February 2007 (pre-test), and follow-up assessments in mid-July to mid-August 2007 (post-test).*

Source: *Gozali-Lee, 2007.*

Looking at differences between children at elementary school sites and children at child care centers, child care centers started and ended the program year with higher percentages of 3- and 4-year-olds reaching target scores. Whereas slightly higher percentages of 3-year-olds at child care centers improved from below to at or above target scores for both subtests, higher percentages of 4-year-olds at elementary schools improved from below to at or above target scores on both subtests. With a majority of child care 4-year-olds meeting target scores for both subtests at baseline, there was less room for growth in the percentages of them moving from below to at or above targets (Figure A12) (Gozali-Lee, 2007).

Peabody Picture Vocabulary Test III (PPVT)

The Peabody Picture Vocabulary Test III (PPVT) measures children's English receptive vocabulary. Wilder Research staff conducted one-on-one assessments with 4-year-olds participating in PEK-ERF school and child care programs. Pre-assessments were administered to child care children in December 2006 and to school children in January 2007. Post-assessments were administered to most child care children in August 2007 and to school children in October 2007. Results presented here reflect 49 4-year-olds who have both pre- and post-assessment scores (88% of all 4-year-olds) (Gozali-Lee, 2007).

Progress from pre- to post-test

Researchers analyzed PPVT results using standard scores. Standard scores have a mean of 100 (and a standard deviation of 15) in the national normative sample. These scores are also age-standardized. This means that no change in scores from one year to the next indicates normative progress, positive change indicates accelerated progress, and negative change indicates slower progress in comparison to one's peers. As shown in Figure 19, PEK-ERF participants made accelerated progress in English receptive vocabulary from pre-test to post-test overall with a gain of 6.8 points. However, their average (mean) score fell below the national mean of 100 at both time points (89.8 at pre-test and 96.6 at post-test). Accelerated progress was made by children in both elementary school and child care settings (gains of 4.6 and 10.0 points, respectively). Mean scores for children at the child care centers went from below the national mean at pre-test to slightly above the national mean at post-test (92.7 to 102.7) (Gozali-Lee, 2007).

19. PPVT average standard scores, Year 1 pre - post

Program	Average standard scores[a]		Difference
	Pre-test	Post-test	
Elementary school sites (N=29)	87.86	92.45	+4.59
Child care centers (N=20)	92.70	102.70	+10.00
Overall (N=49)	89.84	96.63	+6.80

[a]   Standard scores have a mean of 100 and a standard deviation of 15 in the national normative sample. No change in scores from one year to the next indicates normative progress, positive change indicates accelerated progress, and negative change indicates slower progress in comparison to one's peers.

Notes: Wilder Research staff conduct the PPVT one-on-one with participating 4-year-olds. During the program's initial year, baseline assessments were administered to child care children in December 2006 and to school children in January 2007 (pre-test). Follow-up assessments were administered to most child care children in August 2007 and to school children in October 2007 (post-test). Results presented here reflect 4-year-olds with both pre- and post-assessment scores.

Source: Gozali-Lee, 2007.

Researchers also examined the relationship between the number of days attended by children in each setting and their improvements on the PPVT. Overall, the number of days attended by these 49 children ranged from 61 to 143 days, with a median of 107 days. Again, comparisons were made between students who attended 100 days or more and those who attended fewer than 100 days. Significant relationships were not found between the number of days attended and gains in PPVT scores (Gozali-Lee, 2007).

Progress toward program benchmarks

For the PPVT, PEK-ERF established the target of children gaining at least 4 standard score points from pre-test to post-test. Again, positive change in standard scores indicates accelerated progress compared to one's peers. Almost 60 percent of PEK-ERF children met the target (59%). A slightly higher percentage of the children at child care centers than at elementary schools met the target (65% vs. 55%, respectively), as might be expected given the higher percentage of child care children with English as their home language (Figure A13, Gozali-Lee, 2007).

Goal 6: Parent capacity

Goal: Increase parent/family involvement in family literacy activities.

Family Learning Strategies Survey

At the beginning and end of the program year, parents completed a Family Learning Strategies Survey. The survey was developed by the program's evaluator from Saint Paul Public Schools and the project coordinator to assess parents' involvement in their children's learning. Teachers administered the survey, with a bilingual educational assistant interpreting and offering assistance to parents as needed. A scoring grid was used to categorize responses to each question as either "developing," "acceptable," or "model."

Parents of 97 of the 119 children (82%) completed the survey at the beginning of the year and 54 of the 119 children (45%) at the end of the year, with parents of 49 children (41%) completing both pre- and post-tests. Due to the relatively low response rate at post-test, results should be viewed with caution. The smaller number of parents completing the survey at the end of the year may in part reflect some teachers having administered the post-test in the summer when many of the children had stopped coming. Due to inconsistency in the survey's administration, in the future this survey will be replaced by a parent phone interview conducted by Wilder Research.

Progress from pre- to post-test

This analysis looks at changes among the 49 parents completing both the pre- and the post-test. Overall, results suggest relatively little movement between pre- and post-test, although again results should be viewed with caution due to the relatively low response rate. The biggest changes in the "developing" category were in the areas of children's television viewing and parents reading to their children. At pre-test, 67 percent of parents were in the developing category for the amount of television their children watched (i.e., two or more hours every day), 20 percent were in the acceptable category (i.e., one hour every day), and 12 percent were in the model category (i.e., less than one hour every day, rarely, or never). At post-test, 53 percent were in the developing category, 24 percent acceptable, and 22 percent model. As shown in Figure A15, 29 percent of parents showed improvement on this question from pre- to post-test compared to 12 percent showing declines. The remaining 59 percent maintained the same level from pre- to post-test.

In contrast, declines were seen in the frequency with which parents read to or look at books with their children. At pre-test, 29 percent were in the developing category (i.e., not regularly, rarely, or never), 40 percent acceptable (i.e., at least 10 minutes every other day to a few minutes almost every day), and 31 percent model (i.e., at least 10 minutes every day). At post-test, 38 percent were in the developing category, 35 percent acceptable, and 27 percent model (Figure A14). As shown in Figure A15, 21 percent of parents showed a decline in this area from pre- to post-test, compared to 15 percent showing improvement.

At post-test, 8 of the 11 questions had more than 80 percent of parents scoring at the acceptable or model level. These questions addressed how frequently parents have conversations with their child; keep informed of their child's school or child care activities; take their child to events and activities; allow their child to use paper and crayons or some other writing tools; read in front of their child at home; write in front of their child at home; go to their child's school or child care center to attend events or activities, volunteer, or attend meetings; and sing songs with their child. Areas with the highest percentages of parents in the developing category at post-test included taking children to the public library and checking out books (73% developing); the amount of television viewing by children (53%), despite the improvement seen from pre-test in this area; and reading aloud to or looking at books with children (38%) (Figure A14). It may also be noteworthy that while more than 80 percent of parents fell in the acceptable or model categories for how frequently they sing songs with their child at post-test (81%), 40 percent of parents showed declines in this area from pre- to post-test (Figure A15).

Progress toward program benchmarks

PEK-ERF established the benchmark that all parents will have at least 75 percent of responses scored at the acceptable level or higher on the Family Learning Strategies Survey. At post-test, 26 of the 49 parents completing both the pre- and post-test (53%) had at least 75 percent of their responses at the acceptable level or higher. Again, caution should be used when interpreting results due to the relatively low response rate.

Issues for consideration

PEK-ERF's first-year outcomes reflect progress among children who participated in less than a full year of program services. As the program continues to work toward attainment of annual benchmarks, evaluation results provide insights that can inform future programming. Again, program leaders and staff may have already made adjustments in some of these areas.

■ *School-based children's attainment of targets.* Program staff can explore ways to boost school-based children's progress in measures of language and literacy. Across assessments, children at elementary school sites generally seemed to be further from attaining program benchmarks, as summarized below. Differences could in part reflect the higher percentage of children with a home language other than English at school sites, and researchers will be examining that further in the future (Figure A2). Child care children generally seemed closer to benchmarks even at baseline. Additionally, child care children attended the program more days on average.

- Four-year-olds at child care centers attained IGDI targets in picture naming and rhyming, and 3-year-olds at child care centers in picture naming. Targets were not attained in any of the three IGDI areas by 3- or 4-year-olds at elementary schools.

- Although elementary school sites showed more improvement, child care centers had larger proportions of children in both age groups at or above the 50th percentile for TROLL at post-test. The target was attained by 4-year-olds in both settings but not 3-year-olds, with 3-year-olds at elementary schools furthest away.

- Child care centers started and ended the program year with higher percentages of 3- and 4-year-olds reaching PALS target scores.

- Despite what appears to be accelerated progress in English receptive vocabulary, school-based 4-year-olds still remained below the national mean on the PPVT. A slightly higher percentage of children at child care centers than at elementary schools met the target.

■ *Monitoring relationships between attendance and progress.* Researchers did not find consistent relationships between the number of days attending the program and progress on assessments, although caution should be applied due to the small number of children in individual groups in these analyses. Subsequent years' results can be monitored for whether clearer relationships are found when children attend for an entire program year.

■ *Parents' support for learning.* Items showing the most room for growth on the Family Learning Strategies Survey included how frequently parents read aloud to or look at books with their children and how frequently children watch television. Although the response rate was relatively low, results can inform program efforts to help parents understand how best to support their children's learning.

■ Attainment of benchmarks following full year. Future years' results can be monitored to assess the program's attainment of annual benchmarks when children attend a full year.

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Appendix

Program components

Student demographics and attendance

Goal 1: Staff capacity

Goal 2: Curriculum and instruction

Goal 4: PAE alignment

Goal 5: Student achievement

Goal 6: Parent capacity

Program components

A1. Sample PEK-ERF daily schedule

Ease into the day	▪ Welcome/greet children; engage children in conversation ▪ Children "sign in" ▪ Children read books or write on white boards independently as they arrive
Community circle (with daily lesson)	*A time to gather together, introduce the area of study, plan the day, "Show and Tell"* ▪ Use picture/word schedules ▪ Write out daily message and encourage children to read along ▪ Introduce 3-5 new vocabulary words using picture books, picture cards, and real objects ▪ Read to students, using different types of books that support the area of study, including reading and re-reading favorite books and stories ▪ Use shared reading techniques (e.g., sentence completion, prediction, recall, and open-ended questions) and dialogic reading – specifically, the PEER sequence (prompting, evaluating, expanding, and repeating) ▪ Use song charts with pictures and words as cues to help children sing/read ▪ Encourage sound manipulation (e.g., rhyme, stretching, alliteration, matching sounds, clapping syllables, chanting, listening for words that are the same or different, and blending) ▪ Help the children learn the alphabet; notice alliteration, letter usage. Use songs, alphabet books, and nursery rhymes to increase alphabetic knowledge
Small group	*A time to give extra attention, more conversation, individualize to specific skill needs, and scaffolded instruction, a time for children to "DO"* ▪ Use auditory activities that require children to learn to distinguish and compare sounds ▪ Use select children's books that emphasize sounds, rhyming and alliteration, including poetry ▪ Encourage sound manipulation (e.g., rhyme, stretching, alliteration, matching sounds, clapping syllables, listening for words that are the same or different, and blending) ▪ Play environmental sound games to connect sounds to meaning ▪ Help the children write letters using a variety of media and provide tactile experiences with print – paint, sand, play dough, etc. ▪ Use teacher dictation; encourage children to read when finished ▪ Adults interact and have conversation with children and encourage conversation among peers, striving for five turn-taking conversations

A1. Sample PEK-ERF daily schedule (continued)

Active learning (50-60 minutes)	*A time for the children to explore and practice new skills independently with support and input from the teacher* ▪ Adults interact and have conversation with children as they explore the room, investigate learning centers, work on projects, and extend the area of study ▪ Adults are available to talk, read, and write with children, scaffolding learning and discoveries (dictation, computer use, utilize listening centers) ▪ Adults support and encourage children's use of alphabet puzzles, charts, stencils, tiles, environmental print, logos, calendars, money, etc. ▪ Adults support and encourage book use in centers with children reading and having conversation, building oral language and vocabulary
Regroup to revisit	*Opportunities to revisit the day's lesson, explore some aspect of the children's work, or plan an extension of learning for the afternoon or the following day* ▪ Encourage children to talk about the day's activities using open-ended questions ▪ Encourage confidence in oral language skills by having children share something specific they worked on that day ▪ Co-create plans for the afternoon or the next day with the children
Meals and snack	*An opportunity for rich vocabulary and oral language development* ▪ Encourage children to talk about activities (past, present, and future) using open-ended questions ▪ Provide opportunities to be part of conversations that use extended discourse, encourage children to use language for a variety of purposes, and support them in communicative attempts (e.g., gestures, eye contact, imitating the child)
Rest time - A designated time for children to rest. They may look at books or listen to music quietly.	
Extended learning (Active learning, small groups, and extended projects; 30-40 minutes)	*A time for children to explore and practice new skills independently with support and input from the teacher (extends learning in oral language, phonological awareness, print awareness, and alphabet knowledge)* ▪ Adults interact and have conversation with children as they explore the room, investigate learning centers, work on projects, and extend themes (oral language) ▪ *Doors to Discovery* Centers are available for active learning in all domains, including math, science, dramatic play, writing, reading, music, etc. ▪ Adults are available to talk, read, write with children, scaffolding learning and discoveries (dictation, computer use, utilize listening centers) (all literacy areas) ▪ Adults support and encourage children's use of alphabet puzzles, charts, stencils, tiles, environmental print, logos, calendars, money, etc. (all literacy areas) ▪ Adults support and encourage book use in centers with children reading and having conversation, building oral language and vocabulary (all literacy areas) ▪ Use time to pursue projects based on students' interests (all literacy areas)

A1. Sample PEK-ERF daily schedule (continued)

Small group/ Five-day read aloud	*A time to learn literacy skills and a love of learning.* ■ Read a book that supports the ongoing area of study focusing on: ■ Day 1: Vocabulary and storyline ■ Day 2: Story Elements: characters, feelings, beginning/middle/end, problem/resolution ■ Day 3: Dialogic Reading: open-ended questions, allow children to predict words and phrases ■ Day 4: Concepts of Print: front & back, where to start reading, left to right progression, return sweep, difference between word and letter ■ Day 5: Read for enjoyment and concept development; dramatize/pretend/using props
Large motor	*A time to utilize the joy of movement and sensory input to allow more literacy learning* ■ Do group movement activities incorporating songs, chants, games, signs, logos ■ Bring the are of study into large motor play and movement ■ Have conversations with children
Closing meeting	*A time to review the day, reinforce vocabulary and background knowledge, set the stage for the next day* ■ Additional large group reading, reread the first book, or a book that supports the ongoing theme ■ Teach specific book knowledge – discuss the cover of the book, authors, illustrators, title page, etc. ■ Use social stories to teach academic, social skill, and functional routines to children, with the help of print and pictures
Transitions	■ Use transition rituals, include songs, rhymes and chants ■ Use picture/word schedules, change boards, transition and process routines integrated into daily activities and routines ■ Encourage children to notice that letters and symbols are all around them ■ Play word games, using the children's names when possible, pointing out sounds, rhyming, etc.

Source: *This figure was based on a table in a grant performance report that PEK-ERF staff prepared for the federal U.S. Department of Education.*

Student demographics and attendance

A2.   Children's characteristics, Year 1

	Elementary school sites		Child care centers	
	N	Percent	N	Percent
Age as of September 1, 2006				
3	32	49%	31	57%
4[a]	33	51%	23	43%
Total	65	100%	54	100%
Gender				
Male	39	60%	25	46%
Female	26	40%	29	54%
Total	65	100%	54	100%
Eligible for free or reduced-price lunch				
Yes	59	91%	49	91%
No	6	9%	5	9%
Total	65	100%	54	100%
Ethnicity				
American Indian	0	0%	2	4%
Asian	4	6%	0	0%
Latino	13	20%	3	6%
Black	42	65%	45	83%
White	6	9%	4	7%
Total	65	100%	54	100%
Home language				
English	41	63%	50	93%
Somali	19	29%	0	0%
Spanish	5	8%	1	2%
Other/bilingual	0	0%	3	5%
Total	65	100%	54	100%
Received special education services				
Yes	5	8%	3	6%
No	60	92%	51	94%
Total	65	100%	54	100%

[a]   *Includes one child who was 5 years old*

Source: *Gozali-Lee, 2007.*

A3. Children's attendance, Year 1

Number of days present	Elementary school sites		Child care centers	
	N	Percent	N	Percent
Age 3				
Fewer than 60 days	3	9%	2	6%
60-80	4	13%	4	13%
81-100	14	44%	5	16%
101-120[a]	11	34%	5	16%
121-140	N/A[b]	-	13	42%
More than 140 days	N/A[b]	-	2	6%
Total	32	100%	31	100%
Average	89.6		109.6	
Median	92.5		116.0	
Range	36-115		42-143	
Age 4				
Fewer than 60 days	2	6%	1	4%
60-80	5	15%	3	13%
81-100	13	39%	3	13%
101-120[a]	13	39%	4	17%
121-140	N/A[b]	-	10	43%
More than 140 days	N/A[b]	-	2	9%
Total	33	100%	23	100%
Average	91.6		112.6	
Median	92.0		121.0	
Range	29-114		54-143	

[a]   *Elementary schools offered 116 days of programming.*

[b]   *Not applicable.*

Note: *Year 1 spanned January 8, 2007, to July 31, 2007.*

Source: *Gozali-Lee, 2007.*

Goal 1: Staff capacity

A4. PEK-ERF professional development, Year 1

Topic	Key learning outcomes	Learning formats	Hours/timeline	Responsible staff
SEEDS of Early Literacy	▪ Creating a community of learners in a literacy-rich classroom ▪ What is a quality teacher ▪ Developing talkers and thinkers ▪ Vocabulary and phonological awareness ▪ Print and book rules ▪ Letter knowledge and the writing process ▪ Involving families in a child's school readiness	Lecture Small group learning and dialogue Experiential	13 hours November 2006 (child care sites) December 2006 (school sites)	Educational consultant Project coordinator Literacy coach
Doors to Discovery (D2D)	▪ Using curriculum to effectively promote the "Big 5" literacy skills ▪ Setting up centers for purposeful, planful play ▪ Practical ideas for developing phonological awareness	Lecture Small group learning and dialogue Experiential	4 hours December 2006	National D2D trainer Project coordinator Literacy coach
Project for Academic Excellence (PAE)	▪ Overview of PAE ▪ Effort-based education ▪ Routines and rituals ▪ Community circle ▪ Shared reading and writing	Lecture Small group learning and dialogue Experiential	4 hours December 2006 4 hours January 2007	Educational consultant Project coordinator Literacy coach
Read alouds	▪ Read alouds ▪ Instructional purposes ▪ Strategies for ELLs ▪ 5-day read aloud	Lecture Small group learning and dialogue Experiential	4 hours February 2007	Educational consultant Project coordinator Literacy coach
Data-driven decision making; effective small group instruction	▪ Overview of classroom assessments ▪ How we can use data results to effectively inform our instruction ▪ Importance of small groups ▪ Using small groups for intervention—creating small groups based on data	Lecture Small group learning and dialogue Experiential	4 hours March 2007	Educational consultant Project coordinator Literacy coach

A4. PEK-ERF professional development, Year 1 (continued)

Topic	Key learning outcomes	Learning formats	Hours/timeline	Responsible staff
Active learning; oral language and vocabulary development	■ The role of adults in children's play ■ Theme integration in learning centers ■ Oral language facilitation in the classroom centers ■ Strategies for English language acquisition	Lecture Small group learning and dialogue Experiential	4 hours April 2007	Educational consultant Project coordinator Literacy coach
Emergent literacy with standards focus	■ What is an academic standard? ■ The role of standards in PEK-ERF ■ Using D2D while focusing on standards	Small group learning and dialogue	4 hours May 2007	Educational consultant Project coordinator Literacy coach
Early Childhood Workshop	■ Shared reading and read alouds; differences, purposes, procedures ■ Observation of reading behaviors ■ Guided oral reading	Lecture Small group learning and dialogue Experiential	25 hours June 2007	Educational consultant Foundation for Comprehensive Early Literacy Learning (CELL) consultants
Print-rich environments[a]	■ Review ELLCO benchmarks ■ What constitutes a print-rich environment ■ Using word walls in the early childhood classroom	Lecture Small group learning and dialogue Experiential	4 hours September 2007	Educational consultant Project coordinator Literacy coach

Possible hours for training sessions:	70
Possible hours for one-on-one or small group coaching sessions:	32
Total possible professional development hours:	102

[a] *Training occurred in Year 2.*

Source: *This table was developed by PEK-ERF program staff, with minor modifications made for purposes of this report.*

Goal 2: Curriculum and instruction

A5. ELLCO results by classroom, Year 1 pre - post

Classroom	Subscale	Pre-test	Post-test[a]
Class 1	Book	18 T*	20 T
	Writing	19 T	17
	Language, literacy, and curriculum	3.4	3.1
	General classroom environment	3.0	2.8
Class 2	Book	15	18 T
	Writing	10	20 T
	Language, literacy, and curriculum	2.9	3.4
	General classroom environment	2.8	3.4
Class 3	Book	13	19 T
	Writing	13	20 T
	Language, literacy, and curriculum	2.6	3.3
	General classroom environment	2.8	4.2 T
Class 4	Book	16	18 T
	Writing	17	18
	Language, literacy, and curriculum	2.5	3.4
	General classroom environment	2.6	3.2
Class 5	Book	8	N/A
	Writing	7	N/A
	Language, literacy, and curriculum	2.9	N/A
	General classroom environment	2.8	N/A
Class 6	Book	10	15
	Writing	9	18
	Language, literacy, and curriculum	3.1	3.6
	General classroom environment	3.6	4.4 T
Class 7	Book	9	18 T
	Writing	7	19 T
	Language, literacy, and curriculum	2.9	3.0
	General classroom environment	3.4	3.0

A5. ELLCO results by classroom, Year 1 pre - post (continued)

Classroom	Subscale	Pre-test	Post-test
Class 8	Book	15	18 T
	Writing	14	16
	Language, literacy, and curriculum	2.9	3.0
	General classroom environment	3.0	3.4

*   *T=target met*

a   *During the program's first year, baseline ELLCO assessments were conducted of all eight classrooms between October 2006 and January 2007, and follow-up assessments were conducted of seven classrooms in May 2007. One classroom was not observed because the teacher was on maternity leave.*

Notes: *During the program's initial year, baseline ELLCO assessments were conducted of all eight classrooms between October 2006 and January 2007 (pre-test), and follow-up assessments were conducted of seven classrooms in May 2007 (post-test). Saint Paul Public Schools hired an independent consultant to conduct ELLCO assessments.*

A6. Detailed ELLCO results for areas within subscales, Year 1 pre - post

ELLCO area (possible points)	Pre-test[a]	Post-test
Literacy environment checklist		
Book area (3)	2.1	3.0
Book selection (8)	6.9	8.0
Book use (9)	4.7	7.0
Book subscale (20)	**13.7**	**18.0**
Writing materials (8)	6.1	7.6
Writing around the room (13)	6.6	10.7
Writing subscale (21)	**12.7**	**18.3**
Language, literacy, and curriculum		
Oral language facilitation (5)	3.0	3.3
Presence of books (5)	3.1	3.9
Approaches to book reading (5)	3.1	3.6
Approaches to children's writing (5)	2.7	3.1
Curriculum integration (5)	3.0	3.3
Recognizing diversity in the classroom (5)	2.4	2.9
Facilitating home support for literacy (5)	3.0	3.0
Approaches to assessment (5)	2.7	3.0
Language, literacy, and curriculum subscale (5)	**2.9**	**3.3**
General classroom environment		
Organization of the classroom (5)	2.9	4.0
Contents of the classroom (5)	2.9	3.4
Presence/use of technology (5)[b]	2.3	2.7
Opportunities for child choice and initiative (5)	2.9	3.4
Classroom management strategies (5)	3.4	3.0
Classroom climate (5)	3.1	3.6
General classroom environment subscale (5)	**3.0**	**3.5**

[a]   *One classroom was not observed at post-test because the teacher was on maternity leave. This analysis compares only those seven classrooms observed at both pre- and post-test.*

[b]   *Not included in subscale total as recommended in the* ELLCO Toolkit *(Smith & Dickinson, 2002).*

Notes: *During the program's initial year, baseline ELLCO assessments were conducted of all eight classrooms between October 2006 and January 2007 (pre-test), and follow-up assessments were conducted of seven classrooms in May 2007 (post-test). Saint Paul Public Schools hired an independent consultant to conduct ELLCO assessments.*

A7. CLASS PreK results by subscale, spring 2007

Subscale	Mean[a]	Standard deviation	Range
Emotional support			
Positive climate	6.0	0.8	5 - 7
Negative climate[b]	1.7	0.8	1 - 3
Teacher sensitivity	5.6	0.8	4 - 6
Regard for student perspectives	5.0	0.8	4 - 6
Behavior management	5.1	1.2	3 - 6
Instructional support			
Productivity	5.6	1.0	4 - 7
Concept Development	5.3	1.0	4 - 6
Instructional Learning Formats	5.7	0.5	5 - 6
Quality of Feedback	4.7	1.0	3 - 6
Language Modeling	5.3	1.0	4 - 6
Student engagement	5.9	0.9	4 - 7

[a]   *One classroom was not observed because the teacher was on maternity leave.*

[b]   *Negative climate is reverse scored, with 1=high and 7=low. Therefore, lower scores are better for this scale.*

Note: *During the program's initial year, CLASS PreK assessments were completed by researchers at the University of Virginia's Preschool Language and Literacy Lab based on classroom videotapes taken in January 2007 (pre-test) and May 2007 (post-test).*

Source: *This figure was created based on classroom-level data presented in Justice, June 2007.*

A8. CLASS PreK scores by classroom and subscale, spring 2007

Subtest	Class 1[a]	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7
Positive climate	7	6	5	6	7	5	6
Negative climate[b]	1	3	2	1	1	2	2
Teacher sensitivity	6	6	6	6	6	4	5
Regard for student perspectives	5	6	4	5	6	4	5
Behavior management	6	4	6	6	6	5	3
Productivity	5	6	6	6	7	5	4
Concept development	4	6	6	6	6	5	4
Instructional learning formats	6	6	6	5	6	6	5
Quality of feedback	5	5	5	4	6	3	5
Language modeling	6	6	5	4	6	4	6
Students' engagement	6	6	6	6	7	6	4
Classroom average[c]	**5.6 T***	**5.7 T**	**5.5 T**	**5.4 T**	**6.3 T**	**4.7**	**4.7**

*   *T=target met*

[a]   *One classroom was not observed because the teacher was on maternity leave.*

[b]   *Negative climate is reverse scored, with 1=high and 7=low. Therefore, lower scores are better for this scale.*

[c]   *Classroom averages were calculated by PEK-ERF evaluators.   Negative climate scores were omitted from these calculations.*

Note: *During the program's initial year, CLASS PreK assessments were completed by researchers at the University of Virginia's Preschool Language and Literacy Lab based on classroom videotapes taken in January 2007 (pre-test) and May 2007 (post-test). PEK-ERF established the target that 90 percent of classroom teachers achieve an average score of 5 or higher on CLASS PreK.*

Source: *With minor adjustments, this figure was based on a figure presented in Justice, June 2007.*

Goal 4: PAE alignment

A9. Results of classroom observations for alignment with the Project for Academic Excellence, spring 2007

Indicators of alignment	Number of classrooms[a]	
	Fully implemented	Partially implemented
Environment		
A sign-in procedure is evident in the classroom.	5	-
The area of study is evident in learning centers.	5	-
Children's work is displayed throughout the classroom.	6	-
Children's names are displayed in 5 to 7 places in the room.	7	-
A word wall is available to children; names are assessable to children at all times.	7	-
It is evident that the word wall is understood and used by the children.	3	-
There is evidence of shared reading around the room for children to extend learning.	6	-
There is evidence of shared writing around the room for children to extend learning.	4	-
A weekly lesson plan is posted and followed.	3	2
Community circle time promotes a sense of community in the classroom.	7	-
Children are actively engaged in the circle activities.	5	1
Active learning		
There is a 45-60 minute active learning time scheduled into the day.	7	-
There are intentionally placed activities and materials in each learning center that reflect an area of study, based on children's interest, as well as a standard.	5	1
The adults in the classroom are able to articulate the current literacy goals embedded in the available activities.	6	1
The teacher and assistant(s) move around the room engaging with children in conversational turn taking, asking open-ended questions, and making observations that help children extend learning and encourage critical thinking.	5	-

A9. Results of classroom observations for alignment with the Project for Academic Excellence, spring 2007 (continued)

	Number of classrooms[a]	
Indicators of alignment	**Fully implemented**	**Partially implemented**
Regroup to revisit		
The meeting is brief and focused on some aspect of the children's work or on planning an extension of learning for the following day.	4	-
Children are actively engaged in the conversation.	3 (of 4 classrooms)	-
Routines and rituals		
Classroom expectations are clear.	4	1
Down time is minimized for students and time is effectively managed.	4	1
A visual schedule is displayed and used to provide support for self-regulation. (Visual schedule displayed but not observed in use listed as partially implemented.)	2	4
At least 2 read alouds observed. (One read aloud observed rated as partially implemented.)	2	3
At least one shared reading observed.	6	-
Visual supports are displayed and used to provide support and promote self-regulation for children.	7	-
Student engagement is maintained throughout the day.	5	1
The classroom atmosphere is a Positive Climate. (Classroom rated as fully implemented if classroom atmosphere is generally positive.)	6	1
The classroom atmosphere is a Negative Climate. (Classroom rated as partially implemented if several instances of negativity on the part of teaching staff was observed or if a significant number of children in the classroom were misbehaving.)	-	3

[a]   Observations of seven of the eight classrooms were conducted in April 2007. One was not observed because the teacher was on maternity leave.

Note: Rows do not always total 7 because not all indicators were fully or partially implemented by all 7 classrooms.

Source: This table was taken in its entirety with minor modifications from Heinrichs, 2007d.

Goal 5: Student achievement

A10. Children meeting IGDI target scores, Year 1 pre - post

	Pre-test		Post-test		Difference[a]	
	N	%	N	%	N	%
Age 3						
Elementary school sites						
Picture Naming	3/26	12%	12/26	46%	9/26	35%
Rhyming	0/26	0%	7/26	27%	7/26	27%
Alliteration	1/24	4%	7/24	29%	6/24	25%
Child care centers						
Picture Naming	5/22	23%	16/22	73%	11/22	50%
Rhyming	2/22	9%	6/22	27%	4/22	18%
Alliteration	0/16	0%	4/16	25%	4/16	25%
Overall						
Picture Naming	8/48	17%	28/48	58%	20/48	42%
Rhyming	2/48	4%	13/48	27%	11/48	23%
Alliteration	1/40	3%	11/40	28%	10/40	25%

A10. Children meeting IGDI target scores, Year 1 pre - post (continued)

	Pre-test		Post-test		Difference[a]	
	N	%	N	%	N	%
Age 4						
Elementary school sites						
Picture Naming	6/30	20%	14/30	47%	8/30	27%
Rhyming	5/30	17%	12/30	40%	7/30	23%
Alliteration	4/28	14%	14/28	50%	10/28	36%
Child care centers						
Picture Naming	3/20	15%	12/20	60%	9/20	45%
Rhyming	3/20	15%	12/20	60%	9/20	45%
Alliteration	2/16	13%	8/16	50%	6/16	37%
Overall						
Picture Naming	9/50	18%	26/50	52%	17/50	34%
Rhyming	8/50	16%	24/50	48%	16/50	32%
Alliteration	6/44	14%	22/44	50%	16/44	36%

[a]   *Difference between the percentage meeting the target at pre-test and the percentage meeting the target at post-test. Target scores for 3-year-olds are 18 for picture naming, 7 for rhyming, and 5 for alliteration, and for 4-year-olds are 26 for picture naming, 12 for rhyming, and 8 for alliteration.*

Notes: *During the program's first year, teachers administered IGDIs every two months. This figure presents results for children administered IGDIs in both January 2007 (pre-test) and June 2007 (post-test).*

Source: *Gozali-Lee, 2007.*

A11. Children meeting TROLL target scores, Year 1 pre - post

	Pre-test		Post-test		Difference[a]	
	N	%	N	%	N	%
Age 3 (scored 56 or above)[b]						
Elementary school sites	3/27	11%	13/27	48%	10/27	37%
Child care centers	10/20	50%	14/20	70%	4/20	20%
Overall	13/47	28%	27/47	57%	14/47	29%
Age 4 (scored 66 or above)[b]						
Elementary school sites	8/32	25%	24/32	75%	16/32	50%
Child care centers	11/13	85%	11/13	85%	0/13	0%
Overall	19/45	42%	35/45	78%	16/45	36%

[a]   *Difference between the percentages scoring below the 50th percentile at pre-test and at or above post-test.*

[b]   *50th percentile based on norming sample of low-income, high-risk children.*

Notes: *Teachers complete the TROLL for individual students. During the program's initial year, teachers conducted baseline TROLL assessments from late January to mid-February 2007 (pre-test), and follow-up assessments from late May to mid-June 2007 (post-test). For each age group, both winter and spring scores were compared to the spring 50th percentiles based on a norming sample of low-income, high-risk children (Dickinson et al., 2001).*

Source: *Gozali-Lee, 2007.*

A12. Children meeting PALS target scores, Year 1 pre - post

	Pre-test		Post-test		Difference[a]	
	N	%	N	%	N	%
Age 3						
Elementary school sites						
Alphabet knowledge	3/21	14%	9/21	43%	6/21	29%
Print and word awareness	1/20	5%	6/20	30%	5/20	25%
Child care centers						
Alphabet knowledge	5/14	36%	10/14	72%	5/14	36%
Print and word awareness	3/9	33%	6/9	67%	3/9	33%
Overall						
Alphabet knowledge	8/35	23%	19/35	54%	11/35	31%
Print and word awareness	4/29	14%	12/29	41%	8/29	27%
Age 4						
Elementary school sites						
Alphabet knowledge	5/22	23%	17/22	77%	12/22	55%
Print and word awareness	7/21	33%	15/21	71%	8/21	38%
Child care centers						
Alphabet knowledge	9/15	60%	13/15	87%	4/15	27%
Print and word awareness	9/14	64%	12/14	85%	3/14	21%
Overall						
Alphabet knowledge	14/37	38%	30/37	81%	16/37	43%
Print and word awareness	16/35	46%	27/35	77%	11/35	31%

[a]   For alphabet knowledge, this difference is between the number and percentage of children improving from scoring below 14 to scoring at or above 14. For print and word awareness, this difference is between the number and percentage of children improving from scoring below 7 to scoring at or above 7.

Note: Teachers administer PALS assessments to children. During the program's initial year, baseline assessments were administered in mid-January to mid-February 2007 (pre-test), and follow-up assessments in mid-July to mid-August 2007 (post-test).

Source: Gozali-Lee, 2007.

A13. Four-year-olds meeting target for PPVT, Year 1 pre - post

Program	Gain of 4 standard score points or more[a]	
	Number	Percent
Elementary school sites	16/29	55%
Child care centers	13/20	65%
Overall	29/49	59%

[a] *Standard scores have a mean of 100 and a standard deviation of 15 in the national normative sample. No change in scores from one year to the next indicates normative progress, positive change indicates accelerated progress, and negative change indicates slower progress in comparison to one's peers.*

Notes: *Wilder Research staff conduct the PPVT one-on-one with participating 4-year-olds. During the program's initial year, baseline assessments were administered to child care children in December 2006 and to school children in January 2007 (pre-test). Follow-up assessments were administered to most child care children in August 2007 and to school children in October 2007 (post-test).*

Source: *Gozali-Lee, 2007.*

Goal 6: Parent capacity

A14. Family Learning Strategies Survey results, Year 1 pre - post

Question (N)[a]	Pre-test			Post-test		
	Model[b]	Acceptable	Developing	Model	Acceptable	Developing
My child watches television. (N=49)	12%	20%	67%	22%	24%	53%
I read aloud to my child or look at books with them. (N=48)	31%	40%	29%	27%	35%	38%
I take my child to the public library and check out books. (N=48)	10%	15%	75%	4%	23%	73%
I have conversations with my child (for example, during mealtimes and when we're traveling together in the car or bus). (N=49)	86%	14%	0%	73%	27%	0%
I sing songs with my child. (N=48)	60%	27%	13%	31%	50%	19%
I keep informed of my child's school or daycare activities (checking the backpack, reading newsletters, etc.). (N=45)	82%	16%	2%	73%	24%	2%
My children see me reading at home (newspapers, magazines, or books). (N=48)	77%	15%	8%	81%	13%	6%
I take my child to events and activities (for example, shopping, religious services, movies, museum, or a park). (N=49)	86%	10%	4%	84%	12%	4%
I go to my child's school or daycare to attend events, activities, to volunteer or attend meetings. (N=45)	53%	29%	18%	56%	31%	13%
My child sees me writing at home (for example, grocery lists, letters, or checks). (N=49)	78%	10%	12%	78%	12%	10%
I allow my child to use paper and crayons or some other writing tools. (N=49)	92%	6%	2%	92%	4%	4%

[a]   This figure presents responses for the 49 parents who completed both the pre- and the post-test. For individual questions, only those responding at both pre- and post-test are included.

[b]   A scoring grid was used to categorize responses for individual questions into three levels: developing, acceptable, and model.

Notes: The Family Learning Strategies Survey was developed by the program's evaluator from Saint Paul Public Schools and the project coordinator to assess parents' involvement in their children's learning. Teachers administered the survey to parents at the beginning of the program year (pre-test) and at the end of the program year (post-test). Results should be viewed with caution based on the relatively low response rate at post-test.

A15. Parent changes on Family Learning Strategies Survey, Year 1 pre - post

Question (N)[a]	Change from pre- to post-test[b]			
	Improved	Maintained-high	Maintained-low	Declined
My child watches television. (N=49)	29%	14%	45%	12%
I read aloud to my child or look at books with them. (N=48)	15%	44%	21%	21%
I take my child to the public library and check out books. (N=48)	13%	8%	65%	15%
I have conversations with my child (for example, during mealtimes and when we're traveling together in the car or bus). (N=49)	6%	76%	0%	18%
I sing songs with my child. (N=48)	8%	46%	6%	40%
I keep informed of my child's school or daycare activities (checking the backpack, reading newsletters, etc.). (N=45)	7%	78%	0%	16%
My children see me reading at home (newspapers, magazines, or books). (N=48)	10%	79%	4%	6%
I take my child to events and activities (for example, shopping, religious services, movies, museum, or a park). (N=49)	10%	76%	0%	14%
I go to my child's school or daycare to attend events, activities, to volunteer or attend meetings. (N=45)	16%	62%	11%	11%
My child sees me writing at home (for example, grocery lists, letters, or checks). (N=49)	12%	73%	4%	10%
I allow my child to use paper and crayons or some other writing tools. (N=49)	6%	86%	2%	6%

[a]   This figure presents responses for the 49 parents who completed both the pre- and the post-test. For individual questions, only those responding at both pre- and post-test are included.

[b]   A scoring grid was used to categorize responses for individual questions into three levels: developing, acceptable, and model. For purposes of this table, "improved" is defined as those moving from developing at pre-test to acceptable or model at post-test, or from acceptable at pre-test to model at post-test; "maintained-high" is defined as those categorized as acceptable at both pre- and post-test or as model at both pre- and post-test; "maintained-low" is defined as those categorized as developing at both pre- and post-test; and "declined" is defined as those moving from model at pre-test to developing or acceptable at post-test, or from acceptable at pre-test to developing at post-test.

Notes: The Family Learning Strategies Survey was developed by the program's evaluator from Saint Paul Public Schools and the project coordinator to assess parents' involvement in their children's learning. Teachers administered the survey to parents at the beginning of the program year (pre-test) and at the end of the program year (post-test). Results should be viewed with caution based on the relatively low response rate at post-test.