

An Evaluation of the Teach Me To Read At Home™ Program

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Executive Summary

The purpose of this evaluation was to examine the effectiveness of the Teach Me To Read At Home™ program. The evaluation included cohorts from two years of the program, 2007-2008 and 2008-2009, and sought to answer five questions:

- (1) What was the extent of participation in the program?
- (2) What was the fidelity of the intervention?
- (3) How did the program affect parents' literacy behaviors at home, as indicated by parent report?
- (4) What was the effectiveness of the program?
- (5) Were there differences in emergent literacy skills between groups during the prekindergarten year?

The Teach Me To Read At Home™ program provides information to parents about enhancing their children's literacy skills during the year prior to kindergarten. The program consists of five sessions which parents attend with their children, and each session presents a different topic: Book and Print Awareness, Letter Recognition, Vocabulary Building, Sound Awareness and Letter Sounds. The sessions teach parents about the selected literacy skill and appropriate activities to develop that skill through both large group and small group sessions. In addition, the parents engage in guided practice of the activities with their children, and can receive feedback from the presenters as needed.

The extent of participation in the program was examined across both years. Participation was defined as attending at least one session. Overall, the program had a high participation rate, with 67% of families who had preregistered for kindergarten attending during 2007-2008 and 48% of the families who had preregistered for kindergarten attending in 2008-2009. Specific information about attendance varied across the years, but most participants attended either the first or the second session. The greatest number of families attended one session only, and very few families attended all five sessions. Therefore, most families did not receive the intervention in its entirety.

The fidelity of the intervention was examined in 2008-2009 to determine whether the program was implemented in the manner in which it was intended. All of the large group sessions were observed, and a random sample of the small group sessions was observed across the year. Overall, both the large group and small group sessions were conducted with fidelity. The large group sessions had nearly 99% fidelity. The small group sessions varied, but overall, they had nearly 87% fidelity. In general, when the small group presenters did not include all of the planned material it was due to limited time, and they reduced the amount of time for practice with adults. However, they generally presented all of the material, modeled the activities and

provided time to practice with the children. The results from the fidelity observations indicate that the intervention was typically implemented as planned, so information about the results of the intervention can be interpreted with more confidence than if the intervention did not have fidelity.

Information was also collected from the parents who attended the program to examine parents' perceptions of whether the sessions affected literacy-related activities at home. The majority of parents reported that they had previously engaged in many literacy-related activities, but after attending the sessions, they modified the ways in which they conducted these activities. Parents indicated the program provided them with a greater awareness of the ways in which to develop their children's literacy skills. Specific changes included an increase in the amount of activities, the use of specific techniques learned at the sessions, and having more fun when doing literacy activities with their children. In addition, parents noted that they focused more on certain key skills and were able to incorporate literacy into other activities throughout the day. Therefore, according to many of the parents, there were some changes in literacy activities at home after attending the sessions.

An examination of student outcomes was conducted for both cohorts, as well as for the two cohorts combined to increase the power of the analyses. The literacy skills of students whose parents participated in the program (the intervention group) were compared with the skills of students whose parents did not participate in the program (the comparison group). With the 2007-2008 cohort, DIBELS scores were examined across kindergarten and first grade, and with the 2008-2009 cohort, DIBELS scores in kindergarten were examined. In kindergarten, the DIBELS measures are Initial Sound Fluency (ISF), Letter Naming Fluency (LNF), Phoneme Segmentation Fluency (PSF) and Nonsense Word Fluency (NWF). ISF is assessed in the fall and winter, LNF is assessed in the fall, winter and spring, and PSF and NWF are assessed in the winter and spring. In first grade, LNF is collected in the fall and PSF and NWF are assessed in the fall, winter and spring. In addition, Oral Reading Fluency (ORF) is assessed in the winter and spring. The instructional recommendations of *Intensive*, *Strategic* and *Benchmark*, based on DIBELS scores, were also examined to assess students' level of risk. These were examined across kindergarten for both cohorts, and first grade for the 2008-2009 cohort.

The first set of analyses examined the DIBELS scores in the fall of kindergarten, to determine whether there were any significant differences in students' literacy skills between the two groups. It was expected that the greatest differences would be found at the beginning of kindergarten, given that Step By Step Learning[®] was involved with the school district to help teachers with providing appropriate intervention for students in kindergarten and first grade. The results of these analyses indicate that students whose parents participated in the Teach Me To Read At Home[™] program entered kindergarten with significantly higher skills in Initial Sound Fluency and Letter Naming Fluency. Students from the intervention group began kindergarten

with significantly higher skills in both letter naming and phonological awareness than students whose parents did not participate in the program.

Another set of analyses were conducted to assess whether students had differences in their DIBELS scores over time. Although the students in the intervention group began the year with significantly higher scores than the comparison group, differences across the year were not significant for most measures. However, differences between the groups remained significant over time for Letter Naming Fluency. With substantial amounts of intervention being given to students throughout kindergarten and first grade, one would expect that there would not be many differences over time. However, for Letter Naming Fluency skills, the differences between the groups continued across the kindergarten year.

A final set of analyses involved examining the instructional recommendations of the DIBELS, which indicate students' level of risk. Students whose parents participated in the Teach Me To Read At Home™ program entered kindergarten with less risk related to their literacy skills. The differences between the groups decreased over time, which is likely due to the level of intervention received during the year. However, students from the intervention group continued to have less risk across kindergarten and throughout first grade than students whose parents did not attend the program. In addition, among those students who began kindergarten most at risk, the students in the intervention group consistently had lower percentages of *Intensive* risk level by the end of kindergarten year and throughout first grade than found among the comparison group students.

After finding that the intervention group began kindergarten with higher scores, a question needed to be raised as to whether or not parents who participated in the Teach Me to Read At Home™ program were already more involved in teaching their young children early literacy skills compared to those parents choosing not to attend the program. Students' emergent literacy skills during the prekindergarten year were examined, to determine whether there were differences in skill levels between the groups. These skills were assessed through the CIRCLE measures of Rapid Letter Naming, Rapid Vocabulary Naming, and Phonological Awareness Screener. Analyses found that there were no statistically significant differences between the groups in their emergent literacy skills. The assessments were collected at different points during the year, so there are limitations in the examination of group differences. However, these findings suggest that the groups had similar early literacy skills during the year before kindergarten, which provides further support for the effectiveness of the program.

The results of the evaluation indicate effectiveness of the program. Specifically, the program helped children to have higher literacy skills at kindergarten entry, and the letter naming skills remained constant over time. In addition, the risk levels of students were lower among the program participants, and these results persisted throughout kindergarten and first grade. Note

that these results were found with most parents attending only one or two of the program sessions. This suggests that even with attending only one session, parents gained an increased awareness of enhancing students' literacy at home and that they were engaging in relevant activities with their children. Indeed, parent report suggested that families were altering the ways in which they interacted with their children to enhance literacy skills.

In summary, these findings support the effectiveness of the Teach Me To Read At Home™ program in improving selected literacy skills for children, so that children are entering kindergarten with more skills in letter naming and phoneme awareness, and they continue to have greater letter naming skills over time. In addition, the program helps children to begin school with less risk than students whose parents did not attend the program, and to have less risk throughout kindergarten and first grade.

Key Findings

- The Teach Me To Read At Home™ program helped students enter kindergarten with significantly higher skills in initial sound fluency and letter naming fluency than students whose parents did not participate in the program.
- Students whose parents attended the program continued to have significantly higher skills in letter naming fluency across the kindergarten year.
- Students of the program entered kindergarten with less risk in their literacy skills than students whose parents did not attend the program.
- Across kindergarten and first grade, students whose parents participated in the program continued to experience less risk in their literacy skills.
- Among those students who began kindergarten most at risk, the students of program participants consistently had lower percentages of *Intensive* risk level by the end of kindergarten year and throughout first grade than found among the students whose parents did not attend the program.
- Overall, the Teach Me To Read At Home™ program helped students to have higher literacy skills in kindergarten and to experience less risk in their literacy skills throughout kindergarten and first grade.
- Students from both the intervention and comparison groups had similar levels of literacy skills before entering kindergarten, which further supports the effectiveness of the program.

Introduction

The Pleasant Valley School District and Step By Step Learning[®] conducted a series of five parent training sessions to provide parents with information about enhancing their children's literacy skills before their children enter kindergarten. This program is called Teach Me To Read At Home[™], although the school district refers to it as Ready Set Read. An evaluation of the effectiveness of the program was conducted for two cohorts of the program: the 2007-2008 and 2008-2009 program years. An evaluation of this program includes an examination of student outcomes after students entered school, to assess whether there were differences in students' literacy skills between students whose parents participated and students whose parents did not participate in the program. In addition, the evaluation examines the extent of parent participation, the fidelity with which the intervention was conducted and parental reports of literacy behaviors at home.

Program

The Teach Me To Read At Home[™] program provides information to parents about the development of literacy skills, appropriate skills that should be enhanced during the prekindergarten year, and ways in which parents can help children develop those skills. The program consists of five sessions, which both parents and children attend. (Note that the current version of this program has six sessions, but the version implemented during this evaluation had five sessions.) While the parents attend the large group session and smaller breakout sessions, the children meet separately with other school personnel and volunteers to engage in literacy-related activities. Toward the end of the session, the children join their parents at the breakout sessions and the parents practice the activities with their children.

Each session focuses on a selected literacy topic: Book and Print Awareness, Letter Recognition, Vocabulary Building, Sound Awareness and Letter Sounds. The sessions begin with a 30-minute large group session, in which the presenter provides an explanation of the topic and discusses ways to develop that skill. Afterwards, parents meet in smaller breakout sessions, in which the presenter provides more specific activities to enhance the targeted skills and provides opportunities for parents to practice the activities while they can get feedback from the presenter. The breakout sessions meet for approximately one hour; during the first half-hour, the presenter explains and models the activities, and parents can practice with one another. The children join their parents for the second half-hour, and the parents and children engage in the activities, with assistance from the instructors as needed.

Measures

Student outcomes were examined through the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) (6th edition) assessments. Five DIBELS measures were included: Initial Sound Fluency, Letter Naming Fluency, Phoneme Segmentation Fluency, Nonsense Word Fluency, and Oral Reading Fluency. Initial Sound Fluency (ISF) measures phonological awareness through examining children's skill in recognizing the beginning sound in words. Letter Naming Fluency (LNF) examines students' ability to identify uppercase and lowercase letters. Phoneme Segmentation Fluency (PSF) measures phonological awareness, and Nonsense Word Fluency (NWF) measures letter-sound correspondence. In addition, oral reading fluency is assessed by the Oral Reading Fluency (ORF) measure. The DIBELS were administered three times per year. In kindergarten, the fall assessments include ISF and LNF, winter assessments include ISF, LNF, PSF and NWF, and spring assessments include LNF, PSF, and NWF. First grade assessments include LNF, PSF and NWF in the fall, and PSF, NWF, and ORF assessments in the winter and spring.

During the prekindergarten year, students also had CIRCLE assessments to examine their emergent literacy skills. The CIRCLE assessment includes Rapid Letter Naming, Rapid Vocabulary Naming, and Phonological Awareness Screener. The Rapid Letter Naming measure examines students' ability to identify letters. Rapid Vocabulary Naming assesses students' skills in naming common objects. The Phonological Awareness Screener examines several skills, including listening, rhyming, alliteration, syllabication, segmenting sentences and onset/rime. This assessment occurred once for each child, although the assessments occurred at different times across the school year.

Evaluation Questions

The purpose of the evaluation was to determine the effectiveness of the program. This included an evaluation of several aspects of the program. First, attendance at the sessions was examined, to determine the number of students whose parents participated and the number of sessions that most families attended. Second, the evaluation assessed whether the intervention was implemented in the manner in which it was intended (that is, whether it was conducted with fidelity). If the intervention was not administered with fidelity, interpretations of its results would be limited. Third, parents reported the types of literacy activities they provide for their children, to learn about ways in which the program might affect children's literacy experiences. Fourth, the evaluation examined student literacy skills in kindergarten and first grade, to compare the outcomes of students whose parents participated in the program with those of students whose parents did not participate in the program. Finally, additional analyses examined whether the groups had differences in their early literacy skills that could have affected student outcomes in kindergarten.

Specifically, five questions were examined:

1. What was the extent of participation in the program?
2. What was the fidelity of the intervention?
3. How did the program affect parents' literacy behaviors at home, as indicated by parent report?
4. What was the effectiveness of the program?
5. Were there differences in emergent literacy skills between groups during the prekindergarten year?

Evaluation Question 1: What was the extent of participation in the program?

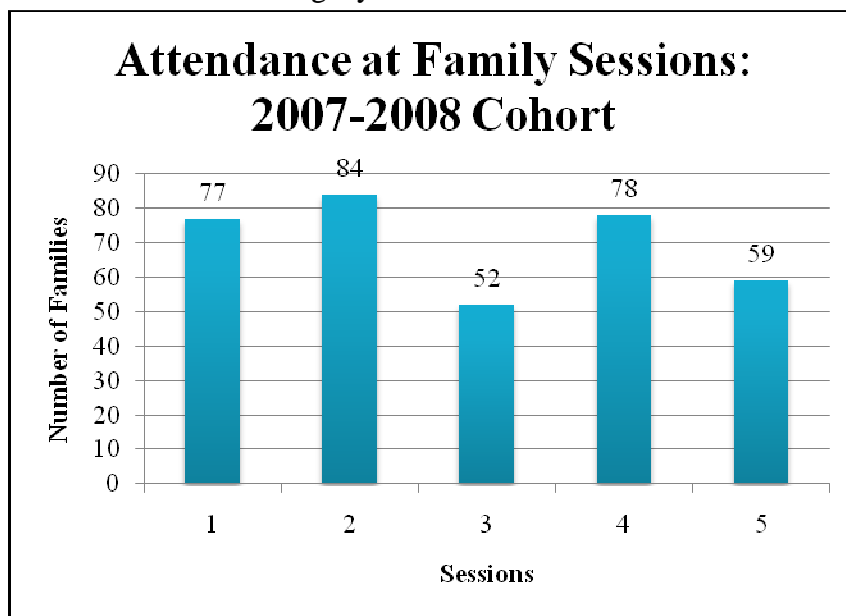
Families received information about the Teach Me To Read At Home™ program from the school district after preregistering for kindergarten in the fall before the kindergarten year. Information about participation is based on the number of students whose parents preregistered and therefore were aware of the program. (Note that the number of students who eventually enrolled in kindergarten is higher than the number of students who were preregistered, and therefore the numbers used for participation information differ from the numbers of students used for the evaluation of the program effectiveness.) Participation was defined as attending at least one session. Several families had more than one student who was registered for kindergarten; however, all participation information is based on the total number of families who attended the program. Therefore, the information about the number of families who attended is slightly lower than the total number of students who had a parent attend. Participation in the program was examined separately for the 2007-2008 and 2008-2009 cohorts. For each cohort, the following information was examined: (1) attendance at each session, (2) number of sessions attended, and (3) the amount of new families attending each session.

2007-2008 Cohort

Attendance

A total of 145 families attended at least one of the sessions, out of a total of 215 who had preregistered for kindergarten. This resulted in a participation rate of 67%. Some of the families who attended had more than one child who was going to attend kindergarten, so the total number of students who had parents participate was 154. Figure 1 provides information about the number of families who attended each session. Session 2 had the greatest number of participants, with slightly smaller numbers of attendees at sessions 1 and 4. Sessions 3 and 5 had lower turnouts. Percentages of attendees for a particular session were calculated by using the numbers in Figure 1 and dividing them by the total number of participants (145). The resulting percentages indicate that among the participants, 53% attended session 1, 58% attended session 2, 36% attended session 3, 54% attended session 4 and 41% attended session 5.

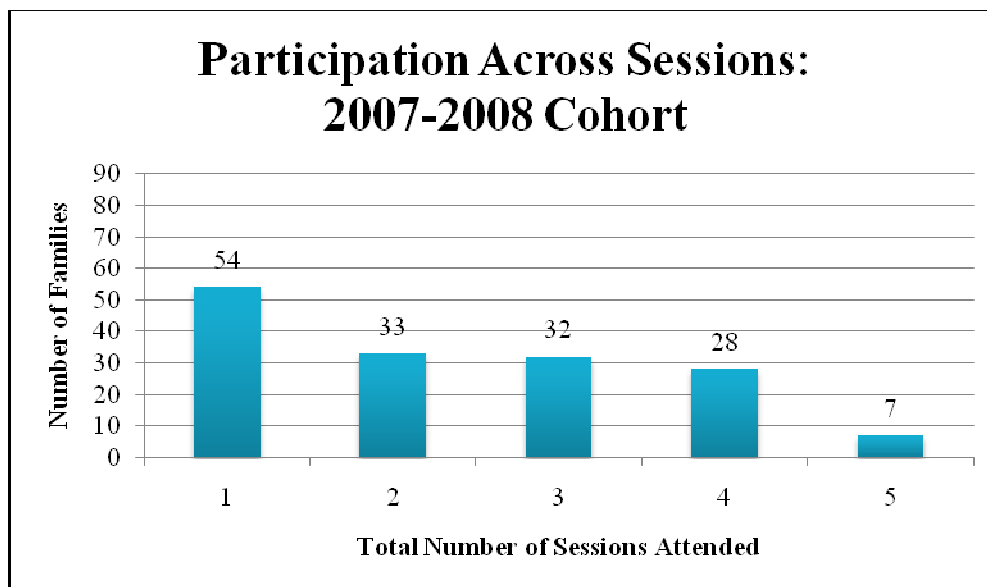
Figure 1. Number of Families Attending By Session



Number of Sessions Attended

Information was also examined about the total number of sessions attended by each participant. Figure 2 indicates that among the families who participated, 54 families (37%) attended 1 session only. The amount of families who attended two, three or four sessions was similar (23%, 22% and 19%, respectively), and 5% of the participating families attended all five sessions.

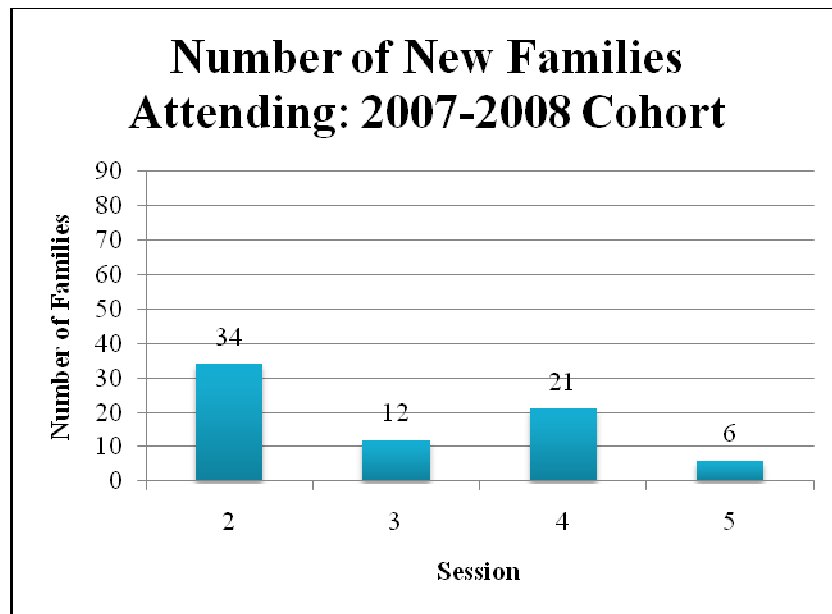
Figure 2. Number of Sessions Attended



New Participants

After session 1, each session had new participants, although none of the subsequent sessions had as many new participants as the first session (see Figure 3). For sessions two through five, the greatest number of new participants came to session 2 (23% of the participating families), and session 5 had the least amount of new participants (4%).

Figure 3. New Participants At Sessions Two Through Five



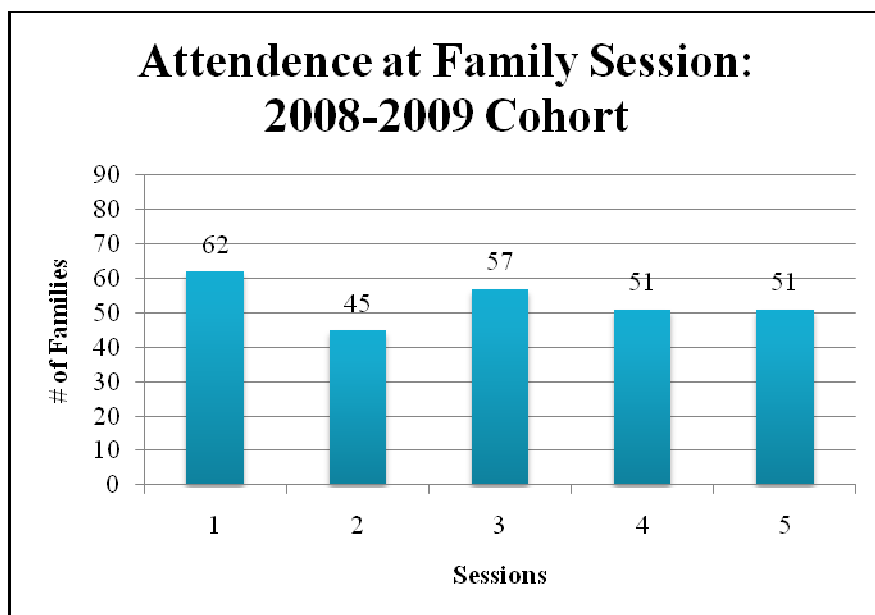
To summarize, 67% of the families who were aware of the program attended at least one session. The second session had the highest number of participants, with the lowest amount of participants attending session 3. The greatest amount of participants attended one session only, and very few families attended all 5 sessions. After session 1, the session with the greatest number of new participants was session 2.

2008-2009 Cohort

Attendance

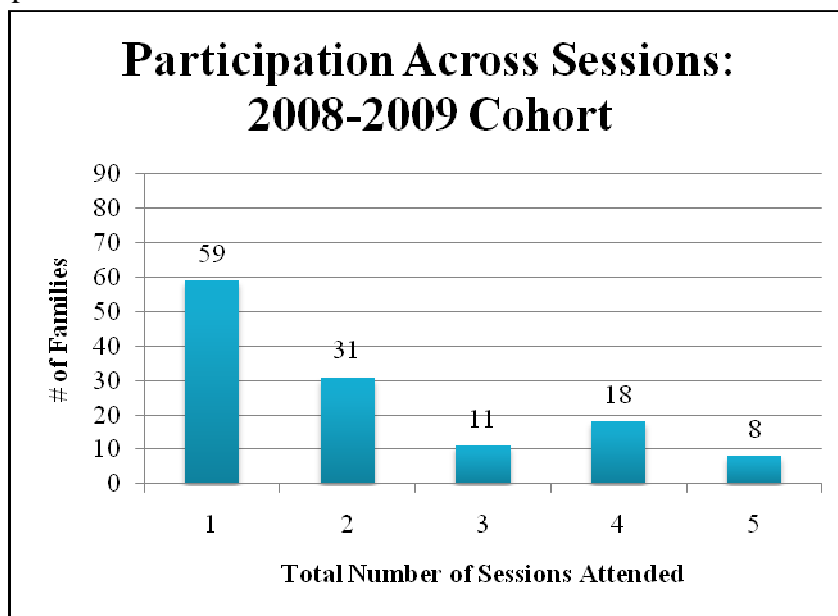
A total of 123 families attended the program in 2008-2009, out of a possible 254 families who had preregistered their children for kindergarten and were aware of the program. This yields a participation rate of 48%. One family had two children who were going to attend kindergarten, so the total number of students who had parents participate was 124. Figure 4 indicates the number of families that attended each session. The amount of families attending each session was similar across all sessions, ranging from 50% of all participating families (for session 1) to 37% of all participating families (for session 2).

Figure 4. Attendance at Each Session



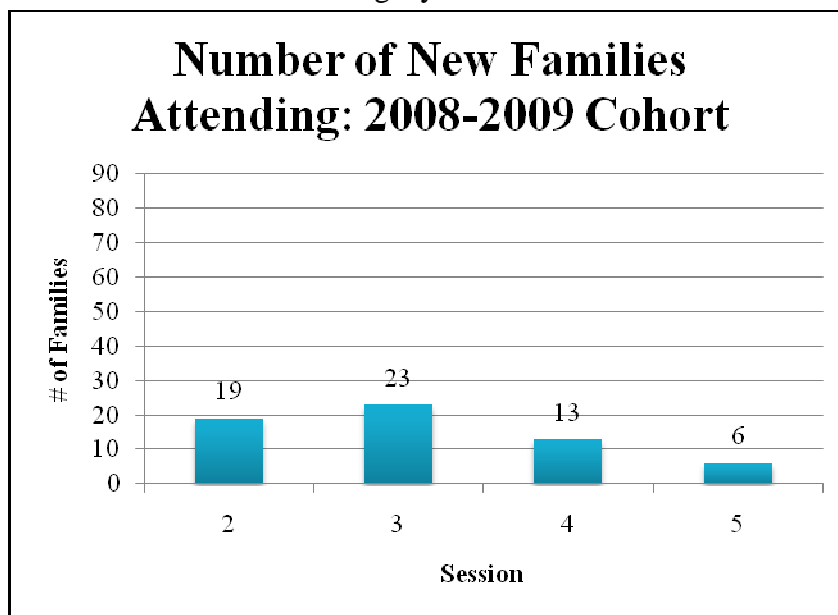
Among the participants, the greatest amount of families attended one session only (48%) and the smallest amount of families attended all five sessions (7%). Figure 5 displays this information by number of families.

Figure 5. Participation Across Sessions



At each session, new families attended (see Figure 6). After the first session, the greatest number of new families (19% of participating families) came to session three and the least number came to session 5 (5% of participating families).

Figure 6. Number of New Families Attending By Session



In summary, the 2008-2009 cohort had a somewhat lower rate of participation than the previous cohort (48% compared to 67% the previous year). However, during 2008-2009, a

greater number of families preregistered their children for kindergarten than in the prior year. The amount of families attending each session remained fairly consistent across sessions, with the greatest amount of families at the first session and the least amount of families at the second session. In addition to Session 1, the third session had the greatest amount of first-time attendees.

Overall, the program had a high participation rate when examining the amount of families who attended at least one session. Although specific information about the session attendance varied across the two years, in general the highest number of participants came to either the first or the second session. In addition, the greatest number of families attended one session only and very few families attended all five sessions. Most of the first-time attendance occurred at one of the first three sessions. These results indicate that most families did not receive the intervention in its entirety.

Evaluation Question 2: What was the fidelity of the intervention?

Each Teach Me To Read At Home™ session includes a large group session and smaller breakout sessions. In the large group session, the leader presents information about a selected literacy topic, including a description of the skill, an explanation of its importance, research that supports the need to focus on that skill, and activities to develop the skill. Information is provided through a PowerPoint presentation and handouts. Afterwards, the parents meet in smaller groups to learn more specific activities that they can do and to have guided practice with other parents and with their child. The presenters for the small groups are provided with a detailed guide that describes the activities that should be discussed and indicates the explanations that should be given, as well as a list of all the handouts and materials that parents should receive.

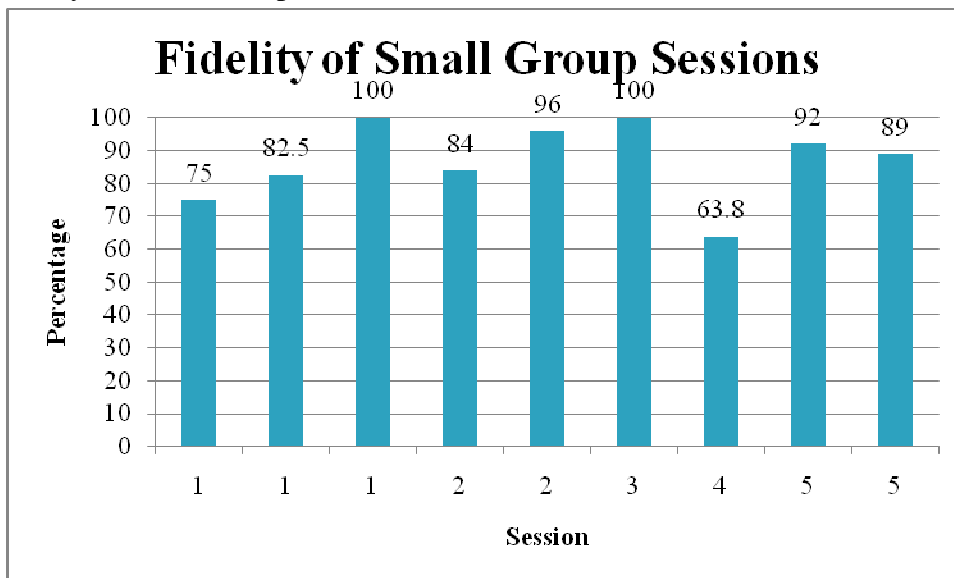
To examine whether the intervention was conducted in the manner in which it was intended (i.e., with fidelity), observations were conducted of the large group sessions and randomly selected small group sessions across the year. For the large group sessions, the observer indicated whether the presenter included information from all of the slides and provided the appropriate handouts. Each of these sessions was conducted by the same presenter. For the small group sessions, the observer recorded whether the presenter discussed all of the information from the guide, provided the appropriate materials and handouts, and provided separate opportunities for guided practice with parents and with the children.

Fidelity assessments of the large group sessions indicate that at four of the five sessions, the presenter included 100% of the planned information, and at one session, most of the information was presented, resulting in 93% fidelity. Overall, the fidelity across the five sessions was 98.6%. This indicates that the large group sessions were conducted in the manner in which they were intended, and that the parents received practically all of the information that was meant to be communicated.

Each parent session included multiple small group sessions. Observations were made at each parent session, and the particular sessions observed were randomly selected. At some parent sessions, multiple presenters were observed, and at other sessions, one presenter was observed. Figure 7 displays the fidelity of each observed small group session. Overall, the fidelity was 86.9%, indicating that the intervention was conducted in the manner in which it was intended. Although fidelity varies across the presenters, it should be noted that in general, the presenters followed the guide and provided the appropriate information but often ran out of time before they could cover all of the material. Session 4 in particular had a lot of activities for the parents to learn, and having enough opportunity to present, model and practice the activity was more difficult. In general, when presenters did not have time to present everything, they described and

modeled the activity but did not engage in as much practice with the other adults before practicing with the children.

Figure 7. Fidelity of Small Group Sessions



In summary, the intervention was conducted with fidelity. The large group sessions were consistently conducted in the manner in which they were intended. Among the small group sessions that were observed, the intervention overall was conducted with fidelity. Although certain sessions did not provide as many opportunities for practice as other sessions, the session leaders generally explained and modeled most of the activities.

Evaluation Question 3: How did the program affect parents' literacy behaviors at home, as indicated by parent report?

During the 2008-2009 year, questionnaires were distributed to parents at the end of the sessions to learn more about the types of literacy activities that parents engaged in at home, and whether there were any changes in literacy behaviors after attending the parent sessions. Note that there are limitations with interpretation of this information; in particular, there is no way to know how much parent behavior has changed since attending the sessions or to compare it with the behavior of parents who did not attend the sessions. However, the questionnaires can highlight some of the literacy experiences at home, and indicate ways in which parents perceive that the program has affected these experiences.

According to parent report, parents engaged in a wide range of literacy-related activities with their children. Although the majority of parents (78.9%) indicated that they had engaged in many activities before attending the parent sessions, they noted many differences in the ways in which they interacted with their children and described additional types of activities they provide. Table 1 summarizes some of the most frequent differences in behavior that parents report. As the table indicates, parents report a greater awareness of the ways in which to develop their children's literacy skills. Specifically, they are doing more activities at home, using techniques that they learned at the sessions, and having more fun when engaging in these activities.

Table 1. Selected Differences in Literacy Behaviors At Home After Attending Program

Engages in literacy activities more often
Asks more open-ended questions
Provides more discussion about books
Provides more fun activities /Has more fun
Uses specific techniques learned at parent sessions
Can now incorporate literacy activities into everyday activities such as errands
Provides more emphasis on certain skills, including rhyming, vocabulary, letter sounds, letter recognition, and syllabication
Provides more book and print awareness (e.g., providing the title, naming the author, using finger to point to words)

To summarize, the parents' comments suggest that the sessions provide families with useful and fun strategies for developing literacy skills at home. Moreover, it appears that parents are more aware of the importance of using these skills and are engaging in literacy activities more often. Therefore, according to the parents' report, the knowledge gained during the sessions informed their behavior at home for a majority of the parents.

Evaluation Question 4. What was the effectiveness of the Teach Me To Read At Home™ program?

To determine the effectiveness of the Teach Me To Read At Home™ program for improving children's literacy skills, the 2007-2008 and 2008-2009 program years were examined. The students whose families participated in the program were the *intervention group*, and students whose parents did not participate in the program comprised the *comparison group*. The data from each year was examined separately, in addition to being combined across the two years to increase the power of the analyses. The students in the 2007-2008 year are referred to as the *2007-2008 cohort* and the students from the 2008-2009 year are referred to as the *2008-2009 cohort*. When discussing the data that was combined across the two years, the resulting group is referred to as the *combined cohort*.

A primary objective was to determine whether students whose parents participated in the Teach Me To Read At Home™ had significantly higher literacy skills in kindergarten than students whose parents did not attend the program. Given that Step By Step Learning® was working with the schools during these years and students were receiving substantial amounts of intervention when needed during the school year, the expectation would be that the greatest differences in scores would be found at the beginning of the school year, prior to students receiving intervention. Therefore, the fall DIBELS scores were examined to assess whether the groups had any significant differences in selected literacy skills at the beginning of kindergarten.

Another objective of the evaluation was to examine what happens to students' scores over time. For both cohorts as well as the combined cohort, the scores were examined across the kindergarten year. For the 2007-2008 cohort, their 2009-2010 first grade scores were also examined. With Step By Step Learning® working in the schools, students received intervention across the year, so the expectation would be that any differences between groups in the beginning of the year would decrease over time.

Finally, the evaluation examined the instructional recommendations based on DIBELS scores to determine whether there were any differences between the groups. The percentages of students classified as *Benchmark*, *Strategic* and *Intensive* were compared across groups at the beginning, middle, and end of kindergarten and first grade for both cohorts and the combined cohort.

In summary, the evaluation examined the following questions: (1) Did the intervention and comparison groups have significant differences in DIBELS scores at the beginning of kindergarten? (2) How did the DIBELS scores of the two groups compare over time? (3) Were there differences in the instructional recommendations, based on DIBELS scores, between the

two groups across the school year?

A. DIBELS Scores at the Beginning of Kindergarten By Group

The kindergarten DIBELS scores at the beginning of the year were examined for each cohort and for the combined cohort, to determine whether the groups differed significantly in their performance prior to receiving any intervention at school. The mean (average) scores of each group were compared, and analyses examined any significant differences. The DIBELS measures for the fall include Initial Sound Fluency and Letter Naming Fluency.

2007-2008 cohort. Table 2 provides the means and standard deviations for the 2007-2008 cohort for the fall kindergarten DIBELS in 2008-2009. Both the Initial Sound Fluency and the Letter Naming Fluency scores were higher for the intervention group than for the comparison group. A Multiple Analysis of Variance (MANOVA) was conducted to determine where there were any significant differences between the groups. The Initial Sound Fluency scores were significantly higher for the intervention group, and no significant differences were found between the scores for Letter Naming Fluency.

Table 2. Means and Standard Deviations for Kindergarten DIBELS 2008-2009 by Group

Measure	Intervention Group (N=143)		Comparison Group (N=224)	
	Mean	Standard Deviation	Mean	Standard Deviation
Fall ISF*	17.2	12.8	14.0	11.9
Fall LNF	20.3	13.8	17.6	13.7

*Difference between groups is significant at $p < .05$.

2008-2009 cohort. At the beginning of kindergarten for the 2008-2009 cohort, the intervention group had higher mean scores than the comparison group for both DIBELS measures. Table 3 displays the means and standard deviations for each group. A MANOVA was conducted to determine whether the differences in scores were significant. Both Initial Sound Fluency and Letter Naming Fluency were found to be significantly higher for the intervention group.

Table 3. Means and Standard Deviations for Kindergarten DIBELS 2009-2010 by Group

Measure	Intervention Group (N=113)		Comparison Group (N=210)	
	Mean	Standard Deviation	Mean	Standard Deviation
Fall ISF *	17.4	15.8	13.9	11.1
Fall LNF**	25.9	15.3	15.7	13.4

* Difference between groups is significant at $p < .05$.

**Difference between groups is significant at $p < .001$.

Combined cohort. The scores of the students from both cohorts were combined to further examine these differences with a larger group, providing more power for the analyses. As indicated in Table 4, the intervention group had higher scores than the comparison group for both DIBELS measures. The results of a MANOVA found that both the Initial Sound Fluency and Letter Naming Fluency scores were significantly higher for the intervention group.

Table 4. Means and Standard Deviations for Combined Kindergarten Years by Group

Measure	Intervention Group (N=256)		Comparison Group (N=424)	
	Mean	Standard Deviation	Mean	Standard Deviation
Fall ISF **	17.3	14.2	13.7	11.5
Fall LNF **	22.8	14.7	16.4	13.5

**Difference between groups is significant at $p < .001$.

In summary, the results of these analyses indicate that students whose parents participated in the Teach Me To Read At Home™ program entered kindergarten with significantly higher skills in initial sound fluency and letter naming fluency. Participants in the intervention group began kindergarten with significantly higher skills in letter naming and phonological awareness than students whose parents did not participate in the program.

B. DIBELS scores over time

2007-2008 cohort. The performance of students across the kindergarten year was examined for the 2007-2008 cohort. As seen in Table 5, students in the intervention group have higher scores than students in the comparison group. The difference between the groups for the ISF scores increased over time. However, the differences between the groups decreased over time for LNF, PSF, and NWF, with scores for these measures being nearly the same at the end of the year (see Figures 8-11). A repeated measures Analysis of Variance was conducted to determine whether there were significant differences between the groups in their scores over time. No significant differences were found for any of the measures.

Table 5. Means and Standard Deviations for Kindergarten DIBELS 2008-2009 by Group

Measure	Intervention Group			Comparison Group		
	N	Mean	Standard Deviation	N	Mean	Standard Deviation
Fall ISF	143	17.2	12.8	224	14.0	12.3
Fall LNF	143	20.3	13.8	224	17.6	14.1
Winter ISF	139	48.0	34.6	232	39.1	31.1
Winter LNF	139	40.0	13.7	232	37.4	15.2
Winter PSF	139	29.6	11.8	231	26.7	13.6
Winter NWF	139	27.5	14.3	232	24.4	14.2
Spring LNF	138	51.2	13.2	234	50.3	14.5
Spring PSF	138	52.9	10.0	233	50.2	13.4
Spring NWF	138	42.7	16.1	234	41.7	17.9

Figure 8. Kindergarten ISF Scores for the 2007-2008 Cohort

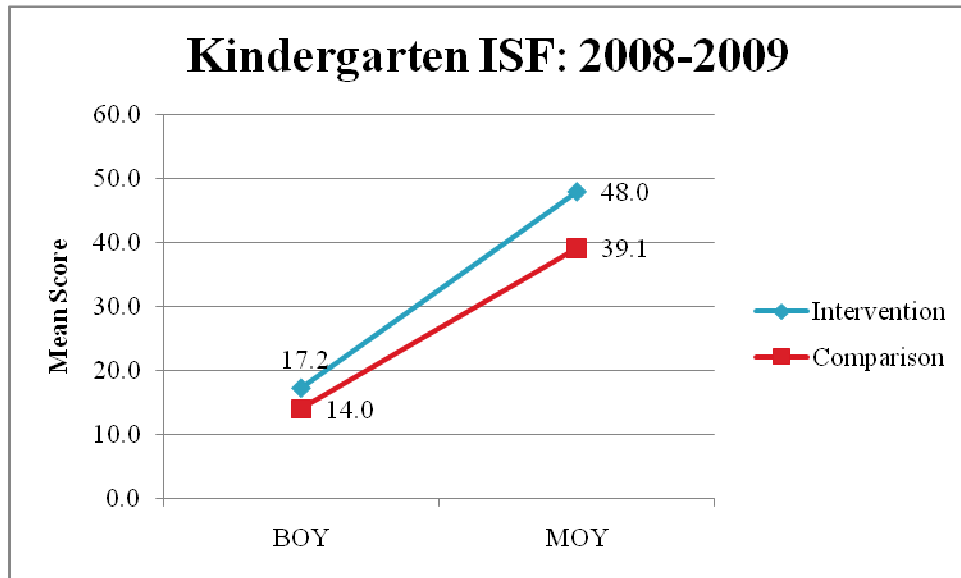


Figure 9. Kindergarten LNF Scores for the 2007-2008 Cohort

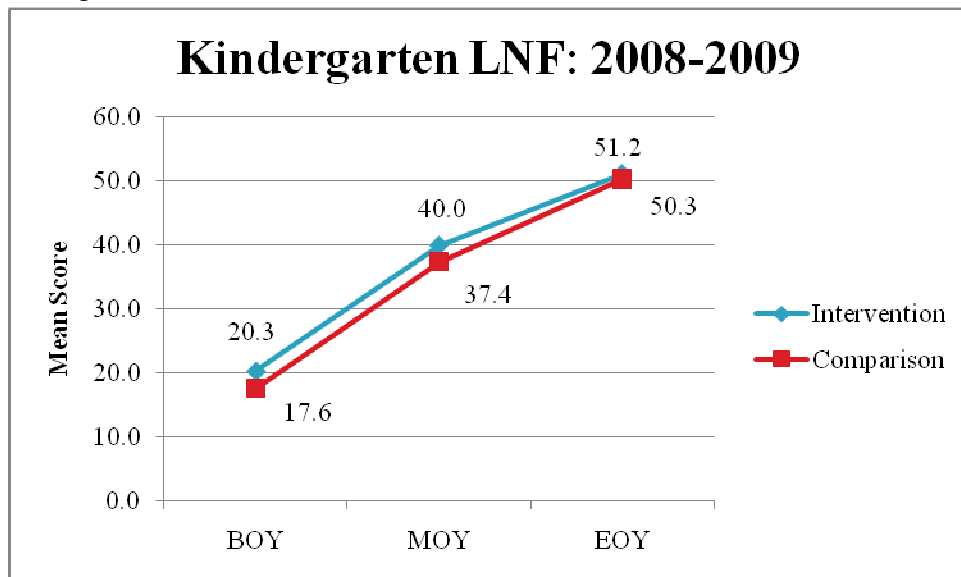


Figure 10. Kindergarten PSF Scores for the 2007-2008 Cohort

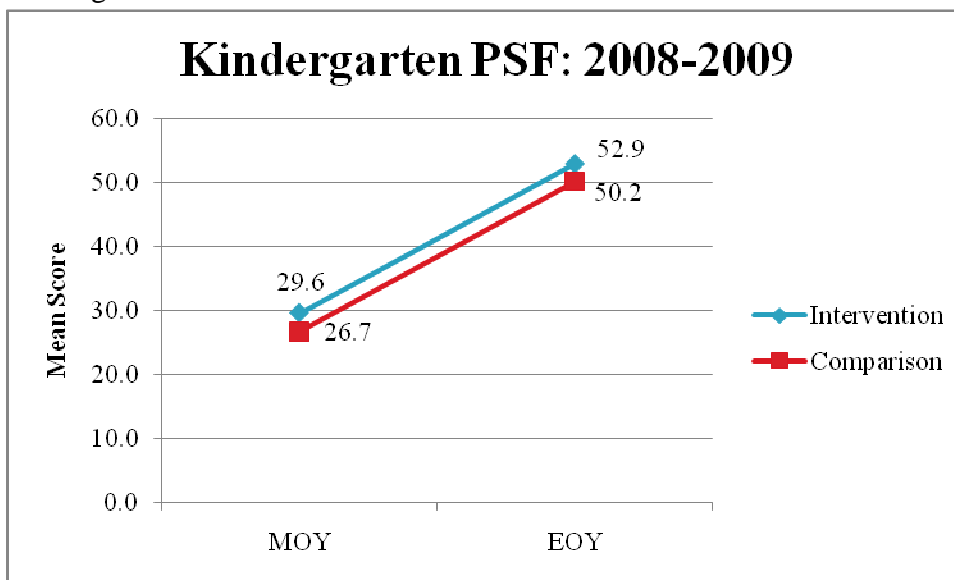
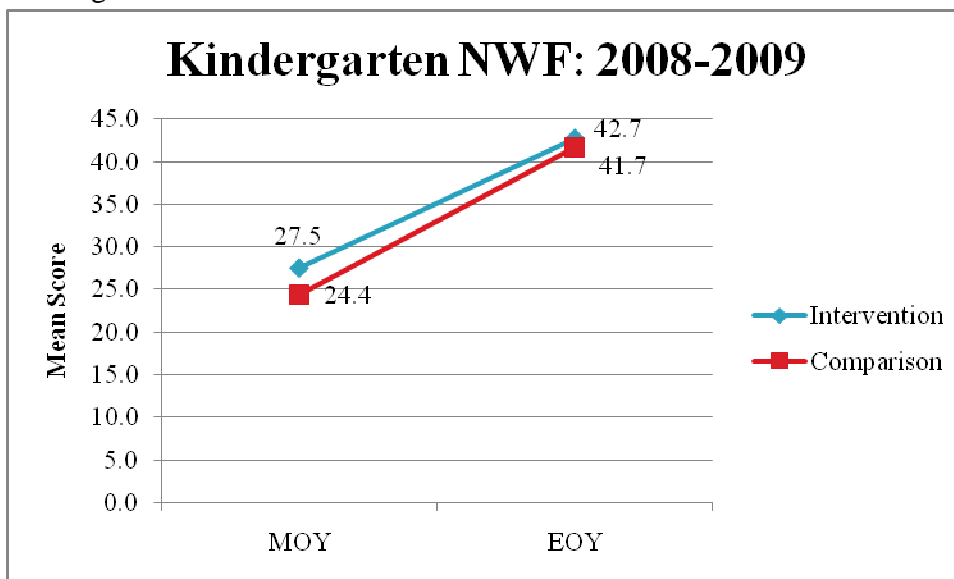


Figure 11. Kindergarten NWF Scores for the 2007-2008 Cohort



Students' performance in first grade was also examined. The means and standard deviations for the DIBELS scores are presented in Table 6. Across the year, the scores were the same for both groups for the NWF and ORF measures. The PSF scores at the beginning of first grade were slightly higher for the intervention group but were comparable at the middle and end of year assessments. Figures 12 through 14 provide graphic illustrations of the progress of the groups across first grade. A repeated measures ANOVA was conducted and found that there were no significant differences in the groups' scores over time for any of the first grade DIBELS.

Table 6. Means and Standard Deviations for First Grade DIBELS 2009-2010 by Group

Measure	Intervention Group			Comparison Group		
	N	Mean	Standard Deviation	N	Mean	Standard Deviation
Fall LNF	133	44.7	13.3	249	43.8	15.2
Fall PSF	133	45.0	11.6	249	41.5	15.0
Fall NWF	133	36.4	18.9	249	35.8	20.1
Winter PSF	133	59.8	8.2	248	58.1	9.5
Winter NWF	133	71.0	22.6	248	71.5	23.7
Winter ORF	133	45.8	30.1	248	45.0	29.9
Spring PSF	131	58.3	8.4	245	56.9	8.1
Spring NWF	131	93.3	26.9	245	93.0	26.9
Spring ORF	131	75.3	27.2	245	74.6	29.9

Figure 12. Grade 1 PSF Scores for 2007-2008 Cohort

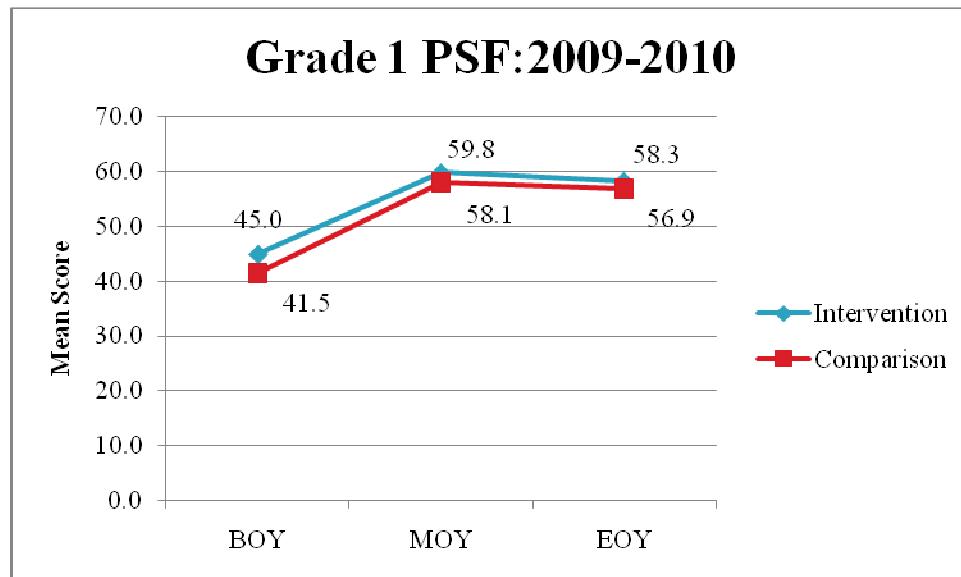


Figure 13. Grade 1 NWF Scores for 2007-2008 Cohort

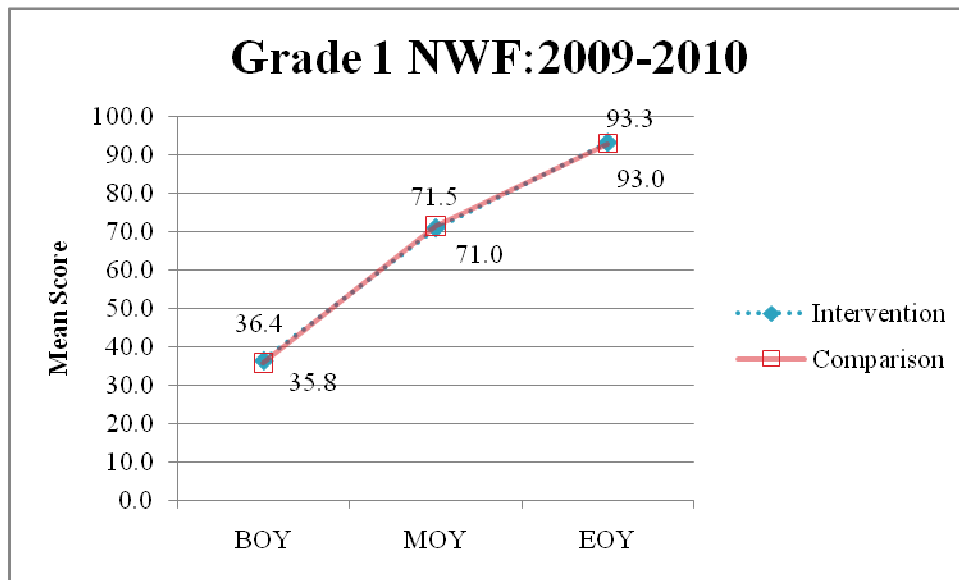
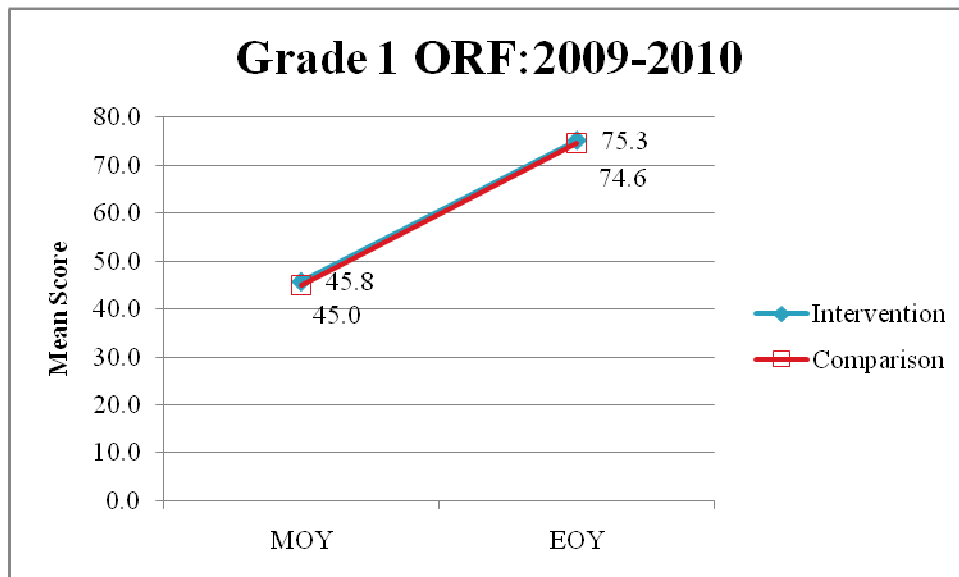


Figure 14. Grade 1 ORF Scores for 2007-2008 Cohort



2008-2009 cohort. The same analyses were conducted for the 2008-2009 cohort. A comparison of means found that the intervention group had higher scores across all measures (see Table 7 and Figures 15-18). To determine whether any of the differences in scores over time were significant, a repeated measures ANOVA was conducted. No significant differences were found for any of the measures.

Table 7. Means and Standard Deviations for Kindergarten DIBELS 2009-2010 by Group

Measure	Intervention Group		Comparison Group	
	Mean	Standard Deviation	Mean	Standard Deviation
Fall ISF	17.4	15.8	13.9	11.1
Fall LNF	25.9	15.3	15.7	13.4
Winter ISF	36.7	13.3	32.7	13.9
Winter LNF	45.9	13.4	38.3	15.3
Winter PSF	32.7	13.5	30.7	14.3
Winter NWF	32.9	14.3	27.0	15.0
Spring LNF	55.7	13.7	49.3	15.2
Spring PSF	53.0	11.9	50.9	10.4
Spring NWF	47.3	17.1	41.0	17.5

Figure 15. Kindergarten ISF Scores for 2008-2009 Cohort

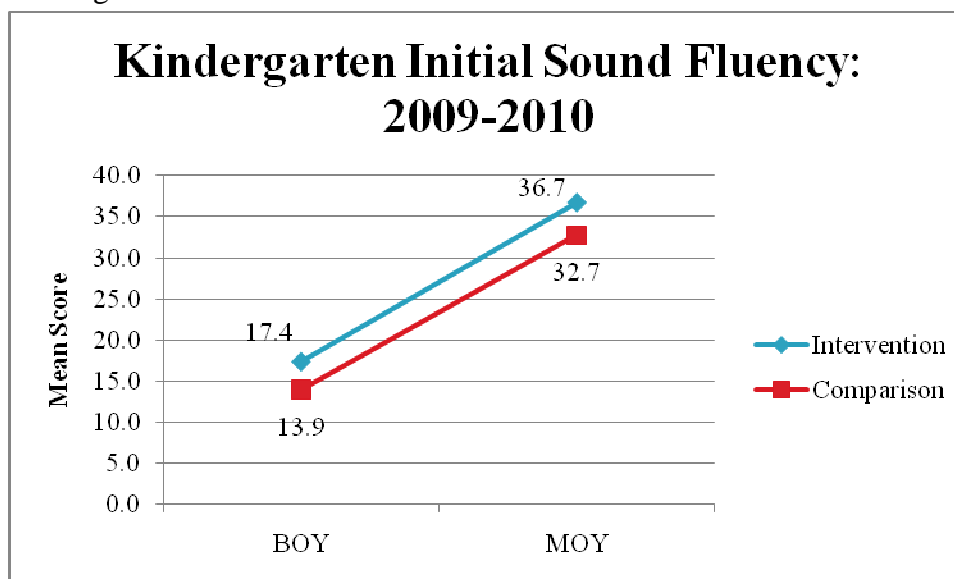


Figure 16. Kindergarten LNF Scores for 2008-2009 Cohort

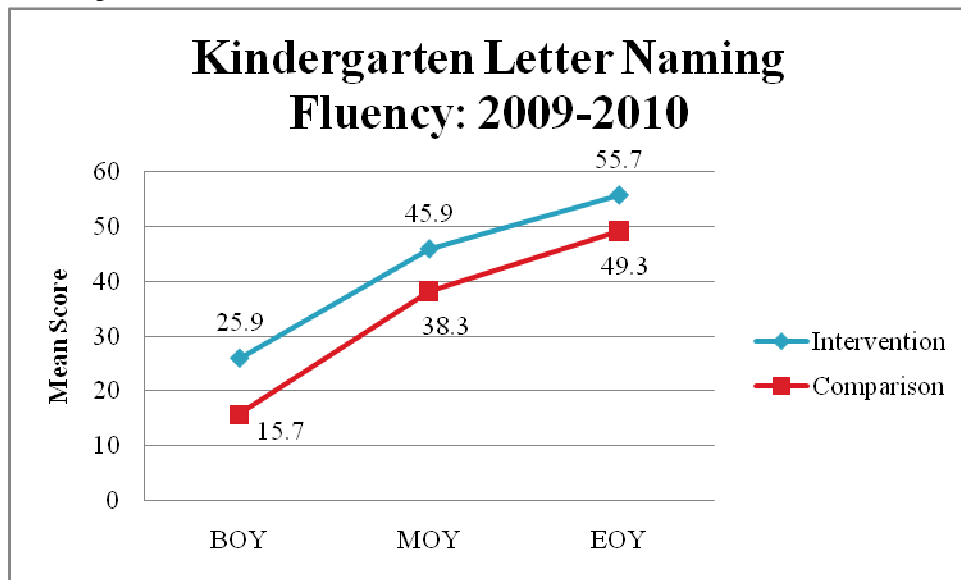


Figure 17. Kindergarten PSF Scores for 2008-2009 Cohort

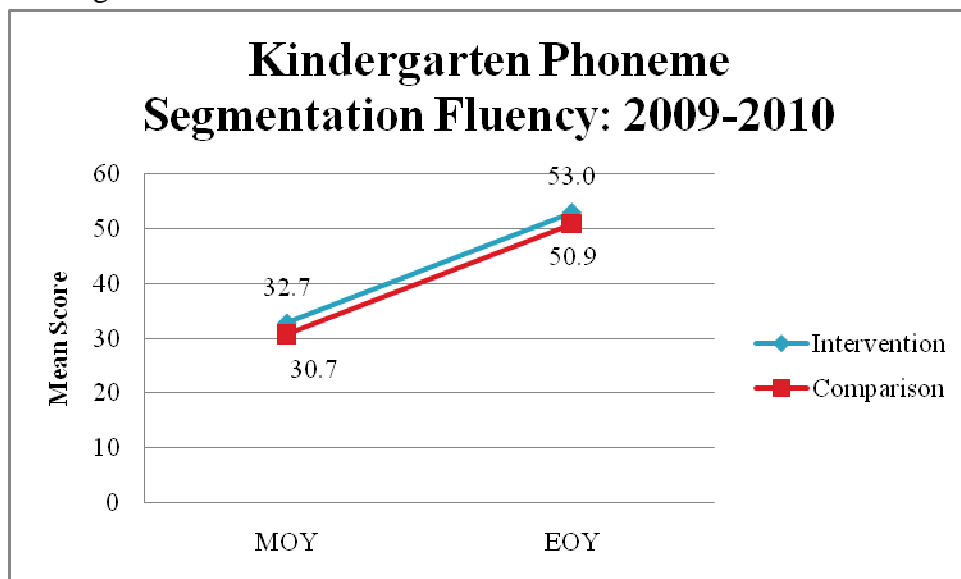
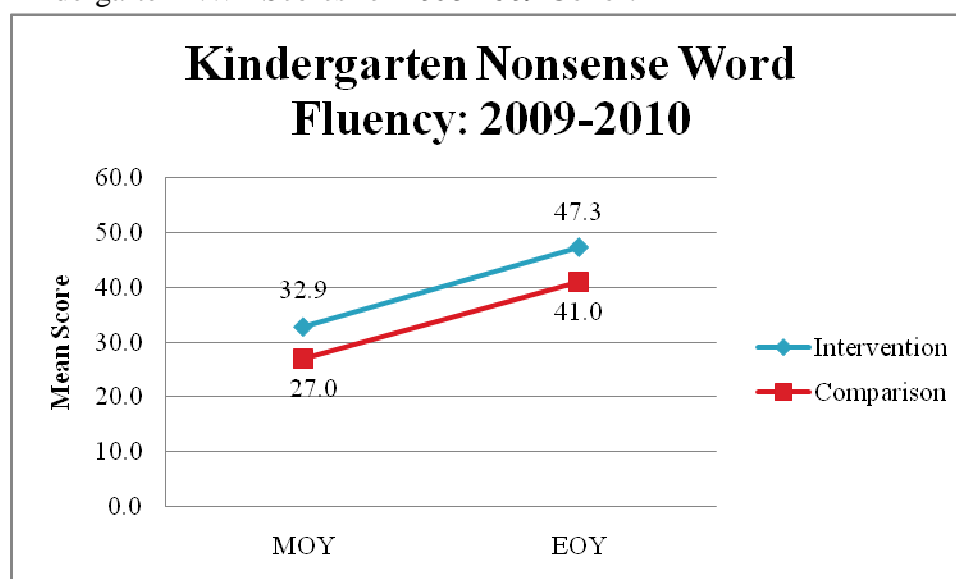


Figure 18. Kindergarten NWF Scores for 2008-2009 Cohort



Combined Cohort. When both cohorts are combined, the mean scores remain higher for the intervention group across all measures (see Table 8 and Figures 19-22). A repeated measures ANOVA was also conducted and found significant differences over time for Letter Naming Fluency. No significant differences were found for any other measures.

Table 8. Means and Standard Deviations for Combined Kindergarten Years by Group

Measure	Intervention Group		Comparison Group	
	Mean	Standard Deviation	Mean	Standard Deviation
Fall ISF	17.3	14.2	13.7	11.5
Fall LNF	22.8	14.7	16.4	13.5
Winter ISF	43.0	27.8	36.0	24.8
Winter LNF	42.6	13.9	37.5	15.1
Winter PSF	31.0	12.7	28.6	13.9
Winter NWF	29.9	14.6	25.3	14.6
Spring LNF	53.2	13.6	49.4	14.7
Spring PSF	53.0	10.9	50.2	11.9
Spring NWF	44.8	16.7	41.0	17.6

Figure 19. Kindergarten ISF Scores for Combined Cohort

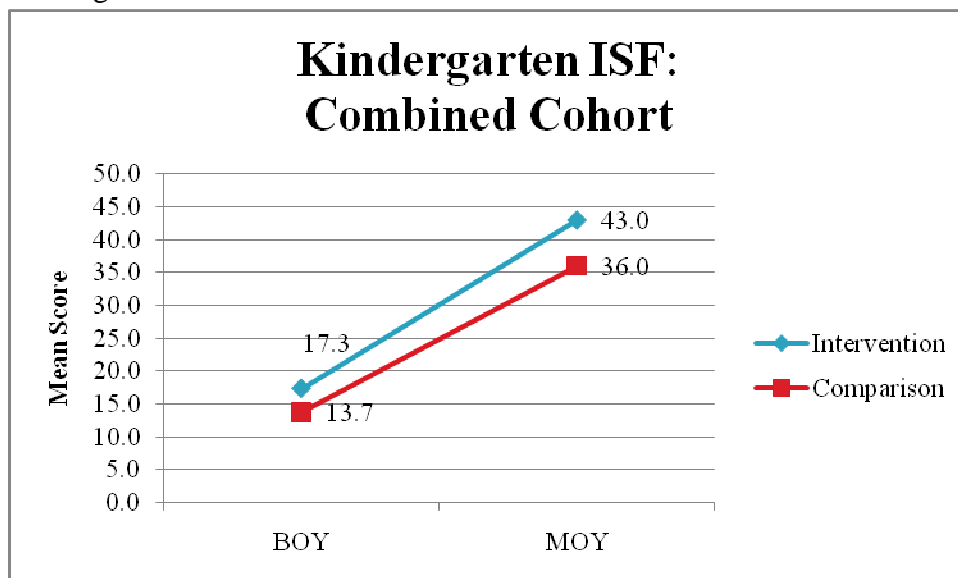


Figure 20. Kindergarten LNF Scores for Combined Cohort

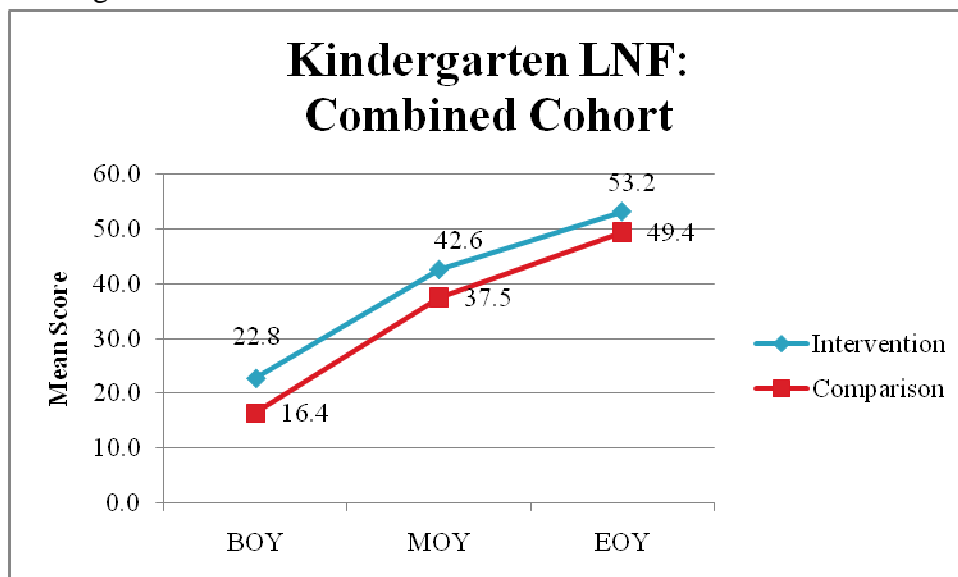


Figure 21. Kindergarten PSF Scores for Combined Cohort

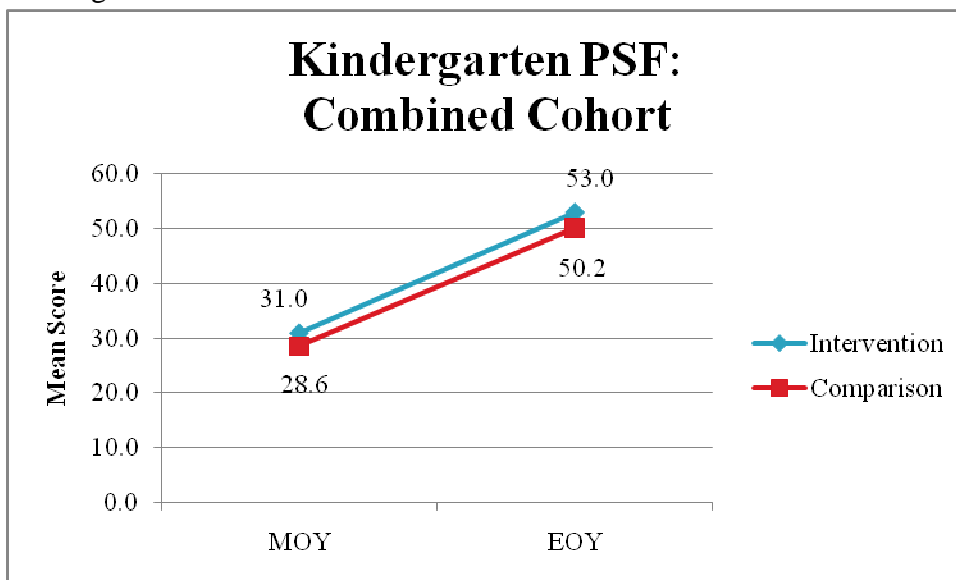
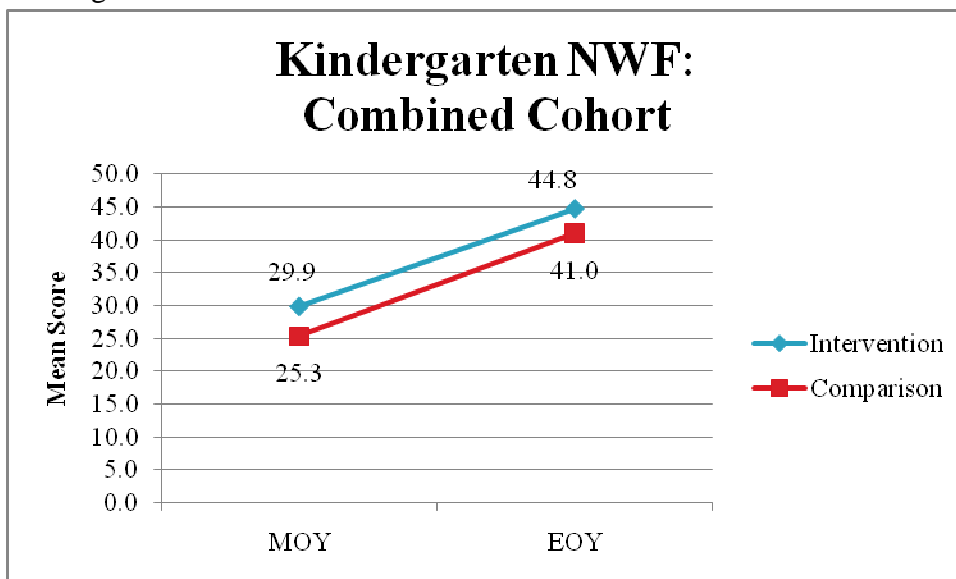


Figure 22. Kindergarten NWF Scores for Combined Cohort



In summary, the students in the intervention group began the year with significantly higher scores than the comparison group but differences across the year were not significant for most measures. However, the results of the combined cohort indicate that for Letter Naming Fluency, the differences between the groups remained significant over time. With substantial amounts of intervention being given to students throughout kindergarten and first grade, one would expect that there would not be many differences over time. However, for Letter Naming Fluency skills, the differences between the groups continued across the kindergarten year.

C. Instructional Recommendations

Students' overall instructional recommendations based on the risk levels of each DIBELS measure were examined across the year. The instructional recommendations include *Benchmark*, *Strategic*, and *Intensive*. As with the DIBELS scores, the expectation was that any differences between groups would be greatest at the beginning of kindergarten, before any intervention occurred at school. However, the instructional recommendations were also examined across the kindergarten year to determine whether any differences remained. In addition, the instructional recommendations for first grade were examined for the 2007-2008 cohort.

2007-2008 cohort. For the 2007-2008 cohort, a higher percentage of students from the intervention group entered kindergarten at *Benchmark* level, with a difference of 13 percentage points (see Figure 23). Further, the intervention group began kindergarten with a substantially lower percentage of students at the *Intensive* level, with the percentage of students at intensive being three times higher for the comparison group. Across the year, both groups demonstrated gains in the percentage of students at *Benchmark*. By the end of the year, the comparison group increased the percentage of students at *Benchmark* and decreased the percentage of students at *Intensive* and approached the percentages of the intervention group. However, the intervention group continued to have higher percentages for *Benchmark* and *Intensive* students than the comparison group.

Figure 23. Kindergarten Risk Levels for 2007-2008 Cohort

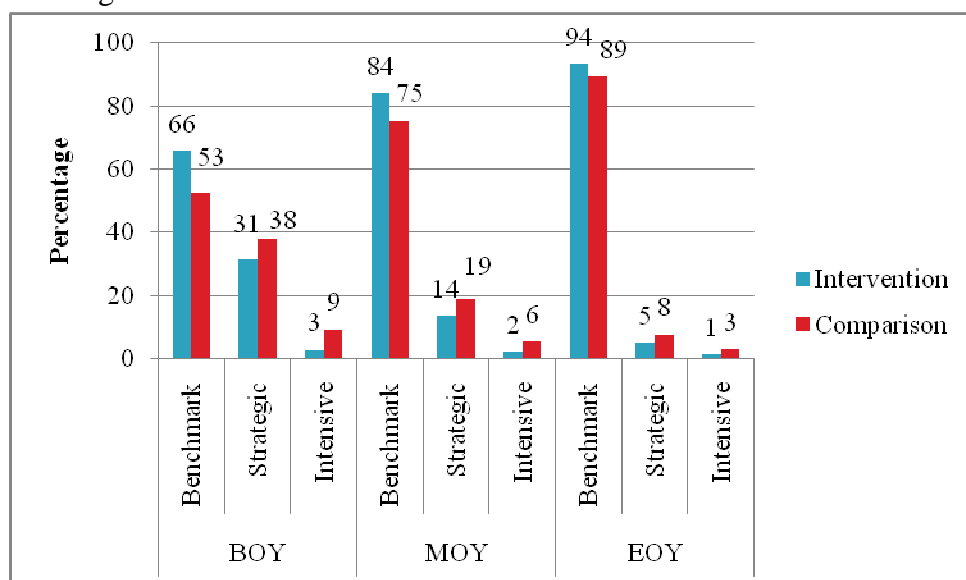
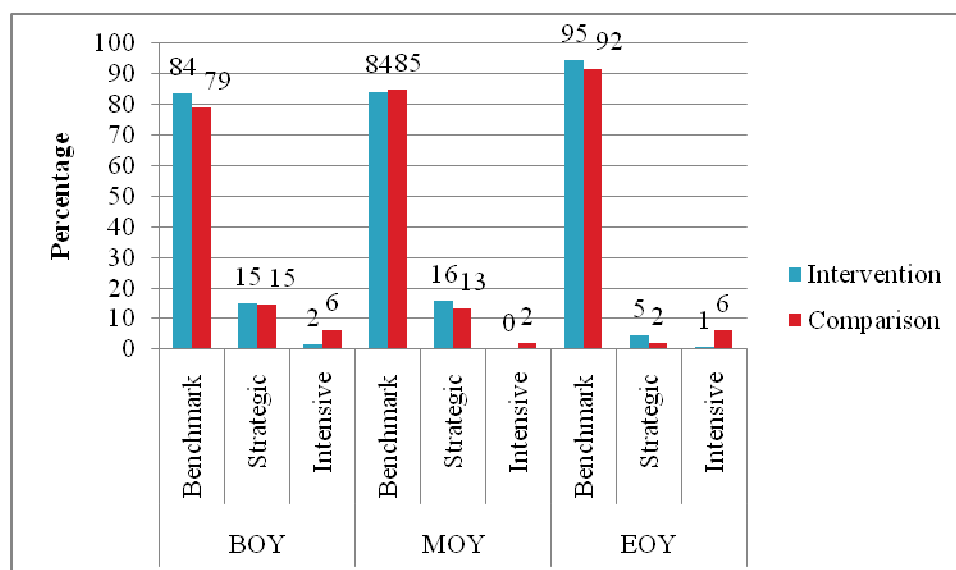


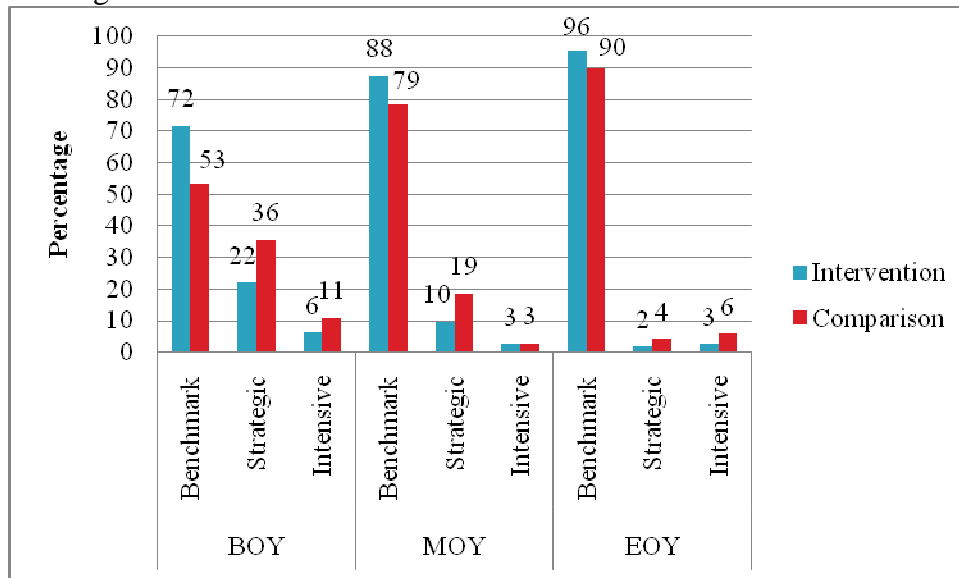
Figure 24 provides information about the instructional levels at first grade. The comparison students continue to approach the intervention group in the percentages of students at benchmark and intensive and by the end of the year, the percentage of students at *Benchmark* was similar between the groups. However, the difference between the groups in the amount of students at *Intensive* is more substantial.

Figure 24. First Grade Instructional Recommendations for 2007-2008 Cohort



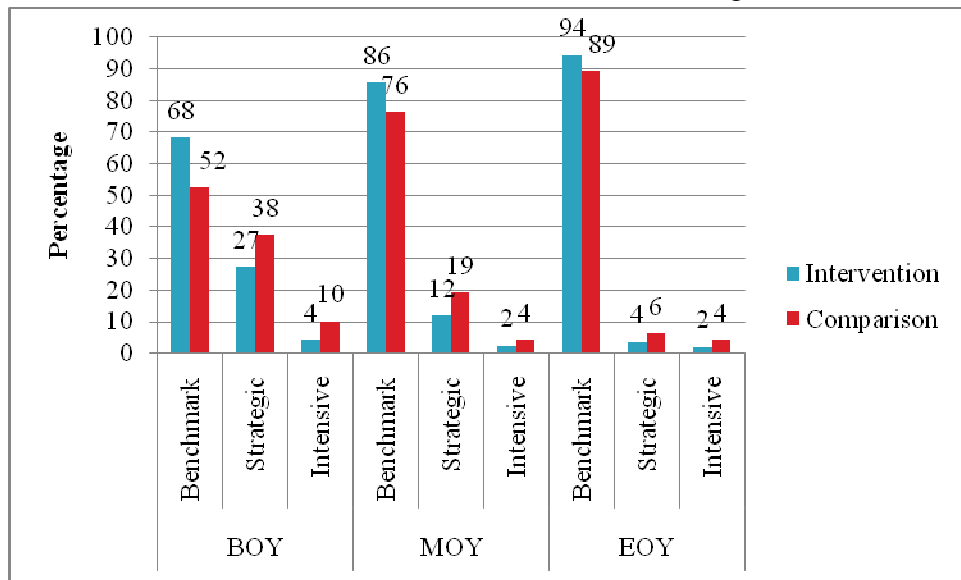
2008-2009 cohort. The 2008-2009 cohort also demonstrated differences in instructional recommendations between the groups (see Figure 25). The intervention group entered kindergarten with a substantially higher percentage of students at *Benchmark* level, and a substantially lower percentage of students at *Intensive* level than the comparison group. By the end of the year, the two groups had similar percentages of students at *Benchmark*. However, the difference in students at the *Intensive* level was more substantial. Although the comparison group approaches the intervention group with the percentage of students at *Benchmark* at the end of the year, the intervention group continues to have more students at *Benchmark* and less students at *Intensive*.

Figure 25. Kindergarten Instructional Recommendations for 2008-2009 Cohort



Combined cohort. The instructional recommendations across kindergarten were also examined for the combined cohorts. At the beginning of the year, the intervention group had a substantially higher percentage of students at *Benchmark* level and a substantially lower percentage of students at the *Intensive* level. By the end of the year, both groups had large increases in the percentage of students at *Benchmark*, and the comparison group approached the intervention group in the amount of students at this level. However, the percentage of students at *Benchmark* remained higher and the percentage of students at *Intensive* remained lower for the intervention group (see Figure 26).

Figure 26. Instructional Recommendation Levels DIBELS Kindergarten for Combined Cohort



In summary, these results indicate that students whose parents participated in the Teach Me To Read At Home™ program entered kindergarten with less risk in their literacy skills. Over time, the differences between the groups decreased, which is likely due to the level of intervention received throughout the year. However, students whose parents participated in the program continued to have less risk across kindergarten and throughout first grade than students whose parents did not attend the program. In addition, among those students who began kindergarten most at risk, the students in the intervention group consistently had lower percentages of *Intensive* risk level by the end of kindergarten year and throughout first grade than found among the comparison group students.

Evaluation Question 5. Were there differences in emergent literacy skills between groups during the prekindergarten year?

After finding differences between the groups upon entering kindergarten, a question needed to be raised as to whether or not parents who participated in the Teach Me to Read At Home™ program were already more involved in teaching their young children early literacy skills compared to those parents choosing not to attend the program. Examining students' literacy skills during prekindergarten would be helpful in answering this question, by determining whether students in the intervention group had higher literacy skills during prekindergarten than students whose parents did not attend the program. CIRCLE assessments, which measure emergent literacy skills, had been collected for students during the prekindergarten year. It should be noted that these assessments were collected at different points throughout the year, so they do not indicate the skills of all students at the same point. Ideally, all students would be compared prior to the start of the intervention. However, parents also began the intervention at different points, so not all intervention students received the intervention for the same amount of time.

The majority of the CIRCLE assessments were administered between October and April. Any assessments that were given after April were not included in the analysis. Table 9 presents the means and standard deviations for each measure for the combined cohort. The mean scores for each measure were compared by group, through t-tests analyses. No significant differences were found for any measure. This indicates that during the prekindergarten year, the students from both groups did not differ significantly in their literacy skills, as assessed by the CIRCLE. Although the limitations of the timing of the assessments must be kept in mind, these results do suggest that students from both groups had similar levels of literacy skills during prekindergarten.

In summary, these findings provide further support for the effectiveness of the Teach Me To Read At Home™ program, suggesting that students did not differ significantly in their literacy skills prior to kindergarten. Therefore, the finding that students from the intervention group entered kindergarten with significantly higher skills can be interpreted with more confidence.

Table 9. Means and Standard Deviations for CIRCLE Scores of Combined Cohort

CIRCLE Measure	Intervention Group			Comparison Group		
	N	Mean	Standard Deviation	N	Mean	Standard Deviation
Rapid Letter Naming	243	16.09	11.45	260	17.47	11.80
Rapid Vocabulary Naming	243	20.53	5.89	261	25.54	60.69
Phonological Awareness Screener	243	23.43	7.43	257	23.87	9.33

Conclusions

The results of this evaluation are supported by the fidelity with which the intervention was implemented. Given that most parents did not receive the intervention in its entirety, the significant student outcomes are particularly noteworthy. This suggests that even after attending one session, parents are engaging in more activities to enhance their children's literacy skills. Parent report indicates that this is indeed the case; that parents provide more activities and have more skill with which they conduct the activities. The evaluation is further supported by the finding that the groups were similar in their literacy skills during the prekindergarten year, although the variations in the timing of the assessments limits a more complete understanding of group differences during that year.

In conclusion, the results of this evaluation support the effectiveness of the Teach Me To Read At Home™ program. The students whose parents participated in the program were found to have significantly greater skills in letter naming and phoneme awareness at the beginning of kindergarten than the students whose parents did not attend the program. The letter naming skills persisted over time, despite the high level of intervention provided across the kindergarten year. The program also helped students enter kindergarten with less risk, and to continue to have less risk throughout kindergarten and first grade. Helping children to enter kindergarten with literacy skills is particularly important for students' academic trajectory. In addition, finding ways to help parents develop these skills in their children before kindergarten is useful for enhancing children's readiness for school and for establishing good connections between the home and school. This program can therefore help schools meet several important goals as they transition children to kindergarten, by developing children's literacy skills and reducing their risk of academic failure, and establishing important connections between the school and families during the transition to kindergarten.