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October 27, 2014

Shared Light Foundation
Ms. April Honaker, Executive Director
1009 Light Brigade Lane
Cleveland, OH 44101

Dear Ms. Honaker:

Enclosed is my technical report following my research on the best emergent literacy program to help students who may be at risk for literacy problems. I compared three programs in order to determine the one with the highest success rate. In my report, I have included my methodology, results, and recommendation.

After reading my report, I hope that your organization will have a better understanding of the problems associated with literacy and the possible solutions. My findings will have great benefit for Speech-Language Pathologists, educators, and especially those families who have children struggling with reading.

Thank you for supporting me in my research towards promoting better literacy skills for children who need the most help. If you have any questions about my report, please contact me via email or phone using the contact information above.

Sincerely,

Susan Green

Enclosure (1): Technical Report

Shared Light Approved Research Project

Susan Green

October 27, 2014

ENGL 303: Technical Writing

Comparison of Three Emergent Literacy Intervention Programs for At-Risk Children

Prepared by: Susan Green, College Intern

Prepared for: SLF Board of Directors

October 27, 2014

Abstract

Comparison of Three Emergent Literacy Intervention Programs for At-Risk Children

Prepared by: Susan Green
October 25, 2014

The purpose of this report is to recommend the best emergent literacy program to promote emergent literacy skills in children who are at-risk for literacy failure. Three programs were compared using the results of those studies. Gains in phonological awareness, letter knowledge, and print concepts were analyzed. After comparing the Stony Brook Emergent Literacy Project, Dialogic Reading, and Ready to Learn, it was concluded that the Stony Brook Project is the best option for educators and Speech-Language Pathologists to implement in the classroom.

Key Words: Emergent literacy, literacy failure, phonological awareness, letter knowledge, print concepts

Table of Contents

List of Illustrations

Tables

Figures

List of Abbreviations

DSC: Developing Skills Checklist

GRTR: Get Ready to Read! Screen

PALS-PreK: Phonological Awareness Literacy Screening for Pre-Kindergarten

TERA-3: Test of Early Reading Ability

DR: Dialogic Reading

CAP: Concepts About Print Test

RISCA: Recognition of Initial Consonant Sound and Alphabet

PPVT-111: The Peabody Picture Vocabulary Test

SLP: Speech-Language Pathologist

Executive Summary

Emergent literacy skills are extremely important to developing adequate reading skills later on in life. Without these skills, children may have difficulty learning how to read, which is directly linked to communication skills. Some factors may put children at higher risk for reading problems, including low-socioeconomic status, having a parent with reading difficulties, developmental disorders, and language or speech disorders. If these children can be identified early on, proper intervention may prevent any difficulties affecting literacy.

These emergent literacy skills precede actual reading but are the foundation upon which reading is built. These include, but are not limited to, phonological awareness, oral language, letter knowledge, print concepts, and emergent writing. The purpose of this research was to compare three literacy programs and how they help promote these skills. These programs were:

- **The Stony Brook Emergent Literacy Project**, which incorporated teacher-led activities into the classroom that promote print awareness, letter knowledge, and phonological awareness skills.
- **Ready to Learn**, which supplemented digital media into the preschool curriculum. Videos and online games were used to promote letter knowledge, letter sounds, print and story concepts, and phonological awareness.
- **Dialogic Reading**, which involved parent participation to promote emergent literacy skills. Parents were given books to read with their children that provided practice in rhyme awareness, phonological awareness, alphabet knowledge, and vocabulary.

When analyzing data, I compared the scores of experimental groups with control groups in three basic areas of emergent literacy. The three criteria I looked at were the following:

- **Phonological awareness:** This is the awareness of sounds and how sounds form words.
- **Print concepts:** This skill is the ability to recognize print and understand that it has meaning.
- **Letter knowledge:** This is the awareness of different letters of the alphabet and involves being able to distinguish the differences between them.

Each of these programs showed significant improvement in emergent literacy skills for children who were deemed at-risk; however, the Stony Bridge Project showed the most significant improvement for all children. The use of teacher-led activities integrated into the classroom curriculum proved to be highly effective. Speech-Language Pathologists, educators, and parents could definitely benefit from this research when dealing with children who may have issues related to reading. If they can implement this program in the preschool years, it may prevent children from suffering the later consequences of reading difficulties

Introduction

Many students are graduating from high school without the proper literacy skills needed to be successful in college and their careers. The skills required for literacy begin before preschool. Without the basic foundation, children may have difficulty developing the skills they need to be successful readers. Early literacy programs have been created in order to prevent literacy problems and better develop literacy skills for children who are at greater risk of literacy failure. The three programs that were compared are the Stony Brook Emergent Literacy Project, Ready to Learn, and Dialogic Reading.

Emergent Literacy Skills

Pre-literacy skills begin to develop at birth and are the foundation for successful literacy acquisition. These skills are known as emergent literacy skills. Emergent literacy skills include, but are not limited to, oral language skills, emergent writing, print concepts, alphabet knowledge, and phonological awareness. Each of these skills, although separate, are overlapping and generally developing at the same rate. Combined, these skills allow children the knowledge to read and communicate.

There are certain factors that may put children at a greater risk for poor literacy skills. These factors include speech and language disorders, certain physical or medical conditions, developmental disorders, low socioeconomic status, home literacy environment, and family history (Roth, Paul, & Pierotti, 2006). Although there are many contributing factors, "the children at greatest risk for reading problems in elementary school are those who start kindergarten with weak language skills, poor abilities to attend to the sounds of language as opposed to its specific meanings, deficient letter recognition, and unfamiliarity with the basic purposes and strategies of reading," all of which are the cornerstones of emergent literacy (Rosenkoetter & Barton, 2002, p. 38). If at-risk children are identified at an early age, early intervention in the form of a literacy program could be very effective.

The Current Study

The research focused on three programs that provide emergent literacy skills and early intervention for at-risk children. The literacy programs evaluated did not involve children in kindergarten or older, since research has shown interventions to be most effective at an early age. The three methods of intervention are The Stony Brook Literacy Project, Ready to Learn, and Dialogic Reading.

- **The Stony Brook Emergent Literacy Project**, developed by G. M. Massetti (2009), includes teacher-led components and activities that give children an opportunity to learn print awareness, letter knowledge, and phonological awareness skills. Activities for phonological awareness include attending to sounds, discriminating rhyming words, producing rhymes, and identifying and segmenting words. Print awareness is promoted with activities that help the child to understand the functions of print and in orienting to books. Other activities include letter knowledge and writing letters.
- **Ready to Learn** is a curriculum supplement that incorporates activities "in which teachers use digital video, online games, and hands-on activities to provide children with

a motivating way to gain letter knowledge, knowledge of letter sounds and initial word sounds, and an understanding of concepts of print" (Penuel et al., 2012, p. 116). The preschool classrooms in this study were shown videos from the PBS shows *Sesame Street*, *Between the Lions*, and *SuperWhy!* The curriculum and videos focused on letter naming, identification of letter sounds, understanding of story and print concepts, and phonological awareness. In addition to guided viewing of video segments, the intervention included online games and teacher-led activities.

- **Dialogic Reading** "involves families reading *with* their children rather than *to* their children" and involves "asking questions, providing feedback, and eliciting increasingly sophisticated descriptions from the child" (Fielding-Barnsley & Purdie, 2003, p. 78). In this study, researchers met with the families to discuss the intervention plan. The families received videotaped instructions and written pamphlets regarding dialogic reading. Each family also received eight books that they were to read at least five times during the eight-week program.

Early literacy programs are extremely valuable to emergent literacy skills for at-risk children, yet most families do not understand the importance of their child's participation. The most effective literacy program for successful literacy acquisition will greatly benefit those who need intervention. Each of these studies were compared in the areas of phonological awareness, print concept, and letter knowledge. After reviewing all of the research, The Stony Brook Literacy Project seems to have the most positive effects on these skills required for literacy acquisition and language development. When families begin an intervention program, they want to know that their child is receiving the best service available. With the outcome of this research, families will be more confident in the benefits of emergent literacy programs and more children will be prepared to enter kindergarten.

Preview of the Report

This report includes my methodology in gathering and evaluating data, the results of my research, and my recommendations following analysis of the data and results. I have also included my references and appendices.

Review of Literature

Research on emergent literacy is relatively new. In fact, the very concept of emergent literacy is new (Invernizzi et al., 2010, p. 438) Emergent literacy "refers to the skills, knowledge, and attitudes that are developmental precursors to reading and writing" (Massetti, 2009, p. 555). Research has found substantial evidence that early reading skills are an excellent indicator of later reading skills, "but acknowledgement of this relationship has been slow to develop" (Invernizzi et al., 2010, p. 438). With this new knowledge, researchers have been able to pinpoint which particular skills are involved in emergent literacy: phonological awareness, oral language, print concepts, alphabet recognition, and emergent writing. With the most recent research, it is obvious that literacy programs should be aimed at preschool-age children; however, most literacy programs that have been developed are aimed at children in kindergarten or above (Lonigan et al., 2013, p. 113). As emergent literacy programs are being developed, "questions remain about which intervention components work and whether combining intervention components will result in larger gains" (Lonigan et al., 2013, p. 111).

Some studies, such as those by Duncan et al. (2007) and Lonigan, Schatschneider, & Westberg (2008), have examined how early literacy skills are predictors of later language and reading skills. These studies "identified significant continuity between children's preschool or kindergarten reading skills and their reading achievement at the later measurement periods" (Lonigan et al., 2013, p. 112). Specifically, "skills related to print knowledge (e.g., alphabet knowledge, concepts about print, writing/name writing) were moderate to strong predictors" and "two of three phonological processing abilities, phonological awareness and rapid automatized naming (but not phonological memory), were moderate predictors" of later reading skills (Lonigan et al., 2013, p. 112).

Since literacy skills begin developing before a child even begins kindergarten, early intervention is critical for children who may be at-risk for poor literacy acquisition. If a child does not develop the necessary skills in preschool, they may "arrive at kindergarten with low levels of these skills, making it less likely that they will be ready for the reading instruction they will receive during the early elementary grades" (Lonigan et al., 2013, p. 113). This suggests the early exposure to programs aimed at emergent literacy skills could reduce the risk these children face (Lonigan et al., 2013, p. 113). Government-implemented plans, such as Early Reading First (ERF) require preschool programs "to provide instructional activities in four areas: oral language, phonological awareness, print awareness, and alphabet knowledge" (Invernizzi et al., 2010, p. 440; U. S. Department of Education 2003).

Studies on shared reading and dialogic reading have shown that these two approaches have a positive outcome on children's literacy and language development; however, the studies have been much different in regards to the comparison groups. In shared reading studies, the comparison group is typically given no extra instructional activities. In contrast, "in nearly every study of dialogic reading, the comparison group includes children who receive standard shared reading with the same amount of exposure as for children who were exposed to dialogic reading" (Lonigan et al., 2013, p.113). This can mislead others into believing that dialogic reading has a more positive outcome than shared reading on a child's reading skills.

Studies aimed at intervention to develop preschoolers' phonological awareness (e.g., Byrne and Fielding-Barnsley, 1991, O'Connor et al., 1993 and Roberts, 2003) have "shown positive effects on children's phonological awareness, letter knowledge, and later reading skills" (Lonigan et al., 2013, p.114). Some studies on print knowledge have excluded tasks to develop letter knowledge, a critical part in developing print knowledge. One recent study that evaluated two letter knowledge interventions found that "teaching children about both letter names and letter sounds was more effective than teaching children about letter sounds only" and only the intervention involving both letter names and sounds "resulted in higher letter knowledge" (Piasta, Purpura, & Wagner, 2010). Consequently, interventions that focus on both letter name and letter sound knowledge result in better print knowledge, which is a building block of emergent literacy.

Methodology

This section presents the methods I used to complete my research, evaluate the research, draw conclusions, and make a recommendation.

Researched factors affecting emergent literacy skills

As a future Speech-Language Pathologist, I will have many diseases and disorders I will have to attend to. Recently, the connection between speech-language pathology and literacy has been established, and I am fascinated by the correlation between literacy and language skills. For the research, I gathered information from peer-reviewed journal articles regarding emergent literacy skills and the factors that might put a child at risk for reading problems. Many literacy programs only focus on one area of language development, but I researched three programs that focus on multiple components to emergent literacy. With such little knowledge about emergent literacy programs, this research provides valuable information for Speech-Language Pathologists and educators.

Researched programs that promote emergent literacy skills

After researching different literacy programs, the three that I chose to compare were The Stony Brook Emergent Literacy Project (G. M. Massetti, 2009), Ready to Learn (Penuel et al., 2012), and Dialogic Reading (Fielding-Barnsley & Purdie, 2003). I chose these because they all promote a multitude of the specific skills that provide the foundation for literacy. I discovered these approaches to literacy development by researching emergent literacy programs and have read each study that evaluated these programs. I concluded that each of these are effective tools for early literacy intervention but would need further investigation. I conducted further research using the current studies related to each of these programs and compared the results of each study.

Chose criteria for evaluating each emergent literacy program

Each program outcome was measured by the successfulness of three major components of emergent literacy skills. These skills are:

- **Phonological awareness:** This is the awareness of the sound structure of words. This includes skills such as syllable counting, rhyming skills, and initial sound identification. Phonological awareness is one of the most important skills in reading readiness, and if a child has difficulty in this area, he or she could have serious difficulty developing literacy proficiency.
- **Print concepts:** Also called print awareness, this skill is the ability to recognize print and understand that it has meaning. It includes understanding that the print tells the story and not the picture, knowing which direction to hold the book, knowing which direction to turn the pages of a book, and knowing that you read from left to right.
- **Letter knowledge:** This involves being able to distinguish between different letters of the alphabet. Letter knowledge and awareness is also a building block of print concepts.

Although there are more skills that play a part in emergent literacy, these three were present in each program and are the best indicator of a programs' effectiveness. Using these criteria, I

evaluated which program showed the most gains in each of these areas and which program showed the most significant differences in acquisition of these skills.

Researched similar emergent literacy programs

By researching other literacy programs that focus on emergent literacy skills, I was able to further my knowledge regarding successful reading readiness for at-risk children. I researched the relationship between emergent literacy skills and literacy acquisition to better understand how the programs promote literacy proficiency. I also researched the effect illiteracy has on development of language and other life skills to better understand the impact that these programs could have on at-risk children. Data gathered from the studies and the conclusions from the researchers were the basis of comparison between the possible solutions.

Evaluated each program based on data from previous studies

All three studies of the possible solutions contained data based on standardized assessments that are related to each criteria. I evaluated each program based on these results to determine which one most closely satisfies the criteria. Since phonological awareness is the most important skill in literacy development, it was considered more important than the other two criteria. The amount of significant differences of the criteria between the subjects of the studies and the control groups in the studies was also very important in determining the best solution.

Recommended the best solution based on the evaluation of the criteria

After I completed all of my research, I chose the program that will be most effective in promoting emergent literacy skills in at-risk children. My conclusion was based on my comparison of the three possible solutions and how closely the solutions follow the criteria.

Results

I have included in this section the results from each of the emergent literacy programs as they relate to the criteria. In addition to the results from the research, I have included some discussion to explain the results.

The Stony Brook Emergent Literacy Project

The Stony Brook Emergent Literacy Project was organized around "three categories of emergent literacy skills considered to be most predictive of later reading success: phonological awareness, print awareness, and emergent writing" (Massetti, 2009, p. 558). The print awareness and emergent writing tasks also included tasks related to letter awareness. There were 20 developmentally appropriate activities (Table 1) and each activity was given to the teacher one at a time, every two weeks. For those two weeks, the teachers focused on that one activity and reported children's mastery of that skill.

Table 1 is the list of the emergent literacy skills with the corresponding activity(s):

Table 1: Emergent Literacy Learning Goals and Component Skills for Literacy Project Activities

Learning Goals	Classroom Activity (Order of Activities in Parentheses)
Phonological awareness	
Attending to sounds	Who says what? (7), whispering game (8)
Discriminating rhyming words	Jump up! (9)
Producing rhymes	Let's play rhyme ball (10), fun with rhymes (11)
Identifying and segmenting words	Say a word (13), words in sentences (14), long and short words (15)
Blending and segmenting	What's the new word? (16), compound words (17), token games (18), take one thing (19), listen, then look (20)
Print awareness	
Understanding functions of print	Where are the words? (1), words in our class (2)
Orienting to books	Parts of the book (3)
Letter knowledge	Letter posters and notebooks (6)[a]
Emergent writing	
Drawing symbols and shapes	Let's draw (4), let's draw shapes (5)
Writing letters	Letter posters and notebooks (6)[a]
Writing names	Write your name (12)

[a] The "Letter posters and notebooks" activity addressed both print awareness and emergent writing domains.

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The children's emergent literacy skills were assessed at the beginning of the year and then at the end of the school year. The children were assessed using two tests: the Developing Skills Checklist (DSC) (CTB/McGraw Hill, 1990) and the National Center for Learning Disabilities (2001) Get Ready to Read! Screen (GRTR). Each test assessed the three learning goals of the program: phonological awareness, print awareness, and emergent writing. The scores of the project group and the control group from each screening were compared to determine the effectiveness of the program (Table 2).

Table 2 shows the mean scores and standard deviation from each assessment of the emergent literacy skills for the experimental group and control group. To understand the effectiveness of the Literacy Project, "gain scores were computed for all six outcome variables by subtracting the fall score from the spring score" (Massetti, 2009, p. 564).

Table 2: Classroom Means and Standard Deviations for Literacy Project Group and Comparison Group Children on Outcome Assessments

		Literacy Project Group			Comparison Group		
	Skill Assessment	**Fall**	**Spring**	**Gain**	**Fall**	**Spring**	**Gain**
DSC	Phonological Awareness	2.42 (0.79)	6.34 (0.79)	3.29 (1.43)	2.74 (0.72)	3.96 (1.67)	1.22 (1.19)
	Print Concepts	8.78 (1.42)	18.0 (1.55)	4.02 (1.41)	9.24 (3.10)	13.76 (3.12)	1.85 (0.85)
	Emergent Writing	4.62 (1.16)	10.89 (0.86)	6.27 (1.29)	4.33 (1.08)	7.59 (1.68)	3.25 (2.49)
GRTR	Phonological Awareness	11.32 (0.80)	16.85 (1.18)	5.53 (0.81)	10.60 (0.97)	12.54 (2.92)	1.19 (2.87)
	Print Concepts	12.58 (1.31)	18.96 (0.55)	6.39 (1.07)	12.46 (1.42)	16.44 (1.83)	3.98 (1.19)
	Emergent Writing	2.85 (0.61)	4.63 (0.52)	1.78 (0.94)	2.61 (0.44)	3.33 (1.03)	0.71 (0.94)

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Children in the Literacy Project group did significantly better on both assessments than those in the comparison group. On the DSC assessment test, the project group showed significant differences in all categories compared to the comparison group. While both groups did show improvement, "the Literacy Project classrooms show[ed] greater improvement" (Massetti, 2009, p. 562). For the GRTR test, the children in the Literacy Project did significantly better on phonological awareness and print concepts; however, "the difference between the groups' scores on emergent writing was not statistically significant" (Massetti, 2009, p. 564). On letter recognition, an aspect of print concepts and emergent writing, "children in the Literacy Project group identified on average 2 out of 12 letters in the fall and 7 out of 12 letters in the spring";

however, "children in the comparison group identified 3 out of 12 letters in the fall and 4 out of 12 letters in the spring" (Massetti, 2009, p. 564). Overall, the Stony Brook Emergent Literacy Project showed significant differences in the acquisition of emergent literacy skills compared to those not in the program.

Ready to Learn

Ready to Learn is a program that integrated media-rich activities into the curriculum of preschool classes to test the effects of educational television programs on emergent literacy skills of children at-risk of reading problems. The curriculum for the treatment group focused on letter naming, identification of letter sounds, understanding of story and print concepts, and phonological awareness. Letter naming activities required the child to learn, recognize, and name the upper case letters. The aim of letter sound activities was to learn the sounds corresponding with each letter. The story and print concepts activities focused on learning to "identify the front cover, title, and author of a book, how to open a book and turn the pages," recognize that print is read left to right and top to bottom, and recall "simple elements of a story read to them by an adult" (Penuel et al., 2012, p. 120). Finally, in regards to phonological awareness, the activities focused on rhyming, counting sounds in words, matching sounds, and blending sounds.

Teachers in the treatment group, implemented a "10-week media-rich early literacy intervention that employed clips from *Sesame Street*, *Between the Lions*, and *SuperWhy!*" (Penuel et al., 2012, p. 115). The curriculum also included the playing of online games and participation in other activities led by the teacher that did not include digital media. Children were tested before the intervention and then within four weeks of the end of the intervention.

The tests used to assess the children's emergent literacy skills were the Phonological Awareness Literacy Screening for Pre-Kindergarten (PALS-PreK) and the Test of Early Reading Ability (TERA-3). The PALS-PreK was used to measure letter name knowledge, letter sounds, and beginning sound awareness, while the TERA-3 measured print and story skills. The results of the tests of the experimental group versus the control group indicated significant differences in some skills between the two groups. The experimental group performed "statistically significantly higher" for upper letter naming and letter sound awareness and performed marginally significantly for concepts of print (Penuel et al., 2012, p. 123). The difference between initial sound awareness scores, however, was nonsignificant. The study found that media-rich curriculum can have a positive effect on emergent literacy skills for at-risk children.

Dialogic Reading

In this study, parents of children deemed at-risk implemented Dialogic Reading (DR) prior to the child's first year of formal schooling. The researchers met with the families before the intervention began. Parents were given videotaped instructions for good DR as well as written information. To implement DR, parents were given a selection of "eight picture books, a Parent's Handbook (Barrs and Ellis, 1998), and a reading together record form"(Fielding-Barnsley & Purdie, 2003, p. 80). Families were instructed to read each book at least five times during the eight-week intervention (Fielding-Barnsley & Purdie, 2003, p. 80)

The treatment group and control group were tested at the beginning of their first year of formal schooling and then nine months later. Each group was comprised of children at-risk for developing reading disabilities. At Time 1, the intervention had already taken place. Time 1 was comprised of four separate tests:

- **The Rhyme Recognition Test** (Byrne and Fielding-Barnsley, 1991) required the child to identify rhyming words, and was a measure of phonological awareness.
- **Concepts About Print Test (CAP)** (Clay, 1979) measured print concepts, such as book orientation, direction of the print, word-by-word matching, and knowledge that the print tells the story, not the pictures.
- **Recognition of Initial Consonant Sound and Alphabet (RISCA)** (Fielding-Barnsley, 2000) required the child to "identify the first sound in a word (e.g. 'What is the first sound you hear when I say "Sam"?')" and "involve[d] the child being shown a line of five letters of the alphabet and being asked to circle the name of the alphabet letter given" (Fielding-Barnsley & Purdie, 2003, p. 79).
- **The Peabody Picture Vocabulary Test (PPVT-111)** (Dunn and Dunn, 1997) measured the child's receptive vocabulary (what they understand).

For the purpose of this report, the PPVT-111 scores will not be considered in the results, because it is not a measure of any of the three criteria.

Time 2 used the same tests used in Time 1 with the exception of the alphabet knowledge portion of the RISCA test. In addition to the four tests, the children completed the following tests:

- **Reading/Word Identification:** The children were asked to read two lists of 15 words (Table 3).

Table 3: Word List for Reading/Word Identification

WORD LIST ONE	WORD LIST TWO
in	hand
sat	best
was	right
top	step
let	help
eye	laugh
pen	silk
yes	stand
gone	monkey
hit	piano
box	camel
said	sugar
went	dragon
next	tent
there	knife

Source: Fielding-Barnsley & Purdie, copyright 2003 by NASEN, reprinted with permission.

- **Spelling:** The test, adapted from the version used by Liberman, Rubin, Duques, and Carlisle (1985), consisted of ten words (*in, fun, bath, play, sand, milk, grunt, jelly, crows, helping*) which the children were asked to spell.

The results of the tests at Time 1 showed that children in the experimental group "scored significantly higher than the control group on initial consonant, rhyme, and CAP" (Fielding-Barnsley & Purdie, 2003, p. 80). There was no significant difference on final consonant. In regards to alphabet knowledge, the difference was approaching significant. This suggests that the intervention did make a difference for the children in the experimental group. The results at Time 2 showed improved scores for each group, with the experimental group maintaining a "significant advantage on final consonant and CAP" (Fielding-Barnsley & Purdie, 2003, p. 80). The scores of the tests at Time 1 were compared to the scores on reading and spelling at Time 2 to examine which aspects of the intervention had the most significant effect. Table 4 shows the correlation between the scores:

Table 4: Correlation Between Time 1 Test Scores and Reading and Spelling Scores at Time 2

	Reading	Spelling
PPVT	.301	.310
Initial consonant	.157	.405*
Final consonant	.365	.410*
Rhyme	.249	.320
CAP	.536**	.613**
Alphabet kn.	.677**	.738**

Notes: * correlation is significant at the .05 level; ** correlation is significant at the .01 level

Source: Fielding-Barnsley & Purdie, copyright 2003 by NASEN, reprinted with permission.

The results of this comparison suggest that "CAP and alphabet knowledge were significantly and strongly related to reading and spelling" and "initial consonant and final consonant were significantly and moderately related to spelling" (Fielding-Barnsley & Purdie, 2003, p. 80). The study found that Dialogic Reading implemented before formal schooling has a positive effect on later reading skills.

Conclusion

The results show that all three emergent literacy programs did have an overall positive outcome for at-risk children. The three programs, however, did not have equal outcomes for the three criteria: phonological awareness, print concepts, and letter knowledge. Table 5 shows the statistical significance between the experimental and control groups for each criteria of each program:

Table 5: Statistical Significance Between Experimental Control Groups for Emergent Literacy Programs

Program	Significant Difference	Approaching Significant	Not Significant Difference
Dialogic Reading	Time 1 initial consonant rhyming CAP Time 2 final consonant CAP	Time 1 alphabet knowledge	Time 1 final consonant
Ready to Learn	PALS-PreK upper letter learning letter sound awareness	TERA-3 print concepts	PALS-PreK initial sound awareness
Stony Brook Emergent Literacy Project	DSC phonological awareness print concepts emergent writing GRTR phonological awareness print concepts		GRTR emergent writing

The Stony Brook Emergent Literacy Project had the most significant effect on all the criteria compared to the Dialogic Reading and Ready to Learn. For the Stony Brook Project, scores for all three criteria were found to be significantly greater for the experimental group than the control group (letter knowledge was included in the print concepts and emergent writing scores). Dialogic Reading only showed significantly higher scores for print concepts and some phonological awareness aspects and was only approaching significance for letter knowledge. Ready to Learn only showed significant differences in letter knowledge and one aspect of phonological awareness, but was approaching significance for print concepts. Dialogic Reading and Ready to Learn each showed no significance for one aspect of phonological awareness. While the Stony Brook Project did show no significant difference for emergent writing on the GRTR test, the test only included a minimum amount of information regarding letter knowledge, so it is not viewed as very important.

Recommendations

After evaluating each program based on the three criteria, I have decided on recommendations for the Shared Light Foundation, as well as Speech Language Pathologists and educators.

Shared Light Foundation

After analyzing the data and results, I believe the next best step for the Shared Light Foundation is to distribute my report to professionals working in education, especially those whose work relates to reading and speaking. With the resources of the Shared Light Foundation, this work may reach a greater amount of people than I could reach on my own. My findings may assist educators in knowing how to approach teaching students who are at risk for literacy problems.

Speech-Language Pathologists and Educators

My recommendation for Speech-Language Pathologists (SLPs) and educators is to implement the Stony Brooks Emergent Literacy Project in their classrooms if there are students at risk for literacy problems. I found this program to have the most significant improvement in emergent literacy skills of all of the programs I researched. This program can easily be incorporated into curriculum and requires very little extra training for teachers and other educators. It is an easily adaptable program and proves much more cost-effective than an entire new curriculum. Finally, because of literacy's close connection to language and communication, it is important for SLPs to take this research into consideration when providing intervention.

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Appendix A: Gantt Chart

Task	9/18	9/24	9/30	10/6	10/13	10/19	10/24	10/27
1: Identified problem								
2: Identified possible solutions								
3: Choose criteria								
4: Expand research								
5: Evaluate data								
6: Draw conclusions								
7: Submit recommendation report								

Figure 1: Task Schedule

Appendix B: Costs

Table 6: Budget

Item	Cost/Hour	Hours	Cost
Labor	$10	40	$400
Laptop			$500
Printer			$50
Ink			$20
Paper			$15
Binding			$20
		Total Cost	$1005