

A Study of Facilitating Early Literacy Curriculum Improvement in Head Start Classrooms*

Head Start Sınıflarında Erken Okuma-Yazma Müfredatını Geliştirmeye Yönelik Bir Çalışma

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Abstract

Early childhood education studies draw attention to the importance of the early childhood years for future learning and development, and in particular, literacy development. Thus, early childhood programs, including Head Start, must be prepared and able to support children in their early language and literacy development by creating appropriate experiences and environments. In this study, the early literacy beliefs and practices of four Head Start teachers were examined using qualitative (interviews, early literacy quilt, and documents) method. The data supported a conclusion that a university-school partnership can impact literacy practices. Teachers who were provided with this teacher improvement program and ongoing support changed their practices from the beginning to the end of the study period. Particularly, the teachers seemed to improve their efforts to meet the early literacy needs of children which were the targeted goal of the study. Also, unlike most previous intervention studies, which resulted in change to a specific domain or created an impact on a limited behavior, the current improvement effort created more broad-based change. It impacted teachers' beliefs about early literacy, how they arranged their classroom environments, as well their notions of the value of a research partnership with the university. Ensuring the high qualifications of teaching staff requires that early childhood programs, including Head Start, devote funding to ongoing professional development. Through such programs teachers can develop their knowledge and competence in supporting all children's early literacy and language development.

Keywords: Early literacy, Head Start, early childhood education, literacy quilts

Öz

Erken çocukluk çalışmaları, erken yaşların gelecekteki gelişim ve öğrenme özellikle de erken okuma-yazma için önemine dikkat çekmektedir. Bu yüzden, okul öncesi eğitim programları Head Start dahil olmak üzere çocukların erken dil ve okuma-yazma gelişimlerini uygun ortamlar ve yaşantılar oluşturarak desteklemelidirler. Bu çalışmada, nitel yöntem kullanılarak dört Head Start program öğretmenin erken okuma-yazmaya dair inanışları ve uygulamaları incelenmiştir. Veriler üniversite-okul işbirliğinin erken okuma-yazma uygulamalarını etkileyebileceği sonucunu desteklemiştir. Devamlı destek verilen ve geliştirme programı uygulanan öğretmenler, çalışmanın başından sonuna uygulamalarını değiştirmişlerdir. Özellikle, öğretmenler çalışmanın da temel amacı olan çocukların erken okuma-yazma ihtiyaçlarını karşılamaya yönelik çabalarını geliştirmişlerdir. Ayrıca, önceden yapılmış ve belirli bir alanda değişiklikle sonuçlanmış veya sınırlı bir davranış üzerinde etki yaratan birçok müdahale çalışmasının aksine, bu çalışma daha

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geniş çaplı bir değişim yaratmıştır. Çalışma, öğretmenlerin erken okuma-yazma hakkındaki inanışlarını, sınıf ortamlarını nasıl düzenlediklerini ve bir üniversite ile araştırma ortağı olmanın değeriyle ilgili görüşlerini değiştirmiştir. Eğitim personelinin yüksek kalitede olmasını sağlamak Head Start da dahil olmak üzere erken çocukluk eğitimi programlarının sürekli bir hizmetiçi eğitim için yeterli fonu ayırmalarını gerektirmektedir. Bu tür eğitim programları aracılığıyla öğretmenler çocukların erken okuma-yazma ve dil gelişimini destekleyecek bilgi ve yeterliliği geliştirebilirler.

Anahtar Sözcükler: Erken okuma-yazma, Head Start, erken çocukluk eğitimi, okuma-yazma kelimeleri.

Introduction

Early childhood education can help all children but quality early childhood experiences are particularly critical for children from low socio-economic-status (SES) families (Snow, Burns, & Griffin, 1998; Snow & Paez, 2004). Lower SES children, who tend to be behind their peers on developmental and academic outcome measures, have been found to benefit most from a comprehensive early childhood education program (Snow, et al., 1998). In recognition of this, the Head Start program was introduced in 1965 with the goal of providing children “at risk” because of poverty. Head Start programs have continued to provide this support to low-income children for more than 40 years (Vinovskis, 2005).

The overall quality of early childhood education programs has been found to be an important determinate of positive effects on language and early literacy skills. Because of potential deficiencies in the literacy experiences in the home environment of low SES children, high-quality preschool and school environments are recommended to ensure reading success (Snow, et al., 1998). Over the years, the Head Start program has assumed this role of providing a quality literacy environment for lower SES children. The impact of the Head Start program has been studied in depth and general agreement is that its effect on various development and learning outcome for lower SES children has been significant (Zigler & Styfco, 2004). Because of the importance of the early childhood years for future literacy learning and increasing demands on children’s school readiness, the services offered in Head Start programs must be examined to ensure that each child has the necessary support for the development of early literacy skills. The need for attention to the early literacy process and practices currently available in Head Start programs is indicated in the latest initiatives. This study therefore examined the effects of a collaborative improvement effort designed to help teachers create an enriched learning environment in a Head Start program that supported early literacy skills in low income children.

There is a strong correlation between early literacy skills and later reading success (Lonigan, Burgess, & Anthony, 2000; Storch & Whitehurst, 2002). Head Start and emergent literacy research from the last decade revealed that children in Head Start were not generally getting adequate preparation in early literacy and Head Start needed to improve its services in this particular area (U.S. Department of Health and Human Services, 2001; U.S. Department of Health and Human Services, 2003; Whitehurst & Massetti, 2004). Recognizing the importance of the early childhood years for literacy and language development, the 1998 reauthorization of Head Start stated that programs should ensure that children make appropriate literacy gains and outlined specific Program Performance Standards for literacy and language skills (Head Start Act, 1998).

In recent years, in light of the increase in funding, national, regional, and local studies have been initiated and supported by the Federal government and Head Start agencies in collaboration with local universities. As a result, Head Start programs have become national laboratories for child development and education studies (Harden & Rock, 2002). National impact studies (U.S. Department of Health and Human Services, 2005; U.S. Department of Health and Human Services, 2003) indicated that children who attend Head Start programs had important gains in language and literacy. The results of the Head Start Family and Child Experiences Survey (FACES; U.S.

Department of Health and Human Services, 2003) study revealed that children achieved important gains in vocabulary knowledge, writing skills, print awareness, and letter recognition. Since Head Start Programs have to meet program standards and outcomes indicated in legislations and acts, more research must be conducted in local Head Start classrooms to examine how children in these programs receive early literacy services and how literacy instruction for these children can be supported and improved.

The impact of learning environments and classroom quality on low income children's language and literacy development has been confirmed by many studies in the literature (Clark & Kragler, 2005; Neuman, 1999; Roskos & Neuman, 2001; Smith & Dickinson, 1994; Snow & Paez, 2004). For instance, it has been found that children learn about literacy practices in their environments when they observe and interact with others and participate in events around them (Neuman, et al, 1998; Senechal, LeFevre, Smith-Chant, & Colton, 2001). The environment that fosters literacy learning is created by the teacher. It has been concluded that teachers are the most critical component for ensuring high-quality experiences in early childhood education (Dickinson & Tabors, 2001; Neuman & Dickinson, 2001; Neuman & Roskos, 1992; Snow & Paez, 2004). Preschool teachers' knowledge, skills, and experience, as well as the support provided to them, are very important not only in fostering literacy, but in preventing future reading difficulties in children (Dickinson & Sprague, 2001; Neuman & Dickinson, 2001; Snow et al., 1998; Snow & Paez, 2004; Strickland, 2001). Therefore, an examination of Head Start teachers' implementation of curriculum and teaching practices around early literacy is crucial and will be the central focus of this investigation.

Current research regarding early language and literacy development created a need for teachers to evolve and adjust their practices. Children's caregivers and teachers in early childhood settings play a key role in children's successful progress in their literacy development. Children's literacy efforts are supported by adults' interaction with children through reading, writing, and conversations and by children's peers through social interactions with each other (McGee & Richgels, 1996). It is crucial that caregivers and teachers in all preschool settings are knowledgeable about early literacy development and make a rigorous effort to ensure that children have access to literacy-rich environments to support their development of early literacy skills. To provide this high level quality, teachers need continuous professional, non-professional, in-service, and out-of-service support from their institutions and from the academic world, as well.

Assessing Head Start teachers' practices related to early literacy development as well as the classroom environment is crucial (Kontos & Wilcox-Herzog, 1997). A wide range in quality of teachers in Head Start programs and improvement studies employed in these programs has been a consistent finding of the research (Bryant, Burchinal, Lau, & Sparling, 1994; Zigler, 1994). Zigler (1994) stated that Head Start teachers are typically underpaid and poorly trained to meet the needs of and goals for lower SES children. With the limited resources available to Head Start programs and staff, and the vast number of children using Head Start services, there is a critical need for cost effective and efficacious interventions and improvement studies in the areas of early literacy development.

The intended outcome for this study was to increase overall quality of the program by improving the classroom environment to support language and literacy development and by increasing the teachers' knowledge and awareness of language and literacy development.

Three major assumptions made in this study were as follows: (a) change cannot be imposed on these teachers, (b) teachers have to set their own goals, (c) a researcher-teacher-collaboration could lead to a change in the overall quality of the supportive literacy environment provided in the Head Start classrooms, and this change could be sustained by the system.

The central question addressed in this study is: Is a collaborative (university-school) partnership designed to facilitate (support and mentor) Head Start teachers effective in improving their literacy-related curriculum practices?

Method

The current study was designed to examine the effects of a collaborative teacher improvement effort designed to help teachers enrich the literacy learning environment in a Head Start program. In order to address the research question of the study, a qualitative research design typology was employed. Through case study method data were collected as a means to develop a deeper understanding of the current and changing early literacy environments and practices of Head Start teachers.

Settings and Participants

The study took place in four classrooms of the Head Start program serving the area. Each of these four classrooms represented one of the four unique configurations that the county's Head Start program had. The first classroom was a half day program in a low-SES family neighborhood, the second one was a full day program again in a low-SES family neighborhood, the third one was a six-hour per day program in a working class family neighborhood, and the last one was a classroom located in a campus apartment with a high population of international families that represented a university/Head Start partnership. The classrooms served children between the ages of three and five and included one teacher and one teacher assistant, as well as adult volunteers.

Four local Head Start teachers participated in this study. Table 1 summarizes the relevant information about these four participants for whom pseudonyms are used to assure anonymity.

Table 1.

*Descriptive Information for Head Start Teacher-Participants.**

Head Start Teachers	Tammy	Maggie	Rina	Julia
Educational Background	AA in Child Development	CDA focus in Preschool	AA in Early Childhood	BA in Home Economics
Years of Experience	1 year in current position, 7 years overall	8 years in current position, 25 years overall	8 years in current position, 17 years overall	3 years in current position, 10 years overall
Classroom Context	Half day program in a building, in part of city surrounded by high density low income housing; high % of special needs children	Full day program in the main HS building, in part of city surrounded by high density low income housing; high % of special needs children	Six hour per day program located in a small home in a family neighborhood in a working class area, much like a family day care home	Part of university/ HS partnership; in campus apartment complex; high % of English as a new language learners from many countries

* Indicates descriptive information for education and background, and years of experience

Instrumentation

Table 2 provides an overview of the instruments and procedures used as primary sources of data collection in the study, the variables measured, and the primary references for each source. As can be seen in this table, interviews, and document analysis were used to gather information; each of these is discussed in the sections of the chapter following this table.

Table 2.

Overview of the primary sources of data

Data Source	Variables Measured	Reference
Interviews		
Semi-structured 20-30 minute interview	Teachers were asked their beliefs about quality early care and education curricular practices in general and literacy practices in particular, as well as the usefulness or accessibility of community resources in helping them be effective as teachers.	Merriam (2001)
Document Analysis		
Documents	Supporting documentation (e.g., children's work samples, pictures, etc.) to provide richer, more detailed information about the program and each particular classroom and classroom teacher.	Merriam (2001); Bogdan & Biklen (1992)
Literacy Quilts	The literacy quilt highlights some of the behaviors that children may perform when they learn literacy	The ECLIPSE, 1994

Procedures

Semi-structured 20-30 minute interviews were conducted at the beginning of the academic year as a part of the baseline data for this study. Teachers were asked to articulate their beliefs about how children learn best and the role of the teacher. They were also asked to describe the types of activities they believe most important for young children, what they consider when they plan activities (literacy activities were asked about specifically if not addressed by the teacher), and they were asked about their beliefs about teacher control versus student autonomy. Lastly, they were asked what in their work contexts act as supports and/or barriers to effective practice, and their beliefs about the usefulness or accessibility of community resources in helping them being effective teachers. At the end of the academic year, teachers were interviewed again about what, if anything, they thought had changed in their environment, how and why it had changed, the role of the mentor and education coordinator in supporting any growth and change, and they were invited to elaborate on anything else they wanted to share about the experience they had had in the literacy support partnership.

The early literacy quilt that was used in the study was a piece of the Early Childhood Literacy Includes Parents, Staff, and Education (ECLIPSE) toolkit created by Department for Education and Children's Services South Australia (1997). The purpose of the toolkit was to increase the partnership between early childhood educators and families. The ECLIPSE toolkit, introduced in 1994 but published in 1997 as a book after several revisions, included an outline of current understandings about literacy, a framework of literacy indicators for early childhood professionals, literacy teaching and learning tips, and a set of literacy information sheets for families. The literacy quilt was presented as an idea on one of the activity sheets which was designed for families. Seventy-seven squares are placed on a page of paper, arrayed like squares on a quilt. Thirty-three out of 77 are filled out with some of literacy behavior that parents could watch for and mark-off. The remaining squares are left blank so that parents can fill them in when they see a literacy behavior their children achieve other than those given as examples. The idea behind adapting the quilt activity as part of the current study was to (1) help teachers to see the wide variety of activities that might be related to the promotion of literacy learning; and (2) to promote a spirit of collaboration between the researcher and the teachers in the study.

A number of pictures were collected as part of the qualitative document analysis. These pictures of the classroom environment, and the literacy activities of each classroom provided supporting documentation and details about the context for each particular teacher, classroom, and the overall program.

Data Analysis

After all interviews of the study were completed, the researcher had them transcribed. Prior to the data analysis, the researcher listened to the interviews while reading their corresponding text to verify the accuracy of the transcriptions. All field notes taken by the researcher during the observations, class visits, and meetings with teachers were typed after each these events. These documents served as narrative supporting data for the study.

In analyzing the qualitative data, a typical procedure for case study research was followed. The researcher read the transcriptions of the individual and focus group interviews and the field notes several times looking for topics frequently mentioned, and then summarized them in brief phrases. Phrases were listed in the order in which they appeared in the interviews and grouped by categories. By refining the categories, a framework of basic categories was developed across cases and used to color-code all the interview data according to the basic categories. The researcher then looked for logical grouping and links among these categories. The categories and themes emerging from the interview data were then compared to the quantitative data.

Reliability and Validity of the Findings

In order to ensure reliability and validity of the findings, different strategies were used throughout the data collection and analysis in order to triangulate the findings. As stated in the description for Figure 1 in this chapter, data complementarity and triangulation were achieved.

Triangulation

In order to establish trustworthiness (validity) in the study, the researcher used some of the procedures described in Creswell (1998). Triangulation refers to "the act of bringing more than one source of data to bear on a single point" (Marshall & Rossman, 1999, p.194). The data for the study came from three sources; individual and focus group interviews, structured observations, and collection of documents. From the interviews, information was obtained on how the teachers reacted to the change and what kind of factors influenced their participation experience.

Peer Reviewing

"Peer debriefing" (Lincoln & Guba, 1985) or "peer examination" (Merriam, 2001) is a way of establishing credibility or internal validity. According to Lincoln and Guba (1985: p.283), peer debriefing is a process of talking "with a non-involved professional peer with whom the inquirer can have a no-holds-barred conversation at periodic intervals". The debriefing process provided an external check and additional input to the research process. Two people helped with the debriefing process, one of whom was a preschool teacher who was currently employed in a preschool and the other a Ph.D. student with an undergraduate major in early childhood education. During the process, the researcher shared the rationale and theoretical background of the study, the methodology, and analysis (emerging themes, and preliminary answers to the research questions) with peers. Sharing the analyses with peers helped the researcher obtain additional insights to aid in the interpretation of the data and that helped identify issues from the analyses that otherwise could have been missed.

Member Checking

Another way of validating data is through member checking. According to Lincoln and Guba (1985), member checking is a vital technique of establishing credibility or internal validity in qualitative research. In light of this knowledge, all participants were provided with findings

from the study and the interpretation of these results via mail. They were asked to read all of the documents to see if they accurately represented events as they remembered them, as well as their point of view. They provided feedback which was used in interpreting the data.

Findings

In this part, qualitative data derived from activities such as the construction and displaying of literacy quilts and teacher interviews are documented and presented in detail. "Literacy quilts" were created by each classroom and were considered by the teachers to be an important product of the study. These will be described in detail later. Interviews exploring the teachers' views were conducted at the beginning and end of the study. Interviews were an important component of the study, providing a viewpoint different from that which emerged from the quantitative analysis. These qualitative results will be discussed in the following four sections: 1) quilts vs. test scores (process vs. result), 2) collaboration and communication, 3) change (which, while clearly expressed in the scores in the previous chapter, its different aspects are addressed here), 4) teachers' feelings.

Quilts vs. Scores (Process vs. Result)

The construction of literacy quilts provided concrete, material goal at the end of the teacher improvement effort. It increased the focus and satisfaction of the participants and provided a tangible product to show increased understanding. The interview data clearly confirmed that having an end-product increased motivation for finishing the study. It gave teachers a focal point as they used the quilts to document new practices learned regarding early literacy. Furthermore the teachers took pleasure in having an end-product that reflected their work and children's learning in their classrooms. For example, one teacher said:

"... preparing a quilt, and it was a good way to show a whole year's activities, you know, everything you have done with children. And then it became a very important piece of my research actually. And I think it's going to be important for, maybe, a yearly event for Head Start ... I don't know. It was rewarding for me especially."

Participants reported that they enjoyed creating a shared project, a literacy quilt, with their students. Each teacher created a quilt that reflected his or her professional characteristics, teaching philosophy—particularly approaches to early literacy—and collaborative efforts. For example, one of the teachers, Julia, was a kite maker and was good at arts and crafts. She created an artistic, attractive quilt. She used 36 fabric patches—six columns and six rows—with some small fabric pockets to hold children's early literacy products. Julia's quilt held various products of early literacy work created by children in her classroom, such as a "Noose Book" which included the children's drawings of characters seen in Dr. Seuss books.

Another interesting component of her quilt was the variety of booklets reflecting the ethnic diversity in her classroom. The booklets were about the countries from which children in her classroom came. Also, there was a "Word Wall" created by the children, who selected words for each letter in the alphabet and listed these words in alphabetical order. Moreover, the quilt included three stories told by children. Julia wrote these stories down and placed them on the quilt. These stories were concerned with the themes the children had studied throughout the semester. Finally, pictures of book-reading activities were also included on the quilt.

Overall, Julia's quilt reflected the multicultural demographic structure of her classroom. It also included multiple examples of literacy in its many forms with writing samples and pictures of their reading activities. It provided visual evidence to support Julia's increased scores for reading and writing.

Another teacher, Rina, who was one of the most eager participants in the study, created an attractive quilt of 25 fabric patches—five columns and five rows. The quilt was full of examples of children's early literacy activities. Most items included were created by the children themselves.

Rina gave priority to children's writing samples on her quilt. For example, the children's hand prints with their names written next them created harmony in the quilt. Another interesting example included on her quilt was a menu for the "Walnut Woods Restaurant." The menu had food pictures with prices, all created by children. The children's imaginations were evident everywhere, for instance, "bread (10 dollars)," "hamburger (35 dollars)," "egg (4 dollars)," and so on. The quilt also included journals illustrating the children's early writing samples. Children's free-writing samples, such as names or letters of the alphabet, were included in these journals. As for reading, Rina included titles of the children's favorite books, such as Kiarra's favorite, *Clifford the Big Red Dog*, and Katie's favorite, *Goodnight Moon*, as well as pictures of book reading activities.

Another interesting and exciting component of Rina's quilt was "Label Homework." She prepared a homework sheet for students asking questions such as "What letters are in this word? How many letters in this word?"; "Can you write the first letter of this word?"; and "How does this word help us?" Rina aimed to involve parents in this activity. The children took the homework home and completed it with their parents. It was a well thought-out writing exercise which promoted parental involvement in children's learning. Overall, writing samples dominated Rina's quilt. Interestingly, quantitative measures indicated that the book reading scores of her classroom improved more than the writing scores. This may be explained by the fact that by the time observations were conducted, her focus was on reading and quantitative changes made in reading were more apparent.

As indicated earlier, Tammy was one of the more hesitant teachers at the beginning of the study. Despite this, she expended a great deal of time and considerable effort to create her quilt. She used 35 fabric patches—seven columns and five rows—and chose to decorate it mostly with pictures of the children's everyday classroom activities. These included children at the water table, children's engagement with the computer, children in the dramatic play area and at manipulative tables, as well as children's free-play activities.

As with Rina, Tammy focused primarily on writing in her quilt, including samples of children's name writing exercises. As for reading, she included only a very limited number of samples. Examples of reading activities from Tammy included a circle-time reading activity conducted by the lead teacher and a read-aloud activity conducted by a visiting storyteller. Compared to the two other teachers discussed above, her quilt had fewer early literacy activity samples directly from the children.

Tammy's quantitative scores reflected significant improvements in her scores for book reading and writing practices; these, however, were not evident in her quilt. Because of program structure, she made "home visits," which had the advantage of allowing her to establish close connections with the children and their families. Yet, Tammy's quilt did not include any early literacy activity pictures or samples from these home visits.

The fourth teacher, Maggie, created a quilt different from the others. As noted in earlier chapters, nothing was imposed on the teachers. Therefore, she chose to create a paper or poster bound quilt instead of a fabric one. It's important to note that teachers were given all of the fabric and supplies they needed for this activity at no expense to themselves. Maggie also had a different display approach compared to the other teachers.

While the other three teachers attached children's work samples to their quilts, Maggie only put pictures of the children's classroom activities that she related to literacy. She used 16 squares arrayed in four columns and four rows, and she put two activity pictures depicting activities on each square. She created her quilt as a display of her classroom activities and used pictures of all activities, such as dancing, field trips, eating, painting, etc., as well as early literacy activities. By the end of the study, her classroom's reading area had become more inviting compared to the other classrooms. One picture on her quilt showed that the children were smiling and laughing during the reading activity demonstrating that they enjoyed their time; this was one of the rewarding results of the study. As for writing, pictures on her quilt revealed that children were actively using

the writing table and they were writing their own names and creating writing pieces for their mothers, fathers, friends, relatives, etc.

Overall, Maggie's quilt was different from the others in both style and content. Compared to the others, Maggie did not seem to put a great deal of effort into creating it. Her pictures included almost every classroom activity she did on a daily basis, even though some of them were difficult to connect directly to literacy.

Collaboration and Communication

A spirit of collaboration and increased focus on communication emerged among participants. The data collected from individual teacher interviews and focus groups demonstrated that the study gave teachers chances to exchange ideas about their classroom environments, teaching strategies, and philosophies. It was evident in individual teacher interviews that most of the teachers enjoyed these professional idea exchanges.

The participants stated that the collaborative environment encouraged other teachers who had been reluctant to try in the beginning. This was taken as evidence of capacity building which was hoped might contribute to sustaining the momentum for positive change throughout the program. Rina reported that the study provided an opportunity to talk with the other teachers, and she believed that being together with other teachers was the real key. She recounted the dialogue among teachers this:

"Well, what are you doing about this ...?" or, "How are you changing this ...?" and, "What have they told you about this area ...?" and things like that. I think that was helpful. And certainly it can be used in the future and we will."

Tammy commented:

"At first some—you know, one—of the teachers would say, "Not ever going to do this again." But once they started getting into it and saw the teachers, they were pretty excited about it. And that was really nice, to hear the teachers talk with each other, share ideas, and the overall project that they did. I mean it was so exciting, and it really made them think a lot about literacy."

Also, the study facilitated interaction among all teachers in the Head Start program. Each year the Head Start program holds a "teacher retreat." At this meeting, program teachers share their experiences, difficulties, and successes with children. The communication was evident in the fact that this year's teacher retreat focused on the creation of the quilts by the four teachers participating in the study.

The program coordinator stated:

"The nice thing about it, the teachers no longer had to worry that anybody was recording what they said, and it was just a really nice way for them to dialogue with their colleagues and have their colleagues say, 'Really? How was that?' And they would say it was a lot of work, but when we gathered all of our materials, we realized we could have filled three quilts. So you know, I could see the wheels turning with some teachers. I wouldn't want to do one that big, but I'd like to do one. Someone even said, 'I think we should all have to do this.'"

Increased collaboration and communication between teachers and parents were another result of the study. Julia stated that many positive things in this regard had come out of the study. Parents talked to her about their children's participation and the things they were working on in the classroom, and in the end parents were very thankful that their children were able to participate in this event. Julia also stated:

"If they can visualize and see what we actually worked on with their children, then they are like, "Wow, look at that!" When you display children's work and share that with parents, have that open for them to come in and see, they're going to react more positively than if you don't share that information or those special things with them. Is that it?"

In addition, Tammy emphasized that the study really opened parents' eyes, because even though the school day is three hours long, she was able to show that they were successful in what they were doing.

The teachers and the Head Start administration had very positive views of the cooperation and collaboration between the research team and themselves.

The program coordinator, who was one of the leading supporters of the study, had very positive feelings about the effects of the study and commented:

"We feel honored, really, to have been asked. And I know over and over again the classroom has said, 'It was the most stressful, rewarding, exhilarating, overwhelming, wonderful experience.' So you know there were moments when I know they all felt overwhelmed, but for the sake of the children they did it".

Change

Information from the interviews supported the change in attitudes and practices found from the qualitative results. The quantitative data for this study clearly revealed that changes occurred during the study, but did not reveal the story behind the changes. This section will explain "behind the scenes" aspects of the change process. This section is divided into two sections: "change in attitude" and "change in practice."

Change in Attitude (Philosophy, Beliefs, and Thinking)

All the teachers, except one, stated that their philosophy or thinking about early literacy did not change, but that their early literacy practices did change. This was an expected result, as shown in Figure 1. Guskey (1986) stated that teacher beliefs and attitudes were the last ring of the change key. Therefore, rapid changes in teachers' beliefs or philosophies are generally not expected after professional development interventions. However, Julia reported that her philosophy did change somewhat after the study. She stated:

"Well, somewhat. I am just looking at literacy a whole different way, and there is just—you can incorporate literacy all day long, just with transitions. You can include literacy when you are doing math, when you are doing science, and the different centers. There are ways to just incorporate it."

This somewhat rapid philosophical change in this one teacher may be explained by several factors. First, this teacher held a B.A. degree, and educational level may be a factor in belief changes. Second, she was very enthusiastic about the study, and her scores were the highest among the teachers participating in this study at the post-test period. Thus, enthusiasm and willingness could be other reasons for the change in her thinking.

Change in Practice

Change in teachers' early literacy practices was a target goal of the study. Both qualitative and quantitative data confirmed that all of the teachers' practices did change over the course of the study. These practical changes, however, occurred in two domains: First, in the physical environment, including utilizing the environment for increased literacy activities, and so on; and second, in teacher practices, including increased creativity and awareness, pillow talk, library visits, and so on.

Change in the physical environment was obvious in each classroom, and all teachers redesigned their classrooms during the study. But changes in practice were different for each teacher. Some made what they considered radical changes, whereas others made changes they thought improved their instruction. For example, one of the teachers, Maggie, was writing down children's daily interactions on behalf of them and was not displaying or keeping children's works in the classroom; instead, she was sending them home with the children at the end of the day. During the after-study interview she stated:

"And now we write a lot more down, so we have a lot more books that we can go back and re-read. And we've done that and the children have enjoyed hearing things that they have done. And, 'Oh, I remember that,' they would say. So, yeah, I spend an extra minute just writing stuff down; it has really helped a lot here".

Another teacher, Rina, also reported changes in the learning environment. She stated:

"We increased the writing center, and we'll always have that. And we're constantly thinking what can be added to that, because we saw that if one child goes, ten go. And you know that definitely was a big plus in our room, the placement of it, and now the materials that we've put in there to it. So that will always have a special area. We probably would never change that."

Overall, the statements below by Tammy about herself and her colleagues are the summary of the effect of the study on teacher change. She commented:

"I think that teachers at first—some teachers [resisted], it's hard to get them to change. They have a set way. But I think I saw some growth in everyone. I saw some growth in all the teachers. And, I and they were just so excited about it, and they were proud of it."

The results showed that it is very important to create opportunities that encourage teachers to share their experiences with others and to allow them to be proud of themselves and their accomplishments. Their excitement created a hope that this project would reach other teachers in the program and help them as well and that the changes that occurred would be lasting.

Discussion

The central research question for the current study was as follows: Is a collaborative (university-school) partnership study designed to facilitate (support and mentor) Head Start teachers effective in improving their literacy-related curriculum practices?

The data support a conclusion that, at least in this case, a university-school partnership can impact literacy practices. Teachers who were provided with this teacher improvement program and ongoing support changed their practices from the beginning to the end of the study period. Specially, they seemed to improve their efforts to meet the early literacy needs of children, the targeted goal. Unlike most previous studies (e.g. Wasik and Bond, 2006), which resulted in change to a specific domain or created an impact on a limited behavior, the current improvement effort created more broad-based change. It impacted teachers' beliefs about early literacy, how they arranged their classroom environments, as well their notions of the value of a research partnership with the university. Also, similar to other teacher improvement programs, the current study tried to change teachers' beliefs and practices, but unlike other programs the change was expected in their practices first. For this, the discussions among teachers and researchers and the constancy of meetings helped teachers to understand what it means to teach early literacy and what counts as good early literacy practices. They also learned what kind of environmental support is best for children to be able to develop their reading/writing skills during the course of the study.

As Campbell and Milbourne (2005) stated "changes in practices are less likely to occur when professional development is removed from the actual experiences of child caregivers" (p. 3). In contrast to -day-long sessions or week-long workshops in which there is limited follow-up with the teachers in their actual settings, in the current study, researchers spent several hours per month in their classrooms, observing, mentoring, or coaching the teachers. The length of the project enabled each teacher to find the support and time needed to change her literacy practices. Also, being within their own daily routines and familiar environments removed the stress that may result when engaging in professional development activities. In other words, it was less stressful to engage in a professional development program in their own setting, perhaps resulting in them being more willing to take the risk of making change than they may have otherwise.

Classroom environment can play a central role in promoting children's early literacy development (Neuman & Roskos, 1997, 1998; Roskos & Neuman, 2001). The limited integration of early literacy related materials into some of the classrooms may have been related to the organizational structures of classroom environment on children's learning. Despite this, through awareness was increased and horizons broadened for all four teachers related to early literacy learning. At the end of the study, the teachers were more likely to plan and implement opportunities for children to interact with print, they had integrated books into interest areas outside of the library corner, and children had direct access to literacy materials and activities in newly improved and attractive writing centers.

In addition to the collaborative nature of this project, the other guiding principle was not imposing change on teachers. As the results of this study suggest, all four participating teachers were quite successful in achieving their goals during the study. The main reason for this high success is the motivation level of participating teachers. All four of the participants were highly motivated, because they themselves set their own goals. Thus, it is fair to claim that it is necessary to provide freedom to set individual goals in the kind of studies. However, this freedom should not be interpreted as complete freedom. The experts of research studies, in this case the researcher, must provide the background and information regarding strengths and challenges that each participant faces. As this study suggests, this can be done through pre-evaluations of the classroom and teaching environment as well as the teacher's skills. Thus, while the participating teachers were highly motivated, the success of this study rests as well on the guidance that the researcher provided to the participating teachers.

Through the process of preparing the quilts, a true working research partnership was established between the researcher and the participant teachers. In order to create these quilts teachers and the researcher met very often and exchanged ideas. Therefore, teachers kept themselves motivated during the whole study by the help of the researcher and the enthusiasm of their colleagues. At the end, through the Family Literacy Night and the staff retreat, teachers showed their products to parents and other teachers at Head Start. The feedback they received made them very proud and their self-confidence level increased. One teacher stated that fear of being watched and recorded is not a problem anymore.

The collaborative nature of the project helped the teachers to succeed in reaching their goals at the end of the study. Working with university partners provided them research based input and practical models for changing their early literacy practices. It also gave them confidence to take the steps necessary to change their environments. Also, meeting with fellow teachers and seeing their colleagues' environments provided the opportunity for discussion and reflection about their work. Furthermore, instead of a top-down approach, as in most of the studies reviewed for this study, the trusting relationship among the partnering researchers and teachers created a safe context for change to occur.

The researcher was able to make conclusions about how and why the study was effective by examining what teachers valued in terms of literacy practices at the beginning and end of the study, interrogating what the factors support or hinder the use of recommended teaching practices, and through identifying what specific behaviors changed. These are all detailed in the preceding chapters and led to three additional conclusions: (1) collaborative teaching improvement programs can work if they are long-term and motivating to the teachers; (2) the context and physical attributes of the setting may impact the effectiveness of studies; and (3) having some kind of product or ending goal may provide motivation to participate and succeed in such an initiative.

Conclusion

In brief, early literacy is embedded in the daily routines of a classroom, and teachers need encouragement, knowledge, and support to navigate, facilitate, and increase these early literacy opportunities for children. In the study, through long-term dedication to the process, materials

provided to the teachers, in-class meetings, one-to-one interactions between teachers and researcher, and having an end-product, the teachers' knowledge, perceptions, and motivation to engage in appropriate literacy learning activity were enhanced. Eventually, they started to incorporate more literacy related activities and further, they indicated strongly that these changes would be lasting and sustained as long as they were teaching.

The teaching staff is one of the most important components of a Head Start program. Teachers must have a strong understanding of early literacy and language development because teaching staff have the responsibility of creating the classroom environment, designing early literacy activities and experiences, and interacting with children to build and expand their skills. In the current study, teachers did not appear to have solid foundational knowledge in early literacy and language development. This highlights the critical need for ongoing teacher improvement programs for teaching staff to develop foundational knowledge in early literacy and language practices that align with early literacy theory.

High-quality programs require highly-qualified teaching staff. Early childhood education teacher programs must therefore make a commitment to ensure that their graduates have the knowledge and skills to meet the literacy and language needs of the children they serve. Ensuring the high qualifications of teaching staff requires that early childhood programs, including Head Start, devote funding to ongoing professional development. Through such programs teachers can develop their knowledge and competence in supporting all children's early literacy and language development. Continued research in the field should support the design of effective teacher improvement programs and early literacy and language programs so that all children can have access to the instructional support they need to develop literacy competency and succeed in school.

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