Right from the Start: A Kindergarten Program that Helps Prevent Reading Failure

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This article describes a study conducted with four Kindergarten teachers and students. The researchers were the building’s literacy specialist/reading teacher and a college professor teaching pre-service teachers on site at the school. This was a naturally evolving teacher research study generated from questions raised as children demonstrated literacy achievement at the end of their kindergarten year. An assessment of kindergarten students’ end of year word recognition level — to determine those who qualified for intervention services in grade 1— triggered kindergarten teachers’ queries about the developmental appropriateness of their current curriculum; they questioned their methodologies and resources when considering the literacy interests, experiences, and skills children demonstrated at the beginning and end of kindergarten. In response, the reading teacher collaborated with kindergarten teachers to infuse a more developmentally appropriate literacy curriculum. The on-site college professor participated in end of year assessment and analyzing data. Measures reflected positive growth in students’ word recognition, book interest, and reading levels; teachers’ confidence and ability to reflect on practice also increased.

Mediating Change

Ours is a story of change—a change that began with one teacher’s question, but developed into a search so powerful that it eventually drew in teachers, students, parents, and the local community. We found that transforming methodology often requires that teachers “rethink their own practice, to construct new classroom roles and expectations about student outcomes, and…teach in ways they have never taught before” (Darling-Hammond & McLaughlin, 2011, p. 81). As this story of change unfolds, it will become clear how much teachers’ collaborative reflection on their pedagogy is positively correlated with students’ learning. Indeed, the authors now believe we must begin that self-questioning right from the start.

Don’t Mess with Kindergarten

Kindergarten, once an entity unto itself, was typically omitted from school-wide
curriculum planning. It was a kind of sacrosanct area. An unstated feeling seemed to permeate most school districts: “You don’t mess with kindergarten.” Many educators still fear we are “pushing” kindergarten children when we invite these youngsters into reading and writing; beginning literacy instruction has traditionally been held off until first grade. However, in many schools the expectation gap between kindergarten and first grade has become an enormous chasm—one in which many children become lost.

As this chasm widened at First Street School (psuedonym), teachers began to question their practice and then openly invite the seeds for change. Thus, over a period of four years, four kindergarten teachers, T., K., B., and A., the school’s literacy specialist/reading teacher (RT, 2nd author) and a site-based college reading professor (RP, 1st author) worked together to mindfully mediate the kindergarten literacy curriculum. Along that journey, we all grew to respect the words of Bredekamp & Rosegrant (1992), “DAP [developmentally appropriate practice] does not mean that teachers don’t teach. . . the truth is that good early childhood programs are, of necessity, highly organized and structured environments that teachers have carefully prepared. . . [C]hildren are actively involved and assume some responsibility for their own learning” (p. 5). Moreover, developmentally appropriate practice (DAP) involves instruction that is in “harmony with the natural growing process” (Shea, 2011, 8); it responds to children’s natural curiosity about language processes they observe significant others using to get on with the business of life. Broader developmentally responsive curriculum is built on such pedagogy; it offers students acceptable challenges while being responsive to their interests and needs (Bredekamp & Copple, 1997; McGill-Franzen, 2006). We also learned that a harmonious balance between two critical components of brain development, challenge and feedback, are always a part of growth (Jensen, 1998). This paper describes a journey and the manner in which it was hued and shaded by a group of teachers who continue to examine their pedagogical beliefs and the methodologies that flow from them.

**Planting the Seeds of Change**

First Street School, one of four elementary schools within a suburban school district, usually houses four full-day kindergarten classes with a little less than one-quarter of its students from low-income families. One reading teacher services the entire school of 400 students. Since the school is part of a Professional Development School (PDS) partnership with a local college,
undergraduate and graduate classes are taught on-site; pre-service teacher candidates complete fieldwork in classrooms throughout the building. Their professor is often in the school and, occasionally, helps support classroom instruction. That’s how the RP became involved in this study.

Most of the First Street School students enter kindergarten with the ability to name more than half of the upper and lower case alphabet letters and are familiar with books. Regardless of this fact, before the program change to be described was implemented, about one-third of first graders had significant difficulty learning to read; these children were referred to the reading teacher for assessment and help.

In an effort to provide earlier interventions, the RT assessed all first graders who were identified by their teachers as struggling. After a series of mid-year assessments, the RT provided in-school, academic intervention services (AIS) for only those first graders who could not match speech to print. It would, however, have been far more beneficial if students needing more early literacy experiences were identified before first grade. To provide that, literacy data needed to be gathered before students arrived at the doorstep of first grade. But, that meant that someone would have to mess with kindergarten!

**Messing with Kindergarten**

Before this study began, the kindergarten classrooms in First Street School could be characterized as comfortable, positive environments. Big books were used extensively with a focus on *concepts about print* (Clay, 1991), such as directionality and illustrations; but enjoyment of a literacy experience was also a primary goal in these classrooms. Letter recognition and phonological awareness were often included, but there was minimal emphasis on building sight vocabulary or actual independent reading. Class activities, ones typically focused on holiday themes, effectively integrated social studies and science concepts with the inclusion of read-alouds that built children’s listening vocabularies and background knowledge. Children were regularly invited to share their ideas and thinking—orally or through drawing, rather than in writing. Since children were not expected to be independent readers or writers, these classrooms had exceedingly limited libraries with fewer than 50 emergent level texts. They were like those that Morrow (1983; 2009) identified; that is, they exhibited limited use of literature and few opportunities for children to independently use trade books.
However, shortly after exiting kindergarten, these students were thrust into a **wholistic** (Botel, 1994) first grade curriculum; in that environment, they were expected to engage in shared, guided, and independent reading and writing with lively discussions about the books they had read and the writing they had crafted. Reading and writing experiences were integrated across first grade curricular disciplines for multiple purposes. This was a quantum and sudden leap for some kindergartners! But, these readiness expectations for success in Front Street’s first grade classrooms are consistent with national standards adopted after this study — ones kindergarten teachers are currently striving to meet. Common core state standards (CCSS, 2012) have expanded what kindergarten students are expected to learn, reaching beyond basic concepts about print to include “Read common high-frequency words by sight (e.g., the, of, to, you, she, my, is, are, do, does)” and “Read emergent-reader texts with purpose and understanding” (p. 16).

Identifying kindergartners who appeared unprepared for a first grade curriculum seemed critical. Knowing this, the RT decided upon a least-intrusive measure—one that would still provide some valid information on each child’s end-of-kindergarten reading progress. Thus, she tiptoed in to mess with kindergarten.

**Screening for At-risk Students in Kindergarten**

It seemed like a quick sight vocabulary assessment would help to identify students needing intervention. The school was using the **Rebecca Sitton Spelling Program**, consisting of a list of high-frequency words; it seemed to be a logical, efficient assessment tool for the purpose. The Sitton word list contains 1200 high frequency words (core words) that comprise 90% of all words used in early writing and emergent level books (Sitton, 1996; 2002). Only high frequency words were used for the kindergarten assessment. For example, the first ten were: the, of, and, a, to, in, is, you, that, it. This was a first; in the past, kindergarten children had not been given this word reading assessment at the end of the year.

In June of Year 1, the RT began to intervene in kindergarten. She assessed students individually, using the first 10 Sitton words. Children were asked to read from enlarged-print word cards; those who read at least 8 of the first 10 words were presented with the next 40 to read. Those, who knew none of the first 10 words, were identified for services, beginning in September of grade 1.

What seemed like a simple, nonintrusive information-gathering process soon sparked a
great deal of questions and pedagogical inquiry from the kindergarten teachers. “Should we be teaching those words?” and “How should we teach them?” they asked. That was in June. However, many more questions steeped over the summer. In September, the kindergarten teachers wanted to examine their practice and consider new approaches. Multiple teacher-generated questions propelled the research that followed. Each set a purpose, guiding our survey of professional literature, ongoing discussions, and collaborative teacher inquiry.

- Should we [kindergarten teachers] change our practice to include early literacy experiences?
- How can we apply DAP in ways that meaningfully include early literacy experiences?
- What difference would changes have on children’s literacy achievement?
- Can you [reading teacher and reading professor] work with us?

**Review of Research**

Collaborative inquiry is essential as teachers work toward refining pedagogical practices (Gunning, 2010); understanding that instructional approaches are only as sound as the results they effect, teachers need to know that suggested interventions have a high potential for success (Allington & Walmsley, 2007). This requires evidence that others have had success — that the methodology is supported by research in the field (Vogt & Shearer, 2011). Throughout our collaboration, we discussed professional articles and books. We kept current in the field, attended workshops, and participated in professional organizations. We even presented “Right from the Start” workshops at national conventions. Throughout this partnership, we gathered background information that supported our journey into kindergarten literacy.

**Developmentally Appropriate Literacy Instruction**

How can we accomplish the national goal of having all children become successful readers, writers, and learners? Today’s government mandates tell us that schools should mess with kindergarten. Knowing that all children come to school with literacy knowledge (Beaty & Pratt, 2011; Cambourne, 1989; Carr, 1999; Clay, 1979; Durkin, 1966; Ferreiro & Teberosky, 1989; Genishi & Dyson, 2009; Taylor, 1983; Wells, 1986), it seems reasonable that kindergarten should be a place that allows students to continue that learning (Beaty & Pratt, 2011; Bredencamp & Rosegrant, 1992; Durkin, 1966; Fortson & Reiff, 1995; McGill-Franzen, 2006).
Yet, how this is done can make all the difference in the world. Whitehurst & Lonigan (1998) purpose that learning to read and write is not a matter of ‘readiness’, but rather, competencies that emerge from routine activities — interesting print-related interactions that a child has with significant others in his/her environment. This paper describes the way in which a group of teachers did this by redesigning their curriculum to prevent failure in reading. That curriculum scaffolded all kindergartners to higher levels of literacy without the use of scripts and manuals or regimentations and skills sheets.

**Catching Students Before They Fall**

Research demonstrates that once failure sets in, it is almost impossible for a child to catch up with his peers (Allington, 2001; Clay, 1979; Good, Simmons & Smith, 1998). Therefore, it seems imperative that we catch children before they fail. Many early intervention programs (before second grade) have been effective (Allington & Cunnington, 1996; Allington, 2001; Cunningham & Allington, 2010). However, even some of those operate on a failure premise; that is, the student must have demonstrated a lag in reading achievement to qualify for the program. We need to develop a curriculum that would support literacy-rich experiences in kindergarten before a child is expected to be reading, in other words, at a time when he cannot be considered a failure (Cunningham & Allington, 2010). These experiences should replicate natural, home-based literacy interactions (Bissex, 1980; Cambourne, 1989; McGill-Franzen, 2006; Morrow, 2007; Shea, 2011; Taylor, 1983), the kind characterized by Durkin’s (1966) successful “paper and pencil” kids.

School literacy instruction, founded upon principles of developmental learning, will actually emulate home literacy experiences. Holdaway (1979) explains that “... the way in which supportive adults... intervene in the development of their children proves... to embody the most sound principles of teaching. Rather than providing verbal instruction about how a skill should be carried out, the parent sets up an emulative model of the skill in operation and induces activity in the child which approximates toward use of the skill... The activity is then ‘shaped’ or refined. ... From this point of view, so-called ‘natural’ learning is in fact supported by higher quality teaching intervention” (p. 22).

Such a model would provide a scaffold for every student, regardless of his level of literacy development. Therefore, we relied heavily upon Holdaway’s theories.
Scaffolding Students to their Next Level

Determining a learner’s entry point is a first step, but withholding instruction in new areas until that learner initiates forward progress is not an appropriate second step. Socio-literate experiences, ones that scaffold each learner forward through his personal zone of proximal development (ZPD) (Vygotsky, 1986), become catalysts for growth. This is very different from “the gift of time” or readiness perspective (Langer, Kalk & Searls, 1984) that for years seemed to undergird the kindergarten curriculum. Effective instruction nudges learners toward the next level; it scaffolds initial attempts at new skills and reinforces performances until mastery is achieved (Bruner, 1973; Vygotsky, 1986). Scaffolding doesn’t change a task’s level of difficulty; it simply makes the task achievable for the learner (Bodrova & Leong, 1998) scaffolded through his ZPD (Dodge, 2005). As Fortson and Reiff (1995) purport, “Vygotskian theorists and those urging brain-compatible teaching advocate placing children in rich learning environments that naturally hasten development” (pp. 75-76). Such rich learning environments are actually a right that every child deserves — especially if those environments are absent in his home life.

“Because we cannot always assess accurately the ways children learn best, we must design programs that offer a rich variety of appropriate learning experiences to challenge children in different ways” (Fortson & Reiff, 1995, p. 99). Starting early with developmentally appropriate literacy activities can be effective in children’s construction of fundamental knowledge about reading and writing. It provides the soil into which each child can plant seeds for literacy (Cole, 2004; Hiebert & Taylor, 2000; Price, vanKleeck, & Huberty, 2009).

Literacy Can Be Fun, Too!

Nevertheless, maturationalists continue to foster a curriculum focused on social and emotional development with free play activities serving as the fundamental vehicles for learning (Langer, Kalk & Searls, 1984). But, we ask these free-play theorists: Cannot reading and writing be playful activities as well? Are you advocating merely teaching children to become dependent upon their environment for learning while failing to scaffold them toward the foundations of literacy? Vygotsky (1986) contends “egocentric speech emerges when the child transfers social, collaborative forms of behavior to the sphere of inner-personal psychic functions” (p. 85). Thus, when traditional free-play activities replace literacy experiences, they may not impede the development of those who come to school with rich literacy backgrounds, but “what the child
who is least ready for systematic reading instruction needs most is ample experience with oral and printed language, and early opportunities to begin to write” (Anderson, Hiebert, Scott, & Wilkinson, 1984, p. 29). Indeed, all children profit from early, rich literacy experiences (Cambourne, 1989; McGill-Franzen, 2006; Morrow, 1983; 2007; 2009; Neuman, 1998; Shea, 2011). We must then ask, “Why can’t we have both free play and literacy experiences?” That was the goal for First Street School kindergartens.

Program Methodology

Should We Be Teaching Those Words?

“Why did you pick those words?” the kindergarten teachers asked. “Should we be teaching those (Sitton) words? Should we be putting them on flash cards?” Such questions became the grist for literacy conversations between the kindergarten teachers, the reading teacher, and the reading professor. They continued to sculpt the methodology that was being refined.

The kindergarten teachers’ initial question was easy for the RT to answer; the teachers were pleased to connect to Sitton words because they were something the rest of the school was using. However, other questions moved the conversation into methodology; as we began to discuss ways in which easy beginner books could help students acquire sight vocabulary, the teachers interjected yet another question: “Where can we get those books because we don’t have any right now?”

“You don’t?” exclaimed the RT, who was caught completely unaware.

That question caused all of us to take inventory of materials and opportunities available to children in kindergarten and to determine where we could make needed changes. We quickly realized that the kindergarten classrooms had many big books, as well as a few smaller trade books that teachers read to the children, but they housed few little books with easy patterns that the students themselves could read (or pretend-read). Thus, one of the first things we did was to order lots and lots of small patterned books that provided ongoing opportunities for reading.

The issue of writing came up as a way to learn “those words,” and the teachers asked, “How do you teach writing to kids who can’t write?” We suggested letting the kids start where they were — to freely explore and experiment with print forms as they used print functionally for recording personal messages. “No matter what, let them [children] write every day” (Ray, 2004,
p. ix) was the mantra proposed; students were invited to use sound spelling, copy from words in their environment, draw, or scribble when encoding messages or making books. After such initial forays into print, teachers gently began to scaffold children toward matching the sounds in their speech to letters in the words they were writing. The teachers used *soft teaching... [to] encourage, respond, coach, and answer questions in all the right ways*” (Shea, 2011, p. 7). More and more, children’s writing reflected acquisition of sound/symbol correspondence, particularly with consonants, and accuracy in writing and reading a number of high frequency words. We also ordered pictionaries (i.e. books with illustrations of common scenes such as a farm, city, school, or home that included extensive words labels in the picture) and began developing word walls that enhanced print awareness, word reading, and writing.

Yet, as each of the kindergarten teachers will attest, the most important literacy change that year was the inclusion of a daily language experience (write-aloud) lesson we called “Our News.” For almost 20 years, the RT had had success using a news approach when she taught kindergarten and first grade. Aware of this, the kindergarten teachers invited her into their classrooms to demonstrate “Our News”. The teachers first adopted it in its demonstrated form, but, then, they adapted it to their own needs. They used it every day. T. confirmed, “Our News has evolved into being our most powerful and meaningful teaching tool.” Something this meaningful and powerful warrants a more explicit explanation.

**Using “Our News” for Kindergarten Write-Alouds**

“Our daily Kindernews. . . is one of the most important, if not the most important, language/reading/writing experiences my students. . . are exposed to on a daily basis,” affirms K. That is why all of the teachers now introduce the news on the first day of school each year. Yet, they each carve it in their own fashion. But, consistently, all of them model, model, model everything that first month of school.

During September, two of the kindergarten teachers maintained the same instructional pattern each day; they used think-alouds, verbalizing thoughts as they wrote the weather, date, special classes for the day, and other important events. The other two teachers followed a more child-centered approach; they invited the personal news and dictations of students when constructing this daily document. However, adjusting to students’ attention spans, all four only wrote a few sentences each day.
Three of the teachers used the overhead projector and transparencies to demonstrate the processes involved in writing, while the other teacher used large chart paper. The transparencies were easily copied for children to take home that day. B. word-processed her charted news on the computer. She explained, “Each morning throughout the year, I sit at the computer and write or copy what has already been written at the easel. As the year goes on, I ask for an assistant; that person reads each sentence to me as I type the news at the computer. Then, I read it back to the children to verify the accuracy. As I read each sentence, my assistants respond with, “Check!” to let me know it is correct.”

K. suggested that her “Kindernews” is a good place to teach skills and writing conventions that students need to possess to be successful in first grade. She says, “I present them in such a way that is a natural and comfortable progression for the kids. Once we begin to get comfortable with providing information for the Kindernews, I shift gears a bit, and ‘steer’ the Kindernews into a piece of writing that uses the kids’ names, commas, quotations marks, and other common print forms. I always tell them that I want their moms and dads to know the person behind the information. An example of this would be something like: Connor said, ‘Today is Tuesday, November 18, 20--.’”

All four teachers provided a list of skills that they wove into this meaningful context throughout the year: letter identification, beginning sounds, spaces between words, punctuation, sight vocabulary, word endings (e.g., ing), using capital and lower case letters appropriately, making words plural, using ‘s to show possession, rereading for meaning, sounding through words and much more. Furthermore, “[I’t’s] a great place to teach mini-lessons! [They] “pop up all the time, and the important thing about these mini-lessons is that they happen meaningfully,”(K.) because using the context of the children’s own lives is a powerful motivation for learning.

A. explained, “As each child reports his/her news sentence, the rest of the students are encouraged to ask that particular student questions to spark interest. It is then time to record the child’s news sentence. The magic of that child’s words turning into print before his/her very eyes has a great impact on the young learner. . . by November the majority of the class is chiming in, very proudly spelling T-H-E, as if it were a word that they have been spelling since birth!”

All of the teachers use the news as homework; that is, the students are asked to read it to their families each night. Teachers also tack mini-activities onto the end of the document each
day. For instance, kindergartners may be asked to circle the words they know or to find a friend’s name.

“The homework evolves as the kids evolve. At the beginning of the year, we focus mainly on letter searches and, then, gradually, on word searches. The word searches use sight words on Rebecca Sitton’s spelling list in addition to classmates’ names, days of the week, or names of familiar places”, reports K.

By spring, when students’ confidence and spelling ability has developed, “they actually write their own news on our overhead,” celebrates T. At that point, it seems we’ve all worked ourselves right out of a job!

**Other Important Methodology in the Kindergarten Program**

Although the news was number one on their list, the four kindergarten teachers suggested other facets of their program that have been influential in teaching all but a few students how to read before they enter the doors of first grade. The following list of reading and writing experiences provides an overview:

**Reading Experiences:**
- Shared Reading Experiences
- Sustained Not-So-Silent Reading
- Read-Alouds
- Poetry Charts
- “Sharing” Appointments
- Poetry Notebooks
- Listening Centers
- Exposure to Multiple Genres

**Writing Experiences:**
- Journal Writing
- Class Shared Writing
- Writer’s Suitcase
- Clipboard Writing
- Free Choice Computers
- Multiple Media (chalk, crayons, magnetic letters, rubber stamps, technology
Teachers noticed that these activities and children’s greater participation with print increased motivation. "When the kids realized that they could read those words, it gave them so much confidence to take the next step." According to Wilkinson & Silliman (2000), ”Reading lessons should be designed to motivate students to want to read and to provide them with opportunities to develop their literacy skills, knowledge, and social competencies” (p. 353).

**Targeting those with Less Experience in Literacy**

As we developed these literacy experiences that first implementation year (year 2), we began to realize that the more we knew about learners and the earlier we knew it, the better able we would be to influence children’s literacy development in a positive, accelerated fashion. In year 2, we decided to investigate the students’ development more comprehensively by using Clay’s (1993) *Observation Survey* in September and June for this first cohort that would experience an enhanced kindergarten curriculum. Although this was a year of gradual implementation of new instructional strategies as the RT modeled each in classrooms and kindergarten teachers became familiar using them, everyone was jubilant over that first year’s post data. Despite consistently low pretest scores, we knew it was important to administer the assessments at the beginning of each kindergarten year to have pre and post measures. That way, we could actually see just how effective our instructional strategies were; more importantly, we could plan for targeted interventions in September. Growth was apparent; however, within group statistical comparisons of pre/post scores on assessment measures were not done.

It is not surprising that the kindergarten teachers began to make instructional decisions based on information from these assessments and observations of children’s daily performances. Those decisions paved the way for earlier interventions. However, during the first year of change (year 2), we realized we needed data points on children’s achievement to deliver targeted interventions before the end of children’s kindergarten year. This led to a mid year (February) schedule for assessment in years 3 and 4, using the Observation Survey Writing Section and running records to identify struggling learners and provide them immediate assistance. Protocols were set up to accelerate the literacy growth of inexperienced students. Consequently, over the course of the next two years (years 3 and 4) necessary interventions were offered sooner. However, because this school of over 400 had only one reading teacher, we were forced to become creative in designing intervention. Thus it was that we began to rely on the resources of
The Read-With-Me Program

*Reading with Senior Citizens*

Research demonstrates that those children who have been read to at home have the greatest success in reading in school (Chomsky, 1972; Gunning, 2010; McCormick, 1977; Paratore, 1995; Price, vanKleeck, & Huberty, 2009; Snow, Burns & Griffin, 1998; Wells, 1986). The more we discussed this fact, the more reasonable it seemed that we should offer those without that background the missing ingredients. This can have dramatic effects on literacy growth (Neuman, 1998; Price, vanKleeck, & Huberty, 2009). Therefore, we set up situations where those who appeared to lack the experience could participate in a home-like literacy situation in the school setting. The RT visited the Amherst Senior Center inviting those who were interested to come in one day a week for two hours to read with several different children. The RT presented brief, in-service workshops to senior volunteers. She explained how they would read and discuss a rich story from books provided. However, she took the experience one step further, explaining how the seniors would offer repeated readings using a different kind of book, one whose strong pattern and minimal words would invite children into the process. To demonstrate further, the RT showed videos of how she pointed to the words while reading these large-print books — how she sometimes faded in and out, inviting the students into the process. Seniors loved the idea and jumped headfirst into the process. It wasn’t long before our predictions were realized.

“Each week students look forward to the special one-to-one reading that takes place with this program. In the beginning, the volunteers usually read to the K students, but as the year progresses, many students start to read to the volunteers,” explained T. This is important because a good kindergarten program should also prepare children to read by themselves (McGill-Franzen, 2006; Snow, 1998). In the first two years of the program seniors read on couches in A.’s room, using her materials. But, due to overcrowding, one couch now serves as a reading place in the foyer outside the kindergarten classrooms, where “we can watch K students glow with pride and excitement as they read their stories,” says T. It is readily observable that the children, teachers, and seniors appreciated and benefited from this program.
Reading with K-Buddies

Another part of the Read-With-Me program has involved fourth and fifth grade students, who are asked to volunteer 15 minutes of their lunch hour twice a week to go to a kindergarten room and read with an assigned K-buddy. This time all students have a buddy to guide them. Yet, before their first experience, the RT presented a brief workshop to these tutors, making them aware of effective mentoring protocols. The tutors enjoyed finding favorite books to read to the kindergartners; before the end of the year, the tables turned and most of the kindergartners were reading to their older buddies!

Reading with Parents

Eventually, it dawned on us that our intervention strategies were omitting an important resource — the child’s family. How could we approach parents? We decided we first needed some tools to assist us. So we all got together to write a P.D.S. grant offered through the RP’s college. The grant money was used to purchase zippered book bags printed with a logo (created by a kindergarten student) for the Read-With-Me program. Selected students used these; each child, with the aid of the librarian, selected five books each week to take home and read with parents. The school purchased small journals in which parents could log books read; this helped teachers keep track of each child’s experiences.

The RT met with each of the parents to offer the same kind of information she had presented to the senior citizen readers and K-buddies. However, this time the child was also present. To both child and parents, she explained the two kinds of books they would receive each week: (1) books with few words and large print that could be used to track one-to-one word match and (2) books with lots of print on each page that could be used to celebrate story as well as build concept and word knowledge. The RT also demonstrated specific mediation behaviors used during read-with-me experiences: feedforward, feedback, and keep-going strategies, along with lots of praise (Cole, 1995). For the read-to-me experiences, she demonstrated wondering, extending information, clarifying, restating, sharing personal reactions, and making connections with life or other books read (Morrow & Gambrell, 2000; Cole, 2002). Young children participating in book reading with caregivers had expanded opportunities to practice and extend literacy forms, formats, and behaviors (Jalongo, 2011; Morrow, 2007; Price, vanKleeck, & Huberty, 2009; Wilkinson & Silliman, 2000).
We called this facet of intervention our “five-pack bookbag program” because it included a zippered bag with five books. It also included a video, thanks to our P.D.S. college students. During their junior participation experience, the RP’s undergraduate pre-service teachers videotaped read-alouds using a big book with a group of kindergartners. This assignment followed instruction on shared reading and classroom observations of teachers demonstrating this instructional activity. Grant monies purchased the bags, the blank tapes, as well as a video camera. Thus, video taped shared reading of big books became another part of the kindergartners’ at-home literacy experiences.

Over a four-year period, the six of us celebrated as we observed kindergartners reaching literacy levels uncommon to our school. We were happy that we had committed to a paper trail right from the start, because it gave legitimacy to our celebrations. It’s not surprising that the following September the first grade teachers exclaimed, “What did you do to get these kids reading like this?”

The legitimacy of this celebration can easily be seen in the data collected, analyzed, and summarized over the years of the study. Its many facets are explained in the following.

**Assessment**

*Data Demonstrates Significant Growth in Literacy for All Children*

Because this was a multi-faceted, multi-teacher, multi-year study, it helps to view it in chronological table form. In Table 1 year-by-year evolving assessments can be referenced. Table 1 below displays the chronological order of several measurement tools administered over a four year period, beginning with the first year recording of scores attained by first and second graders — ones that instigated the study of new program effects on kindergarteners over years 2, 3 and 4. The assessments included the Rebecca Sitton Word List (SWL), Clay’s (1993) *Observation Survey* (OS), individual running records (RR), using Wright Group leveled books and, for those reading above Grade 1, literature leveled by DRP (Degrees of Reading Power — a Bormouth readability formula), videotaped recordings of oral reading, and samples of student writing.
Table 1: Assessments Administered Over a Four Year Period to Drive Curriculum Change and Determine Impact on Kindergarteners over a Three Year Period

<table>
<thead>
<tr>
<th>Time of Year</th>
<th>Preparation period</th>
<th>Measures Given to Kindergarten Children Across the Years of the Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>September</td>
<td>RR indicates 16 second graders as non-readers.</td>
<td>PPVT OS (minus writing sections) SVA PPVT OS (minus writing sections) SVA PPVT OS (minus writing sections) SVA</td>
</tr>
<tr>
<td>January</td>
<td>RR warrants intervention for first graders</td>
<td>OS writing section administered OS writing section administered</td>
</tr>
<tr>
<td>February</td>
<td>Kindergarteners given the SWL to establish a baseline</td>
<td>OS SVA RR OS SVA RR OS SVA RR</td>
</tr>
<tr>
<td>June</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Year one included only an end of year assessment with Sitton spelling words and running records for children who read more than 10 words. The results on these measures sparked the queries as noted. Assessments across years 2-4 tests of enhanced literacy curriculum were basically the same, except the inclusion of the February Observational writing survey in years 3 and 4. This allowed the delivery of earlier, targeted interventions.

Statistical analyses were completed using the end of year means on the Sitton Vocabulary Assessment for years 1-4 and with means on measures used across years 2-4. The number of students at kindergarten entrants each year is reported. Although researchers attempted to assess every kindergartner across the four classrooms on all measures at the end of year, a few children did not complete all assessments due to absences and other interruptions. This is noted in slight variations in the n for number tested.

Video taped recordings of students’ oral reading were collected on each child at least twice between January and June each year after Year 1. These were used to monitor individual children’s progress across the year. The tapes moved on with the children; in first grade, they were video taped once a month. This allowed us to actually view progress and provided a concrete tool to support explanations during parent conferences. Anytime a student’s progress was questioned (e.g. at child study team meetings), the tapes became a valuable resource for
reference and discussion.

Measures were given at different points during the year to monitor children’s development; pre/post results indicated overall positive literacy growth for demographically similar kindergarten cohorts in years 2-4. The degree of homogeneity for the kindergarten cohorts across years 1-4 is described with three factors.

Findings

Validating Population Consistency Over Four-Year Period

The average age of students entering kindergarten across years 1-4 did not differ significantly. The mean age at entrance to kindergarten was slightly over 5-years-old.

The verbal intelligence scores also demonstrate little variation across the years data intelligence data were collected (i.e., years 2-4). Indeed, the population scored within an average range. The Peabody Picture Vocabulary Test (PPVT) is a widely used, comparatively quick, individual measure that assesses verbal intelligence. This measure was already in place, being used by the speech teacher. There was no significant variation in the overall ability levels of the year 2-4 groups with all three mean scores being in the average range. Since the questions arose from the results for the Year 1 kindergarten cohort, who had not been given the PPVT, it was important to also consider the ability level of that group. Other school-related data (e.g., kindergarten screening, teacher evaluations, and grades) indicate that this first group was consistent with groups in years 2-4 on that variable.

Similarly, the Sitton Vocabulary Measure pre test in years 2-4, administered as the timeline indicated, reflected minimal variation across kindergarten entrants. The mean was less than 3 words read. Year 1 kindergarten students, not exposed to the enhanced curriculum, knew few words at the end of kindergarten.

To assess any differences attributable to socioeconomic status we investigated data related to the number of families receiving free and/or reduced lunch. Within that four-year period the percentage of these families remained around 23%. That is, about one-quarter of students at Front Street School were on free or reduced lunch. Partially because the school borders the university, it has a wide variety of multi-ethnic students with approximately 10% of each year’s population classified as ESL.

Although no group of kindergarten entrants will be without some degree of diversity,
measures used across the years of this study reflected a high level of homogeneity on typical indicators (e.g., age, language development, SES) used with kindergarten entrants.

**Assessment of Sight Vocabulary**

Sight vocabulary was assessed in June of each kindergarten year using Rebecca Sitton’s list of high frequency words. The first June results provided a baseline because they were not influenced by the programmatic changes that began three months later, in September of Year 2. A one-way analysis of variance (ANOVA) indicates a statistically significant effect of program on students’ ability to read Sitton high-frequency words \[ F(3,322) = 25.15, p < .05 \] between the four years, as can be observed in Table 2.

Table 2: Means, standard deviations and levels of significance from Sitton High-Frequency Vocabulary Assessment over Years 1, 2, 3, and 4

<table>
<thead>
<tr>
<th>Year</th>
<th>n</th>
<th>M</th>
<th>(SD)</th>
<th>p</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>98</td>
<td>14.31</td>
<td>(15.78)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>79</td>
<td>23.29</td>
<td>(17.82)</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>62</td>
<td>30.60</td>
<td>(14.94)</td>
<td>*</td>
<td>**</td>
</tr>
<tr>
<td>4</td>
<td>86</td>
<td>32.91</td>
<td>(14.10)</td>
<td>*</td>
<td>**</td>
</tr>
</tbody>
</table>

*p < .05 with Year 1

**p < .05 with Year 2

Post hoc t-tests indicate a significant difference between year 1 and 3 as well as year 1 and 4 kindergarten cohort \( p < .01 \).

It is interesting to examine the median score for each year, because it reflects those outlying scores that influenced the mean, especially in the first two years. That is, the mean could create a misinterpretation of overall student vocabulary progress, because the outliers actually elevated the class mean. However, by examining the medians (Table 3) we observe how half of the children knew five or less words that first year; whereas, by the third year of the study half knew 33 words or less. Furthermore, the median, although close, was actually higher than the mean by that third year and it remained higher.
Table 3: Sitton High-Frequency Vocabulary mean-median comparisons across years

<table>
<thead>
<tr>
<th>Year</th>
<th>n</th>
<th>M</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>98</td>
<td>14.31</td>
<td>&gt; 5</td>
</tr>
<tr>
<td>2</td>
<td>79</td>
<td>23.29</td>
<td>&gt; 12</td>
</tr>
<tr>
<td>3</td>
<td>62</td>
<td>30.60</td>
<td>&lt; 33</td>
</tr>
<tr>
<td>4</td>
<td>86</td>
<td>32.91</td>
<td>&lt; 33.5</td>
</tr>
</tbody>
</table>

**Clay Observation Survey Writing Scores**

The Clay (1993) Observation Survey’s Writing section assesses a student’s automatic writing vocabulary. Some might call this the spelling part of the assessment. Although the teacher could prompt students by restating words, letter and sound prompts were prohibited. This assessment was used to investigate each student’s automatic writing vocabulary.

When sharing early results at a research conference, we were asked about the possibility of gender differences. There were no significant differences in writing scores by gender. A one-way analysis of variance (ANOVA) indicates a statistically significant effect of program between Years 2 and 3 and Years 2 and 4 on students’ ability to write words \[F(2,227) = 31.14, p < .05\]. This can be observed in Table 4.

Table 4: Means, standard deviations and levels of significance from Clay Writing Assessment over Years 2, 3, and 4

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>M</th>
<th>(SD)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 2</td>
<td>81</td>
<td>24.42</td>
<td>(11.82)</td>
<td></td>
</tr>
<tr>
<td>Year 3</td>
<td>62</td>
<td>43.53</td>
<td>(18.11)</td>
<td>*</td>
</tr>
<tr>
<td>Year 4</td>
<td>87</td>
<td>40.08</td>
<td>(17.48)</td>
<td>*</td>
</tr>
</tbody>
</table>

*p < .05 with Year 2

Although students’ automatic writing vocabularies ranged from limited to exceptional, means for numbers of words accurately written increased significantly from year 2. See Table 4. Even the most struggling literacy learners felt competent enough to correctly write some words in response to prompts. Children could typically read the words they wrote.

**Clay Observation Survey Hearing and Recording Sounds Scores**

The Clay Hearing and Recording Sounds section was given to demonstrate children’s
accuracy in encoding 37 phonemes into graphemes. This would enable us to assess students’ phonemic awareness, as well as their knowledge of phonetic correspondences.

An examination of data revealed no significant gender difference in students’ encoding scores. Nor is there a significant difference across the years in general encoding accuracy. It is indeed unfortunate that we had not collected baseline Observation Survey data for the Year 1 group with which we might compare, as we did with the Sitton High-Frequency Vocabulary data. Regardless, we were more than satisfied with the results. The maximum Hearing and Recording Sounds score is 37 and, indeed, the mean approached that number. See Table 5.

Table 5: Means and standard deviations from Clay Hearing and Recording Sounds Assessment over Years 2, 3, and 4

<table>
<thead>
<tr>
<th>Year</th>
<th>n</th>
<th>M</th>
<th>(SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>80</td>
<td>28.35</td>
<td>(7.9)</td>
</tr>
<tr>
<td>Year 2</td>
<td>62</td>
<td>29.00</td>
<td>(8.03)</td>
</tr>
<tr>
<td>Year 3</td>
<td>83</td>
<td>28.66</td>
<td>(8.51)</td>
</tr>
</tbody>
</table>

Students’ skill in encoding phonemes also ranged from limited (e.g. when students represented only the initial sounds in words) to exceptional (e.g. when students spelled all sounds appropriately). Although teachers used no systematic, published phonics program, even struggling literacy learners were able to encode several phonemes.

**Running Records for Oral Reading**

Running records were given to students after the group as a whole began to demonstrate book-reading behaviors. We analyzed these records to obtain several categories of data: (1) the student’s instructional reading level, (2) the reader’s level of fluency or decoding ability, (3) the strategies the reader used, and (4) the reader’s comprehension level of text read (i.e., using a rubric as in Shea, 2000; 2012). The reading teacher did a running record with each student that knew more than 10 words on the Rebecca Sitton vocabulary measure administered as the first end-of-year assessment. At that time, the easiest books used for running records were around a mid-first grade level, such as *Are You My Mother* (Eastman, 1988). This level was too difficult for all but eight of the students. Consequently, we collected only eight running records in June of
the first year.

However, in June of Years 2, 3, and 4 running records were given to all students and Wright Group books continued to be used for students scoring below Grade 2 instructional level (90-95% accuracy). The beginning reader Wright Group Assessment kit contains books labeled A through J; for ease in data interpretation, we renamed these levels 1 through 10. After a student achieved a Level J (the end of Grade 1 in the Wright Group kit), we moved to books leveled by a DRP. Beginning at 40 DRPs for Level 11 (the beginning of grade 2) and ending at 49 DRPs (mid-grade 3), the highest any reader performed. The lowest performance score was 0 and the highest was Level 20 — mid third grade, at 49 DRPs. A one-way analysis of variance (ANOVA) indicates a statistically significant effect of program on students’ ability to read leveled books \( F(2,229) = 9.51, p < .05 \) between Years 2 and 3 and Years 2 and 4, as can be observed in Table 6.

Table 6: Means, standard deviations and levels of significance from obtained reading levels over Years 2, 3, and 4

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>M</th>
<th>(SD)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year 2</td>
<td>81</td>
<td>2.54</td>
<td>(2.98)</td>
<td></td>
</tr>
<tr>
<td>Year 3</td>
<td>62</td>
<td>5.76</td>
<td>(6.37)</td>
<td>*</td>
</tr>
<tr>
<td>Year 4</td>
<td>89</td>
<td>4.97</td>
<td>(4.67)</td>
<td>*</td>
</tr>
</tbody>
</table>

* \( p < .05 \) with Year 2

The data here demonstrate that the end-of-kindergarten mean for running record scores in Year 2 was between a Level B and C in the Wright Group Assessment, while in Year 3 it was between a Level E and F (which would be about midway through Grade 1).

It is interesting to observe the difference between the three median scores for those years, because means are affected by outlying scores more than medians are. Therefore, in some ways, a median can present a more realistic picture. Note that the mean in Year 3 was higher than the mean in Year 4, but the median score was lower. See Table 7.
Table 7: Obtained reading levels mean-median comparisons across years

<table>
<thead>
<tr>
<th>Year</th>
<th>n</th>
<th>M</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>81</td>
<td>2.54</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>62</td>
<td>5.76</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>89</td>
<td>4.97</td>
<td>4</td>
</tr>
</tbody>
</table>

This means that in Year 2 half of the children in the kindergartens could read at or above a Level 1 (or A) and half could read below Level 1. Whereas, in Year 3 half of the children read at or above a Level 2 (or B) and half read below. When we considered that most of those who read below Level 2 in Year 3 scored above a 0, we realize that far more children in Year 3 were reading by the time they left kindergarten. As a matter of fact, only eight children were not able to read by the end of that year. It is somewhat ironic that in Year 1 we collected a running record on only eight children, but by Year 3 only eight could \textit{not} read. Furthermore, although the mean in Year 4 was lower than the mean in Year 3, the median in Year 4 was higher than Year 3, as well as closer to the mean. This reflects that there were a greater number of scores clustered around the mean in Year 4. It also indicates that the greatest numbers of children were reading at higher levels in Year 4. This confirmed that the changes we had made were effective in helping all kindergartners reach higher literacy levels and, therefore, helping to close that gap between kindergarten and first grade. Furthermore, we no longer worried about having second graders unable to match speech to print.

Conclusions

Teacher research is a continuous search for ways to make what is good, better and what is better, best. The more we learn, the more we question. The more we question, the more we discover. The more we discover, the greater the potential for improving the quality of life and learning in classrooms. The more we improve, the more we investigate our practice and the more we recognize areas that need attention. It is from such an essential spirit of wondering and inquiry that this change process evolved. Teachers became classroom researchers, examining theory and practice as they worked with children. Results generated deeper discussions, built a learning community, and stimulated further professional growth.

Results also demonstrated that students entering Grade 1 from these kindergarten classrooms after years 2-4 came better prepared to meet Grade 1 expectations right from the
start. Our kindergarten and first grade teachers attested to that; data verify it.

The quantitative data, collected from multiple measures, reflect overall increases in mean scores on the Sitton word list, Clay’s Writing Words Assessment, Clay’s Hearing and Recording Sounds Assessment, and obtained reading levels. Findings indicate that, after program intervention, approximately 90% of the children in our kindergarten classes enter first grade well prepared; they have:

- a notable sight vocabulary.
- an automatic writing vocabulary.
- an increased ability to accurately encode at the word level.
- an instructional reading level at the preprimer or primer level.

Acquiring a large sight vocabulary early is important. Eldredge (2005) found that the 300 highest frequency (HF) words accounted for 72% of words in Grade 1 basal readers and trade books at that level. It’s important for children to learn these words quickly, but that’s a difficult task since many do not consistently adhere to expected sound-symbol relationships. Repetition in meaningful contexts (e.g., reading them in books or in the classroom “News”) enhances children’s familiarity with HF words and ability to read them in meaningful units (Jalongo, 2011; Shea, 2012). Automatic word recognition — knowing words on sight — allows accurate, fluent reading (Flurkey, 2001; Samuels, 2002). When words are recognized automatically, more cognitive energy can be applied to comprehension (Hudson, Lane & Pullen, 2005). Changes in the kindergarten curriculum as described led to children’s increased ability to read words in the Sitton list as well as in continuous text as demonstrated in the running record results across years 2-4.

“When a word is automatic for writing, it’s also a sight word for reading. To increase children’s bank of sight words and automatic writing words, effective teachers let them read, read, read; they [also] let them write, write, write!” (Shea, 2011, p. 166). Research findings conclude that young children’s experimentation with writing plays a critical role in their learning to read (Cecil, 2007). Perlmutter, Folger, and Holy (2009) suggest that, “children’s beginning efforts at writing support initial forays into the reading process” (p. 15). In writing classrooms, children write into reading; early writing lays a foundation for how print works. Such environments provide an enticing array of writing materials and many opportunities to use them meaningfully; in these classrooms, there is abundant modeling, explanation, feedback, choice,
nudging, scaffolding, and encouragement. Teachers in these classrooms offer appropriate challenge, respecting children’s interests and differences (Shea, 2011). Children constructed written messages every day in the kindergarten classrooms involved in this study, increasing their repertoire of known words for reading and writing as well as their confidence and competence in both processes.

Johnson (1999) reported that end of year assessments indicated that her kindergarten students who wrote daily had acquired extensive phonetic knowledge. She concluded that children’s writing experience gave letters and sounds deeper meaning. Her students attended to the forms of language when using it functionally for their own purposes; their sound spellings demonstrated growth in isolating and ordering separate sounds in words and matching these to letter or letters for spelling them. Children’s sound spellings evolve from approximations to accurate word spelling over time; children go through phases or stages of development as they experiment with sound spellings (Bear, Invernizzi, Templeton, & Johnston, 2007). Frequently meeting words in meaningful contexts, having someone modeled their construction, and using words over and over in personal writing hastens growth in spelling (Shea, 2011). Results in this study verify that children’s ability to hear and record sounds as well as encode words increased.

Children’s increased ability to decode text created confidence and desire to read books independently and collaboratively, read and reread the News, and read environmental print. These activities provided opportunities for children to apply strategies in a variety of genres, engage in sustained reading behavior, learn how to problem-solve words while reading texts, build confidence through sustained, successful reading, and read in a supportive community (Fountas & Pinnell, 1996). That practice, repetition, and rehearsal increased sight vocabulary, fluency, and comprehension as reflected in the running record results.

One question began an evolution of change at First Street School. It came from a reflective practitioner who recognized that children who came unprepared for second grade had also been unprepared for first grade and, likewise, for kindergarten. Lyle (2000) states that . . .”In much of the literature of teacher research in literacy, teachers’ questions surface first from their practice. . . emerge from some discrepancy, nudge, problem, curiosity, desire, surprise, contradiction, and/or felt need” (p. 696). This focus on first grade preparedness is articulated in the seminal work of Snow, Burns and Griffin (1998), which states: “The delicate balance for the kindergarten teacher is thus one of realizing means of promoting literacy learning in ways that
are at once developmentally sensitive and appropriately foresighted, in order to ensure that as children leave kindergarten they have the capacities needed to function well in the typical first grade” (p. 179).

Furthermore, teacher and parent observations offer abundant qualitative documentation of children's accelerated literacy learning, motivation to engage in literacy activities in a sustained way, and enhanced perception of self as a literacy user. All data triangulated to demonstrate the positive impact that programmatic changes had on students. But, the impact on teachers is also evident.

The teachers' concept of what constitutes developmentally appropriate practice (DAP) at the kindergarten level evolved. They have expressed the belief that a holistic learning context, one that emphasizes experiential activities with cognitive and social outcomes, allows them to meet children wherever they are on a literacy continuum and effectively scaffold forward progress. Children's individual needs and interests become the grist for instructional planning; learners flourish and achievement is assured. Kindergarten teachers’ comments, recorded in written and oral interviews, at team meetings, or in lunch room conversations across the years of data collecting, validate this:

"I see it [kindergarten curriculum] as like building a house and we are the foundation layers and if we don't lay a solid foundation for these kids in terms of preparing them for reading, for writing. . .it will just keep crumbling."

"I learned not to be afraid to expect too much from kindergartners...what we did is developmental....the children weren't pushed because students still have choices and they're being taught at their level."

"I found that our news was a key instructional time. . .They were learning words and watching me sound out words."

"I noticed, too, that the words I focused on in our news were coming up in their journals and in our little class books."

"It provided a very secure program, one that focuses on each child.....it really helps to boost their self esteem and this helped them to become risk takers."

Our story began with 16 second-graders who could not read. A few years later, all but eight of our kindergartners could read. Did the changes made help prevent failure? We think so. Should we mess with kindergarten? Absolutely!
References


Common Core State Standards Initiative (2012). *English Language Arts standards: Science and