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Phonemic awareness activities for first-grade students: A descriptive project

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Abstract

This project examined the use of three practices as means of developing graphophonic awareness in first-grade students. The three practices were: journal writing, in which students used invented spelling in their writing (Goodman, 1989}; phonics charts in which students listed and located words with specific phonemic elements (Routman, 1991}; and Making Words an activity in which students manipulated letters to form various words (Cunningham & Cunningham, 1992}. These practices were taught through the context of whole-word relationships and meaningful experiences. The specific phonemic elements targeted were the th, .s.b., and w digraphs, blends with s., 1, and r, and the s., .ad, and .ing, endings. Writing samples, running records, and anecdotal records were used as evaluative tools to monitor student progress. Results demonstrated student progress in the application of the specific phonemic elements being targeted. The practices of journal writing, phonics charts, and Making Words appear to be beneficial in developing phonemic awareness. Specifically, students exhibited the greatest gains in their use of applying the phonemic elements of the .sh and .ing, ending. However, students showed growth in their ability to represent all of the targeted digraphs, blends, and endings. This improvement was seen in their writing as well as their reading of words that contained these phonemic elements.

PHONEMIC AWARENESS ACTIVITIES FOR FIRST-GRADE STUDENTS:

A DESCRIPTIVE PROJECT

A Graduate project

Submitted to the

Department of Curriculum and Instruction

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts in Education

UNIVERSITY OF NORTHERN IOWA

by

Karen Solomon

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A DESCRIPTIVE PROJECT

has been approved as meeting the research requirement for the Degree of Master of Arts in Education.

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ABSTRACT

This project examined the use of three practices as means of developing graphophonic awareness in first-grade students. The three practices were: journal writing, in which students used invented spelling in their writing (Goodman, 1989); phonics charts in which students listed and located words with specific phonemic elements (Routman, 1991); and Making Words an activity in which students manipulated letters to form various words (Cunningham & Cunningham, 1992). These practices were taught through the context of whole-word relationships and meaningful experiences. The specific phonemic elements targeted were the th, sh, and ch digraphs, blends with s, l, and r, and the s, ed, and ing endings. Writing samples, running records, and anecdotal records were used as evaluative tools to monitor student progress.

Results demonstrated student progress in the application of the specific phonemic elements being targeted. The practices of journal writing, phonics charts, and Making Words appear to be beneficial in developing phonemic awareness. Specifically, students exhibited the greatest gains in their use of applying the phonemic elements of the sh and ing ending. However, students showed growth in their ability to represent all of the targeted digraphs, blends, and endings. This improvement was seen in their writing as well as their reading of words that contained these phonemic elements.

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CHAPTER I

THE PROBLEM

Reading is the process of constructing meaning. Instruction in reading should aim at achieving this goal of constructing meaning, which can also be referred to as comprehension. Achieving this goal involves the interaction of many factors. The meaning an individual constructs depends on a number of factors such as their schemata, their ability to integrate background knowledge with information from the text, their ability to make inferences from both the text and schemata, and their decoding accuracy and fluency (Eldredge, 1991). Reading comprehension can also be influenced by structures of texts, purposes for reading, and attitudes toward reading. In addition to these factors that influence reading comprehension, children must also possess knowledge of and proficiency in the use of three cuing systems: semantics (using context), syntax (using structure and grammar), and graphophonics (using letters and sounds).

Proficiency in the use of semantics, syntax, and graphophonics can provide valuable information in decoding words. All three of these cuing systems interact in the reading process. Graphophonics provides one source of knowledge available for decoding words when reading. Heymsfeld (1989) depicted an image of graphophonics as a key in this analogy: "Written language is like a safe-deposit box: more than one key is needed to unlock it, and children need all the keys we can give them" (p. 65). As such, graphophonics is one of several important knowledge sources needed for reading comprehension. In fact, phonemic awareness knowledge (i.e., being aware of the phonemes or sounds heard in a word) is especially important for beginning reading success (Yopp, 1992).

Statement of the Problem

The acquisition of phonemic awareness has been shown to be a predictor of success in reading as well as being an important step in understanding the graphophonic system (Griffith & Olson, 1992). Children need to become aware of phonemes to learn how letters and sounds correspond (Adams, 1990). One way of teaching phonemic awareness is through direct instruction--instruction in which the teacher presents information in a specific or structured manner to achieve an academic goal (Adams). However, phonemic awareness can also be taught through indirect instruction--instruction that incorporates activities which lead students to learn certain objectives by making these discoveries on their own (Goodman, 1986). By using both direct and indirect instruction, children can benefit in becoming more phonemically aware. The instruction, direct or indirect, should always utilize meaningful activities that incorporate authentic literature and real-life experiences. Specific types of literature that contain rhyme, alliteration, assonance, and phonograms are especially beneficial in promoting phonemic awareness (Yopp, 1992). Also, phonemic awareness can be developed through activities that have children listen for sounds in words as well as compare and contrast words (Gaskins, Gaskins, & Gaskins, 1991).

Purpose of the Study

The purpose of this project is to document and describe three specific ways to develop the use of graphophonics as a cuing system in reading. The three methods will include: journal writing, in which students write, demonstrating their use of invented spelling (Goodman, 1989); phonics charts, where students will list and find words with

specific letters or letter combinations (Routman, 1991); and Making Words, an activity in which students create words by manipulating letters (Cunningham & Cunningham, 1992). This research project will focus on using journal writing, phonics charts, and Making Words as practices of developing graphophonic awareness. Graphophonic awareness will not be taught through isolated skills and memorized rules, but rather through the context of whole-word relationships and meaningful experiences. Students progress in the use of graphophonics will be monitored regularly through the use of writing samples, running records, and anecdotal records. Direct and indirect instruction will be used, through a variety of activities, to increase graphophonic awareness in children as developing readers.

Definition of Terms

Alphabetic Principle

The alphabetic principle is the system by which the letters of the English alphabet represent one or more sounds in spoken words (Gillet & Temple, 1982).

Direct Instruction

Direct instruction is instruction where the teacher plays an active and prominent role of presenting information explicitly to enable students to reach an academic goal (Duffy & Roehler, 1989).

Graphophonics

Graphophonics is the relationship between sounds and written letters, where graphophonics knowledge is the recognition of letters and groups of letters as symbols to represent sounds in written words (McIntyre, 1993).

Indirect Instruction

Indirect instruction is instruction where the teacher facilitates and provides activities that will implicitly lead students to achieve academic goals (Duffy & Roehler, 1989).

Phonemic Awareness

Phonemic awareness is being aware that spoken words are made up of units of sounds, called phonemes. This term may also be referred to as phonological awareness (Stanovich, 1993).

Phonemic Segmentation

Phonemic Segmentation is the ability to separate a spoken word into its composite phonemes (Gillet & Temple, 1982).

Phonics

Phonics is the various approaches designed to teach about the orthographic code of the language and the relationships of spelling patterns to sound patterns (Stahl, 1992).

CHAPTER II

REVIEW OF RELATED LITERATURE

The purpose of this chapter is to review current research in the field of reading in order to understand the role of phonics in the reading process. Research will focus on the relationship of graphophonics to reading and how this pertains to instruction. The role of the graphophonic cuing system in each of three models of reading (the automaticity, transactive, and interactive models) will be discussed first. Next, phonemic awareness and its importance in the reading process will be discussed. Then, the relationship between phonics instruction and the stages of literacy development will be explained. This will be followed by a discussion on the use of direct and indirect instruction to teach phonemic awareness through a variety of activities.

Models of Reading

Different people's perception of the term "reading" can produce a variety of meanings. What reading means to one person may be different than what it means to another person. Depending on how one defines reading determines the strategies and instruction used to achieve that definiton of reading (Mosenthal, 1989). To have an understanding of what reading is, it seems essential to understand how reading occurs and is processed. This understanding of how reading occurs will be explained in each of these three models of reading: Laberge-Samuel's (1985) automaticity model, Goodman's (1985) transactive model, and Rumelhart's (1985) interactive model.

Automacity Model

In the LaBerge-Samuels automaticity model of reading, reading begins with visual recognition. From this point, a basic sequence of analysis is followed: from

features to letters, to spelling patterns, to visual word representations, to phonological word representations, to word meanings, then to group word meanings. What a child comes to reading with is his/her visual system. A child progresses from knowing visual features, to being able to analyze these, and then to understanding what he/she has read. From this perspective, a child learns to read by first learning the smallest parts and then progressing to the larger parts, resulting in reading. This parts to whole method is also called a bottom-up process. Practice and mastery in each skill area lead to automaticity in word recognition and fluency in reading. This is considered the traditional approach because it reflects traditional instruction in reading.

In the automaticity model, a child must master a hierarchy of skills. A proponent of this model is Flesch (1985), who viewed reading as the process of turning printed symbols into sounds that are our language. He believed that reading is a mastery of phonics skills and getting meaning from specific combinations of letters. To Flesch (1986), phonics is the sounds of the letters, and if children learn only the 44 sounds of English and the 100 most common spellings of those sounds, then they can use phonics successfully.

From this perspective, children rely heavily on graphophonics cues for reading. Syntax and semantics play a secondary and considerably smaller role in being able to read. Instruction would begin with teaching skills in phonemic awareness and sound/symbol relations. Mastery of these skills would lead to decoding and finally to reading text. Such educators as Adams (1991) and Chall (1987) would agree with this traditional or conventional view of reading acquisition (McIntyre, 1993). Sometimes this view is called a synthetic basal reader approach, synthetic in that it forces the child to synthesize information to form words. In this approach, phonics is taught explicitly

through a sequentially planned hierarchy of skills. Each skill must be taught, reinforced, mastered, and tested before instruction can be given on the next appropriate skill in the hierarchy (Monson & Pahl, 1991).

Transactive Model

In contrast, another model of reading is Goodman's transactive model. In this model, reading begins with the construction of meaning. Reading involves a transaction between the text and the reader. Readers attempt to approximate the meaning intended by an author by constructing their own text parallel to the text they are reading. The role of the reader is a highly active one. It makes what the reader brings to the text (e. g., elements such as prior knowledge, life experiences, attitudes, and values) extremely important in the comprehension process of this model.

Also important in the transactive model of reading, is the interaction of all three cuing systems, namely, graphophonics (sound and letter patterns), syntax (sentence patterns), and semantics (meanings). The impact of each system on reading and writing can be studied, but each becomes too abstract if isolated for instruction. All three systems operate in a pragmatic context, the most practical approach to making sense and succeeding in reading and writing (Goodman, 1986). Goodman took into account the importance of graphophonic understanding but believed that the focus of beginning reading should be on meaning rather than on sounds and symbols. Goodman defined phonics as "the set of relationships between the sound system of oral language and the letter system of written language" (p. 37). Reading instruction would include an immersion into authentic and meaningful literature experiences, but it would not include direct phonics instruction. According to Goodman (1989), students need to read and write whole, real texts so that they can discover rules which will help them with

conventional spelling. Children can learn these rules and the alphabetic principle (the system by which letters of the alphabet are used to represent sounds) when they learn to write. They learn that there are relationships between letter patterns and sound patterns from which they form rules or phonetic principles that help guide their understanding of these relationships.

In other words, children develop their own phonetic principles through literacy events. Goodman (1985) would also say that children are not taught through a hierarchy of subskills, nor is there a sequence for learning as in the automaticity model. Children learn to focus on the whole meaning before they examine parts. This whole-to-parts method is more of a top-down model. Goodman's transactive model for reading is represented in the whole language approach to reading which focuses on the whole authentic text as the source for instruction.

Interactive Model

A different model, but one that has elements in common with both the automaticity and transactive models, is Rumelhart's (1985) interactive model. In this model, reading involves many different types of information (visual features, letters, words, syntax, and semantics) which are all processed simultaneously. Readers use sensory, syntactic, semantic, and pragmatic information which interact in many complex ways during the process of reading.

Readers continually form hypotheses, through the interactions of knowledge sources, to construct the most probable interpretation of text. This interactive model is neither a strictly bottom-up or top-down process, but it makes use of both processes and can proceed in either direction, depending upon how strongly the cuing systems support the hypotheses being made. If contextual cues strongly support a reader's

hypothesis about what a word is, then a top-down process may be used, in which the reader works from the whole meaning to featural parts. If featural cues strongly support a reader's hypothesis, then a bottom-up process may be used, in which the reader uses the features, parts, to figure out the whole meaning.

Reading from this view is also a process of constructing meaning as in the transactive model; however, meaning results from the interactions of other sources of information. To Clay (1991), reading is "a message-getting, problem-solving activity which increases in power and flexibilty the more it is practiced" (p. 6). Rumelhart (1985) described reading as the process of understanding written language and stated that successful reading is having "a definite idea about the author's intended message" (p. 755). In the interactive model, reading is certainly a problem-solving activity as hypotheses are formed and strengthened.

In this model, comprehension or contextual meaning is not the primary cuing system to be emphasized, but a cuing system to be emphasized along with other cuing systems. Comprehension is an interactive and constructive process in which synthesis and inference play important parts (Eldredge, 1991). Eldredge explained, "Skilled readers construct meanings from passages as they read, constantly testing their partially constructed understandings against their expectations and preexisting knowledge, continually refining, revising, amplifying, and correcting their understandings as they interact with the text" (p. 24).

In fact, all three cuing systems interact simultaneously. Routman (1991) discussed the interdependence between the three cuing systems: semantics, syntax, and graphophonics. Semantic cues (context: what makes sense) and syntactic cues (structure and grammar: what sounds right grammatically) are strategies the reader

needs to use before phonics (letter-sound relationships; what looks right visually and sounds right phonetically) can make sense. Phonics knowledge alone will not result in comprehension. It is necessary to first understand what semantics and syntax are before phonics can make sense. However, all three cuing systems interact and a reader should know how semantics, syntax, and graphophonics each work in the reading process.

Because all knowledge sources or cuing systems interact simultaneously in the interactive model, instruction should prepare children to use all cuing systems. Being able to use contextual cues is as important as being able to use graphophonic cues. In the automaticity model, how to use the graphophonic cue system is taught first, while in the transactive model, how to use the contextual cue system is taught first. By using an interactive model approach, it can be emphasized how to use both the graphophonics and contextual cuing systems as well as the syntactical cue system as means to figure out words when reading.

Several educators suggested an interactive model of reading that has elements in common with the automaticity model (the traditional appoach to teaching reading) and the transactive model (the whole language approach to teaching reading) (Cunningham, 1991; Eldredge, 1991; Gaskins, Downer, Anderson, Cunningham, Gaskins, Schommer, & The Teachers of the Benchmark School, 1988; Heymsfeld, 1989; McIntyre, 1993; Mosenthal, 1989; Stahl, 1992; Stanovich, 1993; Spiegel, 1992; Trachtenberg, 1990). Teachers and researchers can look at the interactive, child-centered model as the approach that best helps each child to reach his/her potential, since this approach possesses elements which are strengths of both the whole language and traditional approach. (McIntryre, 1993; Mosenthal, 1989; Spiegel, 1992). The interactive approach, then, can include phonics instruction that is provided within the context of

real reading tasks and texts, especially through the use of quality children's literature (Trachtenburg, 1990).

An interactive approach is not only theoretically sound, but has become more popular within classroom practice. More and more practitioners and teacher-educators are teaching through direct and indirect instruction how all three cuing systems (i.e., semantics, syntax, and graphophonics) interact in the reading process (Stanovich, 1993). In the area of graphophonic instruction, it is important to look at both grapheme (letter) knowledge as well as phoneme (sound) knowledge.

Phonemic Awareness

Before discussing phonemic awareness, a distinction should be made between phonics and phonemic awareness. Phonics is the relationship between letters and sounds in written words and the approaches used to teach these relationships (Stahl, 1992). Phonemic awareness is the awareness of sounds in spoken words (Stahl). Instruction that teaches phonemic awareness can be phonics instruction. Sometimes phonics instruction is perceived as learning rules of phonics, rules that supposably readers can memorize to guide them in knowing how to sound out words. However, it is not recommended to teach phonics as skilling and drilling to learn phonics generalizations as rules, because the rules are too complex, and learning them has very little value (Smith, 1992). Rules do not apply in some, often even "most" situations and learning rules does not guarantee that these rules will transfer to actual reading practice.

Phonemic awareness is an understanding of how the structure of spoken language works and that speech is made up of a series of sounds. Phonemic awareness is not learning spelling-to-sound correspondences or sounding out words (Griffith & Olson, 1992; Yopp, 1992). The term phonological awareness refers to the ability to deal

explicitly and segmentally with sound units smaller than the syllable (Stanovich, 1993). Basically, for discussion purposes, phonological awareness and phonemic awareness are referring to the same phenomenon, recognizing units of sound in spoken words. An understanding of this phonemic awareness (the sounds in spoken words) is needed before phonics instruction (the relation between letters and sounds in written words) or reading instruction can make any sense (Juel, Griffith, & Gough, 1986).

Besides the fact that phonemic awareness is a necessary condition for reading to make sense, it also seems that it is directly related to reading success. Phonological awareness is a good predictor of reading success and even appears to be a better predictor of future reading achievement than IQ tests or general language proficiency (Griffith & Olson, 1992). As such, phonological awareness is not only a good predictor of reading success but a foundational condition necessary for learning to read (Stanovich, 1993).

The importance of phonemic awareness can also be noted by looking at the negative consequences which result from a lack of phonemic awareness. Children who lack phonemic awareness have trouble acquiring the alphabetic coding system and thus have difficulties with word recognition skills (Juel, 1988; Stanovich, 1993). Lack of phonemic awareness can contribute to slow acquisition of decoding ability, and this can lead to word recognition difficulties. These difficulties in reading make reading an unrewarding experience and, as such, may influence a child to read less. Less involvement with print further delays the development of word recognition skills, thus influencing a child to read even less. A child continues in a vicious cycle, the vicious cycle of the Matthew Effect (Stanovich, 1993). Since a lack of phonemic awareness can lead to word recognition problems, comprehension would also be affected. Children have

limited cognitive resources to use when reading. When too much cognition is used to attend to one cuing system, then the other cuing systems are ignored. If a child is overattending to graphophonics, then context or reading for meaning can be hindered. When a child is not comprehending, reading becomes an unrewarding experience. Less reading involvement leads to fewer reading skills that are allowed to develop, causing a spiral of negative effects (Stanovich, 1993).

Phonemic awareness can be taught. Yopp (1992) found that children can be successfully instructed in phonemic awareness. Kindergarten children who had received phonemic awareness training significantly outperformed those who had not received such training in their ability to recognize phonemes. Yopp also found that this effect was maintained over time.

Routman (1991) also saw strengths in learning phonemic awareness through direct instruction and supported this method within the context of a whole word (whole language) approach. Learning should proceed from the known to the unknown and going from sound to letter respects this principle. By having children start with real words and what they know, they can better connect the sound they are making to a letter in their mind (Routman, 1991).

Phonemic awareness instruction should be given early in a child's education to be beneficial. It would seem that phonemic awareness training should be given as needed in preschool, kindergarten, and even first grade (Stanovich, 1993). In fact, if children do not have an understanding of phonemic awareness in first grade it may affect their reading in later grades. Poor readers in first grade who lack phonemic awareness are very likely to remain poor readers in fourth grade as well (Juel, 1988).

Literacy Development

The needs of children can be better understood by looking at the stages or levels of literacy development. McCormick and Mason (1986) proposed a hierarchy of prereading concepts. They described three levels of literacy development. The first level is concerned with functional knowledge, in which children learn that specific spoken words and messages have written counterparts. The second level pertains to building concepts about functional knowledge, in which children learn that specific sounds correspond to specific letters. The third level is when children are forming concepts about the form and conventions of print. Children in this level learn more about specific letter combinations and recognize patterns and rules. In regard to children and teaching word analysis, McCormick and Mason strongly suggested that the meaningfulness of print should be emphasized before children engage in word analysis.

In Level 1, children learn to recognize environmental print, that is print seen as familiar words on traffic signs, packages, labels, billboards, and other signs. Children learn to recognize these words, but only in the context that the words were first recognized. For example, a child may recognize STOP on a stop sign but not as it might appear elsewhere in print. Children rely solely on contextual cues for word recognition. Also in Level 1, children may know some letter names but use letters randomly when trying to write a word. Children at this level may learn to identify letter names, but they do not use them in spelling. Children are learning about their oral language and print, but they have not figured out how to use strategies or cues. Some children notice words on signs naturally as they are making sense of their world. When reading together, children ask their parents or other people questions about letters and words.

through natural curiosity, help children learn about print. Phonics instruction at this level should include teaching letter names and relating those letters to sounds heard in words. Phonics instruction should help children recognize the alphabetic principle (what sounds the letters in the alphabet represent) through an immersion into literature. Children should be provided plenty of opportunities to read and write. These activities should help children develop print awareness and the concept of a word. At Level 1, phonics instruction might include phonemic awareness activities that use rhyming words, alliteration (the repetition of an initial consonant across several words), and assonance (the repetition of vowel sounds within words) to develop a child's oral to print language.

In Level 2, children learn more of the alphabet, become more familiar with books, pay more attention to print, and attempt to print letters. Children begin to use letter-sound relationships and to learn some words. They begin to recognize words even when they appear in different contexts. For example, a child might recognize the word "STOP" in places other than on a stop sign. Children make reasonable guesses at words and invent their own spellings of words. They sound out words and use graphophonic cues more. This concentration on graphophonics may lead them to ignore context during this level. Children try to map out each sound in a word, letter by letter, instead of recognizing patterns of letters. Some children develop this awareness naturally when parents read with them and discuss letter-sound relationships within the context of authentic reading experiences. Phonics should help children recognize these spelling patterns and to use beginning letter-sounds as cues when reading. Phonics instruction may include learning more letter names, sounds, and letter patterns. Activities may include naming words that begin alike, using rhyming words, using phonograms (words

that end with the same vowel and ending sound), and using stories with alliteration and assonance. Reading and writing experiences should continue, especially writing experiences that develop phonemic awareness and that encourage the children to progress through the stages of invented spelling.

In Level 3, through extensive experiences in reading, children begin to notice phonological and unique patterns in words. They begin to notice that letters and sounds in words can be repeated and manipulated. Since children in this stage are recognizing letter patterns and sounds better they are concentrating less on graphophonic cues and relying more on contextual cues. They are also making better guesses at new words and even skip some unknown words because they are focusing more on reading for meaning. Level 3 readers have acquired a concept of what reading is and are progressing into more complex texts. Phonics instruction in this level would include teaching letter names, sounds, and patterns as suggested in Level 2, but more emphasis would be on learning and recognizing letter combinations and spelling patterns. Activities would also include utilizing books that emphasized rhyming word patterns, phonograms, alliteration, and assonance, as in Level 2, but an emphasis would be on the written word. Writing experiences should also continue to develop phonemic awareness and help children to recognize spelling patterns in their use of invented spelling.

Most children will progress through the levels of literacy development on their own through natural experiences in literature such as "lap readings" and "bedtime stories." These experiences help children become more aware of letter-sounds, letter patterns, and other sound-symbol relationships. Many songs and books with rhyming words, alliteration, and assonance help children see these relationships. Children also develop an awareness of letters and sounds when they ask questions and have answers

explained to them about print. Their questions may explore letter relationships as they compare and contrast the words in print.

One way to help children develop in all three levels of literacy development and phonics instruction is to read aloud to them. Reading aloud to children is especially beneficial in developing print awareness (Adams, 1990). The pleasurable experiences of enjoying books with children allows for an opportunity to talk about the form and content of a book. Enjoying books can help foster a positive attitude toward reading and perhaps even develop a life-long pleasure of reading. Print awareness reading activities should develop and support a child's curiosity about text and the meanings it conveys, encourage children to examine print, start and always invite discussion of the meanings of the words, and the relationships of the text's ideas to the world beyond the book (Adams, 1990). Exposure to print is very important; moreover, it has been said to be a predictor of vocabulary growth, knowledge acquisition, and many other verbal skills. Further, exposure to print seems to be directly related to some educational Matthew effects. Children with little exposure to print have little phonemic awareness and have trouble aquiring the aphabetic principle. This problem leads to word recognition difficulties, making reading an unrewarding experience which leads to less reading participation and, as discussed before, further delays reading skills and leads to more negative consequences (Stanovich, 1993).

Reading experiences at home, such as reading "bedtimes stories" and participating in "lap reading" are very important in developing print awareness and letter-sound knowledge. However, some children enter school with very little knowledge about print. These children miss out on literacy experiences with their parents at home perhaps because they grow up in an environment where reading and

writing have little value or where little time has been allotted for such experiences. It is unlikely that when these children enter first grade they will have learned the alphabet or know how to segment phonemes (Adams, 1990).

It seems that if children have not had the literacy experiences to develop naturally through the levels of prereading concepts, phonics instruction in school should help them develop through these levels. Instruction should recognize the level of literacy development each student is in and help foster his/her progress in this level and the following levels. This phonemic instruction can be developed through direct and indirect instruction.

Direct and Indirect Instruction

When it comes to teaching phonemic awareness in the classroom, it is often debated whether to use direct or indirect instruction. In direct instruction, the teacher presents information explicitly. This manner of instruction can range from having students recite rules of phonics to presenting information meaningfully within the context of authentic literature. In indirect instruction, the teacher provides the resources for students to discover rules of phonics through activities and their own experiences with literature. The use of direct instruction may be beneficial. Some children may discover the alphabetic principle by themselves. But for those who do not, research has shown overwhelmingly that direct instruction is needed and contributes to better development of decoding, word recognition, and comprehension, as well as providing a better transition to other reading stages. In the classroom, some children need direct instruction to learn the graphophonic system which helps facilitate better reading acquisition (Chall, 1986; McIntyre, 1993; Stanovich, 1993). Goodman (1989) felt that direct instruction has no place with natural learning. He believed that

meaningful, predictable, authentic texts are not compatible with carefully controlled vocabulary and decontextualized phonics instruction.

Even though whole language theorists such as Goodman may oppose direct instruction, classrooms that claim they are whole language based may actually be teaching phonological awareness through direct instruction. In a study by Slaughter (1988), students from kindergarten, first grade, and second grade were observed to find out the extent that whole language was being used. She found that both direct and indirect instruction were used In successful whole language classrooms (Slaughter, 1988). In fact, Duffy & Roehler (1989) discussed how both direct and indirect teaching are necessary in any reading program. Depending on the curricular goals and the developmental level of the students, effective teachers use both direct and indirect instruction and varying degrees of each.

Besides using direct and indirect instruction for teaching graphophonics, another characteristic of the whole language approach is that it is learner-centered (Goodman, 1986). Learner-centered means that instructional decisions respect student choices, interests, and genuine needs. In a learner-centered classroom, the teacher facilitates activities which lead students to discover academic goals through indirect, implicit instruction (Goodman, 1989). However, it can be argued that what looks like teacher-centered activity in direct instruction can also be a learner-centered event. Direct instruction is teacher-centered, in the sense that it is the teacher, rather than the learners, who decides on what is taught. Direct instruction can also be learner-centered, because what is taught is determined by what children need to learn and are able to learn (Spiegel, 1992). The focus is on the child and in that sense it is learner-centered.

Another characteristic of whole language is the "teachable moment." Goodman (1986) discussed the term "teachable moment" to describe the time when children should be taught, which is the moment when they are curious or want to know about something. Baumann (1991) argued that the problem with teaching by way of teachable moments is that they do not or may not arise for many important literacy skills. Further, some teachers may not always recognize these moments when they do come up or may not be prepared to provide proper instruction. Although advocates of direct instruction recognize the value of "seizing the teachable moment" to provide short lessons based on needs that have arisen during authentic occasions, they suggest that relying solely on such an approach can lead to random and incomplete literacy development (Spiegel, 1992). Instead of instruction that can occur at any time in a child's education, phonics instruction would be most beneficial at an early age.

Most educators agree that early instruction is important; however, it is the manner in which phonics is taught that has been debated. The Commission of Reading (Anderson, Hiebert, Wilkinson, & Scott, 1985) recommended that phonic instruction be provided early in a child's educational experience, kept simple, and completed by the end of the second grade. Anderson et al., also suggest that direct phonics instruction produces better achievement than the indirect approach provided in most basal programs. In direct phonics instruction, the sounds associated with letters may be identified in isolation and then blended to form words (Eldredge, 1991). With indirect phonics instruction, the sound associated with a letter may be said in isolation, but it is taught within the context of whole word (whole meaning) relationships (Eldredge, 1991). Eldredge suggested that it may be most beneficial and reliable to use some direct phonics instruction before children complete second grade.

Direct phonics instruction is beneficial as long as it can be presented meaningfully and within the context of real words. In contrast, phonics instruction which uses "skilling and drilling," may not be beneficial. Children are taught to indiscriminately apply skills in unrealistic situations, such as pronouncing a list of isolated words using the following rule, "When two vowels go walking the first one does the talking" (Spiegel, 1992). Direct instruction should provide enough practice for students to use strategies effectively to figure out unknown words. The goal of direct instruction should be that learners will learn from the lesson and be able to apply the strategy authentically with genuine materials. Direct instruction should provide children with a variety of strategies and provide ways to use strategies flexibly to meet their reading needs (Spiegel, 1992). To help understand the difference between skills and strategies, a distinction should be made. Skills are relatively narrow and well-defined learned abilities, proficiences, and dexterities. A strategy is a mental maneuver made up of one or more skills. A skill might be knowing that sh makes the /sh/ sound. A strategy might be using the /sh/ sound as a cue to figure out an unknown word with sh in it when reading (Shoemaker & Lewin, 1993). Through a knowledge of available strategies children can become more phonemically aware and successful in reading.

Children need strategy knowledge as well as knowledge of the three cuing systems. It is important that children do not rely solely on semantics, syntax, or graphophonics for reading, but need to strategically use information from all three cuing systems. Also, children need to know how to use all the cuing systems, one of which is graphophonics. The focus of this paper is to examine how instruction relates to the development of graphophonic awareness. As Routman (1991) stressed, "The question is

no longer if phonics should be taught but rather how phonics should be taught meaningfully" (p. 147).

Phonemic Awareness Activities

Phonemic awareness activities should help children realize that their speech is made up of a series of sounds (Yopp, 1992). One such activity is a method used by Clay (1985) that segments phonemes. Clay developed this technique after working with six-year-old children who lacked good reading progress and phonemic awareness, in which they could not hear the sound sequences in words. She adopted a phonemic awareness training program developed by the Russian psychologist D. B. Elkonin. Through training, children were able to learn and apply the strategy of analyzing the sound sequence of words. Clay's method of phonemic analysis uses phonemic segmentation, in which children learn to divide a word into its units of sounds. Phonemic segmentation not only helps children sequence the sounds of a word but also distinguish the units of sounds in words (Juel, 1988).

Teachers can help children develop phonemic awareness in many other ways. They can expose children to literature that plays with the sounds in language, engage children in extensive writing experiences, and provide direct and explicit instruction in sound segmentation and the representation of sounds heard in words (Griffith & Olson, 1992). A writing activity such as journal writing, where students listen for sounds in words and write down the corresponding letters, provides for the development of phonemic awareness (hearing the sounds). Journal writing in this manner also helps students develop phonemic awareness as well as phonemic segmentation (transposing the sounds into letters).

Phonemic awareness activities may require the children to match words by sounds, isolate a sound in a word, blend individual sounds to form a word, substitute sounds in a word, or segment a word into its constituent sounds (Yopp, 1992). Routman (1991) suggested an activity that uses phonics charts, in which children make lists of words that contain a specific letter or letter combination such as sh to help make them develop phonemic awareness. Activities that have children make analogies between words where they compare and contrast similarities and differences also help children discover letter patterns and relationships (Gaskins, et al., 1988). One such activity is called Making Words, where students manipulate a certain amount of letters to form different but similar words. In Making Words, students use a total of six or more letters. The teacher informs the students of the letters to be used for that day. Beginning with two or three letter words, the teacher names each word to be made. By rearranging the letters or adding one or two letters in a word the children form the next word. The teacher and children discuss the similarities and differences of the words formed. The Making Words activity concludes with a final word consisting of all the letters used that day. Approximately 15 different words are formed during a 15 minute period.

As much as graphophonics is an important cuing system, semantics should also be emphasized. For phonemic awareness activities to be helpful, they need to be presented in the context of real reading and writing. Phonemic awareness activities should not replace children's interactions with meaningful language and print but should supplement reading experiences such as reading aloud, developing language experience charts, using big books, and reading predictable books (Griffith & Olson, 1992).

Even in guiding children to discover and apply rules, it is helpful to draw their attention to specific sounds and word patterns that children use when they are reading and writing. Teachers should monitor children's needs and plan instruction accordingly, meeting individually or in small or large groups. Discovering rules through their reading and writing becomes an important part of the learning experience. Instead of learning rules and skills in isolation, void of meaningful context, children reach their own conclusions based upon their own experiences with authentic text. To help children discover rules, Routman suggests asking questions in a way similar to these examples, "What do you notice about the words . . . ?" "I see several words that begin with th. Who can point to one?" "Can you find any other words with the same sound?" (Routman, 1991).

From the research discussed, it seems that the focus of phonics instruction should be on developing phonemic awareness, letter-sound relationships, and the recognition of familiar letter patterns. In fact, phonics instruction should not consist of teaching the phonics rules. Smith (1992) contends that the "rules" of phonics are too complex and too unreliable. There are more than 300 correspondences between letters and sounds. Also, there is not a single letter in our alphabet that represents only one sound, plus the sounds in our language all can be represented by more than one letter. It seems that phonics instruction that increases phonemic awareness through daily meaningful reading and writing experiences may be more worthwhile than learning the "rules" of phonics.

CHAPTER III

PROJECT

The purpose of this project was to provide a detailed description of the implementation and integration of phonemic awareness activities in a first-grade classroom. Specifically, the implementation of using phonics charts (Routman, 1991), Making Words (Cunningham & Cunningham, 1992), and writing journals (Goodman, 1989) was described. The teacher's role in facilitating these activities, through direct and indirect instruction, was also explored and documented. First, an overview of the literature will be given. This will be followed by a description of the subjects and how the practices of phonics charts, Making Words, and journal writing will be used. Next, a discussion on how writing samples, running records and anecdotal records were used to evaluate students' progress will be given. Lastly, a description on how the data was analyzed will be discussed.

Overview of Literature

This project viewed reading from the perspective of the interactive model, where all cuing systems interact simultaneously in reading. Reading is constructing meaning and should take place in a rich, literary environment within authentic and meaningful experiences. Reading instruction should respect what experiences children have had or not had and use what they know to teach what they do not know (Gaskins et al., 1988).

In regard to phonics instruction in first grade, children should have an understanding of phonemic awareness and letter-sound relationships. Through direct and indirect instruction, activities can be used to develop phonemic awareness in

children who have not acquired it. These children can then progress in their understanding of print.

Methodology

Subjects

Twenty first-grade students from an elementary school in a small town in Iowa were the participants for this project. The project extended over a period of 9 weeks and began after the students had been in school for 12 weeks. A variety of socioeconomic levels were represented by the 12 boys and 8 girls who participated in the research. The classroom was grouped heterogeneously.

Practices

The project focused on the use of phonics charts, Making Words, and journal writing as practices of developing phonemic awareness. Instruction focused on these specific phonemic elements, the sh, ch, and th digraphs, blends with s as the first letter in the blend, blends with l and r as the second letters in the blends, and the word endings of s, ed, and ing. Data were collected from the students use of these specific phonemic elements in their writing journals. Journal writing was used, not only as a means for the children to develop phonemic awareness, but as a tool for the teacher to assess the children's phonemic awareness knowledge.

Phonics charts. Phonics charts were constructed to list words with similar letter-sound relationships. For example, if students read a story that contained several words with the sh sound, then an sh phonics chart was created by listing words that began with sh, ended with sh, or had sh in the middle. Students were asked to volunteer answers from the words they knew or recognized. Students also made phonics charts individually and in groups of 2, 3, and 4 children. The teacher used direct instruction to

make sure children understood the sound made by a certain letter or combination of letters. The children were able to see the words on the charts from their seats and they were able to use these words in writing activities as needed. Children's participation in these activities helped them develop phonemic awareness and word recognition skills.

The use of phonics charts began after the first 12 weeks of school and extended over a period of 9 weeks. Each week, a specific letter combination was stressed. During the first week, students created a th chart; a sh chart was created in the second week. In the third week, students constructed a ch chart, and in the fourth week students worked on two-letter blends in which the first letter was s. In the fifth week, students worked on blends in which the second letter was l, and in the sixth week students worked on blends in which the second letter was r. During the seventh week, phonics charts were made consisting of words with the s ending. During the eighth week, charts were made with words ending with the ed and during the ninth week charts were made with words ending with the ing ending.

Making Words. The second specific activity that helped increase phonetic awareness and letter-sound relationships was called Making Words (Cunningham & Cunningham, 1992). Making Words is an active, hands-on manipulative activity in which children learn how to look for patterns in words. Each child had a pack of the 26 letters of the alphabet. The consonants were written with a black marker and the vowels were written with a red marker, to help distinguish them from the consonants. The letter y was written with green marker since it can be a consonant or vowel, depending on how it is used. Each letter was written on a 2" x 3" card, with the lowercase on one side and the uppercase on the other. The Making Words activity was conducted 3 days a week for a 9-week period, which began after the first 12 weeks of school. The teacher

informed students which letters to take out of their packet for the Making Words activity of that day. The teacher modeled the activity with larger letters placed on the chalkboard so that all children could see and better understand the letter-sound relationships. The teacher asked children to make words by changing or adding letters to make different words. Through these activities children, saw how words are similar and different by changing letters or adding new letters. Children should have begun to recognize more words through the familiarity of similar spelling patterns. Analogies were used to compare and contrast similar but different words. For example, a teacher might have asked children to change the m in most to a p to make post. The children might then be asked to explain how the words were alike and different. Then the teacher may have asked them to change the letters around in post to make a new word that describes toys that spin (tops). During each week of the project, three different sets of words were used, each on a different day. (See Appendix A for the sets of letters and lists of words used).

Journal writing. Journal writing was used to help students develop phonemic awareness. Students were to apply their knowledge of letter sounds while they used invented spelling to write down words. As students wrote, they needed to say the words to themselves as they wrote the words down, listening for each sound and trying to write down the correct corresponding letter or letters for each sound. Students wrote in notebook journals four days a week, Monday through Thursday, for a 10 to 15 minute period. Students began writing in their journals at the beginning of the school year. When students made an entry, they wrote the date at the top of each page. The pages started at the beginning of the notebook and followed in a sequential order. In this way, their day-to-day progress was monitored. When writing, students chose their own

topics to write about. They wrote about past, present, and future experiences. They were also asked to draw a picture representing their journal entry. Through the modeling of several examples by the teacher, the students were better able to understand the required task. Students read each of their entries daily to their teacher and, if they chose to, they could read their entry aloud to the class.

These journal entries also documented the child's development of phonemic awareness through their use of invented spelling. The first 12 weeks of journal writing provided a baseline before the second 9 weeks when the actual project began. This provided a reference to indicate if the students were applying knowledge of the phonemic elements discussed in the classroom lessons through the use of phonics charts and in Making Words. The journal not only provided an instrument to assess progress, but to plan for instruction. Journals were assessed before the project and throughout the project by noting if students used the letters th, sh, and ch correctly to spell those sounds. Journals were also assessed to evaluate the students use of s, l, and r blends as well as their use of the s, ed, and ing endings. A child's weaknesses were noted and a child's strengths were built upon. Other than the direct modeling of examples by the teacher, journal writing was an indirect instructional activity in which the students discovered phonetic principles on their own.

In addition to these activities, books that contained words that rhymed, words with alliteration (the repetition of an initial consonant across several words), and assonance (the repetition of vowel sounds within words) were read to the children and the children were encouraged to read them. Songs, big books, predictable, and pattern books were used to help develop phonemic awareness. If children raised questions about letter relationships the teacher used "teachable moments" to answer those questions.

<u>Evaluation</u>

The literacy growth of the students was monitored in three ways: through their writing samples, through running records, and through anecdotal records. The students' writing journal provided a day-to-day assessment of their progress. The children were encouraged in their use of invented spelling when writing stories, in their reading journals, and other writing activities. Their development in the use of invented spelling was evaluated in order to assess their knowledge of specific letter-sound relationships introduced in instruction. It was also noted, by analyzing the first 12 weeks of journal writing, whether students were already using the <u>th</u>, <u>sh</u>, and <u>ch</u> digraphs as well as blends with <u>s</u>, <u>l</u>, and <u>r</u>. It was noted, by looking at the first 12 weeks of journal writing, whether students were using the <u>s</u>, <u>ed</u>, and <u>ing</u> endings. The whole journal was again evaluated for change over the entire time at the end of the project.

Children also read to the teacher monthly. Two running records were taken before the project began and two running records were taken during the project to provide information about the students' use of the graphonic elements being stressed during the project as well as their use of other cue systems when they figured out words. It was noted on each running record if students made the correct sound for the <u>th</u>, <u>sh</u>, and <u>ch</u> digraphs. It was also noted if they read words correctly with the <u>s</u>, <u>l</u>, and <u>r</u> blends. Students were also evaluated on their use of the <u>s</u>, <u>ed</u>, and <u>ing</u> endings. The running record helped the teacher assess each child's progress and plan ongoing instructional goals building on the child's strengths.

Anecdotal records, another form of assessment, were also used to help record the child's progress and plan for instruction. The teacher took observational notes on each child monthly to help monitor strengths, weaknesses, and progress. Notes documented

each student's use of strategies in reading and writing activities as well as any other observations that helped provide instructional information. These notes helped support and clarify progress to provide a a better overall picture of each student's development.

Data Analysis

The students' use of the specific phonetic elements, the th, sh, and ch digraphs, the two-letter blends with the letter s as the first-letter and the letters l and r as the second-letter, and the s, ed and ing endings were analyzed. Data were collected from the writing journals, running records, and anecdotal records and then documented through the use of tables (see Tables 1 and 11 in Chapter IV).

The students' journals were studied for their use of the specific phonemic elements that were being emphasized. All of the words written in the students' journals during the 12 weeks before the project and during the 9 weeks of the project were analyzed. A chart was then constructed for each student listing all the words that contained or should have contained each of the specific phonemic elements (See appendix A for sample chart.) When one of the specific phonemic elements in a word was correctly represented, the word was listed and a "+" sign was written after the word. When one of the specific phonemic elements in a word was incorrectly represented, then a "-" sign was written after the word and also the phonetic spelling used by the child in parentheses. In this manner, progress was noted if the child made closer approximations to the correct spelling of a word on each attempt to write that particular word.

The progress of each child was noted by comparing the number of words spelled correctly and incorrectly for each of the specific phonemic elements being analyzed. Each journal entry throughout the 12 weeks preceding the project and then throughout

the 9 weeks during the project was analyzed. Progress of the class as a whole was also noted by comparing the percent of phonemic elements represented correctly when compared to those that were represented incorrectly. This percent came from looking at the total number of words containing all of the phonemic elements being targeted and dividing this number by the total number of words that were written correctly and incorrectly that would contain the specific phonemic elements. The 12 weeks before the project and the 9 weeks of the project were compared to note change and improvements.

Data were also collected from the running records taken from stories the children were reading. Four running records for each child were taken throughout the time before and during the project. Approximately one running record was taken each month. One at the beginning of the school year and one 6 weeks later, shortly before the project began. Two running records were taken during the project--one was taken during the middle of the project and one was taken at the end of the project. A chart was made listing all the miscues made by the children before the project began and after the project had begun. The miscues were analyzed to determine what percent of the miscues contained the phonemic elements that were being emphasized in the project. The percent of errors containing these elements on the two running records taken before the project began were compared to the percent of errors on the two running records taken during the project. Progress was noted if there were fewer miscues containing the phonemic elements on the running records during and at the end of the project than before the project began.

The third method of collecting data was through the use of anecdotal records. Observational notes were taken systematically on each student monthly. Records were also taken daily that noted specific behaviors pertaining to the students' knowledge or

lack of knowledge applying the phonemic elements being stressed. Records were analyzed

for similar patterns of behavior and then categorized. These patterns of behavior,

relating to the students' progress in understanding the phonemic elements of the project,

were grouped to provide key insights. Through the use of anecdotal records as well as

journal writing and running records, data were collected and analyzed to provide

insights into and indications of student progress and development.

CHAPTER IV

RESULTS

The project involved the use of phonemic awareness activities (i.e., phonics charts, making words, and running records). Through these practices, the specific phonemic elements of the th, sh, and ch sounds, blends using the letters s, l, and r, and the endings of s, ed, and ing, were emphasized. Data on the students' use of these elements were collected through the use of journal writing, running records and anecdotal records. In this chapter, the results of the journal writing will be discussed first, and then the results of the running records. This will be followed by a discussion of the anecdotal records results which will include descriptions about phonemic transfer, strategy use, and pronunciation difficulties. Then, overall project observations will be discussed and lastly, a summary of the project will be given.

Journal Writing

The data collected from the journal writing were written on a chart (Appendix B). The data indicated an improvement on each of the phonemic elements stressed. The number of phonemic elements correctly represented was compared to the total number of phonemic elements attempted (correctly and incorrectly) for each student and for each element. The class as a whole showed improvement on each phonemic element individually as well as when compared with all phonemic elements as one group. In the first 12 weeks, 323 out of 908 words, or 36% of the words, containing the phonemic elements being stressed in the project were correctly represented in words written by the students. During the 9 weeks of the project, 719 out of 972 words, or 74% of the words, containing the phonemic elements were correctly represented in words written by the students. This indicates an increase from

36% to 74%, approximately doubling the correct number of targeted phonemic elements represented in the students' writing. Each individual phonemic element was then analyzed separately for correct versus incorrect production in students' journal writing. See Table I for a further breakdown of individual results.

Table I

Students' Use of Phonemic Elements During Journal Writing

Phonemic Element	Before Project (Accuracy of usage)	After Project (Accuracy of usage)
th digraph	68%	82%
sh digaph	20%	83%
ch digraph	28%	53%
s blends	51%	68%
l blends	62%	80%
r blends	46%	70%
s ending	87%	91%
ed ending	8%	14%
ing ending	29%	67%

As shown in Table I, there was an increase in accuracy of representing each phonemic element correctly. Gains with some of the phonemic elements were larger than others. The largest gain was with the students' use of sh, with the second largest gain in the use of ing. The smallest gain was with the students' use of applying the s

ending and also the ed ending. Students were already applying the s ending with accuracy (87% of the time before the project), and during the project they were applying the s ending even more accurately (91% of the time). This seemed to indicate that they knew how to add the s ending with a great deal of accuracy. However with the ed ending students were only applying the ending correctly 8% of the time before the project and during the project the application increased to 14%, an increase of 6 percentage points. This seemed to indicate an area that lacks accuracy though they did almost double their correct use of ed.

<p style="text-align: center;">Running Records</p>

A chart was made from the running records listing those miscues made on words with the specific phonemic elements being targeted in the project (see Appendix C for sample chart). Miscues made by students were compared as a whole on each element to note improvement from the first two running records before the project began to the two running records after the project began. The total number of words containing each of the targeted elements was compared to the total number of those words read correctly. For example, in the first two stories used for the running record before the project there were a total of six words in which r was the second letter of a blend. If each of the 20 students read each of these six r blend words correctly, it would total 120 words. Out of the 120 words, 101, or 84%, were read correctly. In the next two running records, there were seven words with the r blend. If each student read each of these seven r blend words correctly, it would total 140 words. The students read 122 out of 140, or 87%, of the words correctly. This shows an increase from 84% to 87% in the students' accuracy in reading words with r blends.

Overall, running records data indicated an increase in the students' correct

reading of targeted phonemic elements (see Table II). The largest increase was in

Table II

Students' Use of Phonemic Elements During Running Records

Phonemic Element	Before Project (Accuracy of Usage)	After Project (Accuracy of Usage)
th digraph	85%	97%
sh digraph	63%	94%
ch digraph	85%	100%
s blend	NA	95%
l blend	95%	97%
r blend	84%	87%
s ending	96%	NA
ed ending	87%	95%
ing ending	75%	98%

reading words with the sh sound, which increased from 63% to 94%, an increase of 31

percentage points. The next largest increase was in reading words with the ing ending.

This increased from 75% to 98%, an increase of 23 percentage points.

Students showed improvement representing the phonemic elements studied.

However, in two areas it was not possible to compare data--the phonemic elements of

the s blend words and in words that had the s ending. There were not any words with s

blends in the first two running records to compare to the last two running records. However, students read words with s blends with 95% accuracy and this does not seem to indicate an area that lacks accuracy. Also, there were not any words that ended with s in the two stories used for the two running records taken during and at the end of the project but students already seemed to read words that ended with s accurately (96% of the time).

<center>Anecdotal Records</center>

The anecdotal records were grouped by common elements, with results indicating key patterns. These key patterns are phonemic transfer, strategy use, and pronunciation problems. Phonemic transfer refers to the manner in which students applied the direct instruction of the specific elements that were emphasized. Strategy use refers to the variety of strategies students applied in trying to figure out words that contained the targeted phonemic elements. Strategy use was further categorized into four areas: ending cover-up (how students physically covered up endings on words); chunking (breaking a word into parts or chunks); chart use (how students made use of phonics charts); and strategy flexibility (how students made use of a variety of strategies to figure out words). Pronunciation problems deal with speech difficulty in pronouncing words.

Phonemic Transfer

The most common pattern noted was with students who were having trouble figuring out a word. They would know the sound when they were asked verbally by their teacher, but would fail to transfer or apply this sound as they were independently reading the word or writing it down. For example, one student was trying to write the word shopping and was having trouble figuring out the beginning sound. When the

teacher made the /sh/ sound and asked the student what letters made that sound, the student was quick to reply sh, and was then able to write the correct beginning letters.

It was easier for students to sound out words with initial sh, th, and ch elements as well as the s blends. It was most difficult for them to figure out words with these elements when they were in the middle of words. Some students started to recognize the phonemic elements but could not seem to get beyond that element when deciphering the word even if it was an initial element. For example, when one student when reading attempted to figure out the word shut, the student made the /sh/ sound three or four times and then asked if the word was she.

Strategy Use

A second pattern noted through the anecdotal records was the increase in the strategies the students used to figure out unknown words during the project weeks. The most common strategies were ending cover-up, chunking, chart use, and strategy flexibility.

Ending Cover-up. It was noted that during the project more students covered up the s, ed, and ing endings to help figure out the base words first, then added on the endings. For example, one student who decoded the word popped, covered up the ed ending and commented, "If you just take off the ed ending then you can figure out the word." He then proceded to decode the word correctly by figuring out the word pop first and then figured out that the word was popped.

Chunking. It was also more common for students to chunk or break a word into little words that they recognized and then put these words together to form the bigger word. For example, some students figured out the word finally by finding the words all and then fin. They then put it all together to figure out that the word was finally. When

some students were trying to figure out a word that began with one of the phonemic element being stressed, they would try to think of other words that began with that same phonemic element. For example, one student was trying to figure out the word please and mentioned that it begins like play. The student then proceded to pronounce the word please correctly.

Chart Use. Through anecdotal records, it was noted that several students would look at the charts to find the words they wanted to write. These charts had been used regularly for instruction. Some students knew the word they were trying to figure out was on the chart. They would ask the teacher or other students for help in using the chart to locate the words.

Strategy Flexibility. It was also noted that students seemed to depend less on pictures to figure out words and, instead, used a combination of various strategies such as pictures, sounds, thinking what word would make sense in the sentence, skipping the word they were having trouble with and reading to the end of the sentence and then rereading the whole sentence, as well as looking for little words they knew in the word that they were trying to figure out.

Pronunciation Difficulties.

It was noted that students sometimes spelled words incorrectly, misrepresenting the phonemic elements being stressed; however, when they were writing the word as they pronounced it. For example, some children wrote the word tractor as chactr or the word draw as jraw. Also, some had difficulty adding the ed ending when it made the /t/ sound. For example, several children wrote the word helped as helpt. Two children in the class had speech problems which involved the pronunciation of words with the /r/ sound. They seemed to have trouble reading and writing words with an r blend. One of

these students wrote _goshy_ for _grocery_, _shrip_ for _trip_, and _shrick_ for _trick_. This student wrote the words phonetically correct according to the way that he pronounced them. Another one of the students that had difficulty pronouncing _r_ and _w_ words wrote _tetn_ for _treating_ and _seep_ for _sweep_, which were also written similar to the way the student pronounced the words.

Overall Project Observations

In general, this project was designed to examine the development of phonemic awareness through the three practices of journal writing, phonics charts, and Making Words. Specifically, the phonemic awareness elements of the _th_, _sh_, _ch_ digraphs, the s, l, and r blends and the _s_, _ed_, and _ing_ endings were examined.

Many of the better readers were already aware of the phonemic elements being stressed; however, if they had made errors when reading or writing words with a specific phonemic element it seemed that the project benefitted them greatly. One student who was a very good reader but not using _ch_ to spell words with the _ch_, began using the _ch_ correctly as soon as this was discussed in class. Another good reader was only adding _ing_ correctly on to 4 out of 9 words, or 45% of the time. But as soon as the _ing_ ending was discussed in class, this student correctly added the _ing_ ending in 9 out of 9 words, or 100% of the time.

During the project, it was also noted that only a few students made a majority of the errors. Even though these students made many of the errors, this project seemed to be of benefit. Overall these students, along with the better students, improved in their use of the targeted phonemic elements in their writing and reading.

Summary

The phonemic awareness activities of using phonics charts, making words, and journal writing combined to provide a beneficial program in developing phonemic awareness. The students showed significant improvements in their ability to represent the phonemic elements of the th, sh, and ch digraphs, the s, l, and r blends, and the s, ed, and ing endings. This improvement was seen in their writing as well as their reading of words that contained these phonemic elements. Journal writing, running records, and anecdotal records provided a well-rounded tool for documenting the students' progress.

Specifically, students exhibited the greatest gains in their use of applying the phonemic elements of the sh and ing ending. It was also noted that students applied more strategies when figuring our words and were more flexible in their application of strategies. Students seemed to have a better understanding of letter-sound relationships, not only of the targeted phonemic elements but letter-sound relationships in general.

Overall, the use of journal writing, phonics charts, and Making Words does seem to increase young readers' and writers' understanding and application of phonemic elements. It is recommended that these practices be used in first-grade classrooms to develop phonemic awareness. It is beneficial for students of all achievement levels. These practices should be used within the context of whole word relationships and real, meaningful contexts. It is also recommended that observational tools, namely, journal writing, running records, and anecdotal records, can be beneficial for allowing a teacher to "see" a child's progress.

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Appendix A

Week	Letters	Words
1	u,k,n,r,s,t	us, nut, rut, run, sun, sunk, runs, ruts, rust, rusk, stun, stunk, trunk, trunk
1	i,n,k,h,t,s	in, sin, tin, thin, shin, tin, it, knit, ink, sink, think, thinks
1	i,c,k,r,s,t	is, it, kit, sit, sir, stir, sick, Rick, tick, skit, skirt, stick, trick, tricks
2	a,n,t,l,p,s	an, tan, pan, lap, pal, pals, nap, naps, snap, slap, laps, plan, slant, plant, plants
2	e,i,d,f,n,r,s	Ed, red, rid, end, in, fin, fine, fire, ride, side, send, dine, diner, rides, fires, friends
2	a,u,y,d,h,r,s,t	say, day, dry, try, shy, stay, tray, rust, dust, duty, dusty, rusty, stray, sturdy, Thursday
3	a,e,b,s,k,t	at, sat, bat, ate, eat, eats, seat, beat, beats, stake, steak, skate, takes, task, bask, best, bets, baste, basket
3	i,e,f,r,g,n	in, fin, gin, grin, grins, fine, finer, fir, fire, fires, fries, ring, sing, singer, fingers
3	a,e,t,r,m,s	at, sat, mat, rat, rate, mate, ate, am, same, tame, tamer, arm, tar, star, art, mart, smart, stem, steam, and master
4	a,e,c,h,p,r,t	at, art, part, cart, chart, chat, hat, cat, car, eat, heat, heap, cheap, cheat, teach, peach, preach, chapter
4	a,e,d,f,s,h,l	he, she, shed, shelf, fled, sled, fed, fad, fade, shade, dash, lash, flash, flashed
4	e,u,d,h,n,r,t	red, Ted, Ned, end, den, then, her, hut, herd, turn, hunt, hurt, under, hunted, turned, thunder

5	a,e,l,n,p,s,t	pat, pet, pen, pan, span, snap, pans, pal, pale, peal, pets, past, step, pan, pane, plan, plane, plant, plate, pleat, planets
5	o,p,r,s,s,t	or, top, pot, rot, port, stop, pots, tops, post, spot, sort, sorts, stops, spots, sport, sports
5	e,d,n,p,s,s	Ed, Ned, end, den, pen, pens, dens, send, sped, spend, spends
6	a,h,l,p,s,s	Al, pal, lap, Sal, sap, has, ash, sash, lash, pass, pals, laps, slap, slaps, slash, splash
6	a,c,c,h,r,s,t	art, tar, car, cat, cart, cars, scar, star, scat, cash, rash, trash, crash, rath, chart, scratch
6	a,e,g,n,r,s,t	ant, age, sag, rag, rage, star, stag, stage, great, grate, grant, agent, range, strange
7	a,i,c,n,g,p,m,r	in, rain, pain, gain, grain, rim, prim, gram, rap, cap, map, gap, gaping, am Pam, ram, ramp, camp, camping, cramping
7	a,e,y,p,r,s,d	pad, sad, spade, ear, dear, pear, spear, year, yard, red, reads, say, ray, day, pay, pray, prays, prayed, sprayed
7	a,e,i,t,s,n,g	in, sin, sing, sting, sang, as, at, ate, tea, gate, gates, eat, eats, seat, eating, seating, teasing
8	a,e,i,f,m,n,r	am, ram, name, fame, frame, an, fan, man, mane, in, fin, fine, fir fire, ear, fear, fireman
8	a,i,y,b,t,h,r,d	tar, hard, year, bar, bay, ray, day, hay, tray, try, dry, had, bad, brad, bath, hid, bid, rid, bird, third, birthday
8	e,u,l,r,s,b,g	leg, legs beg, begs, bug, bugs, lug, lugs, slug, rug, rugs, blue, glue, glues, rub rubs, rule, rules, buglers

9	i,o,c,k,g,b,n,l	in, bin, kin, king, cling, link, clink, blink, ink, big, cob, lob, glob, lock, block, blocking
9	i,e,n,l,k,d,s,p,r	in, kin, pin, spin, snip, skip, spine, spike, pike, like, liked, dike, ride, pride, dried, lied, died, in, ink, link, rink, sink, drink, sprinkle, pile, piles, sprinkled
9	o,i,g,n,h,s,w	go, so, sow, how, show, wing, wings, sing, swing, wish, wig, swig, showing

Appendix B

Sample of words containing phonemic elements
from a student's writing journal

Before Project Began

After Project Began

Sample of words containing targeted elements
from a student's running records

Before Project Began

Number of
words read
correctly

Number of
words
possible

After Project Began

Number of
words read
correctly

Number of
words
possible

Appendix B

Sample of words containing phonemic elements
from a student's writing journal

Before Project Began

th	sh	ch	s_	_r	_l	-s	-ed	-ing
with(we)-	she(se)-	watched (wst)-	last+	friends (fas)-	play - (pely)	Barbies+ lots+	played (play)-	getting (geten)- playing
with (wet)-			standing (sandn)-	grape+	play +	friends+ windows+	watched (wst)-	(playn) going (gown)-
the+ math+			school (sool)-	trick+		dollars+	carried+	treating (terdn)
they(ta)-			snow (sow)-	treating (terdn)-		saints+	played (pdad)-	getting (geth)-
thought (it)-			scale (sel)-	drove (did)-		beans+		standing (sandn)-
that(tat)-						hawks+		going+
both(bat)- birthday+				tree+		legs+ cousins+		thanksgiving+
their+						pals+		
thanksgiving+								
(5/11)	(0/1)	(0/1)	(1/5)	(3/6)	(1/2)	(11/11)		(2/8)

After Project Began

th	sh	ch	s_	_r	_l	-s	-ed	-ing
thumb+	shoe+	watched+	lost+	tractors+	class+	Cookies+	watched (wicht)-	making+
teeth+	she+	watch+	slinky+	grandma+	blades+	pants+	chewed (chewd)-	working+
they+		checkers+	sled+	from+		blades+	played (playd)-	reading (redn)-
with+			stomach+	precious- (pahshs)		puzzles+	died (did)-	going (goyn)-
brother+				grandpa+ Greg+		cards+		laying+
other+				brothers+		tractors+	prayed (praend)-	going+
				brother+ prayed+		pigs+		eating+
						brothers+		getting+
						checkers+		bailing+
(6/6)	(2/2)	(3/3)	(4/4)	(8/9)		(9/9)	(0/5)	(7/9)

Appendix C

Sample of words containing targeted elements
from a student's running records

Before Project Began

	th	sh	ch	s_	_r	_l	-s	-ed	-ing
Number of words read correctly	2	2	1	NA	5	10	7	8	0
Number of words possible	13	3	1	NA	6	10	8	8	1

After Project Began

	th	sh	ch	s_	_r	_l	-s	-ed	-ing
Number of words read correctly	22	4	1	14	4	3	NA	11	3
Number of words possible	23	4	1	15	7	3	NA	12	3