

Older Children Need Phonemic Awareness Instruction, Too

SUSAN SZABO

Texas A&M University - Commerce

This article reports the results of a yearlong collaborative action research study conducted by a team of second-grade teachers and two reading specialists. It was found that more phonemic awareness instruction was needed to help their older limited-English-proficient language learners gain the necessary grapho-phonemic skills needed to become successful readers.

doi: 10.5054/tj.2010.215246

I am a university liaison working with classroom teachers and preservice teachers from our university. This assignment gives me time to spend at least 1 day a week in various public school classrooms. Even though I was not involved with the yearlong data collection reported in this article, I was given permission to use the data collectively to tell this story. I found the story exciting because it illustrates how a group of concerned second-grade teachers and two reading specialists used student assessment data, their knowledge of the reading process and reading components, and collaborative reflective practices to plan for students' reading success. The ability to read well is an important element of school success, and more students reading at grade level helps reduce the achievement gap.

LITERATURE REVIEW

Reading Inventory Assessments

There are a variety of reading assessments that teachers can use to determine students' phonemic awareness (PA) knowledge, but the majority of these reading inventories are quite similar. Thus, it is not

the instrument that makes a difference, but how the teachers use the data from the instrument.

In this case, the school district had purchased the Texas Primary Reading Inventory (TPRI). According to the TPRI web site (<http://www.tpri.org/>), this instrument is used in more than 75,000 classrooms in the United States. It was created by using test scores from a longitudinal study on children in Texas and provides an overview of the reading elements that should be included in direct instruction at each grade level in K–2. In kindergarten, the TPRI measures phonemic awareness, graphophonemic knowledge, and listening comprehension. In first grade, it measures phonemic awareness, graphophonemic knowledge, overall comprehension, and fluency. In second grade, it measures graphophonemic knowledge, overall comprehension, and fluency.

Classroom teachers administer the TPRI individually to students at the beginning, middle, and end of the school year to measure a variety of language arts skills in order to determine whether students have developed or are still developing these skills. Once each student's needs are determined, an activity guide provides examples of instructional activities that the teacher can use to strengthen students' reading skills.

Phonemic Awareness

As Yopp (1992) explains, “phonemic awareness is the understanding that speech is composed of a series of individual sounds” (p. 696). Having PA allows students to distinguish the sounds that letters make individually and together when creating words (Yopp, 1992; Yopp & Yopp, 2000). However, PA skills are not always easy to learn. Thus, students must be taught to listen to the sounds of language and become aware of how these sounds work in words, because “phonemic awareness is both a prerequisite for and a consequence of learning to read” (Yopp, 1992, p. 697). There are varieties of sound-manipulative activities that allow students to gain PA skills (Yopp & Yopp, 2000). In addition, the National Reading Panel suggests that PA instruction should be ongoing in kindergarten and first-grade classrooms (National Institute of Child Health and Human Development, 2000).

Research suggests that PA is the best single predictor of students' reading success and is usually learned by the end of first grade (Armstrong, 2003; Cunningham, 2007; National Institute of Child Health and Human Development, 2000; Sensenbaugh, 1996). In addition, PA is needed not only for reading (decoding the word) but also for writing and spelling (encoding the word; Bear, Helman, Templeton, Invernizzi, & Johnston, 2007; National Institute of Child Health and Human Development, 2000; Yopp & Stapleton, 2008).

Students need many sound-manipulative activities to help them distinguish between the 44 English sounds or phonemes, both individually and in construction with other letters. Students need to become sensitive to the letter sounds by engaging in such activities as rhyming, blending, syllable splitting, phonemic deletion, and phonemic substitution, but they must also have frequent opportunities to use the words they have heard in a variety of settings. However, it appears that these "oral activities are being seriously neglected" (Armstrong, 2003, p. 116), especially for older students, because PA is not a reading skill that is measured in most school districts after first grade, nor is it measured after first grade if the school district uses the TPRI assessment. Moreover, because PA assessment is missing, teachers assume that their students have developed this literacy skill.

Phonemic Awareness and the Language Learner

For English language learners (ELLs) who are learning to read in English, PA can present particular challenges (Antunez, 2002). Some phonemes found in English may not be present in a student's native language and therefore may cause difficulty both with pronouncing the letter sound and distinguishing auditorily similar sounds. A report from the National Reading Panel found that teachers need to be aware that ELLs categorize phonemes in their first language, because PA deals with the sounds of language and students come to school already knowing how to talk in their first language (National Institute of Child Health and Human Development, 2000).

PA has also been found to be predictive of ELLs' English reading achievement (Chiappe, Siegel, & Gottardo, 2002). Strong Spanish PA word recognition skills are good predictors of English decoding

in children learning English as a second language (ESL; Durgunoglu, Nagy, & Hancin-Bhatt, 1993). Thus, developing children's native language PA appears to be a way to improve their ability to read in English (Hoover, Klingner, Baca, & Patton, 2008). This approach is found in bilingual classrooms, but it is not found in ESL or regular classrooms, which were the classrooms used in this study.

Phonemic Awareness Activities

Influential publications such as a report from the Committee on the Prevention of Reading Difficulties in Young Children (Snow, Burns, & Griffin, 1998) and position statements by professional organizations (e.g., International Reading Association, 1998; National Association for the Education of Young Children, 1998) recommend that teachers in kindergarten and first grade make PA activities a high priority. When providing instruction in PA activities, the National Reading Panel found that blending and segmenting phonemes are the most powerful PA skills to help beginning readers develop (National Institute of Child Health and Human Development, 2000). Phoneme segmentation is the ability to separate words into their individual sounds (e.g., cat = /c/ /a/ /t/), and phoneme blending is the ability to connect sounds into words (e.g., /c/ /a/ /t/ = cat). According to the National Reading Panel, PA instruction should

- focus on one or two PA skills at a time,
- be based on students needs,
- help children manipulate the phoneme (sound) with the grapheme (letter),
- be carefully planned and explicitly taught,
- include activities that actively involve students in experimenting with language.

Griffith and Olson (1992) argue that PA activities will not be helpful to children learning how to read if PA skills are learned and used in isolation. Thus, it is important that instruction should occur in conjunction with real reading and writing activities. In addition, Juel (1988) argues that phonics instruction would not be effective if a child does not have understanding of PA.

Teachers as Researchers

Classroom teachers are the most important factor in students' learning (Darling-Hammond, 2000; Darling-Hammond & Youngs,

2002). Teachers who ask questions about their teaching and students' learning are engaged in reflective practice. "They are using professional (informed) eyes to observe their own practice, facing challenges with action and analysis" (Holly, Arhar, & Kasten, 2005, p. 14) and tend to be more effective teachers than those who do not ask questions. Thus, good teachers use reflective practices and action research to enhance the learning that occurs in their classrooms.

Miles (2006) defines action research as "any systematic inquiry conducted by teacher researchers, principals, school counselors, or other stakeholders in the teaching/learning environment to gather information about the ways that their particular schools operate, how they teach, and how well their students learn" (p. 6). Action research starts with a sense of frustration and encourages a person, in this case the classroom teacher, to do something different to enhance student achievement (Elliot, 1991; Holly, Arhar, & Kasten, 2005). It empowers the teacher to transform the learning environment by

- questioning, reflecting on, and gaining insights into their teaching and how it affects students' learning (Miles, 2006);
- making better instructional decisions for students' differentiated needs (Holly et al., 2005; Miles, 2006);
- looking critically at students' individual needs (Zemelman, Daniels, & Hyde, 2005).

Collecting data to inform one's instruction is an important feature of action research. Looking at assessment data helps teachers understand students better, understand their instructional impact better, and plan more effective lessons. The present study used an action research format to answer questions that are critical to the success of ELLs in terms of early reading instruction in English.

METHOD

Setting/Participants

The study took place in a northeastern Texas public school district with approximately 5,000 students who attended classes on nine campuses. The students' ethnic composition consisted of 47%

Caucasian, 28% African American, and 25% Hispanic. In addition, 63% of the district's students were enrolled in the federally funded free and reduced-price breakfast and lunch program.

The study took place at one of the district's elementary campuses, which employed approximately 43 teachers to teach kindergarten through fourth grade. This includes the eight teachers in the school's Bilingual Program. Of the approximately 500 students who attended this school, 91% were considered economically disadvantaged and received free and reduced-price breakfast and lunch and 51% had limited English proficiency. The ethnic breakdown for these ESL and low-income students was as follows: 59% Hispanic, 27% African American, and 14% Caucasian. Thus, the various grade-level teachers taught a variety of students referred to as *limited English proficient* (LEP), a term used in U.S. federal legislation and other official documents.

Five of the six second-grade teachers at the school participated in the study. (One teacher was bilingual and had given her students a Spanish version of the assessment.) Their classrooms served 119 students (approximately 20 per classroom), 68 (57%) of whom were ESL students.

Instrument/Procedure

The district purchased the TPRI to be used by its kindergarten through second-grade teachers. This informal assessment allows classroom teachers to develop differentiated lesson plans to target appropriate reading skills that are still needed by students.

In the second grade, the TPRI measures graphophonemic knowledge but not phonemic awareness. Therefore, the teachers were given graphophonemic activities to help students. If it was determined that students needed more PA activities, the second-grade teachers had to look at a kindergarten or first-grade teacher's activity book, ask a reading specialist for PA activities, or do their own research to locate PA activities. This is not an unusual phenomenon because PA is a reading skill that should be learned by the first grade (National Institute of Child Health and Human Development, 2000).

Intervention After the Middle-of-Year Assessment

The second-grade teachers took several things from research to heart. First, they met weekly to plan purposefully how to add PA activities into the phonics activities being taught, spending more time focusing on the sounds that individual letters and groups of letters make (Carnine, Silbert, Kame'enui, & Tarver, 2004). At first, the teachers were uneasy because they felt overwhelmed about adding more to the curriculum. However, once they met with the reading specialist, they found that adding PA activities to their phonics lessons was not difficult. Second, they added more writing activities and encouraged students to use the rubberbanding technique, whereby sounds are stretched out orally so that students can hear the individual sounds that each letter makes in the word (Ehri, 1997; Frost, 2001). Third, the teachers used the language experience approach to create many rhyming class books (Yopp & Yopp, 2000).

RESULTS

As mentioned earlier, in second grade the TPRI assesses students' graphophonemic and spelling knowledge. Table 1 shows the student data results for the beginning-of-year (BOY), middle-of-year (MOY), and end-of-year (EOY) screenings. The reading specialist, who analyzed the graphophonemic knowledge data, reported the data as a whole to each of the five teachers.

DISCUSSION

This article reports the results of a yearlong action research study done by a team of second-grade teachers and reading specialists

TABLE 1. Students' Reading and Language Scores, By Class

	Beginning of Year	Middle of Year	End of Year
Teacher 1	95% SD	80% SD	42% SD
Teacher 2	90% SD	80% SD	31% SD
Teacher 3	100% SD	90% SD	42% SD
Teacher 4	100% SD	75% SD	37% SD
Teacher 5	95% SD	95% SD	33% SD

SD = still developing

who used the TPRI to screen students. First, the teachers conducted a BOY assessment of students, the data from which was used as the baseline. As expected, this initial data showed that the vast majority of second-grade students were still developing their grapho-phonemic knowledge. Thus, using the district's curriculum, the teachers began teaching with the aim to improve students' various literacy skills and graphophonics knowledge.

On the MOY assessment, the data showed that 75–95% of the students had not developed the necessary reading skills. Teachers were alarmed because the data showed that students did not seem to be improving as quickly as they should have been; the year was half over, and the percentage of students seen as still developing was too high.

The teachers and the reading specialists met to talk about the results of the MOY assessment and to develop a plan of action that would better fit the students' needs. After extensive conversations, they decided to continue using the district's curriculum as well as purposefully embedding PA activities into both the phonics and writing activities. This approach made the explicit focus on PA an integral part of teaching reading skills.

As the teachers worked with graphophonics instruction, the sounds of letters were made more explicit to students. By manipulating the phonemes in words, the students became more aware of individual and group letter sounds. Various games also were created (see Bear et al., 2007). One game helped students become more sensitive to initial digraphs and blends. Letter boards were developed with letter patterns such as *st*, *sk*, *sp*, *tr*, *dr*, *br*, *kn*, and *gn*. Students then had to match pictures to these beginning sounds. In another activity, students created tongue twisters to reinforce the blend or digraph sounds (e.g., "Stan stood on the stage in a starry state," "The knight knew his knife was in his knapsack"). The students became so involved in creating silly oral alliterations that they were encouraged to write them down and illustrate their meaning. A poster was created and placed above the drinking fountain so that other students could read these creations.

Students also wrote rhyming books and poetry, created hink-pinks (one-syllable words that rhyme: *fat~cat~mat~sat*), did word sorts, and listened for new and interesting words in

books being read aloud. By adding PA skills, in oral activities as well as written activities, the teachers not only helped the classroom become more literacy rich but also allowed children to learn more about print and its relationship to oral language (Peregoy & Boyle, 2008).

The EOY assessment showed a good deal of improvement by the students, with 58–69% having developed the graphophonemic skills deemed necessary by the TPRI. This was a significant yearly improvement; at the beginning of the year, 0–5% of students had demonstrated these skills. The teachers had correctly determined that PA activities and a wide variety of writing activities needed to be added to the curriculum if students were to become successful readers, writers, and spellers. In addition, the teachers concluded that this approach of embedding PA with graphophonics might be necessary on a continuing basis with their lower level students and ESL students, because the EOY data showed that a number of students were still developing.

CONCLUSION

In this age of accountability and assessment, classroom teachers need to be encouraged to become action researchers. Action research helps them look at a challenge in the classroom in depth and adjust the curriculum, their teaching methods, or both when they find that current practices are not meeting the needs of some or all students. If we as educators want to close the achievement gaps among students, we must use assessment data to inform instruction. Teachers must be critical consumers of curriculum programs that are bought by school districts. They need to identify what the students need and then add the necessary instruction to the scripted program.

The study presented in this article is important for two reasons. First, it shows that PA activities and graphophonemic activities must be intertwined and that explicit focus on these combined skills has positive effects on the literacy development of ELLs. When these two reading skills are taught together, LEP students learn both types of skills while engaging in reading activities. As seen in the study, when teachers used only the graphophonemic activities, students only improved their reading skills by 10–25%. However,

by combining these reading skills components in their lessons, these teachers were able to help students improve their reading skills by 38–63%. Thus, it can be deduced that if the reading skills had been combined at the beginning of the year, the majority of these second-grade ESL students would have been reading at grade level by the end of the year.

Second, this study supports previous studies on the importance of doing action research in the classroom to help teachers make informed decisions about how to help students, especially when students are learning English as a second language and the methods adopted by a given program may not have been initially intended for use with ELLs. Teachers' investigation into their own practice, vis a vis students who are learning English as a second language in mainstream classrooms, can, as evidenced by this study, enhance outcomes for ELLs and help close the gap that exists for them in terms of educational outcomes. When districts allow teachers to be proactive and add to or adjust the scripted program that has been purchased, it is a win-win situation. Student achievement will go up, and teachers will feel valued.

THE AUTHOR

Susan Szabo is an assistant professor in curriculum and instruction at Texas A&M University-Commerce, where she teaches reading courses to undergraduate and graduate students.

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