

How Does Phonemic Awareness in ESL Learners Impact Reading and Writing?

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Abstract

This paper documents the findings of an 18-week action research project to measure the effectiveness of a curriculum which included systematic phonemic instruction provided to two experimental groups of students, versus a traditional whole-language curriculum that did not include this instruction, provided to two control groups of ESL learners. A total of thirty-eight intermediate level secondary ESL learners were divided into four groups, two high intermediate groups and two lower intermediate groups. One group at each level served as the experimental group, the others as the control groups. The experimental group participated in the curriculum featuring Jane Fell Green's *Language!* program as part of a traditional whole-language approach to second language instruction. *Language!* is a reading/language program that is sequential, cumulative, and taught to the level of automaticity. Students in the high intermediate experimental group averaged a gain of 12.2 points on the Degree of Reading Power (DRP) post-test over pre-test scores. Those in the control group posted an average 6.8 point gain on the same test. Students in the lower intermediate experimental group scored an average 9.5 point gain on the DRP post-test over pre-test scores. The lower intermediate control group posted an average 10.4 point gain. In the area of writing, the lower intermediate group posted a 1.1 point gain in pre and post writing scores on a writing sample, compared to a 0.3 point gain posted by the control group. There was no significant change in writing scores at the higher intermediate level. The results of the research suggests that phonemic instruction is of greater benefit to high intermediate level ESL learners' reading and that the instruction benefits lower intermediate ESL learners' writing. Both quantitative and qualitative research findings are presented.

The Question

How does the phonemic awareness of ESL learners impact second language acquisition as measured by facility in reading and writing? This question came to me during my first semester at Stuart High School. I was teaching three different groups of intermediate level ESL learners Process Writing, using Native American and Chinese proverbs as writing topics. As we worked to master the various steps of the process: formulating what to write (pre-writing); starting to write (rough draft); focusing what has been written; correcting (revising); and finally presenting a final draft and publishing, many of my students had little difficulty finding what to write once shown how to first organize their

thoughts on a chart, then into a paragraph, and ultimately into an essay. Students often had much to say, had enough passive vocabulary to say it, but lacked the ability to use that passive vocabulary to effectively put their thoughts onto paper. The perennial question in the room became, "How do you spell...how do you spell....Mister, Mister, how do you spell?"

My natural response to the numerous spelling inquires was a good old-fashioned, "I am not going to tell you. Get the dictionary." I soon realized that instead of having the intended effect of helping students build both vocabulary and a sense of academic self-reliance, my response often caused even more frustration and withdrawal from students. Why? Quite simply, students often had little idea where to even begin to look in a dictionary for the word they were trying to spelling. The sounds of the words students knew they wanted to use had no connection to the symbols that represent those sounds in the English language. My students had little-to-no phonemic awareness. What impact was this having on their ability to express themselves in writing? Additionally, was this why I was hearing them stumble over words in print that I was sure I had heard them use? I have heard it said that good readers are usually good writers. If this is true, then the converse may also be true. What does the research say?

The Research

There is a significant amount of research pointing to the essentiality of teaching phonemics as a part of reading instruction. Much of it was done in response to the argument over whether it is better to teach reading through phonics only or through whole-language only. It is fair to say that there is at least as much research supporting whole-language as the optimum way to teach reading. There is little information about teaching reading using a blend of the two methodologies. Since the focus of this research study is to determine if there is a clear advantage for students in teaching a curriculum containing systematic phonemic instruction over one that does not, we focus on research concerning the effectiveness of the phonemic approach. Both the control groups and the experimental groups are exposed to structured language in a whole-language context; but the experimental group is also receiving systematic, phonemic instruction. The aim here is to determine what the research says about this added component to the curriculum.

What is phonemic awareness and of what benefit to reading and writing in ESL learners is it? Stanovich (1993-94) defines "phonological awareness" as the ability to deal explicitly and segmentally with sound units smaller than the syllable. In terms of importance, he found that phonological awareness is the best predictor of the ease of early reading acquisition. In agreement, Lundberg et al (1988) also indicate that students who increased their awareness of phonemes facilitated their subsequent reading acquisition. That research goes on to say that phonological awareness can be taught, which conflicts with the pure whole-language argument that phonological awareness is only truly naturally acquired.

As for how phonemic awareness relates to writing, Greene (1998) cites Lyon's (1998) observation that throughout history, most societies never

developed a written language. Written language is invented; it is code based. In order to become literate, students must master the code. To master written English, the entire code must be taught systematically (Green 1998). Adams (1990) suggests that it is critical for children to be able to link phoneme awareness to knowledge of letters. This is known as “sound symbol matching.” The two most powerful skills that predict later reading success in students are letter-name knowledge and phonemic awareness (Cunningham, 1990; Fielding-Barnsley, 1997; Philips and Mason, 1996).

The research suggests that a balanced approach is needed in reading instruction. Phonemic awareness alone does not address the needs of older students, like the ones in this study, for higher level thinking activities. Whole-language instruction alone assumes wrongly that a student can acquire the skills associated with affective reading and writing naturally, through mere exposure to literature or through a language-rich environment. Sensenbaugh (1996) feels the right approach would combine the language- and literature-rich activities associated with whole language activities aimed at enhancing meaning, understanding, and the love of language with explicit teaching of skills as needed to develop fluency associated with proficient readers [and writers].

The Students

All three of the ESL classes (groups) assigned to me were involved in this action research project. Two different groups of students assigned to two different ESL teachers in the department served as the control groups to my groups 1 and 2. This provided me a large cross-section of grade-levels, native languages, years and types of prior schooling, and ages. Each of these was important in trying to determine: one, if there is a critical period among secondary students for raising phonemic awareness; two, whether raising phonemic awareness benefits native Spanish speakers over native speakers of Vietnamese or Arabic; and three, if literacy in the native language is aided by phonemic awareness in second language acquisition. Students were distributed as follows:

Group 1

No. of students: 10

Grade Levels: 9th – 4

10th – 5

11th – 1

Native Languages: Spanish – 5

Somali – 2

Arabic – 1

Kurdish – 1

Vietnamese – 1

Group 1

No. of students: 10

Grade Levels: 9th - 5

10th - 2

11th - 3

Native Languages: Spanish - 4

Arabic - 1

Urdu - 3

Bosnian - 1

Vietnamese - 1

Group 2

No. of students: 11

Grade Levels: 9th - 2
10th - 8
11th - 2Native Languages: Spanish - 7
Bosnian - 1
Arabic - 1
Urdu - 1
Somali - 1Group 2

No. of students: 7

Grade Levels: 9th - 5
10th - 2Native Languages: Spanish - 3
Arabic - 1
Urdu - 2
Vietnamese - 1

The Program

The specific program designed to raise the phonemic awareness of students in this study is simply called *LANGUAGE!* It is a three level, 54-unit, whole language within structured language program. According to the program's author, Jane Fell Greene (1998), Ed.D., structured language refers to a special type of reading/language program that is sequential, cumulative, and taught to the level of automaticity, the ability to perform a learned task quickly and accurately with little conscious attention or effort. Louisa C. Coates (1998) says the strength of the *LANGUAGE!* curriculum is its comprehensive and integrated treatment of language, pointed directly at the skills poor readers typically lack. She goes on to point out critical concepts about language (sounds, spellings, syllables, sentence structure, grammar, semantic organization, and text structure) are defined, ordered, and practiced in relation to one another. They form the fabric of language.

In the research project, *LANGUAGE!* was presented to the experimental groups as part of a multifaceted approach to language teaching. It was not taught in isolation or singularly. The curriculum served as a warm-up or primer for reading comprehension, process writing, interviewing and reporting, sustained silent reading and other now traditional whole-language activities in which students were engaged during the same 90-minute lesson. The topics raised in the experimental part of the curriculum were dovetailed and highlighted in other activities throughout the lesson. *LANGUAGE!* merely suggested the scope and sequence of sounds, symbols, and grammar concepts of which students should be made phonemically aware.

The Implementation

Step 1: Students in both the experimental groups and the control groups were given a code-based placement test. [Test Words: a, bat, cat, fat, sat, cab, mat, Sam, Tam, Bam]

- a) The instructor dictated each word, gave a sentence containing the word, and then repeated the word.
- b) The students wrote the word.

- c) The teacher scored the placement tests, identifying the number wrong at each level.
- d) The teacher identified the number of the first Unit at which each student made two or more errors.
- e) The teacher identified the book where the students began.

Step 2: Students in all five groups (3 experimental, 2 control) tested at Unit 1. That is, of the 51 students tested, none could spell more than eight of the words listed above.

Step 3: Students were instructed for 15-20 minutes each day on the phonology concepts of units 1-17. Each unit is designed to build students' mastery over a particular sound, i.e. short "a" and the letter (grapheme) associated with it. In the beginning units, students engaged in: phoneme reproduction/replication; phoneme isolation; phoneme segmentation; phoneme blending; rhyming; phoneme deletion; and phoneme substitution. Units progress in size and scope of phonemic (syllabication) /grammatical (parts of speech) material presented.

Step 4: At the end of each unit, students were tested on the material presented in the unit.

Results

Empirical

High Intermediate Group

	Experimental	Control
Reading (DRP)	12.2 point gain	6.8 point gain
Writing (Rubric-scored writing sample)	0.8 point gain	1.0 point gain

Low Intermediate Group

	Experimental	Control
Reading (DRP) gain	9.5 point gain	10.4 point
Writing (Rubric-scored writing sample) gain	1.1 point gain	0.3 point

- Explicit ESL instruction has a greater impact on higher-level students' *reading* than that of lower-level students. It is thought that this is due in part to those students' possessing a larger inactive or passive vocabulary from which to draw than do lower-level students.
- Explicit ESL instruction has a greater impact on lower-level student's *writing* than that of higher level students. It is thought that lower-level

students benefit from the lowering of affective filters associated with writing. Raising phonemic awareness lowers those filters.

Anecdotal Observations

These quotes are from teachers observing research project students in a class other than ESL:

- “Sahro sounded-out the following words and actually used her fingers [one of the skills taught in the program] to break-up the sounds: ‘hideous;’ ‘humiliating;’ ‘collapsed;’ ‘nominate.’”
- “In our reading today, Gusma came across words she did not know. At first she wanted me to tell her the words. I reminded her of the sounds she is learning in your class and to use them; look at the words and apply the sounds she knows. She figured out the following words: ‘unpredictable;’ ‘antique;’ ‘thrilled;’ ‘fabulous;’ ‘astonished.’”
- “Agus, during his individual reading, noticed the “qu” sound in figuring out a new word in his novel. The “g” sound is another one he mentioned he had learned and used to figure out a word.”
- “During our reading session today, Tina was wonderful. She tried to sound out every word she was not sure of and sincerely met success.”
- “Roland had trouble with “thr,” but he could do “th.” He was cognitive of the sound and he tried to use it. When the “th” was followed with an “r” he had trouble.

Conclusion

It is clear from the research project that raising the phonemic awareness of ESL learners impacts positively both reading comprehension and writing skills. The degree to which these areas are impacted varies with the ESL level, native language, and years of schooling each student presents. Phonemic awareness seems to unlock the substantial passive English vocabulary older ESL learners bring with them, but are unable to access or decode from written text. It is similarly true that students would use this same passive vocabulary in their writing if they could only encode it. It is now available to them through the newfound ability to match sounds with symbols. Much of the anxiety my students associated with reading and writing at the beginning of the study has all but dissipated. As evidenced in the anecdotal references found in the results, students are now actively reading for both pleasure and academia and have become measurably more prolific in their writing. These are two of the consequences intended with the implementation of the phonemic awareness piece of the program. Having a systematic approach to phonemics as a part of a rich, whole-language curriculum is the complete package needed to build solid reading comprehension and writing skills in ESL learners.

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