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Specialized Reading Programs: An Analysis Of The Components of Effective Reading

Instruction

Damien Murtagh

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A task of enormous proportion and difficulty exists before educators today in effectively teaching reading skills to both students with and without disabilities. The teaching of language is not the most difficult part of this task as language is innate in humans; in fact all that is necessary is for humans to be exposed to their mother tongue (Shaywitz, 2003). It is when transferring language to written form that the challenge for educators and those learning to read really begins. A result of this transfer is the educational goal of making all students literate, which includes a number of competencies, including reading. Reading programs around the world are praised and criticized for a variety of reasons and it appears that there is no universal tried and tested way that works that all populations and experiences a 100% success rate.

Reading is a concept that is not naturally programmed into human beings. The brain is not set up to read and therefore humans must train it to acquire information from written text. Language is a form of communication shared by many forms of species around the world throughout time and history, however humans are the only ones to ever translate their language into written format (Shaywitz, 2003). Language forms in other species do not contain spoken words as we know them but are instead characterized by a variety of signals including grunts, screeches, or even electric shock.

Because of the fact that our brains were not made for understanding the mechanics of written language, how it is translated from oral code to written form is a difficult task. The brain is a very well- developed tool that, using its vast neural circuitry can assemble phonemes into words for a speaker and disassembles spoken words into its underlying phonemes for the listener, making spoken language, which takes place at a preconscious level almost effortless (Shaywitz, 2003). Therefore, it is fair to say that the

fundamental difference between speaking and reading is that the former is natural whereas the latter is not, despite the fact that they both rely heavily on phonemes. Indeed, Shaywitz (2003) sums this up effectively when stating, “reading is an acquired act, an invention of man that must be learned at a conscious level” (p49). Therefore the challenge that lies before reading programs today is the extent to which they can effectively teach written language, an unnatural act, at a conscious level so that students can express themselves accurately and appropriately both in oral and printed form.

This paper will identify characteristics of effective reading construction, analyze a number of specialized reading programs-focusing on their ability to include these instructional characteristics-and discuss the implications of these instructional components when designing reading instruction.

Characteristics of Effective Reading Instruction

Good reading instruction is made up of a number of components that interact with each other in order to make it effective. The characteristics listed below are all necessary to make a reading program successful. When included in part, or individually, they will not be as effective as teaching all of the skills. The characteristics of effective instruction have been identified by a number of research studies, listed where appropriate.

Phonological Awareness

Research has shown that one of the most important components of any effective reading instruction is the teaching of phonological awareness (Torgesen & Mathes, 2000; National Reading Panel, 2000; Truch. 1998). Phonemes are the smallest units of sound in

a language that can make a difference to its meaning. There are 44 phonemes in the English language in total. All words in the English language are composed of strings of phonemes, allowing speakers to create all the words they need using any combination possible. Phonological awareness is necessary for understanding how words in our language are illustrated in written form, especially teaching students how to understand alphabetic principle. It also helps students to notice the various ways that letters represent sounds in words (Torgesen and Mathes, 2000).

The National Reading Panel (NRP, 2000) found the effects of phonological awareness instruction to be greater when students received focused and explicit instruction on one or two specific phonological awareness skills rather than when focusing on a higher number of skills. The summary of studies also showed that students who were taught in small groups benefited most efficiently, that using technology was an effective instructional tool and that students in younger grades (preschool and kindergarten) had the largest improvement in phonological awareness. They recommended that phonological awareness is effective in teaching children to attend and to manipulate phonemes, helping them to learn to read. The effects lasted well beyond the end of training and had a long-term impact on helping students learn how to spell words.

Early Intervention

Early intervention is also an important component of effective reading instruction (Pikulski, 1994). By focusing on students as early as possible, the better the chance is of addressing potential problems. It is important to note the effect of cumulative deficits when discussing early intervention. As students grow older and continue in patterns of

difficulty and improper strategy application when reading, not only do they fail to make progress, but they fall further and further behind their peers. Spiegel (1995) found traditional reading programs had a higher success rate in phonological awareness skills with students in grades 1-3 when compared to students in grades 4-6, the latter group actually made minimal gains in reading ability. The challenge faced by early instruction is the detection of students in early grades that have significant deficits in their reading ability. Two types of error exist in the identification of students for early intervention, which can lead to the misidentification of students for early intervention practices. These two errors are false positives (where a student is identified as being in need of specialized reading services when there is not an actual difficulty) and false negatives (where a student is found not to have a difficulty by the assessment methods, but in fact does have one and does not receive any additional support or instruction. The misidentification of students has vast consequences because instruction may be given to students who do not necessarily have a significant a problem as others, who may pass through the early grades with reading that go unnoticed.

Fluency

Effective reading instruction should provide opportunities for fluency in reading. Students who can read with a high level of fluency show proficiency beyond word identification and reading comprehension and demonstrate the ability to read and understand words accurately, rapidly and efficiently. Those students who are unable to demonstrate fluency when reading will continue to read slowly and with great effort, no matter how bright they are (NRP, 2000). Instructional strategies that help to achieve

fluency in reading include providing opportunities for practice such as repeated readings and modeling what a fluent reading sounds like for students. Fluent readers will also need to have a significant vocabulary committed to memory that serves as a resource for word identification and decoding strategies.

Comprehension

The most important component of reading instruction is ensuring that students can understand what they read. Mastropieri and Scruggs (1997) define comprehension as “a process of constructing meaning from written texts, based on a complex coordination of a number of interrelated sources of information” (p197) and indicate that this skills is especially problematic for students with disabilities. Without comprehension of print, there is little need for reading as students will be unable to make use of written language in their daily lives. Polloway, Patton and Serna (2001) recommend two strategies for teaching comprehension to students with disabilities; teachers can select and refine a general teaching approach that focuses on enhanced ability to comprehend text (e.g. whole language approach) or teachers can rely on specific strategies that develop specific skills in comprehension and fluency, (e.g. student directed approaches).

Strategy Instruction

Students should leave specialized programs with the skills needed to decode unfamiliar words, sentences, and texts without assistance, which can be achieved by strategy instruction. Strategies can take the form of mnemonics, acronyms or acrostics that

provide short, easy to remember phases that students can apply to any situation where they encounter unfamiliar text.

POSSE is a good example of a strategy that students can apply when reading. The letters stand for the following (Mastropieri and Scruggs, 1997):

Predicting ideas from prior knowledge
Organizing predictions based on forthcoming text structure
Searching for the main ideas
Summarizing the main ideas
Evaluate comprehension

Students using this approach use strategy sheets and cue cards to provide students with guided practice and application activities. They were found to perform better than students in a control group who did not use any strategy when reading.

Mastropieri and Scruggs (1997) assert “it is clear that when students with learning disabilities are taught systematic strategies that appear logical for facilitation recall and comprehension from written materials, their reading comprehension is facilitated” (p. 208). Other important metacognitive strategies that students should learn for reading including self-questioning techniques and self-monitoring. Students must also be able to maintain generalize these strategies in a variety of settings in order for them to be wholly effective in developing metacognition.

Written Components

No reading instruction can be totally effective without providing opportunities for practicing writing. This should not be the major focus of the instruction but should serve a purpose for enrichment and reinforcement. Traditional remedial reading programs pay little attention to writing activities, which does not maximize students’ potential for

progress. Programs that consider reading and writing as reciprocal processes are more effective and provide a more holistic language experience overall (Speigel, 1995). Writing activities encourage learners to pay attention to auditory and visual details in written words and to develop awareness of the visual patterns in words.

The next logical step after learning to read is for students to be able to present written language themselves. Therefore, effective reading programs will help to pave the way for future instruction and cognitive development by including writing opportunities. Writing has a high functional aspect in today's society and students should be at the very least be able to write their name and other personal information as well as be able to demonstrate the ability to not only translate written print into spoken language but also put their thoughts ideas and actions into writing also. This written component poses many problems for students with disabilities, due to its demand that the writer have a variety of mechanical, memory, conceptual and organizational skills (Polloway, et al., 2001).

Evaluation of Reading Programs

A number of specialized reading programs were analyzed and summarized in Table 1. These programs include Reading Recovery; The Lindamood Phoneme Sequencing Program for Reading, Spelling and Speech; Success for all; The Winston-Salem Project; The Boulder Project and Early Intervention in Reading (EIR). The programs evaluated have proven effective in addressing reading difficulties in a number of environments and schools from around the country. Effectiveness was determined by a research base that showed that students had made significant gains in reading (Truch, 1998; Spiegel, 1995; Pikulski, 1995). These programs provide a picture of common components of programs

that work, which leads to a number of conclusions on instructional practices that are effective.

Program Descriptions

1. Reading Recovery: Developed by Marie Clay in New Zealand in the 1980s, Reading Recovery (RR) is an individual tutoring program in which a tutor meets with a child for 30 minutes a day outside of the regular classroom. Teachers and students follow a rigorous framework aimed at addressing specific weaknesses in a student's reading ability. Teachers facilitate activities including shared reading, guided reading, running records, letter and sentence instruction.

2. Lindamood Phoneme Sequencing Program for Reading, Spelling and Speech: This program, formerly known as 'Auditory Discrimination in Depth' is designed to stimulate phonological awareness and teach phonemic reading skills to students with moderate to severe phonological disabilities. It is typically accepted to be more complex than other programs and requires extensive teacher training in order to be most successful (Torgesen & Mathes, 2000). It has been used for many years in specialized settings but may also be appropriate for instruction with students who are at risk of reading disabilities. Instructional activities are designed for making students more aware of how the mouth actually moves when forming every phoneme in the English language. Labels are taught (e.g. Lip Poppers' or 'Tip Tappers') after developing an awareness of the movement of the mouth to describe the manner and place of articulation in the mouth where phonemes are produced.

3. *Success for All*: This project was implemented in schools in Baltimore, Maryland, Philadelphia and Pennsylvania. It is designed to serve students with low socioeconomic status and inner city communities. Students are grouped in numbers of approximately 25 for all of the school day, except for the 90-minute period each day where they are regrouped according to reading ability (Pikulski, 1994). Supplemental individually based tutoring sessions aim to build reading ability of students who are falling behind their classmates.

4. *The Winston-Salem Project*: This program was used in Winston-Salem, North Carolina in two first grade classrooms, serving students from lower and middle socioeconomic groups. There are four blocks of instruction put into each 30 minute tutoring sessions, also known as blocks: The Basal block; The Writing block; The Working with Words block and the Self-selected Reading Block.

5. *The Boulder Project*: This initiative incorporates students and chapter 1 teachers from two different schools. Teachers work with groups of 3 students at a time for 30 minutes per day whilst another group receives instruction from a teacher's aide simultaneously. The groups switch instructors half way through the school year. Activities use repeated readings, word identification skills and students selecting and writing about topics of their own choosing.

6. *Early Intervention in Reading*: This program works with first grade students from both low socioeconomic and middle class backgrounds. General education teachers work

closely with the students performing in the 20th percentile and below in their class in addition to regular classroom instruction. Students re-read familiar text, develop phonics skills and word recognition ability.

Program Analysis

The programs were evaluated under the headings listed in Table 1: target age; instructional time; length of intervention; texts/ materials used; including a writing component; instructional methods; whether teacher training was required and the location of instruction.

There are a number of components found in almost all of the specialized programs featured in Table 1. All of them involve a written component, target students in early grades (typically first grade) and have previously been identified as an important characteristic of effective of effective writing instruction. There are a number of texts and other instructional materials used including predictable texts that are chosen according to students' ability. Four of the programs use repeated readings of these texts to help students gain proficiency and writing fluency. All of the approaches used a variety of degrees of teacher training, from nor formal training in the EIR method to the weekly seminars of Reading Recovery (RR) and formal training workshops before instruction begins using the Lindamood method.

Specialized programs that appeal to teachers and that rapidly prove their effectiveness are adapted very quickly by schools. The RR program was taken up by 40 states in 8 years after its introduction in the United States (Dudley-Marling & Murphy, 1997). The rapidity of these gains has been made despite a certain number of logistical

requirements that may have otherwise hindered their development. Instructors in the various specialized programs analyzed here do need some formal training before the approaches can be implemented. The Lindamood program in particular recommends full formal training from a certified professional in order to be successful (Truch, 1998). This may make specialized programs less appealing in that more training is required in addition to what teachers already have to go through to be certified to teach, but it does in fact boost the efficiency of programs. Some teachers have also been able to implement these programs successfully with no formal training, even though this is not recommended. Cost is an additional factor that influences a school's decision to begin using a certain program. RR in particular receives very heavy criticism because of this. Bracey (1995) calculated that RR was not a cost efficient model and that research showed the average accost of one RR student to be approximately \$8,333. These variables can have a significant impact on a school's decision to implement this kind of program and to what extent.

It is important to remember that just because programs are effective for some teachers or in some environments or situations that they are not guaranteed to work in others. For example, the RR program has been very successful in addressing the reading needs of students in New Zealand where the program originated under the auspices of Marie Clay (Spiegel, 1995). One of the many differences between American society and that of New Zealand is the structure of the school system. Most students in New Zealand attend small community schools and the nation has a high overall level of literacy. Bracey (1995) notes here that RR is therefore much better suited to these condition and was not even designed for the American model of education or society. This is an

important point to note when considering the criticisms of RR. The RR program is likely to be negatively affected by high levels of mobility and absenteeism, which are more likely to occur more in some American schools than those in New Zealand. Therefore it is important to remember that specialized reading instruction components should be adapted and/ or modified to suit different environments if they are to be used successfully.

The amount of instructional time for students with reading difficulties is considerable. In addition to this, none of them served as substitutes for regular classroom reading instruction, which is very important in improving students' ability. Sessions in the remedial programs all remained fairly short in length (an average of 30 minutes) with the exception of the Lindamood method, which is much more intensive than the others. Pikulski (1994), however, found that the amount of extra time in spent on reading may be necessary but may not be sufficient in addressing students' needs. Her study revealed little evidence that spending more time on instruction is sufficient for programs to be successful. Time is a factor in improving students' ability, but must be coupled with other important instructional principles to achieve its aims.

The target age groups and length of intervention are important characteristics of effective specialized reading programs. Consistently, the programs studied target students in the 1st- 2nd grades, which has already been established as an age group that should be selected for attention, because the main problem with this focus is that there are other students in higher grades that may not show problems until later in their school lives that could still benefit from these programs but who do not receive them. Thus, while early intervention is very important, remedial programs should not restrict the ages of their

students to those in the lower grades. The duration of intervention is also important because programs are at risk of ending before students with reading difficulties improve significantly enough to perform at age/ grade level equivalents. RR aims to work continually with students until they reach these levels, but not follow up strategies or refreshers courses are provided to continue with the learning process (Bracey, 1995). This case is echoed by Pikulski (1994), who suggests, “at-risk students’ needs will be met most fully and efficiently only if intervention programs of various durations are available (p. 35).”

The approaches summarized in Table 1 have not only been implemented in their original form, but also have inspired other reading instruction approaches. The Reading Recovery (RR) program has the model for a number of specialized reading programs and has been the source of much debate on its effectiveness and cost efficiency. Hedrick and Pearish (1999) designed a group pull-put program based on the RR model. Their program shared similar characteristics of the RR model including shared reading and guided reading. Their model was found to be very effective in helping improve the reading ability of students who received this instruction when compared to a control group who received more traditional remedial approaches. They also concluded that the general education teacher is capable of delivering these methods with little training.

Although the evidence from the specialized programs featured shows a number of effective components of instruction, there are critics who deny the positive role that specialized reading instruction can have on improving reading ability. Dudely-Marling and Murphy (1997) claim that remedial programs fail to encourage change in classroom instruction and discourage change by their mere presence in classrooms or in the form of

pull-out programs. They assert that “while appearing to provide an alternative consideration of differences in learners and learning styles...remedial programs may facilitate the process by which schooling coerces its clients into fitting in, making it easier for schools to efface differences, based on race, class, gender, culture or sex” (p. 463). Their theory justifies this statement by alleging that specialized reading programs maintain school discourses that are biased towards certain students and not others. This sociological opinion of reading instruction takes an extreme philosophical approach that did not have an adequate research base to justify the claims that it makes. These authors also claim that pull-out programs fail to assume responsibility for students’ regular classroom reading instruction, planning little for what students read when they return to their classrooms from a pull-out program. This is not actually the case, as studies in reading have shown. Both the NRP (2000) and Spiegel (1995) recommend that teachers from regular classroom instruction and specialized programs collaborate as much as possible in order to help students apply the skills they have learned in class to the rest of their reading. Spiegel actually recommends four different strategies that teachers can use to make collaboration as effective as possible.

Discussion

Mastropieri and Scruggs (1997) found that “the best overall reading program combines training in basic skills and reading fluency with training in text analysis, self-questioning and comprehension monitoring and in making appropriate attributions” (p. 109). The programs featured in this study include these important characteristics in some form or another, which contributes heavily to the degree of their success.

Whilst almost all of the effective components of the reading programs are necessary, they are certainly not sufficient when considered individually. One of the greatest strengths to come out of this study is that there is a range of instructional strategies and methods that interact and compliment each other very well in achieving the goal of improving reading ability. It is these combinations of strengths that make each of the programs as successful as they are. Those programs studied contained a good blend of skills and approaches that are the result of detailed research and analysis and modification to suit the goals and needs of each initiative.

One of the most important variables that influences successful reading programs is their environmental influence. As noted earlier, RR is more successful in New Zealand than in the United States due to a variety of structural differences between the two countries. Some of the other programs featured were geared towards students in areas with low socioeconomic status, (e.g. The Winston-Salem project), whilst others are designed for a more universal environment (e.g. The Lindamood program). When designing effective instructional programs it is therefore important to remember the characteristics of the students for whom the intervention is being planned.

Areas for further study include updating research on the reading programs that were featured here. It was difficult to locate research on specialized reading programs in general, which could be a sign that this type of approach is less favored nowadays in reading instruction, despite evidence that specialized programs can work. From the papers that discussed remedial reading instruction, some research (e.g. Bracey, 1995) tried to attack rather than defend certain programs, particularly RR, despite evidence such

as that included in Table 1 that identifies a number of effective instructional principles are used in all of these programs.

Overall, evidence from the specialized programs coupled with theories on the components of effective of reading instruction makes a strong case for the appropriate use of specialized methods of teaching.

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