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Perspectives on Reading Instruction

Reading is a complex process—complex to learn and complex to teach. Psycholinguists, information systems analysts, reading researchers, and cognitive psychologists all describe the reading process differently. While these descriptions are important to theoretical questions about the reading process, many of them do not address the needs of classroom teachers. Our purpose is not to survey the various theoretical positions but to explain procedures that teachers can use to improve the reading performance of their students. Our position is that many students will not become successful readers unless teachers identify the essential reading skills, find out what skills students lack, and teach those skills directly.

Success in reading is very important to students, both for academic and vocational advancement and for the students' psychological well-being.

To teach reading effectively and efficiently, teachers must be knowledgeable in several areas. Teachers must know

1. The essential skills or objectives that make up the reading process and the procedures for teaching those skills.
2. The sequence in which the essential skills can be introduced.
3. The procedures for evaluating, selecting, and modifying reading programs to meet the needs of all the students in their classrooms.
4. The techniques for effectively presenting lessons, including techniques for pacing tasks, motivating students, and diagnosing and correcting their errors.
5. The types of assessments to use during the school year.
6. How to use the information from assessments to establish an instructional program and make necessary and timely adjustments.
7. How to organize classrooms to maximize the amount of time students spend engaged in reading instruction.

PERSPECTIVES ON IMPROVING STUDENT READING PERFORMANCE

Effective and efficient instruction benefits all students but is essential for instructionally naive students who typically have trouble learning to read. *Instructionally naive students* are those students who do not readily retain newly presented information, are easily confused, and have difficulty attending to an instructional presentation.

There are four basic perspectives on improving student reading performance. The first, the pessimist's viewpoint, is that the schools can do little unless the student's physical make-up or home and social environment are altered. The second, the generalist's viewpoint, is that the schools can improve reading performance by developing a wide range of abilities that supposedly underlie reading. The third, a constructivist viewpoint, holds the individual reader's construction of meaning as central to reading and views phonics and the "decoding" of words as strategies that trivialize the purpose of reading. The fourth, a direct-instruction viewpoint, assumes that if teachers analyze tasks to be learned thoroughly, sequence instruction carefully, construct clear instructional presentations, and provide systematic practice, review, and application, they will be able to provide children with success in school, regardless of the outside conditions that may put the children at risk. Each of these viewpoints is discussed below.

Pessimist's Viewpoint

The pessimist's viewpoint states that the schools can do little unless the student's physical make-up or home and social environment are altered and that conditions outside the control of the schools are the predominant determiners of success. The pessimistic orientation results in educators not examining what occurs in the school to explain why children have not been successful. Inadvertently, educators with this viewpoint do not take responsibility for the effectiveness of their instruction.

Dr. Galen Alessi, professor of psychology at Western Michigan University, conducted a fascinating study in which he examined 5,000 reports prepared by school psychologists that explained why students were not succeeding in school. Not one of these reports placed the blame for the student's problems on the curriculum or teaching methods used. In every case, the explanation was that there is something wrong with the student or the student's environment (Alessi, 1988).

An orientation that does not take responsibility for students' performance can be quite harmful. There are schools in the most impoverished neighborhoods providing high levels of success for their students. Problems such as poverty, a disruptive home life, and physiological impairments make teaching and learning more difficult. However, as much as we would like to see socioeconomic conditions improved, we reject the assumption that improvement in reading achievement is not possible unless there are changes in the children's economic and social environments. Educators cannot use social and home environments as excuses for the poor performance of some students. We encourage educators to advocate for improvement in social environments but not to use the problems as an excuse.

More than 40 years of substantial and coercive research now supports the proposition that if students are taught fundamental reading skills directly, explicitly, strategically, and thoughtfully, they will learn to read (Adams, 1990; Becker & Carnine, 1980; Foorman, 1995; Kame'enui & Simmons, 1990; Lyon, 1995; National Reading Panel, 2000; Smith, Simmons, & Kame'enui, 1995).

Generalist's Viewpoint

Typical of the generalist's orientation toward improving reading performance is the idea that reading performance can be improved only by focusing on the *processes* or *abilities* that underlie learning. Advocates of this viewpoint feel that focusing on reading skills is an inappropriate emphasis. Once students "learn to learn," "become motivated," or "overcome auditory deficits," say generalists, reading will be relatively easy for them. The attitudes reflected in this orientation are more constructive than those of the pessimists because the assumption

is that students can succeed and what the teacher does will influence the learning of the students. However, there are serious problems with the generalist's viewpoint:

1. This viewpoint draws attention away from the quality of reading instruction. Instead of looking at the way reading is taught, it stresses general skills such as visual perception.
2. Proposed solutions often inadvertently result in students receiving less actual reading instruction than in a normal situation.
3. Data from research reviews do not support a generalist viewpoint (Kavale & Forness, 1987; Lloyd, 1984).

Modality matching and learning styles approaches to reading instruction stem from the generalist viewpoint. In these approaches, learners are classified as either auditory or visual learners and are assigned to either an auditory method of teaching reading or a visual method of teaching. The assumption is that auditory learners will benefit most from an auditory method and visual learners will benefit most from a visual method. However, reviews of the modality matching and learning styles research have revealed no evidence to support the approaches (Forness, Kavale, Blum, & Lloyd, 1997; Snider, 1992; Stahl & Kuhn, 1995; Tarver, 1996). These negative findings converge with findings that indicate that students, regardless of their modality preferences or their learning styles, benefit most from explicit and systematic instruction.

Constructivist Viewpoint

Typical of the constructivist's orientation toward improving reading performance is the notion that children develop and progress at their own rate and that learning to read is as natural a process as learning to speak and that both are comparable parts of overall language development (Foorman, 1995; Liberman & Liberman, 1990). Moreover, this orientation holds that as children develop language naturally in environments that support meaningful and purposeful language usage, they also develop reading and writing skills within environments that promote meaningful and purposeful reading and writing experiences, each at his or her own individual pace. The teacher is viewed primarily as a facilitator or guide within the reading process and not as someone whose direct actions have a direct and instrumental influence on students' learning. Differences in reading performance, therefore, are seen as reflective of developmental differences that will minimize over time.

The constructivist viewpoint in regard to reading stems from the assumption that learning to read is as natural as learning to speak. To assess this assumption, we must pose two questions: (1) Is reading, like speaking, natural? (2) What is required if a child is to read and write?

Liberman and Liberman (1990) answer the first question with an unqualified "no." Speech is primarily biological. Humans possess a predisposition to develop speech. However, learning to read is gaining knowledge of and practicing an agreed-upon convention for the written representation of language, and it is not genetically inherent in human development. Without any formal instruction, virtually all people learn to speak the language of their home environment. Without specific instruction in reading, many people will not learn to read. Just being around books does not produce a person who can read. All people in all societies learn to speak. In response to the second question—What is required if a child is to read and write?—much of the current research that focuses on beginning reading skills unwaveringly points to the child's need for well-developed phonological awareness skills and alphabetic understanding as prerequisite and corequisite requirements in learning to read and write and the need for explicit and systematic instruction in teaching these skills. Although developmental differences are well recognized, the viewpoint of reading as a constructivist activity that unfolds naturally within a supportive, enriched "literate" environment is one that might negatively affect "perhaps 20 to 25 percent (of the children) who will not discover the point of the alphabet except as it is made apparent to them by appropriate instruction" (Liberman & Liberman, 1990, p. 54).

Direct Instruction

The fourth orientation, and, in our opinion, the most productive answer to the question of how educators can improve student reading performance, is direct instruction. Direct instruction involves an ongoing effort to teach essential reading skills in a highly effective and efficient manner. This orientation requires that teachers take responsibility for student performance. A child's home environment or some arbitrary label given to the child does not absolve the teacher from responsibility for providing successful instruction. When a student is not performing or progressing at desired levels, the teacher examines the way the teacher has provided instruction and the exact difficulties that the student is having in an effort to improve instruction. The teacher examines important components of instruction: Was the initial presentation clear? Were an adequate number of examples presented? Did the instruction keep the students engaged? Was there adequate practice and systematic review? The direct instruction orientation requires an ongoing examination of data to determine what is working and what is not working. Essential skills as well as effective and efficient teaching practices are identified by scientifically based research on reading development, reading instruction, and reading disabilities.

ILLUSTRATIONS OF THE FOUR ORIENTATIONS

Four answers to the question of how to improve reading instruction have been discussed: Pessimists look outside the school, generalists look toward broad abilities that they believe underlie reading, constructivists look toward enriching the classroom environment and making it more meaningful and purposeful to the child, and direct instruction looks to using teaching methodologies that are based on research. The following examples present several student problems and the solutions that each of the four orientations would prescribe.

Upon entering third grade, Arthur is placed in a third-grade reading program. Each day, the teacher presents exercises from the program. Unfortunately, Arthur can read only about 60% of the words that appear in the exercises, the student reader, and the assignments. After several days, Arthur begins roughhousing and talking with his neighbors during reading instruction. He is seldom attentive and does not complete his assignments. The response from a pessimist's viewpoint might be that Arthur is suffering from attention deficit/hyperactivity disorder (ADHD), comes from a broken home, and/or is unmotivated. A referral would be made to a psychologist or social worker. No change would be recommended in the tasks presented to Arthur or the teaching provided to him.

Those who embrace a generalist's viewpoint might suggest providing Arthur with an after-school class where the teacher empathizes with his situation, encourages him to keep trying, and works to develop Arthur's self-concept. "After all," a generalist would argue, "you can't read when you don't feel good about who you are." Neither the generalist nor the pessimist would devise solutions that examine the assignment or instruction provided to Arthur.

Constructivist advocates might argue that the activities with which Arthur is struggling are irrelevant, and more attention should be provided to reading to Arthur and giving him the opportunity to develop meaning. By reading to him and asking him questions, the main part of the reading instruction, developing meaning, will be accomplished.

From a direct instruction viewpoint, changes in Arthur's instructional program are urgently required. First, the teacher must assess the reading skills taught in earlier grades to determine why Arthur is not succeeding in the work for his current grade. If the assessment shows that he has not mastered many skills from earlier grades, a systematic and explicit program to reteach these skills must be put in place. The overall program for Arthur should be established so that during all time devoted to reading instruction, he will be successful, and that his overall reading program will be intensive enough to enable him to catch up to grade-level performance standards.

The next student is Janice, a first-grader. Janice makes numerous word reading errors during oral reading in small-group instruction. In the most recent reading lesson, Janice said "at" for *it* and "ham" for *him.* A pessimist might assert that whatever Janice

does in the classroom cannot be improved because her low IQ ostensibly prohibits her from becoming a fluent and successful reader. A generalist might argue that Janice will always have difficulty with reading because she must first overcome her auditory processing deficits before she can begin to read visually. A constructivist might say that Janice is simply not ready to read and is too immature for reading. Furthermore, the constructivist would say, the teacher's focus on word-reading errors is not a legitimate concern and trivializes the purpose of reading, which is to construct meaning from text. As long as what Janice is reading "makes sense" to her as an individual constructing meaning, decoding "words" is irrelevant. A direct instruction approach to Janice's reading performance would begin with assessment. First, the teacher would assess to determine whether Janice knows the sounds of consonants and short vowels and has a strategy for reading words. For deficiencies in either skill, specific teaching procedures would be instituted immediately, with specific goals set for improved reading accuracy.

The last student is Dale, a sixth-grader who is struggling in an assignment to look up information on different topics in a textbook. The teacher explains that she taught Dale and the rest of the class several weeks ago how to use a subject index in a textbook. Yesterday, however, when Dale was given a worksheet assignment that required him to list the page numbers on the Egyptians in his history book, he did not remember the subject index or how to use it and began looking at every page in his book to find the pages that discussed the Egyptians. He ran out of time and was unable to finish his assignment. A pessimistic approach to Dale's problem might argue that Dale did not finish his assignment because he has too many worries about home and the care he must provide to his four brothers and sisters because his single mother works two jobs to support the family. A generalist might suggest memory training for Dale. The constructivist interpretation might argue that the assignment is simply meaningless to Dale and that the time limit imposed by the teacher constrains Dale's ability to gain meaning from the text. A direct instruction explanation would focus on providing Dale with more instruction and practice in using an index. If Dale had completed several exercises in using the subject index immediately following the teacher's initial explanation and then been provided with some intermittent review, he would be more likely to remember when and how to use it. The recommendation from this approach would be to reteach the skill and provide more practice immediately after the reteaching. Once Dale had learned the *skills*, he would be taught to apply the skills to a wide range of questions involving multiple texts.

A MORE IN-DEPTH LOOK AT DIRECT INSTRUCTION

The term *Direct Instruction* was first used in 1968, when Science Research Associates (SRA) published a beginning reading program called DISTAR, authored by Sigfried Engelmann and his colleagues. (DISTAR originally stood for Direct Instruction for Teaching Arithmetic and Reading.) Since 1968, the use of the term *Direct Instruction* has evolved in two main directions. *Direct Instruction* with the a capital *D* and a capital *I* refers to instructional programs authored by Engelmann and his colleagues and primarily published by SRA. Engelmann and his colleagues have authored more than 100 programs to teach reading, math, language, spelling, and science both to young children and to older children who have not been successful in early learning. The principles underlying the design of these instructional programs have been set forth in the book *Theory of Instruction* by Engelmann and Carnine (1991). The term *Direct Instruction* also refers to the schoolwide implementation model that Engelmann has developed and refined over the past decades to foster the successful implementation of the instructional materials he created. The Direct Instruction Model includes professional development (both in-service and in-class coaching), grouping and scheduling guidelines, assessment (including screening and progress monitoring), systems to make adjustments when progress is not at desired levels, motivational procedures, and leadership elements for principals and district leaders.

The work on Direct Instruction programs began several years prior to the publication of DISTAR,

when Carl Breiter, a professor at the University of Illinois, received funding to establish a demonstration preschool program for low-income children and contacted Engelmann to lead the project. Engelmann and Engelmann (1966) had written a trade book titled *Give Your Child a Superior Mind* that outlined principles and procedures for accelerating the learning of young children. The book was a best seller and was translated into several languages. During the next four years, Engelmann gathered and trained a team of teachers and worked with the children daily, translating the general ideas in *Give Your Child a Superior Mind* into sets of daily lessons for teaching reading, language, and math to the children. The results were outstanding: IQ gains of 24 points were obtained. Children who began the preschool highly at risk entered first grade reading at beginning-second-grade level and performing at mid-second-grade level in math. See *www.zigsite.com* for information on the preschool project.

The instructional materials developed for the preschool project were later refined and published as the DISTAR programs by SRA which at the time was owned by IBM. The programs were widely distributed and produced success in many cities. The following is an excerpt from a newspaper article published in 1974 in the *Chicago Sun Times*:

> The downward slide of Chicago public education is being reversed in one West Side school district by an experimental program which can teach some kindergarten children to read at third grade level. The program is called DISTAR. It is credited with achieving remarkable gains in reading and math skills since its formal introduction in 1970 as a standard procedure for the primary grades in Public School District 10 in the Lawndale Community. (Seals, 1974)

Project Follow Through

In the late 1960s, the Federal Office of Education invited Breiter and Engelmann to participate in what was to be the largest experimental education research program ever conducted by the federal government. It was called Project Follow Through, and its purpose was to evaluate different approaches to educating economically disadvantaged students in kindergarten through grade 3. The research phase of the project lasted for almost six years. More than 10,000 low-income students in 180 communities were involved in the $500-million project. An analysis of the data showed Direct Instruction to be the most effective model in raising student achievement, as indicated by scores on all academic and cognitive measures. Furthermore, Direct Instruction students' scores were very high in measures of self-esteem. This result especially surprised the researchers, who wrote

> The performance of the Follow Though children in Direct Instruction sites on the affective measures is an unexpected result. The Direct Instruction Model does not explicitly emphasize affective outcomes of instruction, . . . Critics of the model have predicted that the emphasis on tightly controlled instruction might discourage children from freely expressing themselves, and thus inhibit the development of self-esteem and other affective skills. In fact, this is not the case. (ABT Associates, 1977)

Numerous studies have been conducted on the use of Direct Instruction programs with regular education and special education population in preschool through high school, with children from all types of backgrounds. Several meta-analyses summarize the findings. White (1988) found 25 investigations where Direct Instruction was compared to some other treatment. Not 1 of the 25 studies showed results favoring the comparison groups; 53% of the outcomes significantly favored Direct Instruction, with an average effect size of .84 (considered a large magnitude of change from pre to post assessments). Adams and Engelmann (1996) analyzed 37 research studies involving Direct Instruction programs compared to other treatments. When studies involving special education students ($n = 21$) were analyzed separately, the mean effect size was .90 (considered a large magnitude of change from pre to post assessments). Forness,

Kavale, Blum, and Lloyd (1997) conducted an analysis of various intervention programs for students receiving special education services and found Direct Instruction to be one of only seven interventions with strong evidence of success. The American Federation of Teachers (1999), American Institute of Research (1999), and the Center for Research on the Education of Students Placed at Risk (Borman, Hewes, Overman, & Brown, 2002) all conducted research reviews of models designed for at-risk students and found the Direct Instruction model to be one of just two or three models with substantial research to validate effectiveness.

Some studies stand out. In 1988, Dr. Paul Weisburg of the University of Alabama reported on a preschool/kindergarten project for low-income children. The project utilized the Direct Instruction language and reading components, beginning in pre kindergarten and continuing into kindergarten. At the conclusion of the second year, the students were given the end-of-first-grade component of the Metropolitan Achievement Test to evaluate their performance. The data showed that the children who had been through the Direct Instruction programs for two years on entering first grade tested at the 80th percentile, while their peers tested at the 20th percentile.

A multiple-school project in Houston, Texas, involving thousands of children, produced very impressive results. A report completed in 2002 by researchers from the University of Houston summarized data collected on the implementation of Direct Instruction in 10 low-income schools in the Houston School District. The implementation was sponsored by the RITE (Rodeo Institute for Teacher Excellence) project. The Direct Instruction reading and language programs were used. High-quality professional development was provided for teachers in using the programs. Student performance was carefully monitored, and adjustments were made in a timely manner when students were not progressing at desired levels. The following is an excerpt from the research summary:

> Overall, the results of the 1998–99 external evaluation of the RITE program indicate that the children involved in the RITE program are performing at levels comparable to or far exceeding those of children within the district who are involved in other active reading programs.
>
> The most dramatic development is seen for children who begin the program in kindergarten. By the end of first grade, these children are performing at levels that were not only well above their district peers, but well above national averages.

A multiple-school implementation of Direct Instruction in Baltimore from 1997 through 2003 showed that the performance of students in first grade increased annually, from a beginning level of the 26th percentile to the 60th percentile by 2003. The researchers also studied the performance of children who remained in well-implemented Direct Instruction (Stockard, 2008) over a period of five years and found significantly higher gains in comprehension.

Several scholars have compiled the numerous research studies on Direct Instruction:

- Dr. Kerry Hempenstall, a professor at RMIT University in Melbourne, Australia, has compiled studies from around the world on Direct Instruction. See his website, *www.rmit.edu.au/staff/kerry_hempenstall#_Direct_Instruction*
- Dr. Martin Kozloff, a professor at the University of North Carolina at Wilmington, has compiled studies and written numerous papers on Direct Instruction. See the website *http://people.uncw.edu/kozloffm/DI.html*

Little "direct instruction"

The term *direct instruction,* with a lower-case initial letters, is used to refer to general teaching techniques that have been associated with teaching that have produced gains in learning for at-risk students. The term is now commonly used. It is sometimes referred to as *little direct instruction*, in contrast to "big" Direct Instruction, used to refer to the works of Engelmann.

Rosenshine (1986) reviewed research on teacher effectiveness variables that were associated with students' academic success. He named the collections of these variables *direct instruction*. He included the following descriptions in his summary:

- High levels of student engagement
- Academic focus
- Teacher directed
- Carefully sequenced and structured materials
- Clear goals
- Sufficient time allocated for instruction
- Extensive content coverage
- Monitoring of student performance
- Immediate, academically oriented feedback to students
- Structured, but not authoritarian, teacher–student interactions

Although the research Rosenshine reviewed focused on the achievement of low-income primary-grade students, other researchers (Brophy & Good, 1986) report similar results with other types of students.

In the remainder of this book, we describe how teachers can utilize the principles of instructional design and instructional delivery developed by Engelmann and the effective delivery elements identified by Rosenshine to help all students experience reading success. The specific procedures we describe are not those that appear in Direct Instruction programs. In Direct Instruction programs, a great deal of attention is given to making small adjustments from day to day to ensure student success. Our descriptions of how to teach specific skills are more general. We provide guidelines and suggestions that we hope will be useful.