This paper reviews what current research says about best practices in reading instruction for students with mild mental retardation. After introducing some key reading issues (such as effects of early reading failure), two principal approaches to reading instruction are discussed: first, the traditional/bottom-up synthetic approach which begins with teaching discrete reading subskills (such as word decoding) and second, the progressive/top-down constructivist approach which engages even beginning readers with literature and stresses students' construction of meaning. Each of these approaches is considered in terms of its strengths and weaknesses. Next, essentials of reading instruction are addressed in relation to special education philosophy and to legislation concerned with the individual needs of students with disabilities. A third approach which attempts to blend the respective strengths of both bottom-up and top-down approaches is then described with reference to the success of some action research founded on such a blended approach. Since this blended approach offers teachers of student with mild mental retardation greater flexibility and a broader range of strategies than either traditional approach, the paper urges more research into its instructional effectiveness. (Contains 23 references.) (Author/DB)
Reading Instruction

For

Students with Mild Mental Retardation:

Is There a Best Approach?

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Abstract

This paper highlights what current research says about best practice in reading instruction for students with mild mental retardation (MMR). After introducing some key reading issues for students who have this defined disability, two principal approaches to reading instruction—the traditional/bottom-up approach and the progressive/top-down approach—are described in terms of their strengths and weaknesses.

Next, some essential considerations about reading instruction are related to special education philosophy and legislation in regard to the individual needs of students with MMR and other disabilities. Then a third approach to reading instruction, based on a blending of the respective strengths of the two chief approaches, is introduced. Reference is made to the success of some action research founded on such a blended approach.

In conclusion, the following recommendation is made: in order to deliver reading instruction that is most appropriate and beneficial for students with MMR, more research needs to be conducted to compare the effectiveness of the blended versus the traditional and the progressive approaches.
Introduction

Being able to read, at least at a basic level, is necessary in order for a person in modern society to be personally independent (Polloway, Patton, & Serna, 2001). According to Clay (1991, p. 27), preschool children whose daily living environments include a wealth of literacy events often find it easier to acquire reading and writing skills in school as compared to preschool children who have few if any literacy events in their home situations.

Genisio and Drecktrah (2001, p. 41) have pointed out that “some children with special needs or disabilities may not have had a literature-rich home environment.” For some unfortunate children, a dearth of reading readiness stimulation in their early living situations is but one symptom of what is known as environmental deprivation (Beirne-Smith, Ittenbach, & Patton, 1998).

When a developing child lacks adequate nutrition, medical care, and parental/social interaction, she may enter school and receive a diagnosis of mild mental retardation (MMR) due to what the American Association on Mental Retardation (AAMR) called in 1992 “psychosocial disadvantage” (as cited in Beirne-Smith et al., 1998, p. 205). In harmony with the AAMR perception of such disadvantage, Park, Turnbull, and Turnbull (2002, p. 155) have pointed to the strong negative effect that poverty often has on the intellectual development and learning of children.

Whether caused by environmental deprivation, prenatal abnormalities, or other etiological factors, as many as 90% of the some 600,000 U. S. students with mental retardation “... fall into the mild to high functioning moderate range of this disability” (Katims, 2000, p. 2). In the *Diagnostic and statistical manual of mental disorders* (4th ed., text revision, desk reference), the American Psychiatric Association (2000) has identified the person with MMR as having IQ scores in the range of “... 50-55 to approximately 70,” adaptive skills limitations in at least two domains (e.g., self-care, communication), and onset before 18 years.
of age (p. 52). Some professionals have set the high end of the IQ range for MMR in the mid 70's (Gresham & MacMillan, 1996, p. 3; Katims, 2001, p. 363).

At the start of every school year, tens of thousands of children beginning their elementary education have MMR or are high functioning in the moderate range of mental retardation (Katims, 2000). It may be one to three years or more before a particular child is identified as having MMR or borderline intellectual functioning. By the time that child's specialized instruction is implemented, he may be weeks, months, or even years behind the average reading progress of his nondisabled peers (Clay, 1993, p. 15).

Faced with what are often major academic delays in reading skills, a student with MMR requires teachers who know how to employ best practice in reading instruction to meet her individual learning needs. Given the large numbers of students with this disability, and given the crucial role that reading plays in education and in daily life, Polloway et al. (2001, p. 232) have truly hit the mark by observing, "Reading, reading failure, and ways to teach reading remain dominant issues today for teachers working with students with special needs."

The purpose of this article is to highlight what current research says about best practice in reading instruction for students with MMR. Regarding the "how-to" of teaching reading skills to students with mental retardation, Katims (2000, p. 5) has identified three principal approaches: the "functional" approach; the "traditional" or "bottom-up" approach; and the "progressive" or "top-down" approach.

The first of these three is typically used more with students whose IQ ranges are below that of students with MMR. According to Singh and Singh (as found in Katims, 2001, p. 363), students receiving functional reading instruction focus on the identification and memorization of words of a "protective" nature, such as "street signs...convenience signs...cautionary words...and names of common objects." In this paper, consideration
will be focused on the latter two approaches because they are more frequently utilized with students who have MMR.

The "Bottom-Up" Approach to Reading Instruction

The term "bottom-up" is applied to the traditional approach because it begins with the teaching of discrete reading subskills such as phoneme/grapheme correspondence and the ability to decode unknown words (Katims, 2000; Polloway et al., 2001). As rudimentary subskills are taught in sequence, the students are exposed to words and sentences of gradually increasing difficulty/complexity.

Clay (1991, p. 237) has utilized the term "synthetic" in referring to the bottom-up approach, noting that persons who favor such a teaching philosophy "... want children to gain control of the letter-sound details and build or synthesize words and messages out of these." In reference to the traditional/bottom up approach, Katims (2000, p. 4) has characterized it as being "decontextualized"; Ellis and Fouts (1997) have described it as being "reductionist" (p. 111) and "teacher-centered"(p. 125); and Routman (2000, pp. 23-24) has identified it as being a "behaviorist approach."

At the heart of the traditional approach to reading instruction is the basal reader and its trusty companion, the reading workbook (Burns, Roe, & Ross, 1996). Basal readers are commonly published in grade-leveled series to cover the entire elementary range of instruction, and they usually are supplemented with detailed instruction and assessment helps for teachers.

Paraphrasing Thames and Reeves, Caldwell (1995, p. 1) has described the traditional basal reading approach by noting that its "... emphasis is on the development of decoding skills like sight word recognition, structural and content analysis, and phonics."
The "Top-Down" Approach to Reading Instruction

The second of this article's two main approaches to reading instruction is called the "top-down" approach because it immediately engages the beginning reading student with passages of authentic literature (as opposed to basal reading selections) through activities such as teacher-led read-alouds, student handling and page-turning in picture books with text, and—eventually—shared, guided, and independent student reading (Katims, 2000; Routman, 2000). The teaching of subskills such as letter-sound correspondence and word decoding takes place during student-centered reading activities that focus on the students' gaining of meaning from their engagements with authentic literature (e.g., trade books of both fiction and non-fiction varieties).

This second of the two chief approaches is also termed progressive because it "... supports an integrated and constructivist approach to literacy instruction in which skills are taught within the context of connected sentences and paragraphs ... [thus enabling students] ... to construct meaning from real texts" (Katims, 2000, p. 4). The top-down approach is considered to be constructivist in nature because its focus is on students' constructing their own learning as they engage and draw meaning from their interactions with text (Clay, 1991; Katims, 2000; Routman, 2000).

In contrast to the emphasis on isolated skills in bottom-up reading instruction, Katims (2000) has touted the benefits of the top-down approach, proclaiming:

Progressive instruction emphasizes from the very beginning that students must use background knowledge and strategies to negotiate with text in meaningful ways to gain comprehension of what is written. Students are taught to construct meaning from books read aloud to them, and then ultimately [are] able to read alone. (p. 5)

Clay (1991, p. 237) has referred to this progressive approach as being "analytic" in that its proponents "... want children to work with whole messages and analyse the details within
these." Although basal readers may contain some "whole messages" in the simplest understanding of the expression, supporters of the progressive/analytic approach definitely prefer authentic literature over basals as instructional materials for use with both beginning and advanced readers.

Reflecting on Eldredge and Butterfield's 1986 research, Caldwell (1995, pp. 11-12) has highlighted their conclusion that "... the use of literature to teach reading had a much greater positive effect on student achievement and attitude than traditional methods."

Huck (in Caldwell, 1995) has pronounced:

Literature makes children more human [than basal readers do] because it is concerned with feelings; children can develop insights and understandings that they never had before; literature helps children develop imaginations; and sense of wonder and appreciation can be developed through literature. (p. 14)

Lamme (as cited in Ruth, 1996, p. 12) has declared that literature-based instruction is more successful than is traditional reading instruction when it comes to involving students and their life experiences in engagements with the printed word. Such self-involvement with text, as practiced in whole language expressions of the top-down approach, encourages and motivates students in their quest to further develop their meaning-focused reading abilities (Ellis & Fouts, 1997, pp. 112-113).

The Ongoing Debate: Bottom-Up Versus Top-Down

Advocates of the bottom-up and top-down approaches have been in active, ongoing debate with one another. Such intellectual wrangling has been inescapable because, in the words of Ellis and Fouts (1997, p. 112), the two positions "... are diametrically opposed points of view."

For example, Katims (2000, pp. 3-4) has charged that the traditional approach tremendously diminishes meaningful student contact with quality literature because it
involves "reductionist interventions" that teach "isolated skills" focused primarily on the decoding of individual words.

Supporters of the bottom-up approach have been quick to fire back that their opposition's practices in reading instruction have led to widespread reading deficiencies in students who were never given ample instruction and practice in reading fundamentals such as phonics (Ellis & Fouts, 1997, p. 123).

Other professionals in the field of education have tried to offer more objective evaluations of one or both positions while taking sides with neither. For example, the National Research Council [NRC] (1998), representing the collective efforts of a broad spectrum of educators, has given comments both pro and con regarding the use of basals. On the one hand, the NRC has highlighted the fact that well-constructed basal programs offer benefits in areas such as organization and assessment, particularly to newer teachers. On the other hand, the NRC (p. 192) has cautioned that "since recommended activities and emphases are fixed, the instructional progression and materials of any given basal are likely not to match the needs and interests of at least some and possibly all students in a class."

Clay (1991, p. 236) has remarked that a teacher who attempts to maximize her students' contact with children's literature might deprive her charges of knowledge regarding the construction of individual words. On the same page, Clay has also noted that a teacher who concentrates overly much on phonics might keep her students from enjoying "... the images and expressions to be thought about in reading."

The publishers of basal readers and workbooks have not ignored this debate between proponents of the traditional and progressive approaches. In hopes of maintaining sales of their goods, a number of publishers have come out with basal series that have attempted to incorporate authentic literature and progressive teaching strategies in their material (Caldwell, 1995).
While some publishers may have considered the debate in terms of what might sell best in the educational marketplace, publishers and educators who are concerned about the learning needs of children have viewed this philosophical clash with a different set of priorities. Clay (1991, p. 237) has contended that, in the argument over which approach is best, both sides have overlooked the developmental needs of the maturing child. She has reminded the warring factions that no child learns reading by looking only at individual letters and words or by only engaging the whole of an authentic literary text. Sometimes a child needs to work from the smaller picture to the bigger picture, and at other times the child needs to move from the more general aspects of reading to the more particular details. Clay (p. 237) has summarized, "The best approaches to instruction in reading . . . acknowledge such a way of learning."

Considerations Regarding the Teaching of Students with MMR

The above reflections by Clay (1991) remind educators that the developmental needs of each of their respective students must be kept in the forefront when planning and delivering instruction. In speaking about the start-up of any primary level reading program, Clay (1991, p. 203) has stressed the importance of meeting each individual student at the level of his particular need, keeping in mind that every child comes to formal reading instruction with a unique set of early childhood literacy experiences.

Such comments on reading instruction in general are in harmony with the way special education teachers are trained to consider, evaluate, and attempt to meet the educational needs of each one of their exceptional students. The Individuals with Disabilities Education Act [IDEA], Reauthorization of Statute (1997) has generated federal regulations requiring that, within every public school district in the United States, children with particular identified disabilities (§ 300.7) be provided with education that is specially designed to meet their individual educational needs (§ 300.346).
These federal regulations provide for the education of children with MMR. However, the specific criteria for determining who has MMR are established independently by each state in the Union (§ 300.7[b]). Since different states often use different criteria, a child who might be identified as having MMR while living in one state might be identified as having a learning disability (LD) if she moved to another state. According to a U. S. Department of Education report to Congress in 1994 (as found in Gresham & MacMillan, 1996, p. 3), “... huge variations across states exist in the prevalence rates of MMR and LD.”

Needless to say, such variations in disability diagnoses cause confusion for students, their families, educators, and researchers. Changes in some states’ disability criteria in recent years have also led to a decrease in the total number of children in the U. S. who have been determined to have MMR (Patton, Polloway, & Smith, 2000, p. 9). Perhaps such a decrease is one reason why the author of this paper has not found many research studies or commentaries specifically related to reading instruction for students with MMR. In contrast, this author has found much more material on the teaching of reading to students with LD.

Regardless of the quantity of published material on the topic, the educational needs of the hundreds of thousands of U. S. children with MMR must be met. And, in accord with IDEA (1997) regulations, each student with MMR (or any disability) must have an Individualized Education Program [IEP] (§ 300.341). The term “individualized” does not rule out the possibility of group instruction in a special education setting when such is appropriate for each student in the group, but “individualized” does mean that the strengths and needs of each particular student must drive her/his educational program (§ 300.346-347).

In an attempt to clarify individual strengths and needs of students with MMR in relation to reading instruction, Cawley and Parmar (1995) conducted a study involving 160 elementary school students (80 nondisabled and 80 with MMR). As they analyzed the collected data,
these two researchers discovered that some of the exceptional students with similar IQs had significant differences in reading test scores.

On the basis of their findings, Cawley and Parmar (1995, p.128) have concluded that the reading “... performance expectancies and discrepancies ...” of an individual with MMR cannot be explained by his intellectual ability alone. They have also insisted that the same instruction cannot be delivered to an entire group of students with MMR simply because the students all have similar IQs. According to this pair of researchers, each student must receive individualized instruction based on her/his particular needs as determined by appropriate and thorough assessment.

Regarding another study, Katims (2000, p. 12) was reviewing the reading performance scores of 54 students with MMR tested in a controlled setting when he noticed that the scores of some students with lower IQs equaled and even exceeded the scores of other students having higher IQs. He theorized that the students with lower IQs whose reading performance was equal to or better than that of students having higher IQs “... were possibly exposed to early and intensive literacy interventions.” In the course of commenting on the same study in a later publication, Katims (2001) has suggested that his findings support the practice of special education teachers assessing the reading progress of every student in a comprehensive, ongoing manner.

The Blended Approach to Reading Instruction

Comprehensive, ongoing assessment of the reading progress of each student enables the special education teacher to adjust and shape instruction to meet the needs of each individual student during the school year. When a special education teacher listens to the traditional versus progressive debate regarding reading instruction, the question arises, “Which approach is best to draw upon when/as a teacher is designing instruction for each of her students?”
In addition to the opposing positions that have been explained and defended by the two separate camps, there are other informed voices for the special education teacher to hear and consider. For example, Clay's (1991, p. 237) emphasis upon the importance of reading teachers' awareness of the developmental learning needs of each child is connected with her understanding that these needs are best met when both "analytic" and "synthetic" reading approaches are drawn upon as required.

In accord with such a view toward best practice, Stahl, McKenna, and Pagnucco (as cited in Ellis & Fouts, 1997, pp. 122-123) have proposed that the most effective reading program might be a blend of both the traditional and progressive approaches; such a program "... might include a great deal of attention to decoding, especially in the early grades, but would give a greater emphasis to the reading of interesting and motivating texts."

In harmony with the proposal of such a blended approach, Ellis and Fouts (1997) have observed the following:

Some evidence exists to suggest that both teacher-directed, phonics-based instruction and some student-centered, literature-based learning are needed. What we need is a research agenda that will get us closer to the answers of sequence, balance, and the best use of children's learning time. (p. 125)

Both Stahl et al. (in Ellis & Fouts, 1997) and Ellis and Fouts (1997) have made their comments in reference to reading instruction delivered in the general education setting. Connors (in Hedrick, 1999, p. 2) has encouraged the special education community to base some of its reading research with exceptional students upon successful reading practices in general education settings.

More recently, the 1997 reauthorization of IDEA (as cited in Wehmeyer, Lattin, & Agran, 2001, pp. 330-331) has stipulated that there be a specific focus in IEPs on exceptional students' access to the general curriculum. This IDEA requirement, along with the already
growing inclusion movement, makes it necessary as well as logical to identify aspects of the
general education reading curriculum that will adequately meet the educational needs of
students with MMR or any other disability.

In the spirit of such logic and possibly in anticipation of such necessity, Hedrick (1999)
undertook a research project to see how a successful general education literacy program
might work when delivered to nine elementary students with mild to moderate mental
retardation. Interestingly, the Four Blocks language arts program which she chose to apply in
her classroom is a blend of both the traditional (e.g., use of basals) and progressive (e.g., use
of children’s literature) approaches. As Hedrick (1999, p. 1) has described it, “this compre-
hensive program provides a balance between more traditional reading instruction and a
contemporary, constructivist orientation toward literacy instruction.”

As Hedrick employs the term “literacy” in her study, it holds the same meaning as it does
for Katims (2000, 2001); for both of these educators, literacy involves more than just reading.
Literacy is societal communication founded on the meaningful interactions of reading,
writing, listening, and speaking (Katims, 2000, pp. 5, 7).

Using an action research method in her descriptive study, Hedrick (1999) reported that all nine
of the students made some measurable gains in their reading skills as determined by
pretest/posttest comparisons. She has noted that at least some of the gains were “…better than
average…” (p. 14); and she has suggested that experimental research comparing the effectiveness
of Four Blocks with that of other literacy programs could be helpful in future planning and
delivery of reading instruction to students with MMR.

Summary

In this paper, two main approaches to reading instruction have been described and
contrasted: the traditional/bottom-up and the progressive/top-down approaches. Each of these
two approaches has strengths and weaknesses.
The former approach specializes in teaching discrete reading skills such as word decoding, and basal readers are typically used in the course of such instruction. Emphasis on isolated skills and use of basal readers can have the effect of minimizing student engagement in meaningful interactions with authentic literature.

The latter approach focuses on student-centered contact with real text that allows the student to construct personal meaning from such involvement with the text. By placing more importance on comprehension skills than on skills such as letter-sound correspondence, this latter approach can lead to student deficiencies in basic knowledge regarding how individual words are composed.

It is apparent that neither approach is sufficient in itself to provide the student (in a general or a special education setting) with everything that he may need in the way of reading instruction. Therefore, a number of educators have proposed that a blending of these two approaches offers the reading student the benefits of each approach as well as a means by which to avoid the weaknesses of each. Such blending in consideration of individual student needs is in harmony with special education philosophy and legislation.

In this article, time has been taken to consider some recent research that focuses on reading performance by students with MMR. The research of Cawley and Parmar (1995) and the material presented by Katims (2000, 2001) highlight the importance of providing individualized instruction based on carefully identified student needs. Hedrick (1999) has provided some data showing measurable gains in reading skills scores when a blended program of literacy instruction was offered to a small sample of elementary school students with MMR.

In her closing remarks, Hedrick has suggested that experimental research comparing the effectiveness of her study's blended program with that of other literacy programs could be beneficial regarding the shaping of future reading instruction for students with MMR.
Conclusion

Each student with MMR requires instruction that is custom-tailored to match her unique set of educational strengths and needs. In consideration of the strengths of the blended approach to reading instruction, it can be seen that such a hybrid approach offers teachers of students with MMR greater flexibility and a broader repertoire of strategies than do either the traditional approach or the progressive approach. The position of those who advocate use of the blended approach for students with MMR implies the following hypothesis: students with MMR who receive reading instruction based on the blended approach will show greater gains in overall reading skills than will peers with similar disability who receive reading instruction based on the traditional approach or on the progressive approach.

The author of this paper believes it is crucial that more research be conducted to compare the effectiveness of the traditional, progressive, and blended approaches of reading instruction for students with MMR. The results of such research are necessary for the shaping of well-informed, empirical responses to the question, “Is there a best approach to reading instruction for students with MMR?” Such responses are vital to the processes of planning and delivering reading instruction that is most effective for these students.
References


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