Strategies for Teaching Students with Mild to Severe Mental Retardation

Robert A. Gable
& Steven F. Warren

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Edited by Robert A. Gable
Old Dominion University
and Steven F. Warren
George Peabody College of Vanderbilt University

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DEDICATION

This book is dedicated to the memory of Tom Haring. Tom made major contributions to our knowledge of how to teach social and communication skills and, perhaps most importantly, how to nurture meaningful friendships between children and adolescents with disabilities and their peers. His tragic death has deprived us of countless other contributions that were sure to come. Tom's blend of keen intellect, scientific rigor, and deeply held values remain a model for all of us. His courage, warm smile, and ever-present sense of humour live on in our memories.

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LIST OF CONTRIBUTORS

Rose M. Allinder

Special Education
and Communication Disorders
University of Nebraska
Lincoln NE

Donald M. Baer

Human Development
and Family Life
University of Kansas
Lawrence KS

Linda M. Bambara

College of Education
Lehigh University
Bethlehem PA

Janis Chadsey-Rusch

Department of Special Education
University of Illinois
Champaign IL

Lana Collet-Klingenberg

Department of Special Education
University of Illinois
Champaign IL

Alan R. Frank

Division of Curriculum
and Instruction
University of Iowa
Iowa City IA

Lynn S. Fuchs

Department of Special Education
George Peabody College
of Vanderbilt University
Nashville TN

Robert A. Gable

Department of Child Study
and Special Education
Old Dominion University
Norfolk VA

James W. Halle

Department of Special Education
University of Illinois
Champaign IL

Thomas G. Haring

Graduate School of Education
University of California
Santa Barbara CA

Jo M. Hendrickson

Division of Curriculum
and Instruction
University of Iowa
Iowa City IA

Lori Korinek

Department of Special Education
College of William and Mary
Williamsburg VA

John Wills Lloyd

Curry School of Education
University of Virginia
Charlottesville VA

Margo A. Mastropieri

Department of Educational Studies
Purdue University
West Lafayette IN

Edward A. Polloway

School of Education
and Human Development
Lynchburg College
Lynchburg VA

Joe Reichle

Department of Educational
Psychology
University of Minnesota
Minneapolis MN

Thomas E. Scruggs

Department of Educational Studies
Purdue University
West Lafayette IN

Jeff Sigafoos

Department of Educational
Psychology
University of Minnesota
Minneapolis MN

Elizabeth Talbott

Curry School of Education
University of Virginia
Charlottesville VA

Melody Tankersley

Curry School of Education
University of Virginia
Charlottesville VA

Stanley C. Trent

Curry School of Education
University of Virginia
Charlottesville VA

Steven F. Warren

Department of Special Education
George Peabody College
of Vanderbilt University
Nashville TN

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SECTION II
STRATEGIES FOR TEACHING STUDENTS WITH MORE
SEVERE LEVELS OF MENTAL RETARDATION

THE ENDURING VALUE OF INSTRUCTIONAL RESEARCH

Robert A. Gable and Steven F. Warren

The field of special education has evolved in extraordinary ways over the past three decades due to the dedicated efforts of thousands of persons. Together, these efforts have led to significant advances in societal attitudes, laws, regulations, educational practices, services, and opportunities in many countries. Instructional practices have evolved too, although the changes have perhaps been less dramatic than the settings and contexts in which they have come to be utilized (e.g., regular classrooms, competitive employment situations, homes, restaurants, leisure activities, early intervention programs).

Despite these changes, the potential effectiveness of special education efforts obviously remain dependent on the development and dissemination of highly effective instructional practices. It is evident that the most enlightened social and educational policy is no substitute for effective instructional methods and procedures. It is the purpose of this book to revisit the enduring topic of effective instruction for students with mild to severe mental retardation.

The critical need for an increased amount of high quality instructional research relevant to the needs of both typical and atypical students was succinctly put by Slavin:

> The reason education goes from fad to fad rather than making the steady generational progress characteristic of, for example, medicine or agriculture

is that in education practice so often outruns (or ignores) the evidence supporting it. We see a crisis and mandate solutions on a massive scale long before the data are in. (Slavin, 1986, p.170)

The potential role of behavioral science – particularly in the identification and provision of educational curriculum and instruction – has been largely ignored by legislators, administrators, and practitioners. Carnine (1991) contends that this inattention is linked to the absence of even a rudimentary scientific outlook by these individuals. He has argued that educational reform is failing in the United States primarily because the solutions being proposed are based on strongly held beliefs and good intentions, rather than on tested educational methods.

Like Carnine, Meyer (1991) too has noted the distressingly low impact that research has had on instructional (and other) practices. However, in reviewing the gap between research and practice for children and adults with severe disabilities, Meyer places a substantial share of the responsibility squarely in the lap of the research community. She argues that, among other things, many applied researchers tend to be limited by inherent restrictions of the methodologies they choose (e.g., single subject design approaches), by their own definitions of disability, and by their remoteness from the real world for which their interventions and procedures are intended. Like Carnine, Meyer acknowledges that the gap between research and practice is at least partly a reflection of the certain values and constraints emanating from policymakers and practitioners. But the thrust of her argument, and that of others who have examined the discrepancy between research and practice (e.g., Baumeister, 1981; Skrtic, 1986), is that as the relevance and credibility of the research increases, so too will its likely impact.

The research community has often been quite open in identifying the limitations of their efforts, at least among themselves. For example, the limited generalization and maintenance of treatment results often achieved in instructional research within various domains (e.g., language, motor skills instructions, employment skills, social skills, reading, etc.) has been widely critiqued, dissected, and analyzed (e.g., Horn, 1991; Kaiser, Yoder, & Keetz, 1991; Westling & Floyd, 1990). Less attention has been focused on the scarcity of quality research conducted on many instructional problems. For instance, in a recent review of intervention research with individuals with profound multiple disabilities, Reid, Phillips, and Green (1991) discovered only 39 published articles over a 40-year time span (an average of less than one per year). Horn (1991), in a review of motor skill intervention research, discovered only 28 studies with appropriate experimental controls published over a 20-year period. Perhaps more surprisingly, Mathes and Fuchs (1991) found only 8 'high quality' studies (out of 125 studies initially identified) in the literature on peer tutoring of reading skills, an area with a supposedly rich and extensive research base. Indeed, the research basis in special education remains so limited that we do not yet have

sufficient data bases on most issues to conduct meaningful meta-analyses of the results (Sindelar & Wilson, 1984).

There are many explanations for the relatively limited amount of instructional (and other) research conducted to date in both special and general education settings. One compelling reason is that too little funding is provided for such research. The United States spends considerably more on educational research than any other country in the world. However, despite the so-called crisis facing public education in the United States, only $145 million was spent by the U.S. Department of Education on Research and Development activities in 1989. In contrast, Research and Development activities by the National Institutes of Health accounted for $7.1 billion, and accounted for $4.2 billion by the National Aeronautics and Space Administration. Altogether, the U. S. government spent $62 billion on Research and Development activities in 1989. Only two-tenths of one percent of this amount went to education and one-tenth of one percent went to special education. Fuchs and Fuchs (1990) summed up the impact of this nonexistent funding base combined with other hindrances on special education research as follows:

> It is the difficulty of doing school-based research, together with inadequate funding and traditional notions of what educational research should and should not be, that keeps many talented researchers from getting involved with practitioners to make schools more effective. As a result, there are small, and sometimes nonexistent, databases associated with many pressing practical problems. This, in turn, often prevents researchers from offering tried-and-true solutions, thereby proving themselves as worthy to teachers as medical researchers are perceived by their physician colleagues. (Fuchs and Fuchs, 1991, pp.105–106)

To summarize just a few of the basic problems that beset the instructional research enterprise in special (and general) education at this point: (1) Its results and efforts are unappreciated or ignored by administrators, teachers, legislators and the public at large; (2) In most cases it has yet to achieve results of sufficient magnitude, credibility, and validity to convince even some critics within the field of its value; and finally, (3) Little high quality research has actually been conducted and only a small amount of resources have been expended on it. In short, governments don't fund it, the public doesn't pay attention to it, and much of what does exist isn't very good anyway! The obvious question becomes – So now what?

It is our opinion that, despite the disheartening view that we have presented, all is not lost; far from it. It is clear that over the long haul significantly more money needs to be invested in educational research, that the quality, sophistication and relevance of the research itself must improve, and that those responsible for the curriculum and instructional methods used in our schools need to start paying attention to the knowledge being generated by the research com-

munity. In the meantime, we contend that important progress is being made on a variety of instructional problems by many dedicated, creative, resourceful applied researchers who are steadily developing and refining reasonable instructional methods and approaches targeted at some of the most intractable problems imaginable. We offer the contents of this book as evidence of this assertion. Within its pages the reader will find compelling examples of just the type of sophisticated research that will lead to increasingly effective practice in the field.

In recruiting authors and organizing this volume, our goal was to select a representative sample of what essentially are evolving 'best practices' of the field in each selected area represented. In every case, the authors have approached the topic under consideration from both an empirical research perspective, and a practical, field-oriented viewpoint. Thus, the reader will find a substantial amount of instructional research discussed, but will also find that an effort has been made to couch this work in the real world contexts in which persons with disabilities must learn and prosper.

PLAN FOR THE BOOK

The book is divided into two parts, each with four 'content' chapters followed by a commentary presented by a leading researcher (or researchers). Part I addresses strategies for teaching students with mild disabilities and Part II addresses strategies and issues related to students with more severe levels of mental retardation.

Part I begins with a chapter by Hendrickson and Frank (Chapter 2), in which they underscore the importance of student engagement in academic success. They provide a wealth of information on small group and tutorial instruction, detailing strategies that have been shown to positively influence the outcome of instruction. A series of guidelines for instituting many of the practices is included.

In Chapter 3, Fuchs and Allinder explore the tremendous surge in computer applications in special and remedial education. They discuss the burgeoning use of that technology as either a direct or an indirect teaching tool for carrying out daily instruction. Drawing from their own research and that of their colleagues, Fuchs and Allinder provide various examples of ways to conduct computer-assisted and computer-managed instruction.

The subject of social skills is addressed by Korinek and Polloway. In Chapter 4, they analyze the accumulated research on social skills training, discuss popular curricular programs, and describe ways to facilitate the acquisition of prosocial skills. Also, they provide important coverage of the thorny issue of maintenance and generalization of social skills of students with mild disabilities.

In Chapter 5, Lloyd, Talbott, Tankersley, and Trent discuss the use of cognitive-behavioral techniques to improve classroom performance of students

with mild retardation. Lloyd and his colleagues discuss procedures that have been applied successfully – singly and in combination – to student self-regulation of classroom behavior. Student performance that relates to academics as well as the critical subjects of arithmetic, reading, and writing are covered.

In the final chapter of this part, Scruggs and Mastropieri summarize, comment on the content and lend their own perspective to best practices for teaching students with mild mental retardation. Their commentary is especially useful because it incorporates discussion of their own research in the area of academic instruction of students with mild disabilities.

Part II begins with a review by Haring of the research basis of instructional procedures used to promote social interaction and integration of students with severe disabilities. Haring notes at the outset of his paper that understanding and shaping social interaction ought to be fundamental to education, but unfortunately isn't. His chapter then goes on to cover current issues and research in the areas of assessing social interaction skills, development of targets for intervention, and evaluation of programs that seek to influence social interactions and friendship relationships. He notes, in conclusion, that interventions that act directly to increase the participation of individuals with severe disabilities in cohesive social networks (vs. isolated, one-shot social exchanges) are both most critical and most lacking at present.

In Chapter 8, Bambara and Warren revisit an 'old' technology, the use of massed teaching trials in instruction. They note that massed trial instruction has received something of a bad rap in some quarters in recent years as attention has turned toward more 'naturalistic', embedded' and distributed trial teaching approaches. However, Bambara and Warren caution against 'throwing the baby out with the bathwater'. They review a number of appropriate applications of massed trial training. They also offer recommendations for how to avoid certain troublesome pitfalls long associated with this type of instruction.

Effective communication is of critical importance to the development of all children, but particularly those with severe disabilities. Without an effective communication system, they risk spending their entire lives in highly dependent and often highly segregated contexts. Thus, the final two chapters of Section II are devoted to methods of enhancing communication skills development. In Chapter 9, Sigafoos and Reichle focus on a particularly difficult problem for many individuals with severe disabilities – spontaneously communicating their needs and wants. They provide a comprehensive review of what is currently known about teaching spontaneous communication repertoires to these individuals from a stimulus-control learning perspective.

Halle, Chadsey-Rusch and Collet-Klingenberg take a different approach to communication instruction in Chapter 10. Like Sigafoos and Reichle, they draw heavily from the behaviorally-based, stimulus-control learning literature in their approach to communication instruction with children who have severe levels of mental retardation. However, the bulk of their chapter elaborates on two

relatively new and promising general approaches that can be used in combination or independently to teach generalized communication. These are general-case instruction and interactive routines.

In the final chapter in this volume, Baer offers a lucid commentary on the four chapters in Part II. In a variety of insightful ways, and with his trademark logic and wit, he ties the research presented by these authors directly to a set of policy and procedural issues effecting the education and lives of children with severe disabilities.

CONCLUSION

There is an enduring value and quality to good instructional research. It provides the basis, the building blocks, for the field to bootstrap its way to ever increasing effectiveness. High quality research leads to further research, and to further refinements until a method or procedure is both maximally efficacious and appropriate for use in the 'real world'. In time this should lead to changes in practice that are based on an empirical science rather than simply the best guesses of commercially oriented curriculum developers. Ultimately, systematic, meaningful, problem-oriented research can become the force that drives educational reform, not merely an irrelevant afterthought. Indeed, Keogh has noted:

> It is clear that major changes are needed in the delivery of services to problem learners, and that these services need to be the responsibility of regular as well as special educators. It is also clear that teachers are the central players in bringing about change in practice. It follows, then, that our greatest and most pressing challenge in the reform effort is to determine how to improve the quality of instruction at the classroom level. This is a formidable challenge that requires both creativity and hard work. It also forces us to examine the realities of linking policy and practice (Keogh, 1990, p.190).

In succeeding chapters, the latest instructional research is encapsulated by well respected researchers, teacher educators, and practioners. Together, their work offers the reader strategies that have direct application in the classroom and beyond. For this reason, we believe the contents of this book represent one response to the challenge Keogh has put before us.

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