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AUTHOR McLaughlin, Margaret J.
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ABSTRACT

This digest contains three articles which consider ways to enhance the effectiveness of special education programs. The first article offers guidelines for more fully including special education in the school community, in the context of broader educational reform and restructuring efforts. First the need for reform is addressed. Next, indicators of special education program effectiveness are identified in the areas of mission and philosophy, governance, student outcomes and accountability, instruction, curriculum, teachers and other personnel, and program evaluation. The importance of establishing educational goals and accountability is stressed. A second article summarizes what research has to say about effective education practices, including results of effective schools research, educational practices which have not been validated, applied behavioral analysis, direct instruction, precision teaching, curriculum-based measurement, improving students' social skills, instruction in learning strategies, peer tutoring, and cooperative learning. A final article summarizes resources and information sources for special educators and parents, including the ERIC system, university and special libraries, the National Diffusion Network, and Regional Resource Centers. References accompany articles, and a list of organizational and print resources is also provided. (DB)

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Promising Practices and Future Directions for Special Education

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Today, the reform of American education is receiving a great deal of attention from the media, from politicians, from state and local school authorities, and from parents. A great national debate has arisen around the issues of how to improve schools and especially how to improve outcomes for students.

*Special education is being, and will continue to be, affected by the programs for reform that are sweeping through the nation. Given that disappointing outcomes have been documented for many former special education students, it is not surprising that special educators, administrators, and parents are exploring ways in which special education practice might be enhanced to help students with disabilities achieve the outcomes desired for all students—namely, completion of high school and meaningful participation in postsecondary employment or education. Indeed, hundreds of families have contacted **NICHCY** and expressed their interest in and concern about the special education that their children with disabilities are receiving. Many professionals have also called or written **NICHCY** to request information on educational practices that have proven effective for special education students and on what reforms might be indicated for special education.*

*This **NEWS DIGEST** has been developed to address the issues of educational effectiveness and educational reform. The first section of this document discusses the importance of including special education in the school community and describes a number of suggested and accepted features that make a special education program effective. The second section looks at what research has to tell us about effective educational practices in general and about effective practices for students with disabilities in particular. The third section offers suggestions to parents and professionals for accessing resources and information about special education practice and school reform. This issue concludes with an extensive listing of organizational and print resources that may provide interested parties with more detailed information about what has worked in the past with students with disabilities and the steps that might be taken to improve the effectiveness of special education in the future.*

Including Special Education in the School Community

This ***NEWS DIGEST*** focuses upon what we, as administrators, educators, parents, and students with disabilities, can do to enhance the effectiveness of special education programs in our schools and how we can work together to bring special education fully into the community of school. In this time of educational restructuring and educational improvement, it is vital that parents and professionals involved in special education address these two goals and become active participants in the movement for reform.

The Need For Reform

When Public Law 94-142, the Education of the Handicapped Act, was passed in 1975, it brought new educational promise to children and youth with disabilities. A fundamental provision of the law was that these students were entitled to receive a free and appropriate public education designed to meet their unique needs. Accordingly, in the last decade and a half, students with all types of disabilities have gained access to specialized programs and services. But have these services been effective? What happens to students after they exit the public school system? Do they graduate from school, find jobs in the community, go on to postsecondary training programs?

In the mid-1980s, many researchers attempted to answer these questions through numerous follow-up studies (Edgar, Levine, & Maddox, 1986; Hasazi, Gordon, & Roe, 1985; Mithaug, Horiuchi, & Fanning, 1985). The results were largely disappointing: High dropout rates, low employment rates, and social isolation were among the findings, suggesting that the special education services received by students had not, in fact, been effective. As if these findings were not enough to create concern among special educators, a Lou Harris poll published in 1986 indicated that unemployment among persons with disabilities was higher and wages lower than for any other group of working-age Americans (Harris & Associates, 1986).

Outcomes for students with disabilities — employment, postsecondary education or training, participation in community life — do not appear to have improved since the research conducted in the mid-1980s. Recent data from the National Longitudinal Transition Study (NTLS) support the findings of previous studies (Wagner, 1991). The NLTS results indicate that, nationally, students with disabilities drop out of school at a higher rate than their nondisabled peers; only slightly more than half graduate from high school. Few students, even those with mild disabilities, are employed or participating in postsecondary training or education. Furthermore, most students continue to live at home (Wagner, 1991).

Is special education a failure? Certainly not. Could it be more effective? Undoubtedly, yes. Results from studies such as those mentioned above have clearly concerned policymakers and program administrators, and they should be of great concern to parents. The disappointing outcomes for students who have received special education and related services throughout their public school education indicate that

reform is necessary. As Fred Weintraub from the Council for Exceptional Children notes, "In the 1990s the majority of energy will be spent on quality of service...how we can improve learning" ("Special Education in the 1990s," 1990, p. 1). Clearly, the current emphasis at the national level is on "better outcomes for kids" (Schrag, 1991). But what, specifically, can and should be done to improve special education? What makes for an effective special education program? What do we know, what does research into effectiveness have to tell us?

they interrelate. Please note that, while this discussion focuses specifically upon special education, it is not intended to suggest that special education should be isolated or separated from regular education or mainstream activities. Special education programs play a vital role within the school community, and their effectiveness is enhanced when special educators are seen — and when they see themselves — as integral members of that larger community.

" ... there are a number of suggested and accepted indicators of what makes a special education program effective. "

A great deal of research has been conducted into the nature of effectiveness — what makes for an effective school, an effective teacher, an effective educational program. Much of this research relates to specific and discrete practices; for example, areas such as effective teaching have been studied and described in detail. (The next article in this *NEWS DIGEST* reviews some noteworthy aspects of this research.) However, looking specifically at one area in isolation, such as what makes for an effective teacher, does not offer much insight into the global picture of effectiveness, how the various features of education fit and work together to achieve outcomes for students. Achieving better results for children will require careful consideration of the major dimensions of effective programs, coupled with implementation of good interventions. While this can never be easy, now is an opportune time to consider what to do to make programs more effective. Therefore, we will begin a discussion of effectiveness by looking at the components and features that promote or inhibit effective education programs for students, including those in special education. Today, the various parts of the educational system are being examined, and changes can be expected in how the parts are viewed and in how

Enhancing Special Education: A Look at Program Features

Although there is no one model for programmatic effectiveness, there are a number of suggested and accepted indicators of what makes a special education program effective. The features discussed in this section have been drawn in part from among the indicators suggested by the National Regional Resource Center (RRC) Panel on Indicators of Effectiveness in Special Education (Center for Resource Management, 1986), the work of Wilcox, Jackson, Overdorff, and Flannery (1987/1988), and the work of the Center for Policy Options in Special Education (CPOSE) at the University of Maryland, which has been involved in a national investigation of school restructuring and students with disabilities (McLaughlin & Warren, 1992b). The basic features described include: mission and philosophy, governance, student outcomes and accountability, instruction, curriculum, teachers and other personnel, and program evaluation.

Mission and Philosophy

Among the findings of the Center for Policy Options in Special Education (McLaughlin & Warren, 1992b) was the critical importance of how a school district or individual school defines its mission and philosophy for special education. In schools and school districts where there was an explicit and up-front acknowledgement of students with disabilities in the mission statement, as well as in the goals for the district, those students and the specialized programs that served them tended to be considered at every level of the organization, from the Superintendent's office down to the individual classrooms. Mainstream educators, administrators, principals, and teachers knew that the district valued students with disabilities and considered their educational goals to be of equal value to those of other students. The mission statements of these schools reflected the district's belief that schools must serve as the hub of all educational, social, emotional, and health needs of students. On the other end of the mission-statement continuum, in sharp contrast, were schools that defined mission narrowly to mean academic achievement.

Parents, advocates, and other consumers and community members should be involved in constructing mission statements. The involvement of these individuals is critical, because they bring insight and awareness regarding the needs and educational goals of these students. Of equal importance is the need to ensure that policies — such as those related to defining and measuring student outcomes — reflect the meaningful integration of programs for students with disabilities into the school. Students with disabilities should not be orphans within the individual school or school district.

The mission statement should drive the development and implementation of policies and procedures. It is important that the mission statement convey high expectations for students with disabilities, and it is critically important that the concepts of integration of students with disabilities into the whole school be represented in that mission and in the organizational structures that follow. These include giving strong messages to building principals that they

will be held accountable for the successful achievement of all students in their building, including those receiving special education services. Clear expectations and directives for increasing collaboration among all specialists, from the central office to the school building, should be specified. Successful collaboration between specialists is becoming increasingly vital to the education of students with disabilities, as more and more of these students are integrated into regular education classrooms. Finally, and of critical importance, are the contributions of all support staff (e.g., bus drivers, lunch room workers, and custodians) who work and interact with students with disabilities. The roles that these staff play should be acknowledged and supported through information, training, and collaboration.

Governance

Effective special education programs have clearly defined program administration and policies for program implementation. These policies protect the rights of students under the Individuals with Disabilities Education Act (formerly the Education of the Handicapped Act), and ensure consistency in the implementation of the law. However, the policies for program administration and implementation should never force students with disabilities into a separate system called special education that allows building principals and teachers to abdicate their responsibilities for educating these students.

Traditionally, special education programs have evolved into separate bureaucracies, which has created a "your kid, my kid" sorting of students. This perspective has been perpetuated through the use of the pull-out system of education and the fact that regular building principals have considered central office supervisors and administrators the expert and final word on services for students with disabilities. Given the large numbers of students who are mainstreamed [e.g., during the 1987-88 school year, almost 70% of all students with disabilities received all or part of their education in the mainstream (U.S. Department of Education, 1990)], there is a need to establish governance structures that reflect this integration. Furthermore, as the current movement in school restructuring is marked by decreasing central authority and moving instructional and budgetary decision-making to the local school building, it is of great importance that special education define who has responsibility for the programs in various school sites.

While these new governance arrangements offer a great opportunity for more flexibility and innovation in education, they make it even more critical for districts to establish clear procedures for local buildings with respect to the special education programs and services. According to local district administrators interviewed as part of the Center for Policy Options in Special Education investigation (McLaughlin & Warren, 1992b), it was important for districts to have clearly defined procedures (such as those governing assessment, identification, IEP development, and expectations for integration and inclusion) that apply to each building. However, flexibility is also desirable in designing programs. When flexibility is accompanied by specific expectations and a clear message regarding accountability, buildings are motivated to include special education programs in their plans. If, however, all or most of the decision-making remains centralized, special education programs often remain "orphans."

Student Outcomes and Accountability

Clearly defining the outcomes expected for students is a major feature of effectiveness; its importance cannot be overemphasized. Because the outcomes desired for special education students form the foundation for individual instruction, providing educational services without clearly specified short-term and long-term goals cannot result in effective education. Hehir, Stariha, and Walberg (1991) argue that special education has become a process-driven system. That is, the emphasis in special education has been on ensuring that students receive services, but not necessarily on whether or not they benefit from those services. The authors argue that attention must be turned to the outcomes of the programs, particularly in terms of student performance.

"Clearly defining the outcomes expected for students is a major feature of effectiveness..."

Some of the outcomes for students with disabilities will likely be the same as those for nondisabled students. Graduation and meaningful participation in postsecondary employment or education are outcomes desired for all students. However, other types of outcomes may be defined for students with certain types of disabilities or specific educational needs. For example, the Office of Special Education in the Michigan State Department of Education has developed an extensive set of outcome guidelines for students with various disabilities (Frey, 1991). The guidelines have been developed for grades 2, 5, 8, and 12, and represent specific knowledge or skills that various students may need to attain by those grades to enhance outcome achievement. The guidelines are specific for each disability and were developed by parents, professionals, and students with disabilities.

Defining such specific outcomes for students with disabilities is a relatively new venture for special education and is accompanied by a great national debate — what student performance outcomes should be, how they should be measured (called *outcome assessment*), and how they are to be used (National Center for Educational Outcomes, 1991). While there are a number of large-scale outcome assessment systems in place within individual states, the degree to which students with disabilities are "assessed" varies. The nature of the assessments also varies, as well as how the test scores of students with disabilities are used. Some states have adopted what are called more "authentic" assessments,

using combinations of student projects, test results, and other hands-on evidence of student achievement. These portfolios can be used to measure program success, as well as to provide information on student progress. Other states have instituted a set of tests that are heavily academically-oriented and require that students reach certain performance standards before they can graduate or move on to other grade levels. The test scores of students with disabilities are sometimes removed from district or school reports in order to show higher test scores and consistent progress.

pals to want any special education programs in their building or to want more integration of such students into mainstream programs (McLaughlin & Warren, 1992a, 1992b).

Nonetheless, it is important for special education to create the same high expectations for its programs as are created for all other education programs. In order for that to occur, separate outcomes need to be defined, measured, and reported, or the existing outcomes must be defined broadly enough to accommodate all students. Programs (school-wide or district-wide) need to look at the progress of all students in special education in terms of agreed-upon student performance outcomes and determine if programs are effective and are leading students towards those outcomes. This does not mean that high academic standards cannot be set; it *does* mean that those should not be the only outcomes. Student gains in the general areas of language, science, mathematics, social competence, vocational competence, and citizenship should also be considered important and should be defined to include students with disabilities, regardless of their functional levels. Effective educational programs specify just such measurable outcomes and create high expectations for students with disabilities. Effective programs are accountable for the success of their students with disabilities.

> ***"The inclusion or exclusion of some or all students with disabilities in various outcome assessment systems has significant implications for special education programs, as well as for individual students."***

The inclusion or exclusion of some or all students with disabilities in the various outcome assessment systems has significant implications for special education programs, as well as for individual students. Exclusion of students with disabilities may mean that there is no public accountability for special education programs and particularly no way to hold individual building principals and other administrators responsible for providing effective education to students participating in special education programs.

However, if students with disabilities are included in the larger systems, it is important to consider the stakes and consequences involved, particularly if performance standards are tied to graduation or similar outcomes. Assessments that are heavily academic can penalize many students with disabilities who cannot meet the high academic standards or for whom such instruction may not be relevant to their lifelong goals (e.g., those who participate in a more functional, life-skills-oriented curriculum). These students may be denied a diploma. When student performance on such assessments is linked to school report cards or is otherwise publicized, there can be a reluctance on the part of building princi-

Instruction

Obviously, what is taught and how it is taught is the crux of effective special education. The administrative policies and procedures provide the context and may direct the content of programs, but what goes on in the instructional setting is critical. The IEP reflects the expectations as well as the specialized services each student should receive. To ensure consistency and a clear focus in each student's program, it is important that the IEP be developed with the input of parents and the student, as well as all instructional personnel who will be involved in the student's education. The goals and objectives listed in the IEP will determine content to be taught, and decisions relative to the appropriateness of the mainstream curriculum should be made in terms of the outcomes desired.

Later in this ***NEWS DIGEST***, some research is reviewed related to effective special education instruction. These interventions could, by and large, be applied to any curriculum, or content, and should be clearly evident in the type of instruction received by students with disabilities. There should also be evidence of cooperation and collaboration among all personnel in a building to reinforce or implement the specific instructional strategies. This is particularly critical if a student has more than one teacher or is receiving any portion of his or her specialized education in the mainstream classroom. Professionals are also becoming more aware that, in order to be most effective, instructional strategies must extend beyond the classroom setting. They should extend to other school personnel, such as bus drivers, librarians, aides, guidance counselors, security and office staff, the principal, and, of course, parents.

In addition to the specific instructional interventions that are used, effective special education should maximize the meaningful interaction between students with disabilities and their nondisabled peers, as well as with the community at large. This is probably most critical for students with the most severe physical and cognitive disabilities, but should not be ignored for those students with mild disabilities who need help developing positive social relationships. Obviously, these goals are best accomplished in programs where students with disabilities receive all or most of their education within regular classrooms. But even in programs that utilize specialized placements, effective special education instruction should include

a focus on promoting social relationships between disabled and nondisabled students. Such instruction should be carefully programmed, and experiences should be meaningful, including using tutors and other techniques to promote friendships and not just superficial contact such as classes attending assemblies at the same time or sharing the same lunch hour. Furthermore, for those students with severe cognitive disabilities, instruction should also occur in natural settings, including the community, particularly at the middle or secondary school levels.

Effective special education programs also plan for student transition. Transition should not be a concept reserved only for older students. Transition is a process and includes moving from one program to another (early childhood to elementary school; elementary to middle; high school to postsecondary; or special class to less restrictive setting). Thus, plans for these events need to be developed and considerably specified and should include the level of support and assistance required of all teachers and support personnel.

Curriculum

What to teach students with disabilities is as important as how it is taught, and many specialized curricula have been developed to meet the needs of students with disabilities. What to teach a student during second grade should not be considered in isolation from the overall scope of the curriculum goals for all grades.

Typically, the content of instruction for a student with disabilities is determined by a comprehensive assessment of that student's performance, an assessment that is tied to specific learner outcomes or goals. Individualized assessment reveals specific information regarding that student's strengths and weaknesses; teachers then develop very specific tasks to address the student's needs. These tasks may or may not relate to the larger curriculum. In all cases, it is worthwhile to ask if the student is being taught something that moves him or her to a higher level, or if he or she is just gaining a variety of individual skills. Also, is the student being exposed to a broad set of experiences across a number of subject areas (e.g., science, arts, etc.) and not just a narrow band of skill development? In short, effective special education includes making decisions about instructional content that reflect the longer-term goals for the student and promote his or her maximum achievement and integration.

It is extremely important to consider the impact of larger state and district curriculum policies on students with disabilities. In the current climate of educational improvement and improved student outcomes, states and local districts are mandating new curriculum and imposing new curriculum standards. Examples include states and local districts that are requiring new coursework in math and science for graduation — coursework that must include such content as algebra, statistical probability, chemistry, and physics. Obviously, a number of students, including a number of students with disabilities, will have difficulty meeting such new standards and, thus, may not obtain a regular diploma. There is concern over what type of education these students will obtain if they are unable to master the content, and whether many will be permanently locked out of participation in postsecondary education. Without disparaging the need to set higher expectations for students, there is also a concern that the new high-powered curricula may not be relevant to many students' goals. If there are no opportunities for other learning in the mainstream, students with disabilities may be excluded from participation in the broader education. Similarly, the fit of vocational education and other programs is not clear. Therefore, it is important that parents and others become aware of new policy edicts and effectively lobby to broaden the concept of the district and state curriculum to include *all* students. There are several examples of such curricula, including those adopted by Kentucky, Maine, and Vermont.

Teachers and Other Personnel

High quality personnel produce results and are an integral part of effective special education programs. High quality personnel are those who understand and can deliver good instruction. According to the RRC Panel (Center for Resource Management, 1986), good teachers need not know and utilize all effective instructional interventions, but they do have a clear grounding in both the philosophy and practices of specific interventions. Furthermore, good teachers hold high expectations for students with disabilities and respect them and their families. They have a vision of the longer-term goals of education for their students. High quality teachers understand curricula and can assess student needs and design programs that meet those needs within the context of the larger educational setting. Finally, quality special education teachers can work collaboratively with other teachers and specialists to design and implement programs.

> ***" What to teach a student during second grade should not be considered in isolation from the overall scope of the curriculum goals for all grades. "***

For as long as special education has existed, there have been shortages of personnel, and these shortages have long been an impediment to the design and operation of effective special education programs (McLaughlin, Smith-Davis, & Burke, 1986). Districts that can recruit and retain well trained teachers and related services personnel can focus attention on program improvement and not be constantly preoccupied with filling classroom positions or with retraining and orienting new personnel. Furthermore, a stable school faculty is able to build camaraderie that leads to increased collaboration and mutual support.

District policies and programs can contribute to developing a cadre of very effective special education teachers. Professional development programs should provide support and assistance to new teachers through mentoring programs (Showers, 1985) and similar personalized support systems. Furthermore, resources should be available for staff development and be equitably allocated to issues related to students with disabilities. Staff development plans should be developed as close to the individual building as possible and should include attention to students with special learning needs, as well as promote joint training of special and regular educators. These staff development plans need to focus on long-term support and training, including opportunities for practice and feedback. This can be accomplished through arrangements such as school/university partnerships, as opposed to one-shot consultant presentations or workshops. Districts that put resources into staff development and include in their priorities students with disabilities not only provide valuable knowledge to their faculties, but also convey a strong message that those students and the quality of their instruction matter.

Program Evaluation

Administrators must know if special education programs are effective. School districts need a procedure for examining overall program effectiveness that includes data on ongoing programs and at least some knowledge of postschool outcomes of former special education students. To be meaningful, the evaluation questions and data must be linked to the larger context of student performance outcomes, as well as to any other factors considered important measures of program effectiveness. The latter might include information related to numbers of students integrated into regular classrooms or to student/family satisfaction. However, at least some of the information must be related to actual student outcomes such as graduation or completion rates, student achievement in a variety of skill areas, including social competence and independent living, and participation in postsecondary education.

Defining the areas to be included in the evaluation should be guided by specific questions that the school and larger community want to answer (Chelimsky, 1985; Center for Resource Management, 1986). Thus, planning the evaluation of special education programs should not be conducted in a vacuum. It needs to include participation of the major stakeholders, including parents and students. The process for determining program effectiveness brings full circle the process that began with defining student outcomes and mission and philosophy. If the mission and goals were clear regarding what is expected of students with disabilities, then the outcomes and program directives for implementation should be clear, and the measures of effectiveness should be evident.

Summary

This has been but the briefest attempt to summarize some of the current thinking regarding effective special education practices. No specific model was proposed, nor did space limitations permit descriptions of the number of model programs that have been successfully implemented over the years. The fact that such programs *do* exist is encouraging, particularly given the concerns that researchers, policymakers, practitioners, and parents have expressed about the overall effectiveness of special education. The current climate of school restructuring and reform, however, provides the perfect milieu to address these concerns. Certainly, it is essential that special education be included in any movement of school restructuring. To that end, it is important to consider what the goals for special education are — not just for individual students but as a set of services provided within the school community — and to define who will be accountable for what. Finally, it is necessary to consider how resources and programs support the goals and work to increase the effectiveness of special education.

References

Information on the availability of books and other manuscripts is given in parentheses directly following the reference. Unless otherwise indicated, journal articles can be ordered through University Microfilms International (UMI), whose address and telephone number appear in the Organizational Resources at the end of this ***NEWS DIGEST.***

You may be able to obtain many of these documents through your local library or through a university library. Please note that the prices of materials and the addresses and telephone numbers of publishers and organizations are subject to change without prior notice. *If you are interested in obtaining a resource listed in this document, it is a good idea to contact the publisher or organization and obtain the latest information on price, ordering and payment procedures, and shipping and handling charges.*

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Special Education Practices: What Research Has To Say

In recent years, the data regarding the poor outcomes experienced by students with disabilities have led to concern over the effectiveness of special education practices. The follow-up studies mentioned in the previous article in this *NEWS DIGEST* suggest that all is not well with special education and, indeed, that effective special education programs or practices do not exist. This is far from the truth. While the disappointing outcomes should not be ignored, neither should the knowledge base regarding effective special education instruction. While we have not attained all that we had hoped for, there have been enormous gains. It is the positive that should be examined in order to achieve the best for each student. Accordingly, this article focuses upon what research has to tell us about effective schools, effective teachers, and effective instructional practices in special education.

Appropriate Education and the IEP

The cornerstone of special education is the guarantee that each child with disabilities will have access to "a free and appropriate public education." A fundamental provision of the Individuals with Disabilities Education Act (IDEA), Public Law 101-476, an "appropriate" education for students with disabilities has long been the goal of parents, teachers, and other professionals who are concerned about these students. When asked to define what constitutes an "appropriate education," most parents and professionals would say that it is defined for each individual student in the Individualized Education Program (IEP), which is determined by the student's parents, teachers, and other specialists according to an individualized assessment of the student's needs (Zigmond & Miller, 1986). Today, the input of the student is also valuable in developing the IEP, especially for older students. Ideally, the education specified in the IEP will indeed be provided and will result in meaningful outcomes for the student (i.e., the attainment of the goals and objectives stated in his or her IEP).

Conceptually, the notion of using the IEP as the measure of effectiveness of the student's specialized education is sound. Effective special education would be determined on a student-by-student basis according to what is needed by and what works for each student. Effective special education would be what produces results for the student, as measured by whether or not the student has achieved or made progress toward his or her own individualized goals and objectives as well as broader system goals or outcomes.

But what produces results for students? What helps them achieve their goals? There are, of course, many factors involved. Some of the most important factors are how the school itself functions, how the classroom teacher approaches teaching and learning, and how instruction itself is organized. Let us take a brief look at what research has discovered about how each of these factors contributes to programmatic effectiveness and student learning.

Effective Schools Research

During the past 25 years, a great deal of knowledge has been gained regarding the characteristics of effective schools and effective teachers. This knowledge has come from investigations into schools demonstrating unusual levels of student academic achievement and related success indicators, as well as from decades of federally-sponsored model program development. From the vast amount of literature, Bickel and Bickel (1986) have identified five variables that seem to characterize effective schools. These include:

- educational leadership;
- orderly school climate;
- high achievement;
- systematic monitoring of student performance; and
- emphasis on basic skills.

As stated in the previous article, there is no doubt that school-level factors can be powerful determinants of effective instruction and student outcomes (for a comprehensive review of effective schools research base, see Northwest Regional Educational Laboratory, 1990). Other research (Berliner, 1985; Rosenshine, 1979) has identified specific classroom-level practices that relate to increased student achievement. Among these is teacher behavior. Bickel and Bickel (1986) have summarized some of the features of teacher behavior and classroom organization that seem to be linked to effective instruction. They found that, in general, effective teachers display the following characteristics:

- They are directly engaged with their students.
- They give careful instruction, carefully pace the introduction of new content, review and check learning constantly, and reteach as necessary. They don't merely lecture or dispense knowledge.
- They model the correct response, provide feedback and correction, reinforce student progress, and provide opportunity for both group learning and independent practice.
- They have defined the skills to be mastered and make these explicit to the students.
- They focus their effort and time on student learning of specific material and keep students involved in that learning. This key finding of class-

room research is known as the concept of *Academic Engaged Time* (Rosenshine & Berliner, 1978) and refers to the time students actually spend attending to and actively engaged in learning a specific skill. When students spend most of their time engaged in learning specific material, their achievement increases.

The effective schools research cited above has been conducted primarily with students and teachers in regular education classes. However, the findings are quite similar to what special educators have learned about effective special education instruction through their separate research efforts (Bickel & Bickel, 1986). A brief review of the more prominent examples of that research follows.

Effective Practices for Students with Disabilities

Decades of research document specific instructional practices that are effective with students with various disabilities. In fact, investigation of specific instructional practices, specifically related to teaching methods, is probably the most prevalent type of special education research. This research is followed closely by research related to assessment and identification of special education students. Both types of research have shed light on what type of interventions work for students with disabilities, as well as on a number of problems. Some of the problems that research on teaching and learning has identified include (Algozzine & Maheady, 1986):

- Research has not been able to demonstrate an aptitude-treatment interaction. Aptitude-treatment interaction is the linking of specific learner characteristics to specific instructional practices.
- Research has also not been able to demonstrate that certain placements, such as special classes, result in improved achievement.
- Research and practice have also not been able to define specific curricula and instruction which "match" specific disabilities.

Despite these frustrations, it is important to acknowledge that the body of research identifies a number of effective instructional practices for students with disabilities. While the research base is far too extensive to be reviewed in one paper, some notable areas are identified below.

Applied Behavioral Analysis

The research related to instructional interventions for students with disabilities has been dominated by applications of the principles of behaviorism. According to behaviorist theories, behavior is any *observable* action, and all human behavior is learned. This learning occurs as a result of experiencing the consequences of behavior. Behaviors that are followed by pleasant consequences are likely to be repeated, or learned; conversely, behaviors followed by unpleasant consequences tend not to be learned (Alberto & Troutman, 1990).

Knowledge of how certain events link to specific behaviors has led to very sophisticated applications of the simple principles of how individuals learn and how learning can be systematically guided. The instructional strategies emerging from the behavioral model are called *applied behavioral analyses.*

The basic concepts of the applied behavior analysis model include:

- directly observing the learner to identify his or her specific behaviors;
- carefully recording those behaviors (defined broadly to mean how a student actually performs on a specific task, as well as his or her standard actions);
- identifying discrete interventions or methods that, when systematically applied, increase or decrease the behavior;
- constantly measuring the target behavior to observe changes; and
- providing correction and feedback to the student, based on the observed changes.

These basic principles have been incorporated into a wide array of specific programs and have influenced both research and program development for all types of students with disabilities. A variety of instructional approaches are based on the behavioral model. These include direct instruction (DI), precision teaching, and curriculum-based measurement (CBM). These approaches, described below, have been used to effectively teach students with disabilities a wide range of academic, social, and functional/life-oriented skills.

> ***" ... it is important to acknowledge that the body of research identifies a number of effective instructional practices for students with disabilities. "***

Direct Instruction. As an educational approach, direct instruction (DI) has been practiced since the 1960s. Carl Bereiter and Siegfried Englemann are credited with framing the initial approach. While DI has taken on a range of meanings, its underlying premise is that skills are taught to students in a systematic, carefully monitored manner. The six critical features of DI include:

1. Teaching a skill or concept in an explicit step-by-step fashion.
2. Developing student mastery at each step of the process.
3. Correcting student errors at each step.
4. Gradually fading from teacher-directed activities toward independent work.
5. Giving students adequate, systematic practice with a range of examples.
6. Providing a cumulative review of newly learned concepts. (Gersten, Carnine, & Woodward, 1987, p. 49)

The central objective of DI is to teach content in a way that carefully breaks the content into small steps or tasks so that student errors are mini-

mized at each learning step. Students are taught using models, cues, and other techniques to minimize errors and only move to the next step when they have mastered the step before. Direct instruction can involve use of reinforcements for successful learning. For a comprehensive review of the research themes using direct instruction, see Gersten, Carnine, and Woodward (1987).

Precision Teaching. Precision teaching is another application of behavioral principles. Originally developed by Ogden Lindsley (1971), the procedures have a strong history of producing results (White, 1986). Precision teaching is based on direct evaluation of specific student performance and progress through an analysis of behavior frequencies — or, as defined by White (1986), "the average number of behaviors observed during each minute of the assessment period" (p. 523).

Precision teaching is a method allowing teachers to directly monitor the effectiveness of a specific instructional technique or student acquisition of specific content. This provides teachers with immediate feedback on how the student is learning or if instruction needs to be changed. Thus, precision teaching is really a means to assess effectiveness of instruction more than it is an actual instructional technique.

Curriculum-based Measurement. Curriculum-based measurement, or CBM, relies on careful measurement of specific student performance to make educational decisions (Deno, 1985; Deno & Fuchs, 1987). CBM can be used:

- to determine whether or not learning goals are appropriate for a student, which in turns allows the goals to be revised, when necessary;
- to judge whether student growth is adequate and, when necessary, to modify instruction to increase student growth; and
- to compare the effectiveness of different interventions, which allows the teacher to develop those components that are more effective and to eliminate those that are less effective (Fuchs, Fuchs, Hamlett, & Allinder, 1991, p. 443).

The basic intervention involves setting specific performance goals and interim targets, such as words correctly read or math problems correctly solved. Student performance is then measured on an ongoing basis to determine progress. Teachers are provided with decision rules to determine if students are meeting target expectations; this allows teachers to adjust instruction when necessary.

The systematic instructional approaches of direct instruction, precision teaching, and curriculum-based management have been used with students with mild learning disabilities, as well as those with more severe cognitive disabilities. These approaches, along with basic applied behavioral analyses, have been used to teach a wide range of behaviors. Some of those applications are described in a recent review of effective programs for students with emotional behavioral disorders (Peacock Hill Working Group, 1991). This group of authors cite behavioral interventions as among the most effective with such students.

Improving the Social Competence of Students

Improving social relationships is often a major goal for students with disabilities. Several approaches have been developed to promote these relationships and increase the social competence of students with disabilities. Two noteworthy examples of approaches focused on social relationships are: the behavioral intervention packages developed by Hill Walker and his colleagues at Oregon (Walker, Hops, & Greenwood, 1981; Walker et al., 1983), and the work of Strain and his colleagues in the preschool area (e.g., Strain & Odom, 1986).

Walker's Social Skills Programs. The first of the Walker et al. (1983) packages is called the ACCEPTS program, which stands for "A Curriculum for Children's Effective Peer and Teacher Skills." The program is designed for use with primary and intermediate school children with mild and moderate disabilities and focuses upon teaching students 28 skills grouped into five major social skills content areas:

- classroom skills;
- basic interaction skills;
- getting along skills;
- making friends skills; and
- coping skills.

"Skills are taught to students using a direct instruction (DI) approach that incorporates clear definitions of each skill, use of positive and negative examples, sequencing of skills on a continuum of increasing complexity, provision of practice activities, and use of systematic correction procedures" (Elksnin, 1989, p. 155).

The second Walker program (Walker, Todis, Holmes, & Horton, 1988) is called ACCESS, which stands for the "Adolescent Curriculum for Communication and Effective Social Skills." The program is designed for adolescents with mild disabilities and is intended to help them prepare for mainstream environments and improve their social competence in three domains: relating to peers, relating to adults, and relating to themselves. As with the ACCEPTS program, ACCESS uses a direct instruction approach.

Teacher- and Peer-mediated Interventions. The work of Strain and Odom has focused on both teacher-mediated and peer-mediated interventions, primarily in preschool settings. In teacher-mediated interventions, the teacher uses prompting and reinforcement procedures to address the social skill deficits of exceptional children, with the purpose of increasing their interactions and peers. Although special educators have been successful in producing such interactions, there are some natural limitations to using the teacher as a "mediator." Accordingly, Strain and Odom (1986)"came to view peers as an instructional resource that could possibly overcome the logistical limitations of relying on teachers only as social intervention agents"(p. 544). In peer-mediated intervention, then, peers are taught to initiate social interactions with "target" children who have disabilities (particularly those who are socially withdrawn) and to persist in order to obtain a response. Results indicate that such social initiation intervention is ef-

fective in creating positive social behavior change in children with disabilities.

Strategy Interventions

Other instructional practices that have emerged somewhat more recently as effective instruction are those that involve specific instruction in the general strategies needed to learn new material. These include: cognitive strategy instruction (Harris & Pressley, 1991; Meichenbaum, 1977; Wong, 1988) and the learning strategies curriculum developed by Deshler and his colleagues at the University of Kansas (Deshler & Shumaker, 1986).

Cognitive Strategy Instruction. Cognitive strategy interventions involve teaching students procedures on how to learn, rather than teaching specific content. Students can apply the cognitive approaches to reading, mathematics, or any other academic subjects, as well as use them to control their own behavior. When students use cognitive strategies, they utilize techniques such as imaging or creating pictures in the head that are tied to written words to aid reading comprehension. Students can also use "self talk" to aid in impulse control.

Self-instructional strategy development, as conceptualized by Harris and Pressley (1991), has several stages. First, the teacher:

- determines the student's current level of understanding of the skills and his or her current performance level;
- describes the strategy for the student; and
- models the strategy for the student.

Then, the student:

- develops and memorizes his or her own instructional statements; and
- practices the strategy steps, first with, and then without, direct teacher feedback.

Learning Strategies Curriculum. The learning strategies curriculum developed by Deshler and his colleagues (Deshler & Shumaker, 1986) teaches students how to learn. The curriculum is designed primarily for secondary-level students with mild to moderate learning disabilities. The procedures carefully match instruction to curriculum demands; for example, if a student is having trouble with specific types of writing or note-taking, the student is taught specific strategies to use to overcome these deficits.

The learning strategies curriculum is made up of a number of instructional packages, which are organized into three areas:

- strategies that help students acquire information from written materials;
- strategies designed to identify and remember important information; and
- strategies for writing and test-taking.

The learning strategies approach requires careful analysis of each student's current ability to perform a task. The new strategy to be learned is broken down into small steps, explained, and modeled for students. Students verbally rehearse the strategy and then practice the specific strategy in a number of settings. Performance is continually assessed, and each student receives corrective feedback.

Other Effective Interventions

Other effective instructional procedures for students with disabilities relate to how instruction is organized and include interventions such as *peer tutoring* (Delquadi, Greenwood, Whorton, Carta, & Hall, 1986) and *cooperative learning* (Johnson & Johnson, 1989; Slavin, 1983).

Peer Tutoring. Basically, peer tutoring is an "interchange between two students in which the tutor assists the tutee in learning content materials" (ERIC Clearinghouse on Handicapped and Gifted Children, 1991, p. 1). The tutoring may take place within the classroom, with all students participating, or it may take place outside of the classroom or with one pair of students (or more) working off to the side of the classroom. Peer tutoring has been demonstrated to be effective in mainstream classrooms as well as in other group instructional settings, because it gives students more opportunities to respond — in other words, to not be merely a passive recipient of teacher-directed instruction but, rather, to be actively engaged in responding and questioning. Students typically enjoy the experience, which has been found to provide them with positive outcomes, both academically and socially (see ERIC Clearinghouse on Handicapped and Gifted Children, 1991).

> ***"Other instructional practices that have emerged somewhat more recently as effective instruction are those that involve specific instruction in the general strategies needed to learn new material."***

Cooperative Learning. In cooperative learning, pairs or small groups of students work together to gather or pool information, solve a problem, check each other's work, or complete a project (Kagan, 1985; Slavin, 1983). Similar to peer tutoring, cooperative learning provides students with ongoing opportunities to participate. When teachers structure the learning tasks so that all students in the cooperative learning group share responsibility for completing the task at hand and are held accountable for their own performance, students often learn more. This approach is also effective in fostering positive relationships between students with disabilities and their peers within mainstream classrooms.

Summary

This review of effective instructional interventions has been intended to provide a sense of the nature of the research that has been conducted related to students with disabilities, but is by no means reflective of the breadth of that

research. For example, the behavioral approaches noted earlier have profoundly influenced curriculum development and instructional programming for students with severe disabilities. Numerous applications have included improving communication and other basic skills, reducing inappropriate behaviors, and achieving greater social integration with nondisabled peers. In addition, the entire body of research related to computer-assisted instruction has not been reviewed, nor has the literature on effective vocational programming. Any of the above topics could be reviewed separately. [Individuals interested in the literature on computer-assisted instruction and on vocational programming may wish to consult the resources listed at the end of this ***NEWS DIGEST***; while this list is by no means exhaustive, it can be used as a starting point for gathering more information. Organizations such as a local university, the Council for Exceptional Children (CEC), or The Arc (see Organizational Resources section for the address and telephone number of CEC and the Arc) can also be contacted for more information about these areas.]

If so many effective practices exist, why have the outcomes been less than expected? There is probably no one answer. However, the needs of many students with disabilities require multitreatment approaches rather than the use of one specific method of instruction. Effectiveness has been defined by looking only at short-term gains in skill acquisition or skill generalization. As Keogh (1990) has noted, little research has focused on the long-term outcomes of the effective instructional programs. She states:

> Is it the content or kind of intervention or is it the intensity of intervention which leads to successful outcomes? Are program innovations maintained and generalized when research support is no longer available? Are particular groups of pupils benefitted (or not benefitted) by particular programs? What are the situational...social system...and resources which are prerequisites to successful implementation of program practices? (Keogh, 1990, pp. 189-190).

No matter how high the quality of the practice, how it interacts with the local instructional setting determines its effectiveness. The structure of the program — the capacity of the local school setting, including the competence of the professionals, the leadership, and the support for instruction — can vary tremendously among schools and among classrooms. Yet, decades of research on classroom and school effectiveness have shown that factors such as those mentioned above are critical determinants of effective educational programs (McLaughlin, 1990).

References

Information on the availability of books and other manuscripts is given in parentheses directly following the reference. Unless otherwise indicated, journal articles can generally be ordered through University Microfilms International (UMI), whose address and telephone number appear in the Organizational Resources at the end of this ***NEWS DIGEST***.

You may be able to obtain many of these documents through your local library or through a university library. Please note that the prices of materials and the addresses and telephone numbers of publishers and organizations are subject to change without prior notice. *If you are interested in obtaining a resource listed in this document, it is a good idea to contact the publisher or organization and obtain the latest information on price, ordering and payment procedures, and shipping and handling charges.*

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Accessing Resources and Information

Many professionals and parents may want to find out more about the multitude of resources available which describe special education practices, research studies in specific disability areas, instructional interventions and teaching methodologies, and so forth. Here are some suggestions for how to find out what resources are available and how to access them.

The ERIC System

ERIC stands for Educational Resources Information Center, and it is exactly that. ERIC is federally funded and maintains a database of over 400,000 journal annotations and 300,000 education-related document abstracts. Many of these annotations and abstracts will focus upon special education issues of interest to professionals and parents.

Currently, there are 16 ERIC clearinghouses, each addressing a different aspect of education. Of greatest use to special educators and parents concerned with disability issues is probably the ERIC Clearinghouse on Handicapped and Gifted Children, operated by the Council for Exceptional Children (see Organizational Resources below, for the address and telephone number of this clearinghouse). There are various ways to access any of the ERIC clearinghouses, such as by phone or in writing; through a local university, professional, or public library that has access to the system; or via a home, office, or school computer. After you have described to the Clearinghouse staff the topic in which you are interested, the Clearinghouse may respond with pamphlets or flyers, bibliographies of selected publications, suggestions for database searching, or referral to other sources of information.

To find out more about ERIC, you can:

- Contact NICHCY for a free copy of *A Parent's Guide: Accessing the ERIC Resource Collection.* This seven-page document describes the ERIC system, provides suggestions for how to access the system, details the information that appears in each ERIC document resume, and includes the names, addresses, and telephone numbers of all 16 clearinghouses. You can also ask for NICHCY's two-page description of *Conducting a Literature Review: Tips and Suggestions.* This paper includes the telephone numbers and addresses of the major database vendors such as DIALOG and BRS, which allow users to search the database via a computer equipped with a modem.
- Obtain a copy of *A Parent's Guide to the ERIC Database: Where to Turn With Your Questions About Schooling* (Price: $10.00) by contacting the ERIC Clearinghouse on Rural Education and Small Schools, Appalachia Educational Laboratory, P.O. Box 1348, Charleston, WV 25325. Telephone: 1-800-624-9120; inside WV, call 1-800-344-6646.
- Contact ACCESS ERIC, and ask for more information about the system. Write to: ACCESS ERIC, Aspen Systems Corporation, 1600 Research Boulevard, Rockville, MD 20850-3166. Or call: 1-800-USE-ERIC or (301) 251-5486.

Many of the documents listed in the References and Resources sections of this ***NEWS DIGEST*** are available through the ERIC system. If you see a phrase such as "ERIC Document Reproduction Service No. ED 339 158" in parentheses at the end of a document's citation, you can contact the ERIC Document Reproduction Service (EDRS) and order the document for a reasonable fee (e.g., a 25-page document would cost $3.20). Contact EDRS at Cincinnati Bell Information Systems (CBIS) Federal, Inc., 7420 Fullerton Rd., Suite 110, Springfield, VA 22153-2852, or call your order into: 1-800-443-3742 or (703) 440-1400. You will need to give EDRS the document's number. In the example above, the EDRS number is ED 339 158.

The ECER Database

ECER stands for Exceptional Child Education Resources and is a database developed privately by the Council for Exceptional Children. The database contains citations and abstracts of print and nonprint materials dealing with the education and development of people of all ages who have disabilities, as well as those who are gifted. Resources in all areas of special education and related services (e.g., services provided by audiologists, speech pathologists, occupational therapists, physical therapists, and educational psychologists) are also covered in ECER.

Some overlap exists between the ECER and ERIC databases. However, the ECER records that do not appear in ERIC include published books, additional journal articles, and nonprint materials. Using a computer equipped with a modem, anyone can access the ECER database from anywhere in the country. You can also contact the Council for Exceptional Children (listed below under Organizational Resources) and ask for the Department of Information Services. For a fee, a search of the database can be conducted to meet your specific needs.

University Libraries

University libraries often maintain extensive collections of journals, books, and other resource materials that parents and professionals can use on-site. Access to searching ERIC may also be available. Visit the library, and ask the reference librarian for any help you need in locating materials that address your concerns.

Teacher's Professional Libraries

Most school districts maintain a professional library for teachers. This library may include books, nonprint materials, and a wide variety of professional journals. Although most professional libraries do not permit parents to check out books, parents are generally allowed to read and use the materials on-site. To find out if your district maintains such a library, contact the district office of education or the Superintendent's office.

University Microfilms International (UMI)

If you cannot obtain a journal article by accessing a university or teacher's professional library or through contacting the publisher of the journal, you can generally obtain copies of articles through UMI. Simply contact UMI by telephone or in writing and specify: the name of the journal, the date of the journal, the title of the article, and the author(s) of the article. Cost of all articles, regardless of length, is $12.50. Call UMI at 1-800-521-0600, extension 2786, or write to: University Microfilms International, Attention: Article Clearinghouse, 300 N. Zeeb Road, Ann Arbor, MI 48106.

Disability Organizations

There are a vast number of organizations that deal with disability issues. Many of these have been listed below under Organizational Resources. Only a few listed, however, represent organizations established to address the questions and concerns of parents. Therefore, parents may wish to contact NICHCY and request a *State Resource Sheet*, which will list disability-specific organizations and other valuable sources of information within their state.

The majority of the organizations listed below address the concerns of administrators, special educators, or other service providers (e.g., speech pathologists or physical therapists) through information and referral networks and through publication of journals and newsletters. Most of the journals available to professionals describe the latest research in the disability or service delivery area, provide book reviews, and may include many practical suggestions or materials for classroom activities. Professionals will need to contact the various organizations to see if the organization's activities and publications focus upon the particular needs they, as professionals, have.

State or Local Office of Education

Every state has resources for providing information, technical assistance, training, and/or referral to special educators or related service providers within the state. State or local offices of education are often good sources of help. Although the levels of technical assistance vary from state to state, there is usually some order through which requests for assistance are made. For example, you might have questions about what curricula are available for working with students with dyslexia. To find out, you might first direct your questions to the local director of special education. If this person cannot readily provide an answer, he or she might need to request information or assistance from a regional technical assistance person or center within the state. The chain of requests for assistance or information might eventually flow all the way up to the state technical assistance person or center (possibly at the state office of education or special education).

No one teacher or service provider can be expected to know how to meet the needs of all students with disabilities. That is why technical assistance centers and technical assistance staff exist within many local districts and certainly within each state. The important thing is for teachers, administrators, and other service providers to ask for the assistance they need, because such assistance is available.

National Diffusion Network

The National Diffusion Network (NDN) is a 19-year-old program of the Office of Educational Research and Improvement (OERI) in the U.S. Department of Education. Its mission is to collect and make available information about exemplary educational programs. In order to have a program validated as exemplary, program staff have to submit a proposal that describes the program and offers evidence of its effectiveness. This proposal is reviewed by

the Program Effectiveness Panel (PEP), an independent review body. Programs that are validated as effective by PEP then become eligible to compete for grant funds to disseminate their programs nationwide.

NDN also funds a state facilitator in each state; this person serves as the link between schools within the state and exemplary programs nationwide. (The name of the facilitator in your state is available by contacting NDN.) Thus, NDN is an excellent source of information about proven educational practices, including practices that work:

- for particular student populations (students with learning disabilities, at-risk students, etc.);
- in specific subject matter areas (math, science, etc.);
- for instructional approaches (e.g., cooperative learning, simulations, etc.);
- for administrative issues, such as what works at a specific school level (middle-school level reform, etc.).

Contact NDN at: National Diffusion Network, 555 New Jersey Avenue N.W., Room 510 Washington, DC 20208-5645. Telephone: (202) 219-2134.

Regional Resource Centers

There are six federally funded Regional Resource Centers (RRCs) in the United States; the names, addresses, and telephone numbers are listed in the next column. These centers provide technical assistance to the State Education Agencies (SEAs) throughout the nation in order to assist each SEA in building its capacity to improve programs for children with disabilities. Through its respective RRC, each state has timely access to a wide range of current information on research, policies, procedures, and practices concerning the education of children and youth with disabilities. Because the primary mission of the RRCs is to address the needs of the SEAs, they are not generally accessed by individual teachers or parents. It is up to your state's SEA or Department of Education to request training or technical assistance from your area's Regional Resource Center.

The technical assistance available through the RRC may include a range of activities, such as: consultation by the RRC staff; assistance in strategic long-range planning; regional workshops, conferences, and training in early childhood, secondary, and transition areas; assistance in replicating quality special education programs; assistance in the development of written documents; information on research, trends, and best practices; program effectiveness evaluation; regional networking and problem solving; and referrals.

" The National Diffusion Network is an excellent source of information about proven educational practices... "

Great Lakes Area Regional Resource Center, Ohio State University, 700 Ackerman Road, Suite 440, Columbus, OH 43202. Telephone: (614) 447-0844. States served include: IL, IN, MI, MN, OH, PA, and WI.

Mid-South Regional Resource Center, University of Kentucky, Interdisciplinary Human Development Institute, 126 Mineral Industries Building, Lexington, KY 40506-0051. Telephone: (606) 257-4921. States served include: DC, DE, KY, MD, NC, SC, TN, VA, and WV.

Mountain Plains Regional Resource Center, Utah State University, 1780 N. Research Parkway, Suite 112, Logan, UT 84321. Telephone: (801) 752-0238. States served include: CO, IA, KS, MO, MT, ND, NE, SD, UT, WY, and the Bureau of Indian Affairs (BIA).

Northeast Regional Resource Center - Institute for Program Development, Trinity College of Vermont, McCauley Hall, 208 Colchester Avenue, Burlington, VT 05401. Telephone: (802) 658-5036. States served include: CT, MA, ME, NH, NJ, NY, RI, and VT.

South Atlantic Regional Resource Center, Florida Atlantic University, 1236 University Drive North, Plantation, FL 33322. Telephone: (305) 473-6106. States served include: AL, AR, FL, GA, LA, MS, NM, OK, TX, Puerto Rico, and the U.S. Virgin Islands.

Western Regional Resource Center, University of Oregon, Clinical Services Building, Eugene, OR 97403-1215. Telephone: (503) 346-5641. States served include: AK, AZ, CA, HI, ID, NV, OR, WA, American Samoa, Federated States of Micronesia, Guam, Republic of the Marshall Islands, the Republic of Palau, and the Commonwealth of the Northern Marianas.

FYI: Information Resources from NICHCY's Database

The organizations listed below are only a few of the many that can provide information, services, and referral to parents, professionals, and individuals with disabilities about effective special education practices and school reform. If you know of a group that provides information on effective special education practices or school reform, please send this information to ***NICHCY*** for our resource collection and database. We would appreciate this information and will share it with others who request it.

You may be able to obtain many of the documents listed below (and throughout this ***NEWS DIGEST***) through your local library, through a university library, or through a professional teacher's library. Whenever possible, we have included the ERIC Document Reproduction Service (EDRS) Number for the document and/or the publisher's address and telephone number in case the document is not available in your area. Unless otherwise indicated, copies of journal articles that do not have an EDRS number listed are generally available by contacting University Microfilms International (UMI). UMI's address and telephone number are listed below under Organizational Resources.

Please note that the prices of materials and the addresses and telephone numbers of publishers are subject to change without prior notice. ***If you are interested in obtaining a resource listed in this document, it is a good idea to contact the publisher or organization and obtain the latest information on ordering, payment procedures, and shipping and handling charges.***

Additional materials may be available from the clearinghouses and organizations listed. If you experience difficulty in locating these documents or organizations, please contact ***NICHCY***. Finally, you may find ***NICHCY's*** *State Resource Sheet* for your state or territory helpful in contacting other resources of information.

ORGANIZATIONAL RESOURCES

American Association for Counseling and Development, 5999 Stevenson Avenue, Alexandria, VA 22304. Telephone: (703) 823-9800.

American Council on Rural Special Education (ACRES) University of Utah, Department of Special Education, Milton Bennion Hall, Salt Lake City, UT 84112. Telephone: (801) 585-5659.

American Occupational Therapy Association, 1383 Piccard Drive, P.O. Box 1725, Rockville, MD 20850-4375. Telephone: (301) 948-9626.

American Physical Therapy Association, 1111 North Fairfax Street, Alexandria, VA 22314. Telephone: (703) 684-2782.

American Psychological Association, 1200 17th Street N.W., Washington, DC 20036. Telephone: (202) 955-7600.

American School Counseling Association, 5999 Stevenson Avenue, Alexandria, VA 22304. Telephone: (703) 823-9800.

American Speech-Language-Hearing Association, 10801 Rockville Pike, Rockville, MD 20852. Telephone: (301) 897-5700 (voice/TDD).

Association for Supervision and Curriculum Development, 1250 N. Pitt Street, Alexandria, VA 22314-1403. Telephone: (703) 549-9110.

Beach Center on Families and Disability, Bureau of Child Research, University of Kansas, 4138 Haworth Hall, Lawrence, KS 66045. Telephone: (913) 864-7600.

Center for Human Disabilities, George Mason University, Fairfax, VA 22030-3670. Telephone: (703) 993-3670.

Council for Exceptional Children, 1920 Association Drive, Reston, VA 22091-1589. Telephone: (703) 620-3660.

Council of Administrators of Special Education (CASE), 615 16th Street NW, Albuquerque, NM 87104. Telephone: (505) 243-7622.

ERIC Clearinghouse on Handicapped and Gifted Children, Council for Exceptional Children, 1920 Association Drive, Reston, VA 22091. Telephone: (703) 620-3660.

ERIC Document Reproduction Service (EDRS), c/o Cincinnati Bell Information Systems (CBIS) Federal, Inc., 7420 Fullerton Rd., Suite 110, Springfield, VA 22153-2852. Telephone orders: 1-800-443-3742 or (703) 440-1400. FAX orders: (703) 440-1408.

Helen Keller National Center - Technical Assistance Center. 111 Middle Neck Road, Sands Point, NY 11050-1299. Telephone: (516) 944-8900.

Materials Development Center, Stout Vocational Rehabilitation Institute, University of Wisconsin-Stout, Menomonie, WI 54751. Telephone: (715) 232-1342.

National Association of School Psychologists, 8455 Colesville Road, Silver Spring, MD 20910. Telephone: (301) 608-0500.

National Association of Social Workers, Inc., 7981 Eastern Avenue, Silver Spring, MD 20910. Telephone: (301) 565-0333.

National Association of State Directors of Special Education, 1800 Diagonal Road, Suite 320, Alexandria, VA 22314. Telephone: (703) 519-3800 (voice); (703) 519-7008 (TDD).

National Center for Research in Vocational Education, University of Minnesota, Box 721, UMHC, Minneapolis, MN 55455. Telephone: 1-800-333-6293 or (612) 626-2825 (voice); (612) 624-3939 (TDD).

National Center for School Leadership, 1208 W. Springfield Avenue, Urbana, IL 61801. Telephone: (217) 244-1122 or 1-800-356-0069.

National Clearinghouse of Rehabilitation Training Materials, Oklahoma State University, 816 West 6th Street, Stillwater, OK 74078. Telephone: (405) 624-7650.

National Diffusion Network, 555 New Jersey Avenue N.W., Washington, DC 20208-5645. Telephone: (202) 219-2134.

National Early Childhood Technical Assistance System (NEC*TAS), Suite 500, NationsBank Plaza, 137 East Franklin Street, Chapel Hill, NC 27514. Telephone: (919) 962-2001.

National Resource Center for Paraprofessionals in Education and Related Human Services, 33 West 42nd Street, Room 620N, New York, NY 10036. Telephone: (212) 642-2948.

Technical Assistance for Special Populations Programs, University of Illinois at Urbana-Champaign, 345 Education Building, 1310 S. 6th Street, Champaign, IL 61820. Telephone: (217) 333-0807.

Trace Research and Development Center on Communication, Control and Computer Access for Handicapped Individuals, S-151 Waisman Center, 1500 Highland Avenue, Madison, WI 53705. Telephone: (608) 262-6966 (voice); (608) 263-5408 (TDD).

Transition Research Institute, College of Education, University of Illinois at Urbana-Champaign, 61 Children's Research Center, 51 Gerty Drive, Champaign, IL 61820. Telephone: (217) 333-2325.

University Microfilms International (UMI), Attention: Article Clearinghouse, 300 N. Zeeb Road, Ann Arbor, MI 48106. Telephone: 1-800-521-0600, extension 2786.

Zero to Three, National Center for Clinical Infant Programs, 2000 14th Street North, Suite 380, Arlington, VA 22201. Telephone: (703) 528-4300.

PRINT RESOURCES

The research publications on special education curricula and practices is far too voluminous to list in this ***NEWS DIGEST***. The materials cited below represent only a fraction of what is available. Readers are encouraged to search the ERIC and ECER systems in order to develop the most comprehensive listing of publications in the area of their personal or professional interest in effective special education practices.

Resources on Instructional Methodologies

Archer, A., Adams, A., Ellis, E., Isaacson, S., Morehead, M.K., & Schiller, E.P. (1987). *Teaching mildly handicapped students: Video training in effective instruction.* Reston, VA: Council for Exceptional Children. (This package includes one videotape addressing instruction for elementary school students and another for secondary students. Tapes may be purchased separately or as a set. For price information, contact the Council for Exceptional Chiidren, 1920 Association Drive, Reston, VA 22091-1589. Telephone: (703) 620-3660.)

Elksnin, L.K. (1989, November). Teaching mildly handicapped students social skills in secondary settings. *Academic Therapy, 25*(2), 153-169.

Heshusius, L. (1991, February). Curriculum-based assessment and direct instruction: Critical reflections on fundamental assumptions. *Exceptional Children, 57*(4), 315-328.

Mahcady, L., Sacca, M.K., & Harper, G.F. (1988). Classwide peer tutoring with mildly handicapped high school students. *Exceptional Children, 55*(1), 52-59.

McAllister, E. (1990). *Peer teaching and collaborative learning in the language arts.* Bloomington, IN: ERIC Clearinghouse on Reading and Communication Skills, and the Center for Reading and Language Studies. (Available from ERIC Clearinghouse on Reading and Communication Skills, Indiana University, 2805 E. 10th Street, Suite 150, Bloomington, IN 47408-2698. Telephone: 1-800-759-4723. Price: $15.95.)

Odom, S.L., McConnell, S.R., & McEvoy, M.A. (1992). *Social competence of young children with disabilities: Issues and strategies for intervention.* Baltimore: Paul H. Brookes. (Available from Paul H. Brookes Publishing Company, P.O. Box 10624, Baltimore, MD 21285-0624. Telephone: 1-800-638-3775. Price: $31.00.)

Palincsar, A.S., David, Y.M., Winn, J.A., & Stevens, D.D. (1991, May/June). Examining the context of strategy instruction. *Remedial and Special Education, 12*(3), 43-53.

Reid, K.D., & Stone, C.A. (1991, May/June). Why is cognitive instruction effective? Underlying learning mechanisms. *Remedial and Special Education, 12*(3), 8-19.

Robinson, G.A., Patton, J.R., Polloway, E.A., & Sargent, L.R. (Eds.). (1989). *Best practices in mild mental retardation.* Reston, VA: Council for Exceptional Children. (Available from the Council for Exceptional Children, Division on Mental Retardation, 1920 Association Drive, Reston, VA 22091-1589. Telephone: (703) 620-3660. Price: $19.00 for non-members, $15.00 for members.)

Tucker, J.A. (Ed.). (1985, November). Curriculum-based assessment [Special issue]. *Exceptional Children, 52*(3).

Resources on Educational Programs

Hurth, J., Tollerton, D., & Isbell, T. (1991). *Early education program sharing document: Current project resources, 1990-91.* Chapel Hill, NC: National Early Childhood Technical Assistance System. (While supplies last, available free of charge from Publications Coordinator, NEC*TAS, Suite 500, NationsBank Plaza, 137 East Franklin Street, Chapel Hill, NC 27514. Telephone: (919) 962-2001.)

Sopris West, Inc. (1991). *Educational programs that work: A collection of proven exemplary educational programs and practices* (17th ed.). Longmont, CO: Author. (This document, issued annually in cooperation with the National Dissemination Study Group and the National Diffusion Network, is available from Sopris West, Inc., 1140 Boston Avenue, Longmont, CO 80501. Telephone: (303) 651-2829. Price: $11.95.) (ERIC Document Reproduction Service No. ED 338 618)

Resources on Service Delivery, and Training and Technical Assistance

Browder, D. (1991). *Assessment of individuals with severe disabilities: An applied behavior approach* (2nd ed.). Baltimore, MD: Paul H. Brookes. (Available from Paul H. Brookes Publishing Company, P.O. Box 10624, Baltimore, MD 21285-0624. Telephone: 1-800-638-3775. Price: $39.00.)

Cross, T.L., Bazron, B.J., Dennis, K., & Isaacs, M.R. (1989). *Towards a culturally competent system of care: A monograph on effective services for minority children who are severely emotionally disturbed.* Washington, DC: CASSP Technical Assistance Center, Georgetown University Child Development Center. (Available from Georgetown University Child Development Center, 3800 Reservoir Road N.W., Washington, DC 20007. Telephone: (202) 687-8635. Price: Volume 1: $8.50; Volume 2: $10.00; Both volumes: $15.00.)

Ferguson, J. (1990). *Grants for special education and rehabilitation: How to find and win funds for research, training, and services.* Alexandria, VA: Capitol. (Available from Capitol Publications, 1101 King Street, Suite 444, Alexandria, VA 22314. Telephone: (703) 683-4100. Price: $58.00.)

Fox, T.J., & Williams, W. (1991). *Implementing best practices for all students in their local school.* Burlington, VT: Center for Developmental Disabilities, University of Vermont. (Available from the Vermont Statewide Systems Support Project, Center for Developmental Disabilities/UAP, University of Vermont, 499C Waterman Building, Burlington, VT 05405. Telephone: (802) 656-4031. Price: $10.00.)

Frank Porter Graham Child Development Center. (1986). *Improving state technical assistance programs.* Chapel Hill, NC: University of North Carolina. (While supplies last, available free of charge from NEC*TAS, Suite 500, NationsBank Plaza, 137 East Franklin Street, Chapel Hill, NC 27514. Telephone: (919) 962-2001.) (ERIC Document Reproduction Service No. ED 264 694)

Garland, C., McGonigel, M., Frank, A., & Buck, D. (1989). *The transdisciplinary model of service delivery.* Lightfoot, VA: Child Development Resources. (Available from Child Development Resources, P.O. Box 299, 6325 Centerville Road, Lightfoot, VA 23090. Telephone: (804) 565-0303.)

Giangreco, M.F., Edelman, S., & Dennis, R. (1991, March/April). Common professional practices that interfere with the integrated delivery of related services. *Remedial and Special Education, 12*(2), 16-24.

Hosterman, E.J. (Ed.). (1989). *Assessment: Special education tests. A handbook for parents and professionals.* Minneapolis: PACER Center. (Available from the PACER Center, 4826 Chicago Avenue South, Minneapolis, MN 55417-1055. Telephone: (612) 827-2966. Price: $4.00.)

Miramontes, O.B. (1991, January/February). Organizing for effective paraprofessional services in special education: A multilingual/multiethnic instruction service team model. *Remedial and Special Education, 12*(1), 29-36.

Rainforth, B., York, J., & Macdonald, C. (1992). *Collaborative teams for students with severe disabilities: Integrating therapy and educational services.* Baltimore: Paul H. Brookes. (Available from Paul H. Brookes Publishing Company, P.O. Box 10624, Baltimore, MD 21285-0624. Telephone: 1-800-638-3775. Price: $29.00.)

Thousand, J.S., & Villa, R.A. (1992). Collaborative teams: A powerful tool in school restructuring. In R.A. Villa, J.S. Thousand, W. Stainback, & S. Stainback (Eds.), *Restructuring for caring and effective education: An administrative guide to creating heterogeneous schools* (pp. 73-208). Baltimore: Paul H. Brookes. (Available from Paul H. Brookes Publishing Company, P.O. Box 10624, Baltimore, MD 21285-0624. Telephone: 1-800-638-3775. Price: $29.00.)

Resources on Educational Reform

Ainscow, M. (Ed.). (1991). *Effective schools for all.* London: David Fulton Publishers. (Available from Paul H. Brookes Publishing Company, P.O. Box 10624, Baltimore, MD 21285-0624. Telephone: 1-800-638-3775. Price: $28.00.)

Bamber, C., Berla, N., Henderson, A., & Rioux, W. (1990). *Public school choice: An equal chance for all?* Columbia, MD: National Committee for Citizens in Education. (Available from the National Committee for Citizens in Education, 900 2nd Street, N.W., Suite 8, Washington, DC 20002-3557. Telephone: (202) 408-0447. Price: $5.00.)

Cole, C.M. (1992). *Collaboration in schools: Issues and best practices.* Bloomington, IN: Council for Administrators in Special Education. (Available from CASE Research Committee, School of Education 241, Indiana University, Bloomington, IN 47405. Telephone: (812) 855-5090. Price: $20.00.)

David, J.L., & Cohen, M. (1990). *State actions to restructure schools: The first steps.* Washington, DC: National Governors' Association. (Available from National Governors' Association Publications, P.O. Box 421, Annapolis Junction, MD 20701. Telephone: (301) 498-3738. Price: $7.50.)

Fourqurean, J.M., & LaCourt, T. (1991, January/February). Follow-up of former special education students: A model for program evaluation. *Remedial and Special Education, 12*(1), 16-23.

Hansen, B., & Marburger, C. (1989). *School-based improvement: A manual for training school councils.* Washington, DC: National Committee for Citizens in Education. (Available from National Committee for Citizens in Education, 900 2nd Street, N.W., Suite 8, Washington, DC 20002-3557. Telephone: (202) 408-0447. Price: $39.95.)

National Governors' Association. (1990). *Educating America: State strategies for achieving the national education goals.* Washington, DC: Author. (Available from National Governors' Association Publications, P.O. Box 421, Annapolis Junction, MD 20701. Telephone: (301) 498-3738. Price: $15.00.)

National Governors' Association. (1990). *Results in education: 1990.* Washington, DC: Author. (Available from National Governors' Publications, P.O. Box 421, Annapolis Junction, MD 20701. Telephone: (301) 498-3738. Price: 12.50.)

Regional Resource and Federal Center Program. (1991). *Education reforms and special education: An initial list of state activities.* Lexington, KY: Mid-South Regional Resource Center. (Available from the Mid-South Regional Resource Center, Interdisciplinary Human Development Institute, 115 Mineral Industries Building, Lexington, KY 40506-0051. Telephone: (606) 257-4921.)

Riddle, M., & Elliott, B. (1992). *An effective interface between regular and special education: A synopsis of issues and successful practices.* Bloomington, IN: Council for Administrators of Special Education. (Available from CASE Research Committee, School of Education 241, Indiana University, Bloomington, IN 47405. Telephone: (812) 855-5090. Price: $15.00.)

Schlechty, P. (1990). *Schools for the 21st century: Leadership imperatives for educational reform.* San Francisco: Jossey-Bass. (Available from Jossey-Bass Publishers, 350 Sansome Street, San Francisco, CA 94104. Telephone: (415) 433-1767. Price: $14.95, for paperback.)

Schrag, J.A. (1989, April). *Fostering school reform at the state level.* Paper presented at the Preconvention Training Program "Exploring the Theory/Practice Link in Special Education" at the Annual Convention of the Council for Exceptional Children in San Francisco, CA. (ERIC Document Reproduction Service No. ED 304 870)

Skrtic, T.M. (1991). *Behind special education. A critical analysis of professional culture and school organization.* Denver, CO: Love. (Available from Love Publishing Company, 1777 South Bellaire Street, Denver, CO 80222. Telephone: (303) 757-2579. Price: $24.95.)

Valesky, T.C., & Hirth, M.A. (1992, March/April). Survey of the states: Special education knowledge requirements for school administrators. *Exceptional Children, 58*(5), 399-406.

Resources on Computer-Assisted Instruction

Carnine, D.W. (1987). *Computer-assisted instruction in higher order skills for mildly handicapped students: Programmatic research on design principles.* Eugene, OR: University of Oregon. (ERIC Document Reproduction Service No. ED 324 833)

Center for Special Education Technology. Several resource sheets on using computer technology have been produced by the Center and are available through the ERIC system (see ERIC Document Reproduction Service listing under Organizational Resources above, for information on ordering) Among these are:

Using computer technology: Guide for teachers. (1989, June). (ERIC Document Reproduction Service No. ED 324 848)

Using computer technology: Guide for parents. (1989, June). (ERIC Document Reproduction Service No. ED 324 850)

Using computer technology: Computer access. (1989, June). (ERIC Document Reproduction Service No. ED 324 847)

Using computer technology: Planning computer lessons. (1991, January). (ERIC Document Reproduction Service No. ED 339 158)

Using computer technology: Computers and cooperative learning. (1991). (ERIC Document Reproduction Service No. ED 339 153)

Using computer technology: Selecting software. (1989). (ERIC Document Reproduction Service No. ED 324 843)

Computer-assisted instruction for students with mild handicaps. (1990). (ERIC Document Reproduction Service No. ED 332 397)

MacArthur, C.A., & Malouf, D.B. (1991). Teachers' beliefs, plans, and decisions about computer-based instruction. *Journal of Special Education, 25*(1), 44-72.

Majsterek, D.J., & Wilson, R. (1989). Computer-assisted instruction for students with learning disabilities: Considerations for practitioners. *Learning Disabilities Focus, 5*(1), 18-27.

Malouf. D.B.. Jamison. P.J.. Kercher. M.H.. & Carlucci. C.M. (1991, Winter). Computer software aids effective instruction. *Teaching Exceptional Children, 23*(2), 56-58.

Malouf. D.B.. Jamison. P.J.. Kercher. M.H., & Carlucci. C.M. (1991. Spring). Integrating computer software into effective instruction. *Teaching Exceptional Children, 23*(3). 54-56.

Malouf. D.B., Jamison. P.J., Kercher. M.H., & Carlucci. C.M. (1991. Summer). Integrating computer software into effective instruction. *Teaching Exceptional Children, 23*(4), 57-60.

Mastropieri. M.A.. and others. (1991). Mathematics instruction for learning disabled students: A review of research. *Learning Disabilities Research and Practice*, 6(2). 89-98.

Resources on Vocational Education

Albright. L.. & Cobb. R.B. (1988). *Assessment of students with handicaps in vocational education: A curriculum-based approach.* Alexandria. VA: American Vocational Association. (Available from American Vocational Association. 1410 King Street, Alexandria. VA 22314. Telephone: (703) 638-3111 or 1-800-826-9972. Price for non-members: Teacher's manual. $23.50; 7 student modules. $51.50.)

Annotated bibliography Youth in transition: Resources for program development and direct service intervention. (1986). Portland. OR: Youth in Transition Project, Regional Research Institute for Human Services. (Available from Portland State University. Research and Training Center/ RRI. P.O. Box 751. Portland. OR 97207-0751. Telephone: (503) 725-4040. Price: $6.00.)

Fredericks. B.. Covey. C.. Hendrickson. K.. Deane. K., Gallagher. J.. Schwindt. A.. & Perkins. C. (1987). *Vocational training for students with severe handicaps.* Monmouth. OR: Teaching Research Publications. (Available from Teaching Research Publications. 345 North Monmouth Avenue. Monmouth. OR 97361. Telephone: (503) 838-8792. Price: $13.00.)

Gugerty. J.J.. and others. (1988). *Profiles of success serving secondary special education students through the Carl D. Perkins Vocational Education Act: 10 creative approaches.* Madison. WI: University of Wisconsin. Vocational Studies Center. (ERIC Document Reproduction Service No. ED 303 970)

Leach, L.N.. & Harmon. A.S. (1987). *Annotated bibliography on transition from school to work* (Vol. 2). Champaign, IL: Secondary Transition Intervention Effectiveness Institute. (ERIC Document Reproduction Service No. ED 291 168)

National Council on Vocational Education. (1989). *America's hidden treasure: The urgent need to recognize and promote the nation's vocational-technical education system. A report to the American people.* Washington, DC: Author. (ERIC Document Reproduction Service No. ED 318 898)

Parks, M.A., and others. (1987). *Characteristics of effective secondary vocational education programs for special populations.* Columbus, OH: National Center for Research in Vocational Education. (ERIC Document Reproduction Service No. ED 289 050)

Sale, P.. Metzler, H., Everson, J.M., & Moon. M.S. (1991. October). Quality indicators of successful vocational transition programs. *Journal of Vocational Rehabilitation. 1*(4). 47-63.

Sarkees, M.D., & Scott, L.J. (1985). *Vocational special needs* (2nd ed.). Homewood, IL: American Technical Publishers. (Available from American Technical Publishers. 1155 W. 175th Street. Homewood. IL 60430. Telephone: 1-800-323-3471. Price: $32.96.)

Sowers, J.A., & Powers. L. (1991). *Vocational preparation and employment of students with physical and multiple disabilities.* Baltimore, MD: Paul H. Brookes. (Available from Paul H. Brookes Publishing Company. P.O. Box 10624. Baltimore, MD 21285-0624. Telephone: 1-800-638-3775. Price: $27.00.)

Wehman. P.. Wood. W. Everson. J.M., Goodwyn. R.. & Conley. S. (1988). *Vocational education for multihandicapped youth with cerebral palsy.* Baltimore. MD: Paul H. Brookes. (Available from Paul H. Brookes Publishing Company. P.O. Box 10624. Baltimore, MD 21285-0624. Telephone: 1-800-638-3775. Price: $25.00.)

Wermuth, T.R.. & Maddy-Bernstein. C. (1989. October). *Exemplary career/vocational programs for special populations.* Paper presented at the International Conference of the Council for Exceptional Children's Division on Career Development. (ERIC Document Reproduction Service No. ED 313 929)

Wirt. J.G.. and others. (1989). *Summary of findings and recommendations: National Assessment of Vocational Education final report.* Washington, DC: National Assessment of Vocational Education. (ERIC Document Reproduction Service No. ED 317 659)

JOURNALS

Listed below, in alphabetical order, are the journals that have been referenced throughout this ***NEWS DIGEST***. The names, addresses, and telephone numbers given refer to where you would write or call if you wanted to order a reprint of an article (as opposed to subscribing to the journal). When you call or write for a reprint of a journal article, make sure you give the complete reference (name of author, name of article, name of journal, its volume and number, and the pages associated with the article). Note: In many cases, you will need to purchase the entire issue of the journal, because the publishers do not make copies of the individual articles in the journal. You may also order reprints of most journals through University Microfilms International (UMI), whose address and telephone number are listed under Organizational Resources.

As with all the resources listed in this ***NEWS DIGEST***, *it is a good idea to contact the publisher and obtain the latest information on ordering, payment procedures, and shipping and handling charges.*

Academic Therapy - Pro-Ed, 8700 Shoal Creek Boulevard, Austin, TX 78758-6897. Telephone: (512) 451-3246. Ask for the journal department. Price of a back issue: $10.00.

Behavioral Disorders - Division for Children with Behavioral Disorders, Council for Exceptional Children, 1920 Association Drive. Reston, VA 22091. Telephone: (703) 620-3660.

British Journal of Teacher Education - National Council for Special Education. 1 Wood Street. Stratford-upon-Avon. Warwickshire CV37 6JE. United Kingdom. 0789-20-5332.

Coalition Quarterly - Federation for Children with Special Needs, 95 Berkeley Street. Boston. MA 02116. Telephone: (617) 482-2915. Price: Free.

Educational Leadership - Association for Supervision and Curriculum Development. Attention: Order Department, 1250 N. Pitt Street, Alexandria. VA 22314-1403. Telephone: (703) 549-9110. Price of a back issue: $4.00.

Educational Researcher - American Educational Research Association. Publication/Sales. 1230 17th Street N.W.. Washington. DC 20036-3078. Telephone: (202) 223-9485. Price of a back issue: $7.00.

Education of the Handicapped - Capitol Publications, Inc.. Attention: Circulation. 1101 King Street, Suite 444, Alexandria, VA 22314-2968. Telephone: (703) 683-4100. Price of a back issue: $10.00.

Exceptional Children - The Council for Exceptional Children, 1920 Association Drive. Reston, VA 22091. Telephone: (703) 620-3660.

Focus on Exceptional Children - Love Publishing Company, 1777 South Bellaire Street. Denver. CO 80222. Telephone: (303) 757-2579. Price of a back issue: $3.00.

Journal of Special Education - Pro-Ed, 8700 Shoal Creek Boulevard, Austin, TX 78758-6897. Telephone: (512) 451-3246. Ask for the journal department. Price of a back issue: $10.00.

Journal of Special Education Technology - Attention: Herb Rieth. Editor, Peabody College of Vanderbilt University, Box 328. Nashville, TN 37203. Telephone: (615) 322-8150. Price of a back issue: $4.00.

Journal of Vocational Rehabilitation - Andover Medical Publishers, Inc., Attention: Journal Fulfillment Department. 80 Montvale Avenue, Stoneham, MA 02180. Telephone: (617) 438-8464. Price of a back issue: $16.00.

Learning Disabilities Focus - Lawrence Erlbaum Publishers. 365 Broadway, Hillsdale, NJ 07643. Telephone: 1-800-926-6579. Price of a back issue: $17.50.

Learning Disabilities Research - Lawrence Erlbaum Publishers. 365 Broadway, Hillsdale, NJ 07643. Telephone: 1-800-926-6579. Price of a back issue: $17.50.

Learning Disabilities Research and Practice - Lawrence Erlbaum Publishers,. 365 Broadway, Hillsdale, NJ 07643. Telephone: 1-800-926-6579. Price of a back issue: $17.50.

Phi Delta Kappan - Phi Delta Kappan, Inc., 8th & Union, Box 789, Bloomington, IN 47402. Telephone: (812) 339-1156. Price of a back issue: $4.50.

Remedial and Special Education - Pro-Ed, Attention: Journal Department, 8700 Shoal Creek Boulevard, Austin. TX 78758. Telephone: (512) 451-3246. Price: $10.00.

Teaching Exceptional Children - The Council for Exceptional Children, 1920 Association Drive, Reston, VA 22091. Telephone: (703) 620-3660.

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PROJECT STAFF

Project Director .....Carol H. Valdivieso, Ph.D.
Deputy Director.....Suzanne Ripley
Editor.....Lisa Küpper

AUTHOR

Margaret J. McLaughlin, Ph. D.
Associate Director, Institute for the Study of Exceptional Children and Youth, University of Maryland

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Post Office Box 1492
Washington, DC 20013-1492