Special Education Teachers' Views of Research-Based Practices

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Focus groups with teachers of students with learning disabilities (n = 30) and teachers of students with emotional/behavior disorders (n = 19) were conducted to examine the the teachers' perspectives about educational research and the extent to which they found research findings to be useful. The study further addressed the ways in which new practices were introduced within target teachers' schools and their reaction to the appropriateness of these practices for students with special needs. Findings revealed that most teachers were not pressed to use practices supported by their school or district. Furthermore, the notion of "research-based" was not important as a criterion for selection. Teachers sought instructional practices that were feasible, were appropriate for their students, were accompanied by all necessary materials and professional development support, and could be individualized for multilevel classrooms.

Considerable research over the past two decades has given the field of special education excellent information on best practices in the classroom (e.g., Gersten, Vaughn, Deshler, & Schiller, 1997; Swanson, 1999). The findings have strengthened our understanding of effective practices for students with disabilities in a variety of areas, including assessment, instruction, and behavioral supports. While there is still much to be investigated, the information gathered thus far allows us to more effectively instruct a wide range of learners. Consequently, as a profession, we have moved beyond the point of making all educational decisions based only on what we think might work.

Research on innovative practices focusing on special education students has assisted instruction in general education, as well. Previously, this research was of little interest to the general education community, largely because general educators did not view the information as valuable or applicable to their students. As students with disabilities are increasingly the co-responsibility of general and special education, innovative practices that are effective with both general and special education students are valued (McKenna, 1992). Furthermore, findings from recent syntheses in special education have revealed that most of the innovative practices that are effective for special education students have even larger effects when used with general education students (Vaughn, Gersten, & Chard, 2000).

School districts, state departments of education, and even the federal government are increasingly requiring educators to justify their decision-making based on the best research knowledge available. The use of substantiated evidence to influence decision-making in education should hardly be so unusual as to warrant attention. We certainly expect no less than evidence-based decision-making in medicine, engineering, pharmacology, and other mature professions—in which decision-making is based not on personal beliefs but on objectivity and research findings (Carnine, 2000). Until recently, however, educational decisions have typically been made at the whim of policymakers, administrators, parents, and elected school board representatives who have not considered research as a tool to influence decision-making. An emphasis on research-based decision-making should replace this.

Nevertheless, frontline professionals (teachers) are typically skeptical about research (Carnine, 1997; Smylie, 1989; Stanovich & Stanovich, 1997). This could be a consequence of the ebb and flow of change policies downloaded on them by school districts and state departments of education. Their skepticism is also likely rooted in the cynicism resulting from continually being told that a practice is "research-based" and then 5 years later seeing that practice be replaced by yet another, often quite different practice, also referred to as research-based (Cuban, 1990). Though also true for curriculum recommendations for math and science, changes are perhaps most evident in beginning reading instruction, where swings in instructional practice from whole-language approaches to phonics-based approaches are notorious (Adams, 1990; Collins, 1997).

Chester Finn (2000) summarized the "disputation" in education in the following way:

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> Phonics or whole language? Calculators or no calculators? Tracked or mixed-ability classrooms? Should teachers lecture or "facilitate"? Ought education be content-centered or child-centered? . . . And on and on and on. Within each debate, moreover, we regularly hear each faction citing boatloads of "studies" that supposedly support its position. Just think how often "research shows" is used to introduce a statement that winds up being chiefly about ideology, hunch or preference. (p. v)

In fact, "research says" is the point of departure for so many recommendations in education that many of us are eager to ask, "What research?" Considering the misuse of the term *research* to defend one's position in education and the extent to which teachers have been asked to flip-flop to and from conflicting practices based on what the district refers to as research, one might expect that teachers would be uninterested in educational research.

With this in mind, it is important to look at teachers' views on research to better understand how classroom practice is adopted and sustained. Specifically, what are teachers' perceptions of research, how do teachers decide if research is appropriate for their educational practice and their students, and to what extent are they provided with research-based practices through their professional development experiences?

After a review of literature, we were unable to identify studies that examined special education teachers' knowledge and perceptions of research. Several studies and commentaries have provided discussions of what it takes to bridge the gap between research and practice in special education, as well as sustain these practices. One technique that has been investigated is the formation of collaborative groups, including both teachers and researchers, to address questions and issues often related to improved instruction or alternative models for service provision for students. The studies found that teacher participation in these groups resulted in changes in the value the teachers placed on research and theory (Henry et al., 1999; Hutchinson & Martin, 1999). More informally developed support networks of teachers teaching colleagues in the same school to implement instructional strategies have also helped to sustain research-based practices in the classroom (Elmore, 1996; Schumm & Vaughn, 1995). However, much of the research has focused on factors that may be affecting the link between research and practice (Gersten, Schiller, & Vaughn, 2000; Kauffman, 1996; Lloyd, Weintraub, & Safer, 1997). Common findings in these studies were the need for effective professional development with opportunities for practice and feedback, and the need for involving teachers in the creation of implementation techniques so that the research can be changed into practice around the attitudes, beliefs, and contextual factors (time constraints, administrative support, materials) of a school or district (Abbott, Walton, Tapia, & Greenwood, 1999; Fuchs & Fuchs, 1998; Gersten et al., 1997). Additionally, it has been discussed that one strong reason teachers sustain innovative practices is that they perceive that their students are profiting from the instruction (Gersten, Chard, & Baker, 2000; Klingner, Vaughn, Hughes, & Argüelles, 1999).

In summary, the extant literature reveals that the special education research community has been engaged in two ways regarding research and practice: (a) attempting to form communities of learners to reflect on and enact change in practice and (b) lamenting the lack of implementation of research-based practices.

However, we were interested in better understanding the perspectives of special education teachers on research on instructional practices and professional development to improve teachers' use of research-based practices. We were further interested in determining how they made decisions about what practices and materials they used and whether the professional development to which they were exposed provided them with effective innovative practices that were suitable for their students. We wanted to better understand the ways in which research-based and other instructional practices were promoted within their schools and their reactions to the appropriateness of these practices for students with disabilities. As Carnine (1997) has suggested, one of the ways to bridge the research-to-practice gap is by increasing the market demand for special education research. What better way to begin doing this than by talking with the consumers of educational research? Perhaps by engaging teachers in conversations regarding research we can begin to improve educational practice by using professional development as a forum for teacher training in research-based practices.

In thinking about how to answer our research questions, we realized that there would be benefits to organizing the questions around an identified instructional area. We chose reading because it has been an area of high interest and one for which two national panels have drawn converging evidence regarding the research (National Reading Panel, 2000; Snow, Burns, & Griffin, 1998). We targeted special education teachers who teach students with learning disabilities (LD) or emotional and behavioral disorder (EBD), as they are the group that reaches the largest number of students with special needs in reading (Kauffman, 1997). Cullinan, Epstein, and Lloyd (1983) estimated that as much as one third to 81% of students identified with behavioral disorders present with academic difficulties such as reading achievement problems and functional illiteracy.

Method

Participants

Participants were elementary school special educators from two states (Texas and Florida) and representing four school districts (one urban and one suburban from each state). As most school districts do not exclusively use one service de-

livery model for providing services to students with disabilities, one criterion used to select the school districts was that they must offer a range of service delivery models (i.e., self-contained, resource, inclusion, and combination). The second criterion for school district selection was that the student populations must approximately match their respective states' ethnic and socioeconomic distributions.

Researchers sought approval for conducting the study by contacting the special education administrator in each district. A sampling plan was then developed to solicit the involvement of teachers for students with LD and EBD within the participating school districts. Participants were selected because they (a) were certified in special education, (b) primarily taught students with LD or EBD, (c) had more than 4 years of teaching experience, (d) were responsible for delivering reading instruction to the students, and (e) worked in schools that had more than 30 students with LD. Once we determined which participants had the identified characteristics, teachers who met selection criteria were invited. Due to the small number of classes for students with EBD, all teachers of EBD students in each district were contacted. Teachers were first sent a letter and then received a follow-up phone call requesting their participation in the study. LD teachers were contacted in random order, also by letter and follow-up phone call, until focus groups were filled. A small stipend was offered as an incentive for participation.

Of the teachers who participated (N = 49; LD n = 30, EBD n = 19), the majority were responsible for teaching multiple grade levels between kindergarten and fifth grade. Teaching experience ranged from 5 to 27 years (M = 12.18). All teachers were certified to teach students with LD or EBD, and the majority held a master's degree, as well as additional teaching certifications (e.g., vocational education, reading specialist). Table 1 presents key descriptive characteristics for the teachers who participated in this study.

TABLE 1. Background Information for Teachers

Background	LD teachers	EBD teachers
Highest degree held		
Bachelor	12	10
Master's	17	9
Unreported	1	0
Areas of certification		
Elementary education	12	5
Special education	24	11
Emotionally handicapped	3	6
Mentally retarded	5	1
Other specialization	15	4
Years of teachingexperience		
1–5	5	6
6–10	9	4
11–15	3	5
16–20	5	2
21+	8	2
Instructional setting		
Self-contained	2	16
Resource	15	0
Content mastery	2	0
Inclusion	2	0
Combination	8	1
Unreported	1	2
Grades taught		
6+	7	5
5	2	0
4	5	4
3	4	5
2	4	5
1	3	0
Unreported	5	0

Note. LD = learning disability; EBD = emotional and behavior disorder.

Focus Group Interviews

Although there has been ongoing debate regarding the appropriate uses of focus groups (see, e.g., Fowler, 1984; Morgan & Krueger, 1993), many researchers agree that they are useful as a means to identify issues and themes in areas where little previous research exists (Fontana & Frey, 2005). We believe that the study of special education teachers and their perspectives on program options and the use of research-based practices in the classroom is one such area. Furthermore, this type of group interview allows researchers to meet with a group of participants only once, and then the process is repeated several times with different people (Krueger & Casey, 2000) to check and cross-check emerging ideas. Focus groups also create a catalyst effect, promoting a wider range of information and insight than individual interviews do (Stewart & Shamdasani, 1990).

Five facilitators were trained prior to conducting the study. Topics covered in the training sessions included procedures for running effective groups (e.g., creating a friendly atmosphere, maintaining the flow of discussion; Stewart & Shamdasini, 1990; Vaughn, Schumm, & Sinagub, 1996), procedures to keep the focus group schedule and content as uniform as possible, and methods for accurate data collection. All facilitators were members of the research team, and three were also responsible for data analysis.

An interview guide was prepared to avoid language variance that could alter intent (Krueger & Casey, 2000; Miles & Huberman, 1994). As suggested by Krueger and Casey, general questions were ordered before specific ones, and uncued questions were followed with cues to prompt additional discussion. Facilitators were free to adapt or change questions so that participants could guide the direction of the discussion. A copy of the focus group interview protocol is included in the Appendix. To ensure that the questions would address

the intended purpose, two pilot focus groups were conducted prior to the start of this study. Based on these pilot studies, several minor changes and rewordings were made in items, and we decided that three of the questions could be better addressed in writing by each teacher prior to the group interview. Those three questions are indicated on the protocol in the appendix.

We conducted eight 2-hour focus groups (four groups of teachers who primarily taught students with LD and four groups of teachers who primarily taught students with EBD). Between two and four focus group interviews are recommended because after a couple of interviews, participant responses are redundant and confirm previous ones (Lyons, 1991; Vaughn et al., 1996). Teachers were grouped by school district and student disability specialization in an attempt to increase the comfort level of group members and encourage open and honest responses (Dyson, Godwin, & Hazelwood, 1976).

Our aim was that each focus group would consist of 6 to 12 persons. Fewer than 6 may not be enough for a stimulating discussion, but more than 12 would be too many for all participants to have an opportunity to express their points of view (Vaughn et al., 1996). The sizes of our eight focus groups were 3, 7, 8, and 12 for the LD groups and 3, 4, 5, and 7 for the EBD groups.

The facilitator and research assistant created a welcoming environment by greeting participants and offering refreshments, setting the tone for a relaxed and comfortable interview. Teachers began by filling out demographic information sheets and written questionnaires, and then they participated in the focus group interview. Each group interview was tape-recorded and later transcribed. In addition, the research assistant took notes that included speaker changes, summaries of responses, and nonverbal emphases that were incorporated into the transcripts for analysis. Teachers were notified that their responses would be anonymous and that tapes would be destroyed after completion of the study.

Data Analysis

The data collected for this study were a result of focus group interviews. The flow of analysis used to examine the qualitative data occurred in three steps (Miles & Huberman, 1994): (a) transcribing interview tapes; (b) generating categories, subthemes, and themes to identify important issues; and (c) establishing trustworthiness (Lincoln & Guba, 1985).

Throughout the data collection and analysis phase of the study, the research team met on a regular basis to discuss anything that seemed particularly illuminating or interesting, share summaries of focus groups, compare notes and observations, search for patterns, discuss possible themes and interpretations, and continually engage in "explanation building" by looking for causal links and exploring plausible and rival explanations (Yin, 1994).

A preliminary review of the data revealed no differences in teacher responses by teacher characteristic (e.g., years of teaching experience, highest degree held), district size, or geographic region. Because qualitative differences were noted between teachers of LD and EBD and no other substantial differences were found, responses were separated only by teacher group for the remainder of data analysis and evaluated for similarities and differences. A few differences were found by demographic characteristics (i.e., experienced and less experienced teachers), and these are noted in the "Results" section.

Using the transcriptions from focus group interviews, two of the authors independently conducted examinations of the data set (separated by teacher type) and generated and defined initial categories for analysis (Strauss & Corbin, 1998). Categories are small units of the transcript that relate to one concept. For example, the category *no research* (responses related to not being exposed to research during professional development) is supported by the following representative statement: "I haven't seen any definite evidence. Just word of mouth." One speaker's turn might include several ideas or references and thus contain more than one category. Categories identified by the two researchers were compared, combined, and refined. At each stage, codes were subject to agreement by the coders with an ongoing process of comparing codes and resolving differences. For example, the category *time* was subsumed by the category *can't do everything* because an evaluation of the supporting responses revealed that in both cases, teachers were describing barriers to implementing new practices because they were overburdened. For the most part, the same categories were identified for both teacher groups. Differences are noted in the number of times categories were mentioned and occasionally in a category that was represented by only one group. For example, only teachers of LD students mentioned that parents were influential in their decision to select new reading practices (*parent influence*).

The next step was to group categories that were related. This was done by looking at the categories and finding commonalties, as well as searching responses again for common ideas that might have been missed by the initial list of categories (Strauss & Corbin, 1998). Data were ultimately organized into themes (broad concepts or issues; e.g., *program selection, program use*), subthemes (important issues that related to one theme; e.g., *barriers, adaptations*), and categories (the smallest delineation of a response that pertained to an individual idea; e.g., *can't do everything, lack of access to materials*). A category that presented a unique idea and, therefore, could not be grouped with other categories became a subtheme. This recursive process provided an organizational framework for finding larger meaning from the individual units of data

To enhance the consistency of analysis, a third researcher, who was experienced in developing coding systems and who had not been part of the initial coding, independently reviewed the coding scheme as a peer debriefer (Lincoln & Guba, 1985). This reviewer was a member of the research team, so she was familiar with the study but had not been part

of coding or discussions about the data prior to this point. The purpose of the debriefing was to question assumptions and conclusions and, essentially, for the debriefer to act as a devil's advocate to reveal biases or problems with the analysis. This was done by first evaluating all categories and the responses associated with each. When there was a disagreement, the authors discussed the text and codes until they reached consensus (Patton, 1990). In several cases, categories were revised or combined. A similar process was used to check the credibility of the themes and subthemes.

Another way to confirm the analysis was to triangulate teacher responses. This was done by checking categories that emerged from teachers' written responses against those generated during oral interviews to refute or support findings. While not all issues were repeated in both oral and written responses, this procedure provided additional information about actual practices that were implemented in the classroom, as well as the way new practices were accessed by teachers.

Table 2 presents the themes, subthemes, and categories in terms of the number of references made by teacher group (LD and EBD). While interview transcripts were coded by identifying and counting categories within individual responses, focus groups are an imprecise way of measuring individual responses, as respondents are influenced by both the social nature of the group and the content of the questions being asked by the facilitator. The purpose of tallying individual responses is to develop the larger themes and supporting evidence, which are then more representative of the ideas and issues raised by the group (Fontana & Frey, 2005). Several measures were taken to provide accurate counts of the codes. First, as noted previously, facilitators were trained in effective focus group procedures, including ways to move the focus groups along so that one group member did not monopolize the conversation and so that each teacher was able to share her or his opinions. Second, to account for individual respondents "loading" a category with repeated references to the same idea, we counted a category only once within an individual response. Third, categories were cross-checked to ensure that responses were not repeated in different categories. Note that because written responses were used as a triangulation source, they are not included in code counts.

In this study, trustworthiness of results was established through the use of appropriate data collection procedures, independent coding and peer debriefing with revisions and reworking of the coding scheme as needed, triangulation of data sources, and accurate representation of individual responses (Lincoln & Guba, 1985).

Results

The initial intent of this study was to better understand the perspectives of special education teachers on the use of research-based instructional practices and professional development. What resulted were rich discussions regarding not only research-based practices and professional development but also the broader notion of how the unique instructional needs of special education teachers fit into the larger school community. We organized the presentation of results into the four themes that were identified during data analysis: Program Selection, Program Use, Program Sustainability, and Professional Development and Research. As responses were rarely isolated by issue, throughout the following section, we relate categories, themes, and subthemes to present the most complete description of the perceptions of the teachers we interviewed. Because of the similarity in responses, the results for both groups of teachers (LD and EBD) have been merged. When a difference was noted, it usually was a matter of degree and not a difference in perspective or experience. Similarities and differences by teacher group are described below.

Program Selection

District Influence. We were interested in the extent to which teachers perceived that there are instructional practices that the school or district would like them to use, as those would be the most likely practices to be based in current research. This question and others spurred conversation around how programs are selected for use in special education classrooms, and specifically, *who* is responsible for that selection. Although the pressure to use particular instructional practices varied across school districts as well as by school, teachers of special education students indicated that they were used to doing "what works" for individual students, regardless of what they might be "required" to teach. Whereas two thirds of the LD teachers reported that there were methods that were endorsed by the school or district, teachers of students with EBD reported less school or district influence, indicating that if students were behaving, they could essentially do whatever they wanted: "If I can keep the kids' behavior in line, I'm doing pretty well."

Even with teachers who reported pressure from the district or school to use certain techniques (e.g., phonics), the majority of responses reflected no obligation to use endorsed instructional programs (e.g., specific program to teach phonics). A teacher for students with LD remarked, "I've never had a district tell me I could or could not do what I thought was best for individual students. The principal is very eager to give me free rein." For these teachers, it seemed that particular instructional programs were secondary to such basic issues as teaching multiple levels in one classroom, lack of necessary materials, and managing student behavior. Of special note is that teachers of students with EBD specified by name far fewer instructional programs than teachers of students with LD.

Teachers also expressed frustration with the district's lack of retention of endorsed instructional practices: "I wish the district would kind of stick to a program or a group of meth-

TABLE 2. Response Codes Grouped by Theme, Subtheme, and Category

Theme	LD teachers	EBD teachers	Total
Program selection			
District influence			
Pressure	13	7	20
No pressure	7	13	20
Frequent changes	6	4	10
Teacher influence			
Teacher expertise	4	7	11
Use research	0	6	6
Parent influence	4	0	4
Theme total	34	37	71
Program use			
Barriers			
Can't do everything	20	24	44
Lack of access to materials/resources	16	21	37
Programs/PD don't meet needs	16	7	23
Teacher characteristics	9	5	14
Difficult to switch programs	5	3	8
Other	8	0	8
Adaptations	47	20	67
Theme total	127	83	210
Program sustainability			
Students			
Student progress	30	18	48
Student response	5	9	14
Feasibility	10	7	17
Quality of training/support	6	9	15
Other	3	6	9
Theme total	54	49	103
PD and research			
Perceptions of research			
Research is presented	7	7	14
Research not relevant	6	7	13
Don't trust research	7	5	12
No research	12	10	22
Theme total	32	29	61

Note. LD = learning disabilities; EBD = emotional and behavior disorder; PD = professional development.

ods. It seems like for a year or two they'll grab onto something, and then the pendulum swings and they grab onto something else." Teachers were reluctant to devote an often substantial amount of time to learning a new program that might or might not be useful to them and probably would not continue to be supported by the school district.

Teacher Influence. Many teachers did not feel obligated to use particular methods or practices, even when they perceived that the district or school encouraged them to do so. In cases where teachers were able to choose their own programs, they were clear not only that were they *allowed* to select their own programs but also that part of the expertise of the special education teacher is the ability to access and adapt programs to meet the needs of individual students. Several teachers stated that teachers should consider practices that are research-based when selecting new programs: "I think they should be using the latest research. If we want to be doing our job most effectively." A few teachers also mentioned that parents influenced their decisions to select particular practices or programs.

Program Use

Barriers. Teachers were prolific in their comments about the aspects that influenced the use of a newly selected program, with the majority of comments (143 of 210) referring to barriers to implementation. Teachers frequently mentioned that with many levels represented in each class, as well as the number of subjects taught, the special education teacher simply could not do everything. In many cases, this notion of being overwhelmed by student needs and a wide range of teaching responsibilities trumped the implementation of a new program, regardless of who selected it or its perceived benefits for students. As one LD teacher noted during a discussion of the range of abilities represented in each classroom:

> I'd say not only the ability levels, but different grade levels. A lot of it [professional development on new programs] seems to be so specific to the grade level and you come back and get all this wonderful knowledge about fifth-grade stuff, and you might have fifth graders but the ones at the kindergarten level just kind of go, "okay."

Perhaps a reflection of the difficulty of teaching students with emotional and behavior problems, this issue was particularly salient for teachers in EBD classrooms. One teacher noted that in her school it was difficult to keep new teachers of students with EBD because "they felt so overwhelmed by what they were told they had to be trained in. Both in reading and in math, you're responsible for every grade level. And it just overwhelms you." One teacher commented, "Some situations are so hard that you can't even hear anything new." Another teacher said,

> I've gotten a lot of excellent information that I know if I was implementing I would be a better teacher and the students would be better students and it would make learning easier. But that's just in language arts. . . .When you're expected to do that across the board, you're not going to do it.

As a key contributing factor to this notion of not being able to do everything, teachers frequently mentioned the time needed to implement new programs. One teacher noted:

> If I was three people and I could do my three different or four different groups that I have regularly in my classroom, then I could spend time and plan and pull in all these wonderful things [new practices]. But in reality, I have an hour to get it all done.

Lack of access to materials and resources was also very important, particularly for teachers of students with EBD. These teachers indicated that even when they were pressured to use prescribed methods, for the most part they did not perceive these methods as feasible to implement in their classrooms: "You may get the opportunity to go and see and learn about a method, but you don't have access to the materials." When discussing materials, several teachers of EBD students expressed the lack of support they felt. One teacher said, "You are always the last to get materials. You don't have reading resources—you are pretty much in the back of the school, in the back of receiving things." Several teachers of LD students discussed their isolation from general education teachers and others with whom they might collaborate.

Another common barrier to implementing new programs was that the instructional programs did not meet the unique needs of the teachers or the students in special education classrooms. Teachers pleaded for professional development opportunities that would be geared to their populations. In searching out computer training, one teacher said:

> I have been attending computer workshops because I'm really interested in applying it, and I find that my kids go crazy with the computer. . . . But when I go to it, I find if it is not a special ed workshop or trainer it does not take into account the special ed teacher. If they don't take into account that you might have kids on five different levels in your class or kids that can't read, how are you going to apply what you are learning?

Even when the program was perceived to be relevant to their teaching needs, teachers often indicated that the presentation of new information was inadequate. Some teachers had become so frustrated with workshops that did not match their students' needs that they had chosen to opt out of staff development all together: "I really prefer being in the classroom. I know I can't learn everything in the classroom; you need to get out and get ideas. But the ones they're offering, it's not anything for us in particular that I say, 'Oh, I want to go.' "

Also contained within the category of unmet needs were the variety of needs and changing needs of students being taught by one teacher. As one teacher noted, "I may have young children, and 2 years later I may have only fourth and fifth graders. So it's another situation. I like *Read Naturally,* and just when I thought I was going to get it, my population got very young."

Teachers also perceived that certain teachers would be more likely to use new methods than others. For example, it was a common perception that inexperienced teachers would be more likely to try new methods than the more experienced ones would. As one veteran teacher stated, "It's very funny that the longer you are in ESE [special education], you see the same things coming back over and over again. What you're doing in the classroom already is part of what you're getting in the workshops. They just call it something different." The more experienced teachers preferred to continue with "what works" rather than spend time learning old infor-

mation in new packages. As the result of a combination of issues, such as lack of time, variable quality of programs and professional development, and limited resources, several teachers reported that they preferred not to attempt any new programs at all.

Adaptations. Second to the references made to barriers to new program implementation, most of the teachers reported that when they did use a new practice, they did not implement it in its entirety but, instead, chose to take pieces from different workshops or to modify what was presented to them. In this way, they reported that they were able to combine methods that met the specific needs of their students. One teacher stated, "You kind of have to mix and match in my opinion. I have to mix things together and create what I think [will be] the best outcome with my students." "We're modifying it to fit where we see the kids' needs are," another teacher commented. "That is our job, to match and individualize."

In addition to modifying practices to meet individual student needs, teachers touched on the reality of implementing such a wide range and amount of new information, regardless of the population served. As one teacher noted, "If you pick up just two or three tips from the workshop, you are only too happy, because I don't think you could ever take the total package and be ready to implement."

Teachers reported similar reasons when deciding whether to adapt or abandon a new program. While issues such as access to materials, different student ability levels, time, and the quality of professional development could result in the decision to avoid using a new program, these same issues were likely to result in implementing the program in a more limited or modified way, perhaps by using only a few strategies or by making adaptations to the instructional activities. It appeared that a combination of various factors for an individual teacher in a unique teaching environment influenced how and whether a new program would be implemented in the classroom. For example, an EBD teacher who taught students with varying academic and behavioral needs and had limited access to the materials associated with a new program would be less likely to implement it than would a teacher of LD students who might be able to attend the workshop with and later share with the general education teacher the materials that went along with the program.

Program Sustainability

New practices must first be selected and then attempted in the classroom. Issues such as access to materials are the most relevant when first trying out a new program, because without materials, implementation is difficult (if not impossible). Once initial barriers were overcome, teachers in this study focused on how a program fared in their classrooms. Decisions regarding program sustainability appeared to be made in terms of individual teachers and their students. Larger-scale influences such as district endorsements and research findings were not considered relevant unless they occurred in conjunction with individual teacher criteria. If a program made it to the sustainability phase, the essential question seemed to be, Can this program fit into my long-term repertoire of effective teaching strategies?

Student Response. Teachers were the most concerned with how students responded to a new practice. In other words, they wanted to continue using only those programs that resulted in student learning. Several teachers of students with LD also indicated that practices that supported individual learning and behavior needs (e.g., one program that could be individualized for a variety of students) were likely to be sustained. One teacher who works with students with LD said, "Make sure to look at your children's needs . . . I think that's really the bottom line for me." Not surprisingly, particularly for the teachers of students with EBD, student behavior and reaction to the practice was the second factor they would consider when deciding whether to continue using a strategy. These teachers continued to use programs that were seen as engaging and motivating for their difficult-to-teach students. One of the EBD teachers said, "I say, if the kids are really interested—you know they lose interest fast, so if it were something that kept their attention, and they liked it . . ." then the teachers would keep using it.

Feasibility. In conjunction with other evaluation criteria, several teachers noted that in order for a new practice to be sustained, it must be practical, be easy to implement, and fit easily into the existing classroom structure. It was more difficult to implement a new practice that was perceived to be very different from their current instructional methods. Teachers reported that they were unable to access the time, materials, planning, and support required to sustain the implementation of that type of program.

Quality of Training and Support. As noted earlier, when selecting and trying out a new program, teachers were concerned with the shortcomings of much of the professional development available to them. In terms of sustaining implementation, they indicated again that the presentation of new information was not sufficient for teachers to fully understand it. For example, one teacher discussed the need for classroom demonstrations of new practices: "Like children, they have to model it through with us, practice, and then . . . perhaps observe us to see if we're doing it correctly." Others wanted professional development that was more relevant to their students, that occurred over a long period of time, and always that was accompanied by the materials and resources needed to integrate the new ideas into their classrooms. Some other factors that teachers reported when deciding whether to continue using a new practice included meeting IEP objectives, cost, teacher style, and long-term results. Teachers of

students with LD and those of students with EBD provided similar responses.

Professional Development and Research

Teachers' perceptions of research-based practices and related professional development were a focus of this study. We asked teachers several questions (5 of the 10 items) that were designed to elicit responses related to research and teaching reading to students with LD or EBD. It is interesting that only 15% of our category codes contained references to research (67 of 439 coded response units). That is, although we spent half of our time asking about research, teachers initiated the discussion of issues that were more pressing to them related to the selection, use, and evaluation of new programs. Nevertheless, what teachers reported provides insight into the availability and value of research for teachers of students with special needs.

Perceptions of Research. Of the teachers who had been exposed to research, most indicated that the research was done with students of a different population. Usually, the research involved general education students, and teachers felt it did not apply to their students. According to one teacher, the message they receive is

> "this is the program to use" and does not take into account research for use with LD kids. All programs do not fit for each child. We do not know, as LD teachers, what research has been done that is effective with our population, if any.

Teachers of students with EBD also felt strongly about the lack of research regarding their population of students:

> Well, I think even if . . . they did the research, the research was done with regular kids . . . it would be nice to see people [who] had some really solid research with children [who] have the same kind of background that most of our kids do.

Many of the teachers who had been exposed to research during professional development opportunities were skeptical regarding the validity of the research. A representative comment was, "Well, I find that even if they have research, you can make research basically show whatever you want it to." Another teacher spoke to her mistrust of research in this way:

> [There are] some people in my staff [who] are really into making sure that it's research-based, but you know, again, how much credence do you lend to research and how much credence do you lend to the numbers that can be manipulated any way you want to manipulate them?

Many teachers reported that they neither used nor needed research-based practices:

> [Teachers] don't use [research]. . . . They use what works for them in their particular situation. So I don't think that they go, "Well, does this have the research? Then I can use it." You know, when I see a program, I don't go, "Let me see your research"; I say, "Let me talk to your teachers. Let's see, let's walk into a classroom, let's see it going. Uh, how does this work? I use it, I like it, I don't like it."

Many teachers reported that the teachers in the classrooms were the ones with the most expertise and that they made decisions about how well a program worked by using it in their classroom or by talking to other teachers.

No Research. Teachers of both students with LD and students with EBD reported that they were most often not provided with evidence or research to indicate that the instructional practice being introduced was effective. The following remark is representative of many others: "No, it's [support provided for a new program] real general and they don't say, like, 'Out of a thousand students, this many made this much progress.' I can't ever recall seeing something like that, ever." Some teachers recounted having the presenter share testimonials about how the strategy helped one or two students, but never research. One teacher explained it this way: "They start presenting; they don't talk about the research." Many of the teachers who discussed the lack of research presented in professional development indicated that they would like to have research presented to them, but that researchers did not think that teachers wanted to hear it. As one teacher commented, "I find that there's a general assumption that teachers don't want to know. . . . And I personally have a hard time buying into something if I don't understand how it works."

For many teachers, the most relevant feature of a practice, research-based or not, was whether it worked with their students. Regardless of the question asked, that comment prevailed.

Discussion

In this study, we sought to better understand the perspectives of special education teachers concerning research on instructional practices and the extent to which they perceived research to be useful. We were also interested in their viewpoints regarding professional development and the extent to which it provided them with research-based practices that were appropriate for their students.

Perhaps the most important finding is that while some of the teachers reported using practices endorsed by their schools or districts, many of them were left on their own to

select instructional methods. Even when districts suggested or requested that teachers use particular programs (those that would be the most likely to be research-based), most of the teachers of students with LD and EBD who participated in this study continued to use what worked for them. Furthermore, most teachers reported that they were neither obligated to nor impressed by the current push to use research-based practices in their classrooms. It appears that these teachers were more pressed by issues such as the lack of access to relevant professional development and materials and finding ways to manage the variety of levels and behaviors in their classrooms. Without attending to the fundamental needs of special education teachers—those identified as barriers to implementing a new program in this study and others (see Klingner, 2004)—even research-based methods that are accompanied by high-quality professional development are not likely to make their way into the classroom.

Given the student needs and the teaching situations described to us, it is perhaps not surprising that we found a certain pessimism among teachers regarding research and its applicability to their classroom situations, similar to what Stanovich and Stanovich (1997) found. From their experiences, many of the teachers were poised to discount the professional development that was offered to them, and if research was reported, it was not enough to win them over. One of the reasons for this pessimism is that most of these teachers have experienced the top-down educational research model (i.e., research telling teacher; Fuchs & Fuchs; 1998). The experienced teachers who participated in these focus groups have learned that the workshops are not for them or their students. The information and strategies taught have not been designed to meet the needs of a population of students with such a wide range of abilities and academic and behavioral needs.

There is a significant body of research indicating that teachers are more apt to adopt and sustain research-based practices when those practices, and the professional development accompanying them, are presented to meet specific school-based teacher needs (Abbott et al., 1999). That is, when teachers have a say about the types of professional development they would like to attend and the topics it should cover, they are much more likely to view the research in a positive light—because it is then seen as a way to assist them in solving a problem. This fit between instructional practice and day-to-day classroom needs was termed the *reality principle* by Gersten, Woodward, and Morvant (1992). For teachers with special populations of students, the reality principle is particularly applicable.

Even though special education departments are part of a school, this group of teachers often has its own "school culture" with distinct concerns and objectives that provide the context that drives the culture (Bullough, Kauchak, Crow, Hobbs, & Stokes, 1997). The National Joint Committee on Learning Disabilities (NJCLD; 2000) describes this *context* factor as an essential component of effective professional development. Similar to Smylie and Kahne's (1997) findings regarding the perceptions of general education teachers, the special education teachers in this study requested information that is applicable to a specific classroom context and that relates to a particular set of students. Without context, in-service training and other types of professional development often result in fragmented, ineffectual attempts to correct surface issues that do not match the distinct characteristics of special education classrooms.

In addition to the limited relevance of most professional development, a possible reason for the lack of trust may be rooted in the constant changes in educational trends that are felt by all teachers (Cuban, 1990). When explaining why she does not trust research findings, one teacher said, "Well, I think you can prove or disprove anything," to which another responded, "Yeah, I don't know if even when I hear research, I would really not pay that much attention to it because it's coming out of whoever's selling the program." The teachers in this study described research as so inconsistent that it does not make sense to keep up with current practices. We agree with Stanovich and Stanovich (1997), who believe that "at the very least, teachers need a way of evaluating the credibility of the many 'expert' opinions with which they are confronted" (p. 479).

It is not unexpected to learn that teachers will not sustain practices that they view as infeasible or inappropriate for their students. The special education teachers who participated in these focus groups indicated that determining the needs of each student and teaching to those needs was their most significant responsibility. That belief is integral to the tenets of individualized education. However, teachers often see individualized education as incompatible with instructional strategies that seem to be designed for the general population of students. Consequently, if special education teachers believe they are uniquely capable of teaching to the wide range of student levels and individual needs that they encounter and that the programs available cannot meet their needs, there is no need to search for new programs.

It is interesting to note that special education teachers' views of the importance of their students' individual needs, which was a strong tenet for the teachers in this focus group, do not align with recent research that examines the extent to which individualized, targeted reading instruction is provided for students with LD and EBD by special education teachers (Levy & Vaughn, 2002; Moody, Vaughn, Hughes, & Fischer, 2000; Vaughn, Moody, & Schumm, 1998). Observations of special education teachers during reading reveal that they provide largely undifferentiated instruction to students and spend little or no time monitoring their progress.

Implications for the Field

The objective of ongoing research should be to use professional development as a conduit to educate teachers in research-based practices to improve classroom practice. Feedback

from teachers in the present study can help guide researchers in providing necessary supports that will allow them to benefit from meaningful professional development programs.

A compelling finding from this study is that the individual needs of students and the effectiveness of treatment for student learning inform teacher choice of instructional methods above and beyond any perceived pressure to use certain methods or the notion that a method is backed by scientific evidence. Our findings are similar to those of the NJCLD (2000), which also recommends that teachers be provided with opportunities to evaluate student progress during professional development. Seeing student growth while learning a new program would encourage them to continue to use a new method.

Teachers also reported that unless their basic needs, such as access to relevant programs and materials, are met, there is no incentive for them to search out and attempt to implement new practices. While the research on providing effective professional development for teachers of students with disabilities is growing (e.g., Crockett, 2004; Klinger, 2004; Vaughn, Klingner, & Hughes, 2004), this study provides important information about basic needs that must be met before teachers are able and willing to access new programs.

Most of the research-based instructional strategies that the special education teachers in this study were exposed to are designed for general education students and do not take into account the unique needs of their population of students. Although there is a national impetus toward the inclusion of students with high-incidence disabilities in general education classrooms, many students with LD and EBD (as was the case with this sample) are still being placed in self-contained and resource settings. The research community, together with school districts, must consider developing and providing professional development targeted to teachers of students with LD and EBD that takes into account student behavior, lack of motivation and attention, wide levels of reading skills, and the various subjects that need to be covered. Furthermore, research-based practices must be accompanied by the necessary materials and resources to implement them. During our conversations with teachers, especially those of students with EBD, we consistently heard about the lack of materials and how it was up to them to create, find, and adapt materials for their students. This continued experience with lack of resources and support confirms their perceptions that there is less interest in assisting their students than there is in assisting students in general education classrooms.

There is a growing focus on implementing research-based instructional programs, as well as aligning goals for growth in reading for general and special populations (Individuals with Disabilities Education Improvement Act, 2004). To this end, researchers and providers of professional development will have to make both the programs and the professional development more accessible to teachers of students with LD and EBD in order to transfer research into effective and sustainable classroom practice.

Limitations

All of the facilitators that conducted the focus group interviews were also study authors, and two of the authors independently examined the data. It is possible that this may have compromised objectivity and that the findings may not fully reflect an independent assessment of the interviews. Furthermore, while focus group interviews provide an excellent opportunity for respondents to generate ideas and issues on a topic, both the social nature of this process and the content of the questions asked might have missed issues that would have been raised had we used other data collection procedures, such as observations or individual interviews.

When selecting teachers to participate, we interviewed those teachers who agreed to attend the focus group. It is possible that teachers who are willing to participate in a research study may be qualitatively different from those who are not. However, we suspect that those who were unable or unwilling to attend are not significantly less skeptical about research.

AUTHORS' NOTES

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Appendix

Focus Group Interview Protocol

1. What does it mean that a practice is research-based?
2. Many teachers perceive that there are instructional practices that the school or district would like them to use. Can you identify what those are? How do you feel about having to use these practices?
3. Have you implemented everything you've heard in a workshop? YES/NO. Why not? (probe for specific examples) What prevented you from using the new practice in your class?
4. Do the professionals who introduce you to new instructional practices offer evidence or research proving that they work?
5. Do you believe that teachers are using research-based practices to the extent that they should be? Why/Why not?
6. A researcher comes to your classroom to demonstrate a research-based practice, shows you data, and involves you for two weeks. How would you decide whether to continue with the implementation of this practice?
7. If you had an opportunity to write an article for the public to read about how and why teachers make decisions about the instructional practices they use for teaching reading and writing, what would you say? How would you inform the public about teachers' roles in using research-based practices?

Questions Teachers Responded To in Writing

1. Describe the reading/language arts program that you use.
2. What practices for teaching reading do you like the most and why? (those that you have been using for a long period of time and that you keep coming back to)
3. Describe the reading/language arts materials, methods, and practices that you perceive are the most effective with the students you teach. (Where did you learn these? preservice, inservice, word of mouth, etc.)