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IMPLEMENTATION OF EFFECTIVE PRACTICES
BY SPECIAL EDUCATION TEACHERS
IN THE CLASSROOM

by
Rae Malkiewicz

A Thesis

Submitted in partial fulfillment of the requirements of the
Master of Arts Degree
of
The Graduate School
at
Rowan University
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Approved by _____
Professor

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ABSTRACT

Rae Malkiewicz
Implementation of Effective Practices
By Special Education Teachers
in the Classroom
2001/2002
Dr. Stanley Urban
Master of Arts in Learning Disabilities

The purpose of this study was to determine the extent to which teachers were aware of and using effective practices in their classrooms. Reasons why they did not use a particular practice were also obtained. Fifty-five teachers were sent questionnaires and thirty-one teachers returned the questionnaires. From this data, the percentage of usage of each practice was determined as well as the percentage of implementation of each practice in five different subject areas. The results of this study showed that teachers are aware of and are using the best empirically validated practices.

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Chapter One

Introduction

Background

In the past few years, there has been a trend towards full inclusion of special education students into regular or more precisely general education classrooms. This trend has created much discord between teachers, parents, and administrators.

Individuals, who favor inclusion, feel that special education students learn more in a regular classroom and develop better social skills when placed with non-disabled peers.

In contrast, opponents of full inclusion of all students argue that many special education students have individual needs that can not be met in the regular education class.

Some of these unique needs include increased instruction time when teaching a given skill or concept, easier textbooks, having less material covered in a lesson, and meeting the unique behavior needs of each student. Individuals, who favor special education classes, argue that these individual needs can not be met as well in a regular classroom as they can be in a special education setting. On the other hand, inclusionists argue that these needs can be met in the regular classroom by making modifications to the curriculum and environment.

From this debate comes the realization that unless special education teachers are using practices that are especially effective with students with disabilities then the term "special" may not be needed in the term "special education". If nothing "special" is going on in special education settings, then the need for special education, as we know it today,

may not be necessary except for students who are severely disabled. Thus, the inclusive classroom may be the best choice for students in the new millennium.

Need for Study

If special education teachers are not implementing any special practices that have been proven effective with disabled students, or if these effective practices can be implemented in a regular classroom, then the value of "special education settings" such as resource rooms and self-contained classrooms may not be needed.

Also, this study will be very useful in determining why teachers may not be using these practices. Are these practices not being used because of their lack of knowledge of specialized methods, a lack of training or because these practices prove to be too time-consuming or expensive to implement?

If the reason for the lack of usage is because of teachers' lack of awareness or lack of training in the use of a practice, then teacher education programs need to be changed to reflect those findings. If the reason is because the practice is too time-consuming or expensive, then school policies and curriculum may need to be changed.

Significance of Study

The significance of this study is to investigate whether the special education teachers are using effective practices in their classrooms. This knowledge may help educators and parents decide what is the best setting to educate students. The study will also provide information regarding whether special education should be changed or abolished completely except for special programs for the most severely disabled.

Also, the study will help colleges and universities learn if their teacher education programs need to be changed in order to include more instruction on effective practices to

use in the classroom. Finally, the study will help schools to decide if they need to reevaluate their programs to include these practices.

Research Questions

During this study, there are two questions that will be investigated.

Question 1: What special education methods and procedures are special education teachers using in their classrooms?

Question 2: Why special education teachers are not using the practices that research says are the most effective?

Definitions

In this study, special education was defined as individual instruction for school age students in self-contained classes and resource rooms.

Inclusion or the inclusive classroom was defined as the education of students with disabilities in the general or regular classroom.

Resource rooms referred to classrooms where students were pulled out of the regular classroom for needed individual help in certain subjects such as reading, writing, mathematics, and language.

Self-contained classrooms were defined as classrooms where students spent all or most of their day receiving instruction in all academic subjects.

Mildly disabled students referred to students that have learning, behavioral, or communicative problems or have mild cognitive impairments (New Jersey Administrative Code 6A:14).

Severely disabled students referred to students who have severe cognitive impairments (New Jersey Administration Code 6A:14).

For the purpose of this study, effective practices were defined as any methods, strategies, modifications, and instruction that has been empirically researched and have been found to have an appropriate "effect size" for that particular practice study.

Limitations

Since most studies can not possibly study every facet of a problem, most research is limited in its scope as well as in its results.

The basis for this study was a survey given to special education teachers on the practices that they use in their classrooms. Since the survey was given to only a small percentage of teachers, only a general consensus can be concluded from the results. In order for the study to be more valid a greater number of the teaching population would need to be surveyed.

Also, the effectiveness of the practices that were used in the study was based on practices that had been studied in meta-analyses. These studies used the effect size of the practice as the basis for its effectiveness. This procedure may have omitted other practices that might be effective but had not been studied in past meta-analyses.

After discussing the general background and limitations of this study, previous research studies related to this subject will be discussed in the next chapter.

Chapter Two

Review of Literature

This literature review includes five areas: (a) an introduction on what is an effective educational practice and the definition of meta-analysis and effect size, (b) research on effective practices, (c) research on practices that are actually being used in the classroom, (d) research on what practices are effective for different disabilities, (e) research on organizations and associations that have positions on inclusion, (f) research on what practices can be used in the inclusive classroom to eliminate the need for special education classes.

Introduction

In order to review the results of studies done on the effectiveness of practices used in the classroom, research often combines studies. An important way to combine studies is to conduct a meta-analysis (Cooper & Hedges, 1994). A meta-analysis is done by combining the different studies on a given topic or practice.

To combine the results of these studies, researchers determine the extent to which the experimental practice produces better outcomes than the control practice. In order to produce what is called an "effect size", the difference is taken between the average scores of the experimental and control groups and then the difference is divided by the standard deviation of the control group. Although there are not any exact rules about how large an effect size must be to be considered important, there are some general rules (Forness, Kavale, Blum, & Lloyd, 1997). The guidelines include the following: if an effect size is

less than 0.30, it means that the experimental practice is not very effective, if an effect size is greater than 0.30 but less than 0.70, it means that the experimental practice is somewhat effective, and if an effect size is greater than 0.70, it means that the experimental practice is consistently producing substantial outcomes and can be considered effective (Hallahan, Kauffman, & Lloyd, 1999).

Much of the research reviewed in this chapter will be based on the effect size of certain practices used in the classroom.

Research on Effective Practices

These meta-analyses showed that the most effective practices used in the classroom were the use of mnemonic strategies, reading comprehension instruction, behavioral modifications, direct instruction, and formative evaluation (Forness, et. , 1977). The effect size for each strategy follows here:

- (1) Mnemonic strategies are strategies that use mnemonic or "key or peg words " to help a student acquire and retain information. This practice effect size is 1.62 (Mastropieri & Scruggs, 1989).
- (2) Reading comprehension instruction, which is the practice of systematically teaching reading comprehension strategies using strategy training had an effect size of 1.13 (Talbot, Lloyd, Tankersley, 1994).
- (3) Behavior modification, which is the use of modeling and reinforcement of positive behavior produced and effect size of 0.93 (Skiba & Casey, 1985).
- (4) Direct instruction, which is the systematic instruction of materials, had an effect size of 0.84 (White, 1988).
- (5) Formative evaluation, which is when teachers use curriculum-based assessment to help guide instruction, had an effect size of 0.70 (Fuchs & Fuchs, 1986).

Besides the most effective practice studied, there were partially effective practices that were useful in the classroom. These practices were computer-assisted instruction, peer-tutoring, and psycholinguistic training (Forness, et al. ,1997).

Computer-assisted instruction, which is the use of computers for instruction by students, had an effect size of 0.52 (Schmidt, Weinstein, Niemic & Walberg, 1985-1986). Peer-tutoring, which is the use of students helping other students to learn needed material, had an effect size 0.46 (Cook, Scruggs, Mastropieri, 1985-86).

Psycholinguistic training, which is instruction where students receive understanding and usage of language had an effect size of 0.39 (Kavale, 1981).

The most ineffective practices were social skills training, modality instruction, perceptual training (Forness et al. ,1997). Social skills training, which deals with teaching social skills to students with learning disabilities, produced an effect size of 0.21 (Forness & Kavale, 1996). Modality instruction, which is reading instruction based on a student's learning style, had an effect size of 0.15 (Kavale & Forness, 1987).

From these meta-analyses, the best instructional practices are the use of mnemonic strategies, direct instruction, reading comprehension instruction and formative evaluation. While the least effective practices studied are modality instruction, perceptual training and social skills training (Forness et al. , 1997).

Besides the meta-analysis studies, there are also other studies that have been done. Reading is one of the major areas where there is much research supporting the different instructional practices that are used in the classroom (Arthand, Vasa, & Streckelberg, 2000). One study gave support for the use of computer-assisted reading instruction, direct instruction and reciprocal teaching (Marston et al. , 1995).

Research on Classroom Practices

Besides studies regarding the effectiveness of instructional practices in the classroom, there have also been investigations to determine which practices are being

implemented by teachers in the classroom (Arthaud, Vasa, & Streckelberg, 2000).

In one study, the use of learning strategies differed according to the classroom setting. Teachers working in self-contained classrooms reported using learning strategies occasionally, while teachers working in resource rooms and inclusive classrooms reported that they use learning strategies frequently (Arthaud, et al., 2000).

Direct instruction was reported to be the most frequently used practice but its use began to decline as grade level increased (Arthaud, et al. , 2000). Teachers in the elementary schools used direct instruction more often than middle or secondary teachers. In contrast, the teachers in middle schools and multi-level grades used direct instruction more frequently than teachers in high school (Arthaud, et al. , 2000).

On the basis of the literature reviewed teachers seem to be using practices based on grade level and classroom setting. Teachers working in elementary schools and middle schools have different preferences than teachers working in secondary schools. Also, the type of practice preferred by teachers depends on whether they work in a resource room, self-contained, or inclusive classroom.

Effective Practices and Different Disabilities

Although there are many practices being used by teachers there are some practices that may be better suited for certain populations in special education classes. Among these populations are students who have mild cognitive impairments, students who have problems with learning, and students who have problems with behavior.

Students with learning disabilities in reading may benefit from having reading comprehension instruction and direct instruction (Mastropieri & Scruggs, 2000). Peer-tutoring has also been found to help students with learning to spell new words

(Delquadri, Greenwood, Stretton & Hall, 1983. Also, mnemonic strategies have been found to help learning disabled students to learn to read, write, spell, and do math problems (Mastropieri & Scruggs, 2000).

In the area of technology, the use of computer-assisted instruction has been found to help the learning disabled in math and reading (Mastropieri & Scruggs, 2000). Students have also improved in mathematics by the use of direct instruction, mnemonics and strategy training (Stein, Selbert, & Carnine, 1997).

A word identification strategy called DISSECT was also reported to help increase oral reading accuracy with learning disabled students (Lentz & Hughes, 1990). Another area of reading where improvement was reported was in the use of the keyword method to teach abstract vocabulary to students with learning disabilities (Mastropieri, Scruggs & Mushinski-Fulk, 1990). The POSSE strategy was found to improve reading comprehension with students with mild disabilities (Englert, Tarrant, Mariage, Oxer, 1994).

More research in this area is still needed in order to assess what practices will work best with students with certain disabilities.

Organizations with Opinions on Inclusion

Many professional associations for teachers as well as organizations that advocate for the disabled have opinions and positions concerning inclusion. The American Federation of Teachers does not support full inclusion of all students but a continuum of alternate placements in the least restricted environment for them (American Federation of Teachers, 2001). Both, The Learning Disabilities Division of the Council for Exceptional

Children and The Learning Disabilities Association are in favor of a continuum of alternate placements instead of full inclusion (Learning Disabilities Association, 2001).

Although many organizations and associations are against full inclusion, there are other organizations such as The Association for Persons with Severe Handicaps who are advocating for full inclusion of all students (The Association for Persons with Severe Handicaps, 2001).

Effective Practices and the Inclusive Classroom

Since the movement towards inclusion has become a focal point in special education, the issue of determining what practices are effective with students and what practices are being used by special education teachers, becomes an important consideration when deciding whether self-contained classes and resource rooms are still needed in our educational system.

If students with mild disabilities such as the learning disabled, can be serviced in regular education classes with the use of certain effective practices, then special education as society knows it could be replaced exclusively by the inclusive classroom except in cases where students are very severely disabled.

Some of the practices that could be used in the inclusive classroom are direct instruction, mnemonic strategies, reading comprehension instruction, computer-assisted instruction, peer-tutoring and behavior modifications (Mastropieri & Scruggs, 2000).

In order to replace the old system of special education, research would have to prove that the inclusive model for students would be effective for all students. A study done in 1980 by Carlberg and Kavale concluded that students classified as educable mentally retarded or mildly cognitively impaired did better in the regular education

classroom, but that students with learning disabilities did better in special educational placements like resource rooms (Manet & Semmel, 1997).

Also, a review by Paul Sindelar and Stanley Deno of 17 studies concluded that resource rooms were more effective than regular classrooms in improving academic achievement of students with learning disabilities and emotional and behavior problems. In contrast, there was not any significant improvement in students with mild mental retardation (Sindelar & Deno, 1979).

Two features that successful special educators use in their approach to instruction are the use of empirically validated practices and the intensive data-based focus on the individual student's needs (Fuch, 1995). According to Fuchs, these two features must be met in order to meet the needs of all students in a classroom (Fuchs, 1995).

Meeting the needs of each student would mean implementing every instructional and behavioral practice that each special education student in a regular classroom might need. Trying to research and implement all of these practices in a classroom would be a major research project that would still need to be studied. Since there is not enough research concerning this area, more studies need to be done in order to conclude whether special education placements can be replaced by the inclusive classroom.

In summary, there are some very effective practices that have been empirically researched and implemented in both the special and regular classrooms. Still, more research needs to be done in order to determine if all special education placements can be eliminated in favor of inclusive classroom placements.

Chapter Three

Design of Study

Population

In this study, special education teachers were surveyed by a mailed questionnaire to discover if they used effective practices in their classrooms. These teachers were special education teachers who taught either in a self-contained classroom or resource room. All of the teachers were teaching in various public school districts in Cape May County, New Jersey. These teachers were either teaching in elementary, middle or secondary schools.

Method of Sample Selection

The questionnaire was mailed to fifty-five special education teachers from Cape May County, New Jersey. These teachers were selected from staff directories found on their districts' websites. These directories contained the names of special education teachers in each district. From these directories, a list of teachers was made. Each teacher was mailed a questionnaire and post-paid reply envelope.

Instrumentation

Since there are not any formal measures that addressed this subject, an informal inventory was needed. The inventory included a three-part questionnaire about the implementation of classroom practices and techniques.

In selecting the effective practices to be used on the questionnaire, the "effect

size" of certain meta-analyses that were done on classroom practices was used. If a practice had been found to be effective by the meta-analysis study done on that particular practice then that practice was considered effective and used on the questionnaire. From these "effect sizes", eight practices were considered to be very effective or somewhat effective. These practices were used in developing the survey instrument. The practices that were included in the questionnaire were mnemonic strategies, reading comprehension instruction, formative evaluation, direct instruction, behavior modification, computer-assisted instruction, psycholinguistic training, and peer-tutoring. This section of the questionnaire, also, surveyed the subject areas where these practices were implemented by the teachers. These subject areas included reading, mathematics, spelling, social studies and science.

The second part of the questionnaire surveyed the reasons for not using a particular practice. In this part of the questionnaire, teachers wrote the letters a, b, c, or d next to each practice that they were not using to indicate the reasons for the lack of usage. Reasons used in the study were the following: "I am not aware of the practice"; "I have used the practice but find it ineffective"; "I would like to use the practice but need training; and "other".

The third part of the questionnaire surveyed the classroom settings, where the practices were implemented, and the grade levels that the teachers taught.

Collection of Data

The data for the study was collected by mailing questionnaires to special education teachers. Data collected consisted of the practices used by the teachers, the

subject areas that these practices were implemented in, the grade level, and the classroom setting where the teachers used the practice.

Research Design and Analysis of Data

Survey research was the methodology used to investigate the study. A three-part questionnaire was mailed to survey which practices were used in their classrooms. Also, information was requested on subject areas, grade levels and classroom settings where the practices were being implemented.

The data that was analyzed was based on the practices that teachers were using. In analyzing the data, the following information was investigated: the percentage of teachers using a given practice, the percentage of teachers using a given practice in a given subject area, the percentage of teachers using a given practice in a particular grade level and the percentage of teachers using a given practice in a particular classroom setting.

Also, data concerning why certain practices were not being used in the classroom was analyzed. In analyzing this data, the following reasons were investigated: the lack of training, the lack of practice effectiveness, and the lack of awareness.

Chapter Four

Analysis and Interpretation of Data

The purpose of this study was to determine the extent to which teachers in special education classrooms were using eight practices that have been empirically validated as being effective and representing special education methodology. The teachers were surveyed using a questionnaire to determine which practices they currently used. These practices included mnemonic strategies, reading comprehension instruction, formative evaluation, computer-assisted instruction, peer-tutoring, psycholinguistic training, direct instruction and behavior modification.

Teachers were also requested to provide information regarding whether the given practice is used in a particular subject area, and any reasons why a practice is not used. Also, information on the grade level and classroom setting, where the practice is implemented, was requested. Tables 1-4 present information on the most frequently implemented practices. Table 1 represents the percentage of teachers using behavior modification. Table 2 represents the information concerning the use of mnemonic strategies. Representation of the practice of reading comprehension instruction is presented in Table 3, and Table 4 presents information on the use of direct instruction.

Table 1

Percentage Of Teachers By Subject Taught Who Report Using Behavior Modification
(N = 31)

<u>Subject</u>	<u>Percentage</u>	
Any	96.00	(n = 31)
Reading	100.00	(n = 28)
Math	95.60	(n = 23)
Spelling	84.00	(n = 25)
Social Studies	82.35	(n = 17)
Science	70.58	(n = 17)

Note. Number of teachers who teach given subject = n.

Table 1 represents the percentage of teachers using behavior modification in their classrooms according to subject areas. Since many teachers do not teach every subject, only the total number of teachers instructing in a particular subject area was used to calculate the percentage for that subject.

The percentages for the subject areas, Reading, Math, Spelling, Social Studies and Science are 100, 95.6, 84, 82.35 and 70.58, respectively. The percentage for teachers using the practice in any subject area is 96.70.

Table 2

Percentage Of Teachers By Subject Who Report Using Mnemonic Strategies (N = 31)

<u>Subject</u>	<u>Percentage</u>	
Any	93.58	(n = 31)
Reading	82.15	(n = 28)
Math	78.26	(n = 23)
Spelling	62.00	(n = 24)
Social Studies	87.50	(n = 16)
Science	88.23	(n = 17)

Note. Number of teachers who teach given subject = n.

Table 2 presents the percentage of teachers using mnemonic strategies in class according to subject areas. The percentages for the different subject areas are Reading 82.15, Math 78.26, Spelling 62, Social Studies 87.50 and Science 88.23, respectively. The percentage for teachers implementing this practice in any of the subject areas is 93.58. Again, as in all of the tables, only the teachers using the practice in that particular subject area were used to calculate the percentage for each subgroup of the sample.

Table 3

Percentage Of Teachers By Subject Taught Who Report Using Reading Comprehension

Instruction (N = 31)

<u>Subject</u>	<u>Percentage</u>	
Any	93.58	(n = 31)
Reading	100.00	(n = 28)
Math	34.78	(n = 23)
Spelling	28.00	(n = 25)
Social Studies	58.82	(n = 17)
Science	55.50	(n = 16)

Note. Number of teachers who teach given subject = n.

Table 3 reports the percentage of teachers using reading comprehension instruction in their classrooms according to subject. The percentages for subject areas, Reading, Math, Spelling, Social Studies, and Science are 100, 34.78, 28, 58.82, and 55.50, respectively. The percentage for implementing the practice in any given subject areas is 93.58.

Table 4

Percentage Of Teachers By Subject Taught Who Report Using Direct Instruction

(N = 31)

Subject	Percentage	
Any	93.58	(n = 31)
Reading	92.80	(n = 28)
Math	73.91	(n = 23)
Spelling	68.00	(n = 25)
Social Studies	41.17	(n = 17)
Science	41.17	(n = 17)

Note. Number of teachers who teach given subject = n.

Table 4 reports the percentage of teachers using direct instruction. The percentages for the subject areas, Reading, Math, Spelling, Social Studies and Science are 73.90, 68, 41.17, and 41.17, respectively. The percentage for the use of direct instruction in any subject area is 93.58.

The least implemented practices of the survey are formative evaluation, psycholinguistic training, computer-assisted instruction and peer-tutoring. Tables 5-8 present the percentage of the teachers using these for practices. Table 5 shows the percentage of teachers using formative evaluation. Table 6 represents the percentage of teacher using psycholinguistic training in their classrooms.

Table 7 corresponds to the percentage of teachers using the practice of computer-assisted instruction with their classes. Lastly, Table 8 presents information on the

percentage of teachers using peer-tutoring as a practice. All percentages were calculated using the actual number of teachers using that particular subject and not the numbers of all the teachers surveyed.

Table 5

Percentage Of Teachers By Subject Taught Who Report Using Formative Evaluation

(N=31)

<u>Subject</u>	<u>Percentage</u>	
Any	83.87	(n = 31)
Reading	78.57	(n = 28)
Math	69.56	(n = 23)
Spelling	32.00	(n = 25)
Social Studies	35.29	(n = 17)
Science	35.29	(n = 17)

Note. Number of teachers who teach given subject = n.

Table 5 presents the percentage of teachers using formative evaluation as a practice in their classrooms. According to results, 83.8 percent of teachers are using the practice in at least one subject area. Percentage for each subject area is as follows: Reading 78.57, Math 69.56, Spelling 32, Social Studies 35.29 and Science 35.29.

Table 6

Percentage Of Teachers By Subject Who Report Using Psycholinguistic Training

(N = 31)

<u>Subject</u>	<u>Percentage</u>	
Any	80.64	(n = 31)
Reading	82.10	(n = 28)
Math	26.08	(n = 23)
Spelling	64.00	(n = 25)
Social Studies	17.64	(n = 17)
Science	29.41	(n = 17)

Note. Number of teachers who teach given subject = n.

Table 6 represents the percentage of teachers reporting that they use psycholinguistics training in their classrooms. The percentage for the use of psycholinguistics training in any subject is 80.64. Percentages are also included on what percentage of teachers use a given practice in a particular subject. The percentages for the subjects, Reading, Math, Spelling, Social Studies and Science are 82.1, 26.08, 64, 17.64, and 29.41, respectively.

Table 7

Percentage Of Teachers By Subject Who Report Using Computer-Assisted Instruction

(N = 31)

<u>Subject</u>	<u>Percentage</u>	
Any	70.96	(n = 31)
Reading	67.85	(n = 28)
Math	56.50	(n = 23)
Spelling	28.00	(n = 25)
Social Studies	17.64	(n = 17)
Science	35.29	(n = 17)

Note. Number of teachers using given practice = n.

Table 7 shows the percentage of teachers using computer-assisted instruction with their classes. The percentage for using this practice in any or at least one subject area is 70.96. Percentages for Reading and Math are 67.85 and 56.50. The percentage of teachers who reported using computer-assisted instruction with their students in Spelling is 28. Social Studies and Science have percentages of 17.64 and 35.49.

Table 8

Percentage Of Teachers By Subject Taught Who Report Using Peer-Tutoring (N = 31)

Subject	Percentage	
Any	61.29	(n = 31)
Reading	42.85	(n = 28)
Math	47.82	(n = 23)
Spelling	44.00	(n = 25)
Social Studies	47.05	(n = 17)
Science	41.17	(n = 17)

Note. Number of teachers using given practice = n.

Table 8 represents the percentage of teachers using peer-tutoring as an instructional practice in the classroom. The percentage of teachers using peer-tutoring in at least one subject is 61.29. The percentages for Reading, Math, Spelling, Social Studies and Science are 61.29, 42.85, 47.82, 44, 47.05 and 41.17, respectively.

Besides information concerning the percentage of teachers using a given practice in a particular subject, other data was collected concerning the reason for the lack of practice implementation. Information was also reported concerning the grade level and classroom setting of the teachers surveyed.

Teachers were given four responses concerning reasons for not using a certain practice in the classroom. The two reason given for not using mnemonic strategies were a need for training and "other". The teacher did not specify the "other" reason. One teacher

said that she needed training in this practice in order to be able to use it. Two other teachers replied with "other" but did not specify what "other" meant.

The reason reading comprehension instruction is not used by one teacher is because she does not teach reading. A reason for not using formative evaluation by two teachers is because they had found the practices to be ineffective. Two other teachers responded with "other" but did not specify reason.

Seven teachers do not use computer-assisted instruction. Two teachers responded that they are not aware of the practice while two more teachers stated that they would need training in this practice. Three other teachers responded with "other" but did not specify what the "other" reason was. Two teachers stated that a lack of time was the reason for not using the practice. Another teacher responded that he did not have a working computer.

Peer-tutoring was listed most frequently by the teachers as "do not use" this practice. Ten teachers responded that they did not use peer-tutoring. One teacher stated that the practice is ineffective because students give "answers" instead of "help". Also, teachers stated that managing behavior was harder when they use peer-tutoring. Lastly, teachers find that peer-tutoring causes behavior problems.

With psycholinguistic training, two teachers responded that they were not aware of the practice. One teacher stated that she needed training in the use of the practice. Three other teachers responded with the category of "other". One teacher stated that he only taught math, and another teacher stated that the practice was addressed by another staff member.

Two teachers responded that they did not use direct instruction but did not specify reason. Behavior modification had only one teacher that responded that he did not use this practice and that was because he found it ineffective.

Table 9

Type Of Placement Taught By Respondents (N = 31)

<u>Placement</u>	<u>Percentage</u>
Resource	22.58
Self-Contained	19.35
In-Support	6.45
Resource/In-Support	48.38
Resource/Self-Contained/In-Support	3.29

Since the teachers did not teach in only one classroom setting, multiple categories had to be used in the placement data. The percentage of teachers working in a resource room is 22.58. The percentage of teachers working in a self-contained classroom is 19.35 and the percentage of teachers working only in a regular classroom as in-support help is 6.45.

The majority of teachers are working in both the resource room and the regular classroom as in-support help. The placement has a percentage of 48.38. The percentage of teachers who work in all three of the classroom setting is 3.29.

Since the teachers surveyed work in more than one grade level, individual percentages for each grade level could not be calculated. For example, one teacher taught second grade reading as well as seventh grade math. Another teacher taught third grade resource room and fifth grade in-support. Instead, the percentages for teachers working in either elementary (K-8) or secondary (9-12) grades were used and calculated. The percentage of teachers who teach in grades K-8 is 83.87. The percentage of teachers who

work in grades 9-12 is 16.13. The data presented shows that most teachers are aware of and implementing methods and practices that research has found to be effective.

Chapter Five

Summary, Findings, and Conclusions

The purpose of this study was to determine the extent to which teachers were aware of and using effective practices in their classrooms. Reasons why they did not use a particular practice were also obtained. Fifty-five teachers were sent questionnaires and thirty-one teachers returned their questionnaires. The results of this study showed that teachers are aware of and using the best empirically validated practices.

The most frequently implemented practice was behavior modification with 96.7% of the teachers using it in at least one subject area. Mnemonic strategies, reading comprehension instruction, and direct instruction are used by 93.58% of the teachers surveyed. Formative evaluation, psycholinguistic training, and computer-assisted instruction are used by many teachers. The percentage for formative evaluation is 83.87. The percentages for teachers using psycholinguistic training and computer-assisted instruction are 80.64 and 70.96. The percentage of teachers using peer-tutoring is only 61.29, and was the least implemented practice. According to the results of past studies, mnemonic strategies, reading comprehension instruction, behavior modification and direct instruction were considered the most effective practices. These practices were also the methods found to be the most used practices by teachers in this study. All of these practices were used by more than eighty percent of the teachers.

In past studies, psycholinguistic training, computer-assisted instruction and peer-tutoring were found to be somewhat effective practices. The results of this study showed that these practices were used by teachers; however, the percentage of teachers using these practices was less than the percentage of teachers using the most effective practices. This study showed that teachers are not just using practices considered somewhat effective, but the majority of teachers are using the practices that research says are the most effective.

The study also surveyed the reasons for the lack of practice implementation. The percentage of teachers not using a particular practice in at least one subject ranged from 3.3% for behavior modification to 38.71% for peer-tutoring. Reasons for not using a practice varied. Six teachers reported that they do not use a given practice because they need training in the practice. Four teachers responded that they do not use a given practice because they have found it to be ineffective. Also, four teachers reported that they are not aware of a certain practice. Other reasons for not using a specific practice were not having enough time in their schedule, not having a working computer and not having to teach the subject where that practice would normally be used.

The study also reported that teachers are using these practices in many of the special education placement settings and in all grade levels (K-12). These findings indicated that teachers are using practices that are especially effective with students with disabilities in special education settings. The use of these practices show that there is still "special" methodologies in special education and that resource rooms and self-contained classes provide a specialized environment.

Since only a small number of teachers gave the reasons, "I am not aware of the practice" and "I need training in the practice", these findings would indicate that teacher preparation programs in universities and colleges appear to be doing a through job in preparing future teachers.

Also, only a small number of teachers reported that they do not have enough time or equipment to implement any of the given practices. These findings would indicate that school policies concerning scheduling and curriculum do not need to be changed in order for teachers to use most of these practices. Although the results of this study showed that teachers are using effective practices, a larger study using a larger sample of teachers would lead to more definitive findings.

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