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Inclusive Education in the United States: Beliefs and Practices Among Middle School Principals and Teachers

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Abstract

School reform issues addressing inclusive education were investigated in this nationwide (United States) study. A total of 714 randomly selected middle school principals and teachers responded to concerns about inclusion, "degree of change needed in" and "importance of" collaborative strategies of teaching, perceived barriers to inclusion, and supportive activities and concepts for inclusive education. There was disagreement among teachers and principals regarding some aspects of inclusive education and collaborative strategies. For example, principals and special education teachers were more positive about inclusive education than regular education teachers. Collaboration as an instructional strategy for "included" students was viewed as a high priority item. Responders who had taken two or more courses in school law rated the identified barriers to inclusive education higher than those with less formal training in the subject.

Introduction to the Problem

The problem we addressed in this work was defined as a perceived lack of information about the issues surrounding inclusion (inclusive education) among middle school principals and teachers. We wanted to know the answer to the following question: What are the perceptions of front-line middle school educators regarding inclusion as a viable educational delivery system for students with disabilities? Background

The presentation of the April, 1983 report by the National Commission on Excellence in Education, *A Nation at Risk*, and other similar reports awakened Americans. These reports inaugurated the current waves of educational reform in the United States. Shapiro et al. (1993) delivered a comparable wake-up call to the field of special education with their treatise "Separate and Unequal: How special education programs are cheating our children and costing taxpayers billions each year." Several issues were emphasized. For example, labels and categorizations varied from state to state.

Schiller, Countinho, and Kaufman (1993) insisted that educational reform and restructuring initiatives require special education to be united with regular education. A few of the demands placed on general education were to provide inclusion for students with disabilities through the Regular Education Initiative (REI) and to provide a sophisticated work force for the 21st Century. Repositioning of special education includes policies for the integration of students with disabilities (Wade and Moore, 1992). In contrast, segregated programming emphasizes differences while promoting dependence and decreasing self-sufficiency (Byrnes, 1990).

Poignant debate has materialized over the re authorization of The Individuals with Disabilities Education Act (IDEA), the 1990 re authorization of the original P.L. 94-142. The current re authorization for IDEA has experienced delays, extensions, and debate in and out of the field of special education. One area of impassioned or "thorny" discussion has been the requirements for a free appropriate public education (FAPE) in IDEA and the preference for mainstreaming "embodied in federal special education law" (Huefner, 1994, p. 27).

If the law has been massively successful in assigning responsibility for students, it has been less successful in removing barriers between general and special education. It did not anticipate that the artifice of delivery systems in schools might drive the maintenance of separate services and keep students from that mainstream, or that the resources to fund these services would be constrained by economic forces (Walker, 1987).

The National Council on Disability (1995) reported to the United States President on the re authorization of IDEA. The issue of least restrictive environment (LRE) was one of the ten basic themes addressed both historically and as a current theme in the re authorization of IDEA. The Council concluded that the re authorization must be pursued and that it should address the improved implementation of IDEA. "The Court has made it clear that IDEA is not one of the so-called "unfunded Federal mandates," but is a Federal grant program that is entirely justified under Congress' power . . . More than that, the Court has acknowledged in the most unequivocal terms that IDEA provides Federal aide to the States to help them carry out their own legal obligations to educate all children, including those with disabilities." (p. 4)

The decision in *Smith v. Robinson* (1984) underscored this: "Congress made clear that the [IDEA] is not simply a funding statute. The responsibility for providing the required education remains on the States. . . . And the Act established an enforceable substantive right to a free appropriate public education" (p. 1009-1010).

While "inclusion" is not a term used in the law and regulations, it is currently the often used terminology to indicate consideration of the least

restrictive environment for students with disabilities. The statute defined the consideration of least restrictive environment as:

. . . procedures to assure that, to the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, are educated with children who are not disabled, and that special classes, separate schooling, or other removal of children with disabilities from the regular educational environment occurs only when the nature or severity of the supplementary aids and services cannot be achieved satisfactorily. ((IDEA) §1412 [5][B][1990])

Opponents of inclusion have emphasized the need to maintain a full continuum of services and argued that those expounding "full" inclusion had overlooked this provision of the IDEA. Vergason and Anderegg (1992, 1993) argued that an inclusive classroom was not in the "least restrictive environment" interests of most students with disabilities. Fuchs and Fuchs (1994) identified The Association for Persons with Severe Handicaps (TASH) as the leader in the reform movement for inclusion, and warned that TASH did not speak for all groups in their desire for full inclusion, but that ". . . their continued provocative rhetoric will polarize a field already agitated." (p. 305)

Conceptual Basis for the Study

Baker, Wang, and Walberg (1995) traced the beginnings of inclusion to a report by Heller, Holtzman, and Messick through the National Academy of Sciences in 1982. The panel of Heller et al. found the classification and placement of children in special education ineffective and discriminatory. A comparison of the effects of inclusive versus non inclusive educational practices for special education students has been made by Baker (1994), Carlberg and Kavale (1980), and Wang and Baker (1985). A meta-analysis demonstrated a "small-to-moderate beneficial effect of inclusive education on the academic and social outcomes of special needs children" (Baker et al., 1995, p. 34). Baker et al. asserted that the "concern is not whether to provide inclusive education, but how to implement inclusive education in ways that are both feasible and effective in ensuring school success for all children, especially those with special needs." (p. 34)

According to Yatvin (1995), side effects of the resource pull-out program have enhanced the idea of inclusion. Many drawbacks of the resource pull-out program model have been underscored: special education resource rooms often served 12 to 15 diverse students, students brought a variety of needs from several different grade levels, the special education teacher gave very little active instruction, and instruction occurring was skill related and not tied to classroom themes.

The outcomes for non disabled students in classes with included disabled peers had been identified as a barrier to inclusion. Available research revealed no statistically significant effects on the academic outcomes of the non disabled peers (Staub & Peck, 1995). Instructional time was not lost by non disabled students when disabled students were included in their classrooms. Additionally, non disabled peers did not pick up undesirable behaviors from their disabled peers.

Parents and teachers of non disabled peers in an inclusive setting reported no developmental harm to the children (Bailey & Winston, 1989; Giangreco et al., 1993; Green & Stoneman, 1989; and Peck et al., 1992). Helmstetter, Peck and Giangreco (1993) surveyed non disabled students who were in inclusive high school settings. The non disabled peers reported that they had not missed out on any valuable experiences because of their inclusive experience.

Five positive outcomes for non disabled peers were identified by Staub and Peck (1995): reduced fear of human differences accompanied by increased comfort and awareness, growth in social cognition, improvements in self-concept, development of personal principles, and warm and caring friendships (p. 37-38). The literature from the review of research on non-disabled peers pointed to inclusion as a positive experience for both non disabled and disabled students, helping to build a basis for community and friendships.

Yatvin identified a major factor that led to the philosophy of inclusion: "All children learn best in regular classrooms when there are flexible organizational and instructional patterns in place and human and material supports for those with special needs." (p. 484) Sapon-Shevin (O'Neil, 1995) used the current "politically correct" rhetoric in explaining the basis of a philosophy for inclusion: "As far as a rationale, we should not have to defend inclusion -- we should make others defend exclusion. There's very little evidence that some children need segregated settings in which to be educated. At another level, we know that the world is an inclusive community. . . . So we should begin with the assumptions that all children are included and that we must meet their needs within an inclusive setting." (p. 7)

Van Dyke, Stallings and Colley (1995) identified fundamental arguments to support the philosophy of inclusion. One major argument was that segregating the students classified them, created bias, and made them different. They were set apart from the classroom community.

Stainback and Stainback (1984) proposed a merger of regular and special education into one unified system. This assertion was based on two premises: the instructional needs of students did not warrant a dual system, and the operation of a dual system was viewed as inefficient. Others in the field of special education (Hobbs, 1980; Meyen, 1978; Reynolds & Birch, 1982; Ysseldyke & Algozine, 1982) had set the stage for Stainback and Stainback to assert the merger of special and general education as the next natural step in the evolution of education for students with disabilities. Sapon-Shevin (1990), suggests that academic and functional skills can be met in the regular classroom setting. Reynolds and Birch (1982) stated that "the whole history of education for exceptional students can be told in terms of one steady trend that can be described as progressive inclusion" (p. 27).

Fuchs and Fuchs (1995) compiled information from four major efficacy studies and found that "for certain students, special education programs appear to promote greater academic achievement than do regular classrooms" (p. 526). Research concerning the beliefs and practices of middle school personnel regarding inclusion was scarce (Farley, 1991; Rath, 1989; White, 1993). The available research was regional in nature, confined to a single state or a single school district.

Context of the Study

This steady trend toward inclusion invited investigation of middle school educators. The front-line educators were studied concerning their agreement with the assertions that students with disabilities could benefit from instruction in the regular education classroom. The current climate underscored the need for answers to questions about inclusion from the professionals who were the providers of service. Their (key players) viewpoints needed to be identified and documented.

We made the assumption that it is important to gather information from people who have the responsibility to implement inclusion. We contend that their experience and insight is vital in shaping future educational trends for all students.

Many advocates of school reform assumed that support existed for inclusion among those educators who would be the primary change agents -- the principals, general education teachers, and special education teachers. Little data existed to support this, and the number of critics matched supporters in the literature. Teacher unions and many general education professional organizations voiced opposition to inclusion. Consequently, we viewed this study as a robust procedure to generate information about the beliefs and practices of middle school personnel representing various schools and groups across America.

McDonnell and Hardman (1989) examined the role of all school personnel in the desegregation of students with disabilities. They designated regular education principals as key players in the quality of special education services and the degree of successful integration efforts and concluded that the attitudes of the principals appear to be even more important than their actions.

The literature on the role of the principal in effecting needed modifications to accommodate inclusion offered some insights into the process of

change. Riley (1993) underscored the role of the building level principal and teachers in any change process and the need for input from them into proposed changes: "I've learned . . . that the bottom-up approach works when you involve the nuts-and-bolts people. Who knows better than site school administrators and teachers the kind of changes that have the best chance of improving education?" (p. 5) Burrello (1991) stated that effective principals make no distinction between the expectations set for special and general education students, staff, and programs.

Middle schools have traditionally been organized differently than elementary schools with the delivery of services centered around team approaches. The impact of inclusion on these structures might be expected to produce a new and different set of challenges than those presented in the elementary schools. Given these circumstances, we concluded that investigations of middle school personnel and the resulting beliefs and practices in relation to inclusionary practices would be an addition to this sensitive body of knowledge.

Purpose of the Study

The purpose of this study was to investigate the beliefs and practices of a national sample of middle school personnel (principals, general education teachers, and special education teachers). We designed a survey that provided an avenue to question those who directly implement policies and procedures of school reform issues influencing the delivery of services to students with disabilities. Demographic and career information were contrasted with responses to ascertain if significant differences among the variables existed.

This inquiry paralleled the work of Galis and Tanner who investigated elementary school principals, special education administrators, and teachers in the schools of the state of Georgia. It was undertaken to broaden the application of Galis' survey instrument by studying a special database (Galis, 1994; Galis & Tanner, 1995). MacKinnon and Brown (1994) reported that secondary schools "in part because of the historical-structural characteristics of these organizations, embody different and perhaps more complex problems [than elementary schools] in meeting the demands of inclusive educational practices" (p. 126). Anderman and Maehr (1994) argued that student motivation differed in middle school from elementary school settings. Students generally receive instruction through a team delivery system at the middle school level while elementary schools traditionally deliver services through self-contained classrooms.

Given the arguments found in the literature and research, we defined the dependent variables as inclusive education, collaborative strategies, perceived barriers to inclusion, and supportive activities and concepts for inclusive education. Independent variables were the current role of the respondent, number of years in current position, number of years as a school administrator, number of years in education, and the number of courses taken in school law.

Variables

Inclusive Education Instructional Strategies

Several studies (Madden, Slavin, Karweit, Dolan, & Wasik, 1993; Slavin et al., 1991; Slavin, Madden, Karweit, Livermon, & Dolan, 1990) have pointed to individualized instruction, cooperative and peer mediated instruction, and teacher consultation models as programs that would support teachers in their attempts to fully integrate academically students with disabilities.

Jones and Carlier (1995) reported that middle school students with multiple disabilities were successfully included in a collaborative setting using cooperative learning activities. Original goals for the students with disabilities were to increase the time spent in the general education classroom and to improve the quality of functional instruction given while in the general education classroom. Peer and teacher interactions increased for learners with disabilities. Special education teachers reported having a better perception of appropriate grade-level behavioral and academic expectations. Non disabled students shared their observations of the likenesses between themselves and the students with disabilities. The non disabled students were sharing tasks and adapting jobs so the students with disabilities were participants rather than just observers.

Jenkins et al. (1994) studied an approach combining Cooperative Integrated Reading and Composition (CIRC), cross-age tutoring, supplementary instruction in synthetic phonics, and in-class instructional support from specialists. Regular, special education, and Chapter I students showed significantly improved scores in the experimental group, as measured by the Metropolitan Achievement Test, in reading vocabulary, total reading, and language, with marginally significant gains in reading comprehension.

In another study, students with learning disabilities served through resource programs one period daily were compared to those served through consultative services combined with in-class instruction and consultative services to the teachers. Analysis of student achievement scores showed that students receiving a combination of consultative and direct services exhibited small, but significantly greater overall gains in achievement than did students receiving resource intervention one period daily (Schulte, Osborne, & McKinney, 1990).

Principals, Regular Educators, and Special Educators

A National Association of Elementary School Principals' poll (Principals favor reconsideration, 1995) indicated that responding principals were not in support of "full inclusion." Twenty-seven percent agreed with the premise that all children should be assigned to regular classes despite disability, 72% disagreed and 1% had no opinion. The executive director of the association summarized: "Children learn an enormous amount from each other that they can't learn from teachers or parents and the great majority of disabled youngsters benefit socially, psychologically and academically from joining their peers in regular classrooms. . . . But the concept of inclusion has been pushed to such extremes that it's robbing non-handicapped children of their right to learn, while depriving handicapped children of the specialized teaching they need." (p. 2)

Burrello and Wright (1992) identified effective practices of principals who had participated in programming for the inclusion of students with disabilities. Two important practices noted were to provide opportunities for the faculty and staff to discuss integration in light of consensus values and belief statements; and create a special support group of faculty and staff for the purpose of brainstorming and facilitating integration, mainstreaming, and inclusion efforts.

Farley (1991) studied middle school personnel in Virginia and found attitudes toward the integration of students with disabilities similar to attitudes of personnel in other grade levels. Principals had more favorable attitudes than teachers toward the integration of students with disabilities. Factors found significant concerning the attitudes of personnel were prior experience working with persons with disabilities, educational background, and course work in special education.

Baines, Baines, and Masterson (1994) documented the frustration of teachers in a middle school who were meeting the needs of students with disabilities in the regular education classrooms without the support needed for the student, the teacher, and the other classmates. All teachers except the physical education teacher reported heightened stress due to mainstreaming and 20% of the respondents on a school-wide survey reported that they were reconsidering teaching as a career.

Raison, Hanson, Hall, and Reynolds (1995) indicated that the problems that Baines et al. (1994) had encountered were not due to mainstreaming, but to "inadequate communication, misgovernance and poor allocation of resources." (p. 481)

Schumm and Vaughn (1992) studied 775 teachers representing 39 schools in a metropolitan school district in the Southeast. Elementary teachers were more likely to make adaptations in preplanning, interactive planning, and post planning. Planning for mainstreamed students was frequently inhibited by class size, lack of teacher preparation, problems with emotionally handicapped students, and limited instructional time.

Collaborative Strategies

The collaborative team approach has emerged as a model of addressing the curricular needs of all children, both disabled and non-disabled in the same classroom (Nevin, Thousand, Paolucci-Whitcomb & Villa, 1990; Villa & Thousand, 1992). In the Supportive Teaching Model (Bauwens, Hourcade, & Friend, 1989), general education teachers are responsible for the content of the material, while the special educator accepts responsibility for the adaptations. Material presentation, follow-up, lecture and other methods are cooperatively planned and presented. The Co-teaching or Team-teaching Model incorporates shared planning, instruction, and monitoring of performance and evaluations. Regular and special education teachers are equals in the classroom. The Complementary Model uses the special educator to weave techniques and strategies into the general education curriculum.

Lipsky (1994) reported that a survey by The National Center on Educational Restructuring and Inclusion (NCERI) indicated there were several models of inclusive education based on differing teacher roles: Co-Teaching Model, Parallel Teaching (the special education teacher works with a small group of special education students in an area of the general education classroom), Co-Teaching Consultant Model (the special education teacher operates both a pull-out and a co-teaching arrangement), Team Model (the teaming of special and general education teachers who accept the responsibility for all students, including those with disabilities), and Methods and Resources Teacher Model (the special education teacher works with the general education teachers as a resource person).

The literature is rich with works on collaborative teaching. For example, Thousand and Villa (1992) reviewed needed aspects of collaborative teams and the dynamics they add to restructuring; West and Cannon (1988) examined competencies needed for effective collaborative strategies for special and regular educators; Maroldo (1994) found that special and general education teachers needed to learn a common language, due to the isolation they have experienced; and Detmer, Thurston, and Dyke (1993) authored a manual for collaboration in schools serving students with disabilities through collaborative teaching.

Perceived Barriers to Inclusive Schooling

The National Council on Disability (1995) explored barriers which could impede the implementation of identified promising practices in special education. One major barrier to the practice of inclusion is the reactive instead of proactive response of schools to students' special needs. Too often students are simply excluded, instead of school personnel working to overcome challenging behaviors. Another barrier hinges on the fact that some schools still do not make the environmental modifications that would increase access. A third and attitudinal barrier concerns general educators' lack of feeling responsible for educating students with disabilities.

Hasazi, Johnston, Liggett, and Schattman (1994) conducted a multistate, qualitative study of the LRE provision of the IDEA, 1989 to 1992. Six facets seemed to influence the implementation of LRE: finance, organization, advocacy, implementors, knowledge and values, and state/local context. Possible barriers to inclusion were student outcomes, policy and bureaucracy concerns, staff development and training, funding issues, and the stand of some professional organizations. Supportive activities and concepts for inclusive education

Many practices reported as helpful or supportive to inclusionary factors were the inverse of the factors reported in the prior section addressing barriers. The National Council on Disability list of barriers (1995) could be stated in positive terms as supports to inclusion.

The National Center on Educational Restructuring and Inclusion (NCERI, 1994) at City University of New York reported six classroom practices which had allowed inclusion to succeed: multi-level instruction, cooperative learning, activity-based learning, mastery learning, technology, and peer support and tutoring programs (Lipsky, 1994, p. 5). Other factors determined to be "necessary for inclusion to succeed" were: visionary leadership, collaboration, refocused use of assessment, supports for staff and students, funding, and effective parental involvement (p. 5-7).

Schools in Newark, Delaware were reported to have included children in regular education classrooms for the past twenty years (Johnston, Proctor, & Corey, 1995). Their Team Approach to Mastery (TAM) project resulted in a school district of 20,000 students functioning without any resource classrooms. One hundred TAM classrooms serve special education students in a general education environment. TAM's successes were attributed to seven factors: team teaching, learning centers, ego groups, direct instruction, positive approach, point cards, and teacher cadres. TAM's approach offers children "not a way out of general education, but a way in." (p. 47)

General and special education elementary teachers (N=158) who had been involved in inclusive education were surveyed concerning their perceptions of supportive practices for inclusion (Wolery, Werts, Caldwell, Snyder, & Lisowski, 1995). One major finding was that special and general educators reported similar levels of need for resources, but special educators reported greater availability of resources than general educators. A high percentage of respondents reported a need for training and a low percentage reported having training. Research Questions

The research questions were based on the gaps in the research and literature and our interests that were sparked by experience. Based on the assumption of "lack of information regarding inclusive education in middle schools", the context of the variables, and the conceptual background, four research questions were formed: Is there a statistically significant difference among the independent variables regarding the beliefs and practices of middle school personnel when considering

1. inclusive education,
2. collaborative strategies,
3. factors perceived as barriers to inclusive education, and
4. supportive activities and concepts for inclusive education?

Method

Research Design

Schools were selected randomly. A sample was drawn from all middle grade schools in the United States. The list of schools was purchased from the National Association of Secondary School Principals (NASSP) and only public school personnel were surveyed. The sample was selected from the population of 12,941 public middle and junior high schools. The error range for the sample was 4% ($d < .04$). Based on the observations of Gallup (1976, p. 69), a "confidence level of 95% and an error range of four percentage points are used by most survey agencies including the Gallup Poll." The sample size was calculated by using Nunnery's and Kimbrough's (1971) method of sampling. A sample of 574 schools was drawn from the population.

Instrumentation

With the written permission of Galis (1994), selected questions from her questionnaire along with questionnaire items generated according to the conditions presented above were used to collect data for the study. The instrument focused on the beliefs and practices of middle school personnel (See Table 3 for questionnaire items).

Validity. The questionnaire was reviewed by a panel of experts including selected special education administrators to establish face and content validity. Suggestions for improvement were then incorporated. The wording was changed on some items as a result of the review. A pilot was

completed and two items were challenged by the panel. These questions were deleted.

Reliability (Phase I). The reliability of the instrument was determined in two phases. Prior to dissemination, twenty (20) educators similar to the sample group were asked to volunteer to respond to the instrument. Two weeks later they responded to the same instrument again.

The items were then examined by using the repeated measure design. The t test for correlated sample means was used to test the null hypothesis of no significant difference between the two response probes for each question. The test-retest analysis had the decision criteria that Items exceeding the critical t value of 2.093 were to be removed from the instrument (Alpha = .05, df = 19). No items exceeded this value, so none were deleted from the instrument on that basis.

Reliability (Phase II). Data from the larger sample were analyzed according to Cronbach's alpha coefficient test to determine the reliability of the subsets. This test determined the correlation coefficient between the response to a single item and the response to other items in the subset. De Vaus (1986) designated an alpha coefficient of .70 as desirable. Items were removed if the omission of that item improved the subset alpha to .70 or higher. Consequently, item number 42 (variable 57) was removed. Coefficients for the five categories of dependent variables were: Inclusive education (.78), degree of change needed to include collaborative strategies (.82), importance of factors supporting integration of students (.71), factors perceived as barriers to an inclusive environment (.77), and factors perceived as supportive of an inclusive environment (.72).

Constraints of the Study

This study addressed personnel at the middle school level. Results may not necessarily represent the beliefs and practices of personnel at the elementary and high school level.

This instrument was sent by U.S. Mail and some recipients may not have felt compelled to respond. Non responses may imply certain important issues that are not included in the study. Opinions may be used to infer or estimate the attitude of the respondent. Overt actions may be unrelated to the actual attitude of the individual (Best,1970).

Data Collection

A packet of three sets of surveys was mailed to the principal of each school. The principal was requested to fill out one questionnaire and distribute the other questionnaires to the first general education teacher on the school roster and the first special education teacher on the school roster. A cover letter explained the purpose of the study and gave instructions for distribution. Each questionnaire was in a booklet form such that the respondents could staple it closed for mailing. Questionnaires were pre-stamped and addressed. Respondents were offered a copy of the summary of the results of the study. A stamped postal card addressed to the investigator was enclosed for each of the participants to mail separately. This separate medium helped to preserve the anonymity of the respondents and possibly serve as an incentive to respond to the survey instrument. A statement to be checked on the postcard stated: "Yes, I have completed and mailed the questionnaire and would like to receive a summary of the results of this study." The respondents then printed their name with a preferred mailing address to receive a summary of the study results. The data collection began in November, 1994, and concluded in February, 1995.

Data Presentation and Analysis

Each variable was analyzed by frequency of response and comparisons were also made among the variables. Both one-way and two-way analysis of variances (ANOVA) were generated (Alpha = .05). Descriptive Data

Mailings to 574 schools included 1722 questionnaires. The response rate was 41.5% and consisted of 714 returns. Table 1 indicates the results of the responses to the independent variables. Thirty-six and seven-tenths percent of the responders was in the principalship role (n = 262), 31.6 percent reported that they were regular education teachers (n =228), and 31.4 percent of the responders taught special education. The variable for years in current position was divided into 1-2 years, 3-5 years, 6-10 years, and 11-37 years groupings to approximate 25% in each category. One hundred seven respondents reported they had taken more than two courses in school law. Table 2 presents general demographic information.

Table 1
Descriptors for the Six Independent Variables

| Independent Variable | Descriptors | Percentage* | N |
|---|---------------------|-------------|-----|
| Current position | Principal | 36.7% | 262 |
| | General Ed Teacher | 31.9% | 228 |
| | Special Ed teacher | 31.4% | 224 |
| Number of years in current position | 1-2 years | 24.8% | 173 |
| | 3-5 years | 25.8% | 180 |
| | 6-10 years | 26.2% | 182 |
| | 11-37 years | 23.1% | 161 |
| Number of years in education profession | 1-12 years | 25.8% | 180 |
| | 13-19 years | 24.0% | 167 |
| | 20-24 years | 24.8% | 173 |
| | 25-42 years | 25.4% | 177 |
| Courses in school law | 1 course | 46.8% | 225 |
| | 2 courses | 31.0% | 149 |
| | More than 2 courses | 22.2% | 107 |
| Years as a school administrator | 1-6 years | 24.3% | 63 |
| | 7-10 years | 26.7% | 69 |
| | 11-16 years | 23.5% | 61 |
| | 17+ years | 25.5% | 66 |

*Missing cases were excluded.

Table 2
Demographic Data for Respondents

| | Mean | N | St. Dev. | Range |
|---------------------------|-------|-----|----------|-------|
| Years in Current Position | 7.3 | 696 | 6.30 | 1-37 |
| Total Years in Education | 18.39 | 697 | 8.56 | 1-42 |
| Courses in School Law | 2.06 | 481 | 1.90 | 1-20 |

Items and Subsets

The individual item means and standard deviations for all respondents by cluster of questions per dependent variable are shown in [Table 3 in the Appendix](#). Item to variable position is indicated. The first question in Section II was variable 16, since the first 15 variables were demographic. Item means ranged from 5.515 (highest) to 1.999 (lowest). Item 39 (importance of collaboration) had the highest mean for all items.

Findings

Both one-way and two-way ANOVAs were used to study the mean differences among the groups. The Scheffe' test was applied to determine where statistically significant differences existed among the subgroups (Alpha = .05).

Research Question One

Is there a statistically significant difference among the independent variables regarding inclusive education? Items 1 through 12 in Table 3 deal with the subset on inclusive education.

There was a significant difference regarding inclusive education by position ($F = 19.63, p = .001$). The Scheffe' analysis revealed that principals (mean = 4.54) and special education teachers (mean = 4.59) more strongly agreed with the statements about inclusive education than did regular education teachers (mean = 4.16). Principals' and special education teachers' mean responses were significantly higher than those of regular education teachers (Table 4). Special education teachers' mean responses were significantly different from regular education teachers. No other significant differences were found among the variables when compared to the "inclusive education category."

Table 4
Inclusive Education by Position

| Source | df | Sum of Squares | Mean Squares | F Ratio | F Prob. |
|----------------|-----|----------------|--------------|---------|---------|
| Between Groups | 2 | 24.10 | 12.05 | 19.63 | .001 |
| Within Groups | 694 | 426.10 | .61 | | |
| Total | 696 | 450.19 | | | |

| Group | Count | Mean | Standard Deviation | Standard Error |
|---------------|-------|------|--------------------|----------------|
| Principals | 258 | 4.54 | .712 | .043 |
| Reg Ed Tchrs | 221 | 4.16 | .921 | .062 |
| Spec Ed Tchrs | 218 | 4.59 | .710 | .048 |
| Total | 697 | 4.44 | .804 | .031 |

Research Question Two

Is there a statistically significant difference among the independent variables regarding collaborative strategies? Questionnaire items 13-15 addressed the degree of change needed regarding collaborative strategies; and items 39, 40, 41, and 43 measured the perceived importance of integrating students with disabilities into general education settings (See Table 3).

A statistically significant relationship existed among collaborative strategies by position for both components. For example, Table 5 shows that a statistically significant difference existed between regular education teachers and special education teachers on "the need for change" ($F = 4.11, p = .017$). According to the post hoc test, regular education teachers' mean response (4.79) were significantly lower than special education teachers' mean response (5.05). There was no statistically significant difference between principals (4.97) and teachers' perceptions.

Table 6 displays a statistically significant difference in the perceived importance of collaborative strategies when compared by position ($F = 4.67, p = .010$). Both principals and special education teachers had significantly different perceptions than regular education teachers as determined by the Scheffe' test. Regular education teachers perceived integration of students to be less important than the other two groups.

Table 5
Degree of Change Needed in Education (Collaboration)

| Source | df | Sum of | Mean | F Ratio | F Prob. |
|--------|----|--------|------|---------|---------|
|--------|----|--------|------|---------|---------|

| | | Squares | Squares | | |
|----------------|-----|---------|---------|------|------|
| Between Groups | 2 | 7.53 | 3.76 | 4.11 | .017 |
| Within Groups | 700 | 641.89 | .92 | | |
| Total | 702 | 649.42 | | | |

| Group | Count | Mean | Standard Deviation | Standard Error |
|---------------|-------|------|--------------------|----------------|
| Principals | 261 | 4.97 | .887 | .055 |
| Reg Ed Tchrs | 221 | 4.79 | 1.049 | .071 |
| Spec Ed Tchrs | 221 | 5.05 | .943 | .063 |
| Total | 703 | 4.94 | .962 | .036 |

Table 6
Importance of Collaboration

| Source | df | Sum of Squares | Mean Squares | F Ratio | F Prob. |
|----------------|-----|----------------|--------------|---------|---------|
| Between Groups | 2 | 5.23 | 2.62 | 4.67 | .010 |
| Within Groups | 697 | 390.26 | .56 | | |
| Total | 699 | 395.49 | | | |

| Group | Count | Mean | Standard Deviation | Standard Error |
|---------------|-------|------|--------------------|----------------|
| Principals | 260 | 5.30 | .669 | .042 |
| Reg Ed Tchrs | 223 | 5.13 | .905 | .061 |
| Spec Ed Tchrs | 217 | 5.33 | .655 | .045 |
| Total | 700 | 5.25 | .752 | .028 |

No significant differences were found when the number of years in the respondent's current role was compared to the items concerning collaborative strategies. A statistical significance ($F = 3.74, p = .011$) was found for items pertaining to perceived importance of collaborative strategies when compared to total years of educational experience. The post hoc analysis revealed that those persons in group two (13 through 19 years in education) scored significantly higher than respondents in group one (1 through 12 years). This parallels the Galis and Tanner (1995) findings that show younger teachers to be less open to new ideas. Results are presented in Table 7. Years in administrative positions for principals were analyzed and no significant results were identified. No significant relationship was identified when collaborative strategies were compared to the number of courses taken in school law.

Table 7
Importance of Collaboration

| Source | df | Sum of Squares | Mean Squares | F Ratio | F Prob. |
|----------------|-----|----------------|--------------|---------|---------|
| Between Groups | 2 | 6.27 | 2.09 | 3.74 | .011 |
| Within Groups | 679 | 379.54 | .56 | | |
| Total | 682 | 385.81 | | | |

| Group | Count | Mean | Standard Deviation | Standard Error |
|---------------------|-------|------|--------------------|----------------|
| Group 1 (1-12 yrs) | 178 | 5.15 | .776 | .058 |
| Group 2 (13-19 yrs) | 163 | 5.38 | .767 | .060 |
| Group 3 (20-24 yrs) | 168 | 5.16 | .760 | .059 |
| Group 4 (25-42 yrs) | 174 | 5.30 | .686 | .052 |
| Total | 683 | 5.25 | .752 | .029 |

Research Question Three

Is there a statistically significant difference among the independent variables regarding factors perceived as barriers to inclusive education? Items 16-28 pertained to barriers (See Table 3).

According to the analysis of variance test, the responder's position was not a statistically significant factor to be considered as barriers to inclusion. Years of experience in current position, total years in education, the number of years of administrative experience for principals, and total years of education experience for principals did not yield significant results regarding barriers.

Responses to the items about barriers and the number of courses taken in school law were analyzed and a statistically significant relationship was established ($F = 3.45, p = .032$). Data are presented in Table 8. The Scheffe' analysis revealed a significant difference between Group 2 (those who took 2 law courses) and the other two groups. Group 2 showed the strongest agreement with the statements about barriers.

A two-way ANOVA was completed for barriers by position by the number of school law courses taken. A statistically significant interaction ($F = 2.629, p = .034$) was identified (Table 9). There was a significant difference between the perceptions of principals and teachers. Principals reported lower mean responses to perceived barriers. Two or more school law courses appeared to explain the respondents' significant differences found regarding barriers in this two-way analysis. Figure 1 reveals the interaction between the number of school law courses and responder's position on perceived barriers.

Table 8
Barriers to Inclusive Education
by Courses taken in School Law

| Source | df | Sum of Squares | Mean Squares | F Ratio | F Prob. |
|----------------|-----|----------------|--------------|---------|---------|
| Between Groups | 2 | 3.97 | 1.99 | 3.45 | .032 |
| Within Groups | 438 | 251.74 | .57 | | |
| Total | 440 | 255.71 | | | |

| Group | Count | Mean | Standard Deviation | Standard Error |
|-----------------------|-------|------|--------------------|----------------|
| Group 1 (one course) | 209 | 3.13 | .725 | .050 |
| Group 2 | 131 | 3.35 | .793 | .069 |
| Group 3 (> 2 courses) | 101 | 3.23 | .780 | .078 |
| Total | 441 | 3.13 | .762 | .036 |

Table 9
Barriers by Position by School Law (2-Way)

| Source | df | Sum of Squares | Mean Squares | F | Prob. of F |
|---|-----|----------------|--------------|-------|------------|
| Main Effects | 4 | 6.72 | 1.68 | 2.982 | .019 |
| Position | 2 | 2.74 | 1.37 | 2.437 | .089 |
| School law | 2 | 5.04 | 2.52 | 4.478 | .012 |
| 2-Way Interactions Position Schl Law | 4 | 5.20 | 1.48 | 2.629 | .034 |
| Explained | 8 | 12.63 | 1.58 | 2.806 | .005 |
| Residual | 432 | 243.08 | .56 | | |
| Total | 440 | 255.71 | .58 | | |

| Position | Cell Means / (n) | | |
|------------------|-----------------------|--------------|--------------|
| | Courses in School Law | | |
| | One | Two | Two or More |
| Principal | 3.18 (82) | 3.17 (76) | 3.14 (71) |
| Reg. Ed. Teacher | 3.04 (63) | 3.62 (28) | 3.46 (8) |
| Se. Ed. Teacher | 3.15 (64) | 3.58 (27) | 3.43 (22) |

N= 441; Mean =3.22

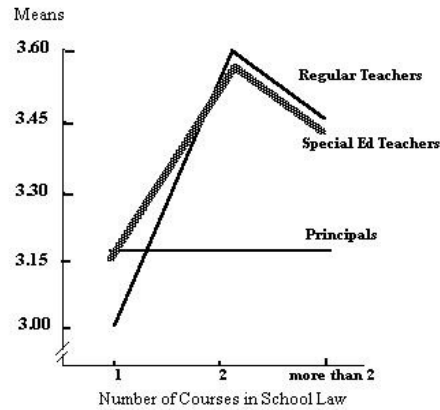


Figure 1. Interaction between number of school law courses and position on perceived barriers.

Table 10 presents the data about barriers ranked from the highest to lowest means. The top three perceived barriers were identified as lack of adequate staff size, lack of shared special/education planning time, and lack of amount of planning time allocated. School climate, negotiations with teachers organizations, and school board policy received the lowest rankings.

**Table 10
Perceived Barriers to Inclusion**

| Rank/Item# | Variable | Mean | Standard Deviation | Descriptor |
|------------|----------|-------|--------------------|-----------------------------|
| 1/19 | 34 | 4.503 | 1.512 | Lack of adequate size staff |
| 2/24 | 39 | 4.419 | 1.617 | Lack of shared planning |
| 3/23 | 38 | 4.291 | 1.568 | Not enough plan time |
| 4/17 | 32 | 3.794 | 1.432 | Confusion about roles |
| 5/21 | 36 | 3.605 | 1.546 | Lack of staff willingness |
| 6/18 | 33 | 3.420 | 1.647 | Federal rules/regulations |
| 7/16 | 31 | 3.280 | 1.464 | Concern: student outcomes |
| 8/28 | 43 | 2.986 | 1.640 | Weighted funding |
| 9/20 | 35 | 2.846 | 1.623 | Lack central office support |
| 10/27 | 42 | 2.761 | 1.607 | State rules and regs |
| 11/26 | 41 | 2.473 | 1.447 | School climate |
| 12/22 | 37 | 2.095 | 1.390 | Teacher unions |
| 13/25 | 40 | 1.999 | 1.325 | School board policy |

Research Question Four

Is there a statistically significant difference among the independent variables regarding factors perceived as helpful or supportive of inclusive education? The items addressed in the questionnaire as possible supports to inclusion were 30-37 (See Table 3).

One statistically significant difference was found for this question. The data analysis for principals revealed a significance in the years of administrative experience related to perceived supports for inclusion ($F = 3.37, p = .019$). Group One (with one through six years of administrative experience) showed the strongest agreement with the perceived supports to inclusion. Group one (principals with at least six years experience) had a significantly higher mean than group four (17 -32 years). These data are presented in Table 11.

Table 12 presents variables perceived to be helpful and supportive of inclusion as ranked by the mean. The top three selections were clustered closely together: funds for staff training, funds and/or release time for staff collaborative planning, and a lead teacher trained in special education and instructional strategies. The choice with the lowest mean score was for an extra assistant principal who is a generalist.

**Table 11
Perceived Supports to Inclusion for Principals
by Years of Administrative Experience**

| Source | df | Sum of Squares | Mean Squares | F Ratio | F Prob. |
|----------------|-----|----------------|--------------|---------|---------|
| Between Groups | 2 | 7.36 | 2.45 | 3.37 | .019 |
| Within Groups | 246 | 179.08 | .73 | | |

| | | | | |
|---------------------|-------|--------|--------------------|----------------|
| Total | 249 | 186.44 | | |
| Group | Count | Mean | Standard Deviation | Standard Error |
| Group 1 (1-6 yrs) | 59 | 4.47 | .786 | .102 |
| Group 2 (7-10 yrs) | 67 | 4.16 | .801 | .098 |
| Group 3 (11-16 yrs) | 58 | 4.38 | .925 | .121 |
| Group 4 (17-32 yrs) | 66 | 4.03 | .897 | .110 |
| Total | 250 | 4.25 | .865 | .055 |

Table 12
Factors Perceived to be Helpful and Supportive of Inclusion

| Rank/Item | Variable | Mean | Standard Deviation | Descriptor |
|-----------|----------|-------|--------------------|--|
| 1/35 | 50 | 5.280 | .976 | Funds for staff training |
| 2/34 | 49 | 5.250 | 1.070 | Funds/ release time for collaborative training |
| 3/36 | 51 | 4.994 | 1.174 | Lead teacher |
| 4/37 | 52 | 4.224 | 1.679 | School board support |
| 5/32 | 47 | 4.187 | 1.502 | De-emphasis test scores |
| 6/31 | 46 | 3.903 | 1.725 | Central office support |
| 7/33 | 48 | 3.621 | 1.792 | Flat funding formula |
| 8/30 | 45 | 3.154 | 1.802 | Extra assistant principal |

Discussion of the Findings

There was a significant difference found for current position of the respondents for the inclusive education and both collaborative strategies questions. A statistically significant difference was found for total years in education when compared to the importance of collaborative strategies variable. The number of school law courses was statistically significant for barriers to inclusion.

Arrington's study (1992) supported the current finding that years of educational experience were not significant in respondents' support for inclusive education. Principals and special education teachers were each significantly different from regular education teachers concerning their perceptions of inclusive education. Regular education teachers were significantly less supportive of inclusive education than the other two groups. Arrington (1993) and Farley (1991) identified principals as having the most supportive role, while McFerrin (1987) found special education teachers more supportive than regular education teachers in all areas of mainstreaming.

When both variables representing collaborative strategies were analyzed in this study, significant differences were found between perceptions of the regular education and the special education teachers. Special education teachers more strongly agreed with the "need for" and "importance of" collaborative strategies than the regular education teachers.

Respondents with 13 through 19 years experience most strongly agreed on importance of collaboration, consultation, and mutual planning time (the collaborative strategy subset). These respondents were at mid career. We expected more recent college graduates to most strongly agree since many have taken collaborative course work and many states now require a special education course for certification.

The analysis of position by school law courses yielded a statistically significant finding in the subset of perceived inclusion barriers. Principals perceived the conditions for inclusion as less prohibitive than the other two groups. Those responders with two or more courses in school law may have had more knowledge pertaining to barriers to inclusion. We expected this finding.

Number of years principals held administrative positions was statistically significant in the subset of factors supporting the integration of students with disabilities. Principals with the least years of experience (1-6 years) more strongly agreed with the supports for inclusion than did the other groups. This could have been a result of their more recent training and knowledge of school reform issues. McCaeny's (1992) findings were parallel, showing that more experienced principals were less inclined to mainstream students with disabilities.

Educators who had worked in the education field for 13-19 years more strongly agreed with the importance of collaborative strategies subset. Perhaps educators gain the confidence and insight to work with one another as they gain experience. Collaborative strategies means were higher than the means of the other subsets. Regular education teachers were the least in agreement with the collaborative strategies statements. Responses of regular education teachers may reflect the burden of trying to meet the needs of all students, particularly in light of the changing American classrooms. Principals may have a better over-all picture of schools; and special education teachers may have a clearer view of the abilities of students with disabilities. The importance of collaboration as a strategy for integration of students with disabilities was the highest ranked item in the survey.

Data from special education teachers yielded the highest means for inclusive education. Special education teachers may have had more exposure to the debate about inclusive education through their professional literature than the other two groups. Regular education teacher responses were the lowest in this category and were not as supportive of inclusive education as the other two groups. Principals and special education teachers were close in their response means. Rankings by position for this section were identical to Galis' findings for elementary school personnel in Georgia (1994).

The lowest means were found in the area of perceived barriers to inclusion. Data pertaining to principals reflected the lowest mean in this category. Regular education teachers had the highest mean response indicating that they perceived the choices provided as being greater obstacles to inclusive education. The top three perceived barriers were identified as lack of adequate amount of staff, lack of shared special/education planning time, and lack of amount of planning time allocated. These findings were similar to the barriers identified by Burello and Wright (1992) and needed competencies rated in a study by West and Cannon (1988). School climate, negotiations with teachers organizations, and school board policy had the lowest means, indicating that these factors presented the least inhibitions to inclusion. Funding issues were identified as major barriers by several researchers (Dempsey & Fuchs, 1993; McLaughlin & Owings, 1992; National Council on Disability, 1995), but respondents in this study did not

perceive the weighted funding as a barrier nor flat funding as a support to inclusion.

The mean responses for perceived supports to inclusive education were clustered closely together. Special education teachers had a slightly higher mean response than the other two groups. The three supports with the highest mean scores were: funds for staff training, funds and/or release time for staff collaborative planning, and a lead teacher trained in special education and instructional strategies. These items were perceived to be the supports most helpful to an inclusive environment. The NCERI (1994) identified similar needs: staff training, collaborative support systems and time for such planning, along with visionary leadership. Wolery et al. (1995) identified the same priorities, labeling them training, meetings and support personnel.

All three items in the need for change (Section III) indicated strong agreement. "Training in modifications for students with disabilities who need adaptations in an instructional environment" was the highest ranked. The need for staff development for collaborative teaching and more opportunities for collaboration were also strongly supported. The response to these items appeared to indicate a willingness to develop skills to work with included students. Collaboration, and supports for staff and students were also determined to be necessary by the NCERI (Lipsky, 1994).

Recommendations for Practice

Respondents highly endorsed the importance of collaborative strategies. Total years in education was significant for respondents with 13-19 years experience. Perhaps those individuals could serve as mentors for their peers with less experience and encourage confidence in their abilities. Training in collaborative strategies and student modifications are strongly recommended.

Responders suggested that "Integration into general education classes is one of several strategies which should be considered for students with disabilities." This response, the highest ranked statement in Section II, indicates that they might have been weighing general education as one of the options for students with disabilities. Considering a continuum of services is also supported by case law and regulations.

The statement receiving the second highest agreement was: "It is important that behavioral expectations be maintained consistently for all students in a class, regardless of disability." Heumann (1994), Assistant Secretary for the Office of Special Education and Rehabilitative Services (OSERS), stated that one of the relevant factors to be used to determine if a placement was appropriate under IDEA was "the degree of disruption of the education of other students resulting in the inability to meet the unique needs of the student with a disability." (p. 3). *Oberti v. Board of Education* (1993) revealed that placement considerations could include an analysis of the possible negative effects of inclusion on other students in the class.

Students with disabilities should be provided the training and tools to manage their behavior. Models such as the one presented by Donaldson and Christiansen (1990) could provide suggestions for the development of a local school plan for assistance, behavior management, and instructional options for students with disabilities. Special education teachers should prepare students for reintegration in behavioral areas as well as academic areas. Programming for generalization to other environments must be included in that training. Monitoring for appropriate behaviors would be part of the ongoing assessment of students once re integrated.

Special education teachers could be used as a local school resource to provide training to the staff for appropriate behavioral strategies to be used. Students need concrete models of behavioral expectations for their successful behavioral integration into the regular classroom. Rock, Rosenberg, & Carran (1994) found that students with severe behavioral problems achieved higher reintegration rates when their former placement was in a program in a regular education school and zero to one mile(s) from the reintegration site.

The statement receiving the third strongest agreement was: "Students should be included in the general education environment to the greatest extent possible." This response appears to support inclusion even though practice does not currently reflect this at a high level for students in middle school settings. Perhaps models of inclusion should again be reviewed as in the case of the statement with which there was the strongest agreement.

The top three supports to inclusion were identified as funds for staff training, funds and/or release time for staff collaborative planning, and a lead teacher trained in special education and instructional strategies. The implementation of these strategies may serve to increase the inclusion of students and the success of individual students whose placement committee has identified the regular education classroom as the least restrictive environment. There are many proposals for staff development (Gallagher, 1994; Hamre-Nieptupski et al., 1990; Lipsky, 1994; National Council on Disability, 1995; Rath, 1989; Servatius, Fellows, & Kelly, 1989; Thousand & Villa, 1992; Villa, 1989). Training at the pre-service level in collaborative strategies might serve to provide new teachers with the skills for collaboration and the confidence that it can be implemented.

Conversely, the top three perceived barriers to inclusion were identified as lack of adequate amount of staff, lack of shared special/education planning time, and lack of amount of planning time allocated. Collaborative planning time was addressed in perceived supports. Middle schools historically have more planning time than other levels of education, so perhaps the issue may be more effective use of available planning time and time set aside specifically for collaborative teams. Parallel planning time can be established to address that concern. The issue of lack of staff was reported to be resolved when costs of transportation and more restrictive placements freed up funds for more personnel (National Council on Disability, 1995). Stainback and Stainback (1990) estimated that \$20-\$25 billion dollars were being spent annually on special education programs and that one in eight teachers in the U.S. was employed in special education. They asserted that these resources were adequate in terms of manpower and financial resources to provide support for facilitators to make inclusion work.

Implications for Further Research

1. Findings from the review of literature for this study underscored the need for further efficacy studies of instruction for students with disabilities in a variety of settings, including both regular and special education classrooms. This was supported by the report of the National Council on Disability (1995) to the President. Christenson, Ysseldyke, & Thurlow (1989) reviewed the literature on critical instructional factors for students with mild disabilities and identified 10 instructional factors. Studies from sites incorporating those factors and promising practices identified by the National Council on Disability (1995) could possibly offer some answers to the efficacy questions.

2. The cost of educating a student with disabilities was approximated at 2.3 times that of a student without disabilities (Chaikind, Danielson, & Brauen, 1993). Large amounts of federal, state, and local resources were spent on special education programs annually. Further study on the cost of inclusionary programs are needed since cost is often viewed as a barrier to such programs. Funding impacted the top three barriers identified in this study. Additionally, funding for students was often generated to the local school district based on the service delivery model, with no funding being provided for students with disabilities in the regular classroom (National Council on Disability, 1995). Financial incentives should be explored regarding inclusive settings.

3. Respondents with 13 through 19 years experience in education had significantly higher means than respondents in all other groups in the area of collaborative strategies. They more strongly supported collaborative strategies than individuals new to the profession. Galis (1994) identified educators with 17 to 21 years of experience as more positively supporting inclusive education. It would be beneficial for further study to explore the possible increased support for change by seasoned educators over persons in their first dozen years of the profession.

4. An analysis of possible middle school organizational patterns or structures that differentiate inclusion percentages from elementary school and high school settings would be beneficial. The U.S. Department of Education (1994) reported a dramatic decline in regular classroom settings for students with disabilities as they increased in age. The differentiation between elementary and middle schools remains a concern and analysis might reveal promising practices in the elementary school which could be successfully imported into the middle school setting.

5. Middle schools have historically integrated students with disabilities into non-academic classes often known as exploratories. Most students

are successful in these non-academic classes, with the possible exception of students with emotional disorders (Rath, 1989). Further study of teaching strategies and management systems in these exploratory classes might be helpful to determine the supports given to students with disabilities in those settings that may not be provided in traditional academic classes. Some of the non-academic classes or exploratories did have academic components to them (such as foreign languages, computer, health, music theory, and art history).

Concluding Statements

Respondents demonstrated support for the integration of students with disabilities into the regular education environment through their agreement with statements supporting inclusion as an effective strategy and a part of the continuum of services to be considered for LRE. There was support for collaborative strategies, provisions for staff training, and shared planning time. Behavioral expectations were identified as a concern when students with disabilities were included. The degree of disruption of the learning process for non disabled students has been viewed as an appropriate consideration in placement decisions in both the case law and by the Assistant Secretary for OSERS (Heumann, 1994). Cost considerations were not identified by the respondents as a priority among the possible perceived barriers, even though they were often cited as a concern in the literature. One school district reported that excess costs of inclusion were offset by savings in several areas, including transportation and fewer placements in out-of-district and more restrictive placements (National Council on Disability, 1995).

The literature review emphasized the principal as the pivotal change agent in school reform. Principals and special education teachers revealed statistically significant support for inclusion. Principal respondents reported a high level of input when planning took place for students with disabilities served in the regular classroom. Possible factors as barriers to inclusion were rated lower by principals in comparison to both regular and special education teachers when two or more courses in school law were taken. Rath (1989) identified three stages of integration of students with disabilities: inclusion, differentiation, and integration. The principal was viewed as the integrator since integration was a component of the larger organizational task of creating appropriate and effective integrative structures within the school.

We conducted this study to help answer the following question: What are the perceptions of front-line middle school educators regarding inclusion as a viable educational delivery system for students with disabilities? While we did not find a simple "yes" or "no" answer, indications are strong that there is a significant need to work with principals, teachers and special education teachers in middle schools if inclusion is to become fully accepted.

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Appendix

Table 3
Individual Items by Mean
for All Respondents by Cluster (Section II)

| Statement | Item/ Variable | *N | Mean | Standard Deviation |
|---|-------------------|-----|-------|-----------------------|
| Inclusive Education: (6 point Likert scale: 1=Strongly Disagree to 6=Strongly Agree) | | | | |
| Integration is generally an effective strategy for mild disabilities | 1/16 | 704 | 4.869 | 1.105 |
| I have input into programming for students with disabilities | 2/17 | 703 | 4.599 | 1.455 |
| Maximum class size should be reduced when including students with disabilities | 3/18 | 703 | 5.131 | 1.151 |
| Integration can be beneficial to other students | 4/19 | 704 | 4.700 | 1.164 |
| Students should be served in reg. ed. regardless of disability | 5/20 | 703 | 2.996 | 1.570 |
| Opportunities to plan on a regular basis with colleagues | 6/21 | 704 | 3.712 | 1.650 |
| Behavioral expectations should be the same for all students | 7/22 | 705 | 4.955 | 1.329 |
| Reg. ed. teachers must devote most of their time with included students | 8/23 | 703 | 3.073 | 1.445 |
| Students should be included to the maximum extent possible | 9/24 | 704 | 4.984 | 1.207 |
| Integration will limit progress of students with disabilities | 10/25 | 701 | 2.688 | 1.408 |
| Students with disabilities are disruptive to reg. ed. classes | 11/26 | 702 | 2.984 | 1.400 |
| Integration is one of several strategies to consider | 12/27 | 702 | 5.057 | 1.119 |
| Collaborative Strategies: | | | | |

| | | | | |
|--|--|-----|-------|-------|
| Support for change: more time for collaboration | 13/28 | 702 | 4.802 | 1.143 |
| Support for change: staff development about collaboration | 14/29 | 702 | 4.960 | 1.146 |
| Support for change: training in modifi- cations for included students | 15/30 | 702 | 5.081 | 1.048 |
| (6 point Likert scale: 1=not important to 6=very important) | | | | |
| Importance to inte- gration: collaboration | 39/54 | 701 | 5.515 | .827 |
| Importance to inte- gration: co-teaching | 40/55 | 702 | 4.950 | 1.236 |
| Importance to inte- gration: consultation | 41/56 | 700 | 5.114 | 1.106 |
| +Importance to inte- gration: reduced class size | 42/57 | 703 | 5.134 | 1.167 |
| Importance to inte- gration: mutual planning time | 43/58 | 703 | 5.448 | .891 |
| Factors perceived as barriers: | (6 point Likert scale: 1=Least Inhibiting to 6=Most Inhibiting) | | | |
| Concern for student outcomes | 16/31 | 694 | 3.280 | 1.464 |
| Role responsibility gen./reg. ed. teacher | 17/32 | 699 | 3.794 | 1.432 |
| Federal rules/regs | 18/33 | 693 | 3.420 | 1.647 |
| Lack of staff | 19/34 | 696 | 4.503 | 1.512 |
| Lack of central office support | 20/35 | 693 | 2.846 | 1.623 |
| Lack of staff willingness | 21/36 | 694 | 3.605 | 1.546 |
| Teacher unions | 22/37 | 673 | 2.095 | 1.390 |
| Planning time constraints (time) | 23/38 | 690 | 4.291 | 1.568 |
| Planning time not shared | 24/39 | 694 | 4.419 | 1.617 |
| School board policies | 25/40 | 682 | 1.999 | 1.325 |
| School climate | 26/41 | 693 | 2.473 | 1.447 |
| State rules & regs | 27/42 | 685 | 2.761 | 1.607 |
| weighted funding | 28/43 | 660 | 2.986 | 1.640 |
| Factors indicating perceived support: | (6 point Likert scale: 1=Least Helpful to 6=Most Helpful) | | | |
| Asst. principal as a generalist | 30/45 | 687 | 3.154 | 1.802 |
| Central office support | 31/46 | 694 | 3.903 | 1.725 |
| De-emphasis on test scores (standardized) | 32/47 | 695 | 4.187 | 1.502 |
| Flat funding | 33/48 | 676 | 3.621 | 1.792 |
| Funding/release time for collaborative training | 34/49 | 689 | 5.250 | 1.070 |
| Funds for staff training | 35/50 | 699 | 5.280 | .976 |
| Lead teacher trained in spec. ed. & instruction | 36/51 | 695 | 4.994 | 1.174 |
| School board support | 37/52 | 689 | 4.224 | 1.679 |

* The number of respondents varies because of missing cases.
+ Item was dropped from the subset based on the reliability analysis.

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