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General and Special Educators' Perceptions of the Desirability and Feasibility of Modifications for Students with Mild-Moderate Mental Retardation in the General Education Classroom

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Abstract

The purpose of this research was to study the perceptions of general and special educators toward the desirability and feasibility of modifications for students with mild-moderate mental retardation in the general education classroom. The subjects were (N = 192) teachers from the elementary, middle, and high school levels of rural public school divisions in south central Virginia. Data were collected through a Likert-type questionnaire developed by Schumm and Vaughn. The data were analyzed using both descriptive and inferential statistics. Of the 192 surveys mailed, 103 (N = 103) subjects responded. The results indicated there were no statistically significant differences in the perceptions of general and special educators based on type of teacher, groups by grade level, number of years teaching, gender, and experience making modifications for students with mild-moderate mental retardation. Findings also indicated there were no statistically significant differences between general educators who have and have not had special training in making adaptations. However, the results did indicate a statistically significant relationship in the perceptions of general and special educators between the desirability and feasibility of modifications for students with mild-moderate mental retardation in the general education classroom. Limitations of the study included the low percentage of surveys returned which may affect the generalizability of the results of this study. Future studies with a sample size including school divisions from urban and suburban areas and a follow-up of this study are recommended.

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General and Special Educators' Perceptions of the Desirability and Feasibility of Modifications for Students with Mild-Moderate Mental Retardation in the General Education Classroom

The field of mental retardation (MR) has gone through significant changes in the perception and treatment of individuals with disabilities during this decade. Polloway, Patton, Smith, and Smith (1996) discussed four paradigm shifts which caused changes in special education. Polloway et al. recommended ways to understand better the effect of these paradigm shifts on individuals with MR. Two of the paradigm shifts focused on services and supports. The service-based paradigm attempted to provide special services in a school or transition setting to individuals with MR in order to prepare them for integration into society as opposed to placement in a facility. The supports-based paradigm focused on individuals with MR supported in an inclusive setting, rather than separate classrooms, to ensure success in learning, work, or adjustment to society. In response to the changes in special education, professional organizations reviewed their positions.

Smith (1994) stated that the Board of Directors of the Mental Retardation and Developmental Disabilities Division (MRDD) of the Council for Exceptional Children adopted a position statement in 1993 based on the revision of the definition for MR by the American Association on Mental Retardation (AAMR). The AAMR's revised definition of MR (Hallahan & Kauffman, 1994) included a broader range of criteria than one based on IQ score, lowered the IQ cut-off score, and recognized MR as a condition which could be improved rather than be permanent. The MRDD's position, according to Smith (1994), recognized

the efforts of the AAMR to focus attention on the needs of individuals with MR rather than their deficits; acknowledged the need for and encouraged the evaluation of identification, classification, educational programs, placement of individuals with MR, and training of teachers; and recognized the need for careful consideration before implementation of the changes. Snell and Drake (1994) echoed the same trend of change in the field of MR in their paper which supported shifting from a continuum of services to a supported education model. They stated that the continuum of services was outdated and prevented students with MR the opportunity for social interaction and development of a sense of group with their peers.

The changes in the field of MR focused attention on specific issues. Several studies (Polloway et al.,1996; Smith, 1994; Snell & Drake, 1994) emphasized the importance of teacher training for special education teachers as well as general education teachers. Wilczenski (1992) studied the attitudes of regular education teachers toward inclusive education and stressed the importance of positive attitudes of general education teachers toward inclusion and its impact on the integration of students with disabilities in the regular classroom. Stoler (1992) stated that teacher attitudes may be closely related to the effectiveness of an inclusion program.

Inclusion

Villa, Thousand, Meyers, and Nevin (1996) stated that inclusion has now become a debate in the general education field rather than an isolated debate in the field of special education. Within the education field, Murphy (1996) reported there is great debate over the definition of inclusion and whether or not this is the appropriate approach for all students with special needs. Many

general educators were not sufficiently informed about the practice of inclusion or how it would affect all students. In her study, Murphy defined inclusion as:

> The total integration of all students who have special needs – particularly those with disabilities – into age-appropriate, regular education classrooms of their community schools, regardless of the nature or degree of the needs involved. Special education and support services are provided within the regular education environment – nearly always within the regular education classroom itself. (pp. 471- 472)

Several studies supported a common theme of the definition of inclusion, the education of students with special needs in the general education classroom with age appropriate peers (Semmel, Abernathy, Butera, & Lesar, 1991; Stoler, 1992; Villa et al., 1996; Wilczenski, 1992).

Much of the debate focused on the agreement as to whether or not students with severe disabilities should be included in general education classrooms and to what extent and where special services should be provided to students with mild disabilities (Murphy, 1996; Semmel et al., 1991; Stoler, 1992; Villa et al., 1996; Wilczenski, 1992). Murphy (1996) identified a major difference within the supporters of inclusion (i.e., inclusionists). Some inclusionists realized students with rare disabilities or severe-profound disabilities may not be best served in the general education classroom but need a pull out program to best serve their needs. Other inclusionists believed all students with special needs regardless of their disability should be serviced in the general education classroom. According to Pearman, Huang, Barnhart, and Mellblom (1992), inclusionists believed that inclusion would provide a more effective education for all students. In their study of teacher perceptions of the

regular education initiative (REI), Semmel et al. (1991) reported that a relatively high percentage of regular classroom teachers and special educators surveyed believed inclusion could negatively affect all students due to the decrease in the amount of curriculum covered.

History of Inclusion

Terminology and semantics.

In the discussion of his study of perceptions of general education teachers toward inclusion of all handicapped students in their classrooms, Stoler (1992) determined that the terms regular education initiative (REI) and least restrictive environment were synonymous with inclusion. He stated that the basic concepts were the same. The least restrictive environment was connected with a continuum of services (Snell & Drake, 1994). Henley, Ramsey, and Algozzine (1996) referred to the least restrictive environment as a full range of special education placements with the intent to provide a student with special needs an education that is as normal as possible. The term mainstreaming was also said to be used interchangeably with inclusion (Rogers, 1993). Rogers referred to mainstreaming as the placement of students with special needs according to their abilities in selected general education classes. These two terms did not meet the generally accepted definition of inclusion that all students with special needs are serviced in general education classrooms (Semmel et al., 1991; Stoler, 1992; Villa et al., 1996; Wilczenski, 1992).

REI movement.

According to Will (1986), the REI movement was organized in response to the lack of studies to substantiate the effectiveness of special education and the increasing costs associated with special education. Fuchs and Fuchs (1994) identified two groups which advocated for REI. The

first group consisted of those interested in students with learning disabilities, behavior disorders, and mild-moderate MR, as well as those interested in at-risk students. The second group included those interested in students with severe disabilities. Fuchs and Fuchs discussed the three goals of REI. The first goal was to establish a single education system. Will (1996) claimed the duality of special education and general education had a negative impact on education. The second goal discussed by Fuchs and Fuchs was to place all students in general education classrooms rather than reviewing individual cases for mainstreaming. The third goal was to strengthen the academic achievement of both students with mild-moderate disabilities and at-risk students.

REI used several strategies for obtaining their goals (Fuchs & Fuchs, 1994). Waivers from state and federal education agencies were obtained to allow more flexibility in using special education resources. Advocates felt the need to either modify or eliminate the continuum of services. In order to attain the goal for all students to be educated in the general education classroom, instruction needed to be individualized and cooperative learning needed to be used in the general education classroom. REI recognized the need to include special education teachers and administrators, not alienate them. REI wanted to incorporate the special education teachers into the general education classroom as co-teachers who shared instruction. Fuchs and Fuchs pointed out that REI was not embraced by general education teachers. The teachers were more interested in student excellence than equity for all students.

Inclusion movement. The inclusion movement grew out of the REI movement (Murphy, 1996). According to Murphy, the main difference was inclusion did not emphasize the system as the REI did, rather it emphasized the

students and programs. Supporters of REI became disillusioned by the lack of interest of general education teachers and the lack of action on the part of special education organizations (Fuchs & Fuchs, 1994). The Association of Persons with Severe Handicaps (TASH) was one organization which became vocal and established itself as a major advocate for inclusion. Fuchs and Fuchs perceived TASH as intimidating to its opponents and narrow in their focus for students with severe disabilities. The first goal of inclusion discussed by Fuchs and Fuchs was to abolish special education by eliminating the continuum of services. The second goal was to enhance the social competence of students and positively affect the attitudes of teachers and students without disabilities towards the acceptance of students with disabilities.

Fuchs and Fuchs (1994) discussed three ways in which inclusionists attempted to attain the goals. The first was to have full inclusion. According to Murphy (1996), some authors tried to make a distinction between the terms inclusion and full inclusion. She stated the distinction was more semantic than a difference in practice. According to Fuchs and Fuchs (1994), inclusion had different meanings for different people. They stated that inclusion ranged from special education services provided in the general education classroom to absolutely no special education teachers or services available. Fuchs and Fuchs referred to full inclusion as TASH interpreted it, the total elimination of special education (i.e., teachers, supports, and services). Full inclusionists believed that special education was responsible for the lack of ability of general education to meet the needs of students with disabilities because these students' needs had been met elsewhere (i.e., continuum of services). Full inclusionists believed that full inclusion would force general education to

become more responsible for all students and therefore improve itself. Full inclusionists attempted to change the standard curriculum. Inclusionists argued that there was no longer one single body of knowledge which all students should learn and the present curriculum did not allow for individual differences and diversity. The third way to attempt change was to use the terminology "all students", which was misleading. Fuchs and Fuchs pointed out that TASH actually acted on behalf of what was best for students with severe disabilities to the point of excluding the opinions of organizations for other disabilities.

Fuchs and Fuchs (1994) predicted that full inclusion would face opposition from special education parent groups and professional organizations if they continued to be adamant and unwavering on their position of the total elimination of the continuum of services. Another prediction was that general education would become disinterested in working with special education to reform education if the proponents of full inclusion continued to deemphasize curriculum, academic standards, student achievement, and teacher accountability. As a result of the uncompromising agenda of full inclusionists (i.e., TASH), special education had divided into two major groups with opposing views. One group supported full inclusion while the other group wanted to maintain the continuum of services. Fuchs and Fuchs interpreted the division as a warning sign which should be heeded or special education would become an entity which would not allow self-criticism and become stagnant.

Teachers' Perceptions of Inclusion

Major issues identified in studies of teachers' perceptions of inclusion were teacher training in special education, time to collaborate, administrative support, and student achievement (Pearman et al., 1992; Semmel et al., 1991;

Shipley, 1995; Siegel, 1992; Stoler, 1992; Villa et al., 1996; Wilczenski, 1992). Studies concluded that teachers' perceptions of students with disabilities and/or inclusion will affect the success of an inclusive program (Semmel et al., 1991; Siegel, 1992; Stoler, 1992; Wilczenski, 1992). An assumption that full integration of a student with disabilities into an inclusive setting would lead to acceptance and support from teachers may not be true (Roberts & Mather, 1995). Conway and Gow (as cited in Roberts & Mather, 1995) stated that teachers became frustrated and distressed by their inability to accommodate students with special needs and did not accept the students socially. Stoler (1992) and Pearman et al. (1992) cautioned against adapting an inclusion model before teachers were adequately trained. Villa et al. (1996) found that teacher commitment was critical in implementing innovations. Villa, et al. also found that teacher commitment often came after implementation, when the teachers had finally mastered the ability to implement the innovation.

Teacher training. Stoler (1992) emphasized the significance of teachers obtaining more knowledge of students with special needs. He surveyed 182 regular education, high school teachers in six school districts in large suburban counties adjacent to large urban areas. One part of his survey determined if regular education teachers with previous training in special education had different attitudes and perceptions towards inclusion than those regular education teachers with no special training. The results showed a statistically significant positive perception of inclusion in teachers with special education training. He identified the regular education teachers' feelings of inadequacy in understanding medical situations, using accommodations, working with instructional aids, and collaborating with special education teachers as a need

for training. In 1991, Semmel et al. surveyed 310 regular classroom educators, 71 special educators, 11 administrators, and 33 support service personnel from 22 public schools in Central and Southern California and Northern Illinois. Semmel et al. also reported the subjects felt they lacked the training to adapt instruction adequately for students with disabilities in an inclusive setting. They stated that teacher training was important to provide regular educators more positive experiences with students with special needs in order to develop a more positive attitude towards inclusion.

Studies were conducted which had implications for post secondary schools of the importance of training. In a survey of 246 general educators, special educators, administrators, classroom aids, and related service staff from a mid-sized Colorado school district, Pearman et al. (1992) also identified the importance of training. They concluded that in order to change attitudes and belief systems towards inclusive education, extensive training and retraining of classroom teachers, as well as educating administrators, parents, students, and the community was necessary. As a result of their study, Pearman et al. suggested that university teacher preparatory programs had to learn what teachers needed and the general education and special education departments had to have communication concerning the training and retraining of teachers.

In their study of 35 postsecondary schools in New York state, Kearney and Durand (1992) found that seven programs required no classes and eight programs required only one class in special education for the students in the regular education teacher preparatory programs. Almost two thirds required students spend less than 16 hours in a mainstreamed classroom. Kearney and Durand recommended postsecondary schools require more courses and field

experiences in teaching mainstreamed students. They suggested the likelihood of increasing teachers' accepting attitudes toward mainstreamed students and their ability to generalize strategies in mainstreamed settings.

Taylor, Richards, Goldstein, and Schilit (1997) agreed that training in the application of REI must be introduced at the undergraduate level. They surveyed 96 graduate and undergraduate students (i.e., general education undergraduates, special education undergraduates, general education graduates, and special education graduates) enrolled in teacher preparatory programs concerning their perceptions of REI. Each teacher was directed to rate his/her level of agreement/disagreement on a 14-item Likert-type scale. The subjects were consistent across all four groups in their agreement or disagreement concerning the philosophy of REI. However, the groups differed in their perception of implementation of curriculum and instructional methods. General and special educators showed a statistically significant difference ($p < .001$) concerning placement of students with MR. General education graduates (79%) and undergraduates (42%) disagreed that students with MR should be taught in general education classrooms, while special education graduates (48%) and undergraduates (71%) agreed that students with MR should be taught in general education classrooms. A higher percentage of undergraduates than graduates agreed that students with MR should be taught in general education classes. Taylor et al. (1997) suggested that undergraduates would be more flexible and open to change than graduates toward educating students with MR in general education classrooms.

Shipley (1995) surveyed 28 elementary teachers and 54 parents of gifted students, students with learning disabilities, and regular education students.

Ninety-four percent of parents and 98% of teachers reported regular classroom teachers were not properly trained for inclusion to be successful. Regular education teachers reported they were not trained to adapt materials until after a student with special needs was placed in their classroom. Some regular education teachers reported having received no training or training which was based on ideals and philosophy rather than concrete techniques. Roberts and Mather (1995) recommended that teacher training needed to go beyond the informative stage and teach how to implement in order for inclusion to be successful. Shipley (1995) recommended training teachers in adapting curriculum to meet the needs of all students.

Siegel (1992) examined teachers' perceptions of student behavior to explain their attitudes toward students with learning disabilities and nondisabled students in an inclusive setting. Forty-four elementary school regular educators who taught in an inclusive classroom filled out a Teacher Attitude Survey and a Teachable Pupil Survey on selected students in their classrooms with and without disabilities. The results showed that teachers' perceptions of students were not based on the students' special needs but were affected by the students' behavior regardless of the disability. However, many of the students the teachers identified as having inappropriate behaviors, were students with disabilities who had difficulty adjusting to the inclusive setting. Siegel recommended training for handling behaviors of students with special needs in an inclusive setting.

Cheney and Demchak (1996) recommended using a systematic process of planning and collaboration which resulted in the successful inclusion of a student with Down Syndrome in a rural third/fourth grade classroom. Cheney

and Demchak stated that training did not have to consist of formal workshops or college courses. They further stated that within school divisions, some personnel had already acquired a certain amount of knowledge concerning inclusion and could be used to train others.

Collaboration. Collaboration was also a major issue identified in the research. Cook and Friend (1991) defined collaboration as, "a style for direct interaction between at least two co-equal parties voluntarily engaged in shared decision making as they work toward a common goal" (pp. 6-7). They stressed that professionals should be allowed time to develop the ability to collaborate. In his study, Stoler (1992) reported that regular educators had a statistically significant positive response to their feelings of a loss of autonomy with a special education teacher in the classroom. He discussed the need for team-teacher training. In their study of 578 general educators, 102 special educators, and 10 unidentified subjects, Villa et al. (1996) found the majority of subjects believed that general and special educators shared a responsibility as equal partners for meeting the needs of all students in an inclusive setting. The 32 schools in which the subjects taught were chosen due to their efforts to provide inclusive education for all students in their schools. The majority of subjects also stated that collaboration of general and special educators enhanced feelings of competency for both, promoted participatory decision making, facilitated the belief in the feasibility and practice of educating all children together, and developed a system of mutual support.

Villa et al. (1996) also discussed the need for teacher education programs to teach collaborative skills as well as allow collaborative experiences between undergraduates in the general and special education

teacher preparatory programs. Kearney and Durand (1992) reported less than 33% of the 35 regular education teacher preparatory programs surveyed in the state of New York required training in collaborative teaching. Kearney and Durand recommended strategies to improve collaboration between general and special educators be introduced at the undergraduate level.

In an article which summarized a series of studies concerning teacher and student perceptions of instructional adaptations for students with special needs, Schumm and Vaughn (1995) determined that a lack of collaboration was one reason inclusion was ineffective. Communication between general and special educators was described as being incidental, infrequent, rare, and focused on school routines, schedules, and behavior problems rather than student learning. Teacher education training must allow opportunities for general and special educators to work in collaborative roles (Schumm & Vaughn, 1995).

Semmel et al. (1991) reported fewer than 33% of the subjects in their study believed the most effective environment for educating students was the regular classroom with collaboration between the general and special educators. Semmel et al. suggested the agreement would increase if the subjects were able to learn how to collaborate and be exposed to positive experiences in collaboration. In Pearman et al.'s 1992 study, teachers, building principals, and district administrators agreed collaboration was necessary across all school levels (i.e., elementary, middle, and high school), in order to have successful inclusion. Cheney and Demchak (1996) stressed in order for inclusion to be successful, effective collaboration between all parties involved in the education of a student with special needs must take place. Price (1991)

emphasized that teachers must improve communication skills in order to work in collaborative situations.

Administrative support and student achievement. In studies by Stoler (1992) and Villa et al. (1996), teachers were in agreement about their concerns for administrative support. The studies identified administrative support as a major factor which affected teachers' attitudes toward inclusion. Villa et al. also reported their subjects felt the achievement levels of students with disabilities would not decrease in an inclusive setting. Semmel et al. (1991) reported subjects did not anticipate an improvement in the achievement levels for students with special needs or nondisabled students. In fact, Stoler (1992) reported that respondents in his study felt inclusive education would negatively affect the ability of regular education students to receive the time and attention they needed to develop within their educational program. Shipley (1995) further stated that teachers reported so much of their time would be spent adapting content for students with special needs that the regular education students would suffer from from a weaker version of the original curriculum.

Teachers' Perceptions of Supports and Resources

Wolery, Werts, Caldwell, Snyder, and Lisowski (1995) conducted a study of the perceptions of experienced teachers concerning which resources and supports were needed and available for inclusion of students with special needs. The subjects were 119 general educators and 45 special educators in Pennsylvania who had experience with inclusion. They were given a questionnaire which contained five sections. The second section listed 24 statements of resources and supports in the areas of training, material assets, support personnel, personal support, and meetings.

In the area of training, 87% of all respondents perceived it as necessary but less than 50% stated it was available. More than half of all subjects reported that material assets were necessary and over 40% stated they were available. In the area of support personnel, the respondents varied depending on the type of support personnel. Variation was also reported in the area of personal support. Teachers rated support from administrators as needed and available but support from special education consultants and families were reported as necessary but not available. More than 80% of subjects reported needing regular meetings with specialists with release time. Less than 60% stated this support was available.

Special educators reported that certain support personnel were needed at a greater percentage than general educators. A greater percentage of special than general educators reported that items related to meetings were necessary. Larger percentages of special educators than general educators reported the availability of resources and supports. The two areas reported as needed by high percentages of all respondents were personal support and training. More specifically, a high percentage of respondents reported the need for training in inclusion but a low percentage reported it was available. Wolery et al. (1995) recommended that teachers should be asked what they need for successful inclusion, training should be made available, personal support should be provided, and time to meet with specialized personnel should be available.

Modifications, Strategies, and Accommodations

When a general education teacher individualized instruction and adapted teaching strategies, the success rate for students with mild learning

problems increased (Roberts & Mather, 1995). Schumm and Vaughn (1995) found that many general education teachers were unaware of what instructional methods and procedures were used in special education classes. Some general education teachers were familiar with strategies but were unsure how to implement the strategies effectively and still meet the needs of all the students in their classes. Curriculum overlapping was a strategy discussed by Giangreco (1993) as a way to include students in a shared activity with differing individually appropriate outcomes. For example, some students in a group working on a science experiment may be required to learn the vocabulary, theory, and process for their science curriculum while others may be required to follow one-step oral directions for their communication curriculum.

In their paper concerning life skills instruction, Clark, Field, Patton, Brolin, and Sitlington (1994) identified the general education classroom as the first setting in which life skills should be taught to students with disabilities. They stressed the importance of life skills instruction for all students. They listed the following accommodations of strategies and procedures within an inclusive setting: outcomes based education, curriculum matrixing, cooperative learning, peer tutoring, mastery learning, and collaborative teaching and planning among general and special educators as well as family.

Cooperative learning and peer tutoring were two widely used strategies in general education classrooms (Clark et al., 1994; Scruggs & Mastropieri, 1992). Cooperative learning involved students working together in small groups to facilitate the learning of all the students in the group with the emphasis on cooperation and shared responsibility. In peer tutoring, regular education students acted as tutors for students with mild disabilities. Students

with mild disabilities could also tutor younger peers. Peer tutoring was described as being often beneficial to both participants (Meese, 1994).

Scruggs and Mastropieri (1992) identified eight general areas for students with mild disabilities to succeed in general education classrooms: attention, memory, intellectual abilities, language, social/behavioral characteristics, affective or motivational factors, basic academic skills, and study/organizational skills. They described 37 strategies or accommodations to help ensure success for students with mild disabilities in the eight general areas. Some of the accommodations were used by the general education teacher such as proximity, direct appeals, reinforcement, allowing sufficient time for answers, and creating a positive, caring, classroom atmosphere. Strategies that required the general and special educator to modify instruction were: modify the rate and presentation of the curriculum, highlight important materials, present information so it is meaningful to all students, teach to specific objectives in an organized manner, and establish goals for learning. Suggestions were given for modifying the curriculum: provide additional time to learn, integrate language activities, teach social skills, plan hands-on activities, and teach study skills, cognitive strategies, and test-taking skills. Strategies for the special education teacher included teaching the student with special needs self-recording techniques, mnemonic devices, and external memory systems. The use of peer tutors and parent tutors were also suggested as accommodations. Scruggs and Mastropieri believed if teachers made accommodations for the special needs of students with mild disabilities, teachers would increase the success rate in the general education classroom.

Matching Accommodations to Students' Needs

Cohen and Lynch (1991) devised a quick and simple method for matching adaptations to students with special needs, a seven-step instructional modification process. In step one, the teacher identified the elements that could be controlled. The areas of control by the teacher included the physical and social environment of the classroom, lesson development, selection of activities and materials, classroom management procedures, and evaluation. In step two, the teacher, independently or with help developed a list of instructional modifications that could be easily implemented. Some examples of areas that could be modified were materials, presentation, management, instruction, content, and task. In the third step, the teacher determined if there was a need for instructional modification and if it fell within the teacher's control. The development of a problem statement in step four directed the selection of modifications. In step five, the teacher selected modifications from the list. The teacher ranked the list of selected modifications in step six and implemented the modifications in step seven. According to Cohen and Lynch, the instructional modification process described was a valuable tool to general and special educators due to the variety of problems that could be addressed.

Teachers' Perceptions of Making Adaptations

Meikamp and Russell (1996) surveyed 200 middle and high school regular education teachers from south central West Virginia. The purpose of their study was to examine the teachers' usage of curricular adaptations for inclusion of students with mild disabilities. The subjects were directed to rate 22 curricular adaptations as those they use, do not use, or would consider using. Meikamp and Russell reported six of the 22 adaptations were routinely used by

the subjects: allow students extra time to complete assignments (95%); pair low-ability students with peer tutors for study, review, and/or test preparation (88%); place students in cooperative groups to complete assignments (85%); highlight the most essential information on handout material (68%), provide outlines of textbook chapters (56%), and preview questions/guides for upcoming class discussions (56%). The least used were: use tape-recorded tests with poor readers (25%), provide alternative textbooks written to a lower readability level (27%), use alternative tests with simplified readability for poor readers (29%), tape-record content from text (30%), and provide supplementary content written to a lower readability level than the textbook (31%). The subjects indicated a strong willingness to consider using curricular adaptations they were not presently using.

Meikamp and Russell (1996) suggested the adaptations to which the subjects responded most positively were those general education teachers commonly used and in which they had been trained. Due to the positive response of willingness to use curricular adaptations that were not presently used, Meikamp and Russell suggested if teachers were aware of and trained in these areas, they would use the curricular adaptations routinely. They highly recommended training for general education teachers in adapting curriculum.

Schumm, Vaughn, Haager, et al. (1995) also gave recommendations for teacher training. They studied 12 general education teachers, four from each school level, who were identified as being effective working with students with learning disabilities (LD). The results indicated that these teachers did not preplan specifically for the students with LD but planned for the diversity of all the students in the class. Some teachers provided accommodations for

students with LD as long as it fell within the framework of planning for the whole class. Any accommodations that were provided for individual student needs were made "in the moment" of teaching rather than being preplanned. Schumm, Vaughn, Haager, et al. (1995) recommended that general educators needed to learn accommodations that could be implemented instantaneously as the need arose.

McIntosh, Vaughn, Schumm, Haager, and Lee (1993) were concerned with the results of their study comparing the behaviors (e.g., making adaptations) of 60 general education teachers toward mainstreamed students with learning disabilities (MSLD) and general education students. The purpose of the study was to determine the degree of accommodations for MSLD made by effective general education teachers across grade levels. The 20 teachers from each group by grades (i.e., elementary, middle, and high school) were identified as being effective in meeting the needs of MSLD by their principals and a self-rating scale. As part of the study, one MSLD student from each teachers' classes was randomly selected and observed. The observers in the study indicated that the behaviors of teachers were consistent across groups by grade level and were not significantly different for MSLD and general education students. Teachers at the elementary level made more instructional modifications than at the middle or high school levels. McIntosh et al. (1993) reported a significant difference between MSLD and general education students in student-initiated behavior and student-teacher interactions.

The study showed that MSLD were accepted and treated fairly by the teachers. MSLD were also involved in the same seating arrangement, involved in the same activities, and used the same materials as general education

students (McIntosh et al., 1993). However, the teachers who were viewed as being effective with MSLD did not differentiate the instruction in the mainstreamed classroom and made few adaptations to meet the needs of the MSLD. The MSLD participated very little in class activities, were not engaged in the learning process, rarely asked for help, did not volunteer answers, and interacted infrequently with the teacher or general education students. McIntosh et al. suggested two issues that needed to be addressed: identifying which MSLD were learning in large-group instruction with little adaptations and understanding which expectations of classroom teachers concerning adaptations were realistic to meet the needs of MSLD. McIntosh et al. stated that "despite the need for teacher adaptations, both teachers and students may ignore or actively resist making adaptations in general education classrooms" (p. 260). That is, if students with learning disabilities responded negatively to adaptations because the adaptations caused the students to be identified negatively by classmates, teachers may be less likely to plan for adaptations in the future (Schumm, Vaughn, Haager, et al., 1995).

Schumm and Vaughn (1991) surveyed 25 elementary, 23 middle, and 45 high school general educators from a metropolitan school district in the southeastern United States. Their purpose was to assess teachers' willingness to make adaptations for special learners in their mainstreamed classroom. The teachers had to rate 30 adaptations in terms of desirability and feasibility in their classrooms on a seven point Likert-type scale.

For every adaptation, the difference between the desirability and feasibility means was statistically significant at the $p < .01$ level. The most desirable adaptations were to provide reinforcement or encouragement,

establish personal relationships with mainstreamed students, and invite mainstreamed students to participate in whole class activities. The least desirable were to adapt long-range plans, adjust the physical arrangement of the room, adapt regular materials, use alternative materials, and adapt the scoring/grading criteria. The most feasible were to establish routines appropriate for mainstreamed students, provide reinforcement and encouragement, establish personal relationships with mainstreamed students, establish expectations for mainstreamed students, and involve mainstreamed students in whole class, activities. The least feasible were to communicate with mainstreamed students, adapt regular materials, use alternative materials, use computers, and provide individualized instruction.

Schumm and Vaughn (1991) reported statistically significant differences between groups based on grade levels for two desirability items and one feasibility item. The high school teachers' means were higher than those of middle school teachers on two desirability items, communicate with special education teacher and establish expectations for mainstreamed student. The elementary teachers' means were higher than the high school teachers' means on one feasibility item, using computers to enhance learning.

According to Schumm and Vaughn (1991), the items perceived as most desirable related to the social or motivational adjustment of the mainstreamed student. The items perceived as least desirable required change in planning, curriculum use, and evaluation procedures. Teachers responded that all items were significantly more desirable than feasible. The most feasible adaptations required little individualization for planning, instruction, and altering the environment and the least feasible adaptations required these changes.

Teachers rated adaptations in materials and instruction as neither desirable nor feasible. There were few differences between groups based on grade level. Schumm and Vaughn indicated their findings may mean the expectations that general education teachers will make adaptations in the areas of planning, instruction, and curriculum may not be realistic. They also stated that teachers may not have the appropriate knowledge to make these adaptations.

Statement of Purpose

The research reviewed strongly indicated a dichotomy of opinions within the fields of special and general education concerning the appropriate placement for students with mild-moderate MR, the type of modifications necessary for placement in an inclusive setting, and the appropriate training of general education teachers. Although several studies were conducted in the area of general education teachers' perceptions of modifications for students with special needs in an inclusive setting, very few studies have been conducted to include the perceptions of special education teachers as well as the desirability and feasibility of modifications. A study comparing the perceptions of general and special education teachers will give added information to the limited body of research presently available. Therefore, the purpose of this study was to investigate the perceptions of general and special education teachers concerning the desirability and feasibility of modifications for students with mild-moderate MR in the general education classroom. The following null hypotheses were tested in order to examine this issue:

1. There is no significant difference in the perceptions between general and special educators of the desirability and feasibility of modifications for students with mild-moderate MR in the general education classroom.

2. There is no significant difference in the perceptions of all respondents of the desirability and feasibility of modifications for students with mild-moderate MR in the general education classroom based on groups by grade level.

3. There is no significant difference in the perceptions of all respondents of the desirability and feasibility of modifications for students with mild-moderate MR in the general education classroom based on years of teaching experience.

4. There is no significant difference in the perceptions of all respondents of the desirability and feasibility of modifications for students with mild-moderate MR in the general education classroom based on gender.

5. There is no significant difference in the perceptions of all respondents of the desirability and feasibility of modifications for students with mild-moderate MR in the general education classroom based on experience making modifications.

6. There is no significant difference in the perceptions of general educators of the desirability and feasibility of modifications for students with mild-moderate mental retardation in the general education classroom based on special training in making adaptations to instruction for students with mild-moderate mental retardation.

7. There is no significant relationship in the perceptions of all respondents between the desirability and feasibility of modifications for students with mild-moderate MR in the general education classroom.

Method

Design and Subjects

A survey research method was used to collect data for this study. A convenience sampling was used to select the rural, public school divisions in south central Virginia, general education teachers, and special education teachers. The total number of subjects was 192, which included 96 teachers from general education and 96 teachers from special education. The subjects were from each level within a school division: elementary, middle, and high school. Participation in this study was completely voluntary.

Instrument

Parallel questionnaires of the Desirability and Feasibility of Modifications Survey (DFMS) were used for this study, one designed for general education teachers (see Appendix A) and one for special education teachers (see Appendix B). The questionnaire was adapted by the researcher from an instrument designed by Schumm and Vaughn (1991), the Adaptation Evaluation Instrument (AEI). The AEI consisted of a list of 30 adaptations for students who were mainstreamed. Teachers were instructed to rate each of the adaptations as to the desirability and feasibility using a seven point Likert-type scale (1 = low, 7 = high). Schumm and Vaughn reported a reliability coefficient of .97 for the desirability subscale and .95 for the feasibility subscale. They established content validity through a literature review and transcripts of focused group interviews with teachers. The adaptations obtained from above were coded into categories independently by two researchers. Adaptations that were not classified into the same category were resolved through conferences.

Section I of the DFMS requested demographic information such as grade level taught, years of teaching experience, gender, special education training, and experience making modifications. Definitions were included for students with mild-mental retardation and inclusion. Section II addressed the perceptions of teachers of the desirability and feasibility of modifications for students with mild-moderate MR educated in the general education classroom. For Section II of the DFMS, the 30 questions from the AEI were modified by substituting the term students for mainstreamed students. Students on the survey referred to students with mild-moderate MR educated in an inclusive general education classroom. The teachers were instructed to rate each of the adaptations as to the desirability and feasibility using a five point Likert-type scale (1 = strongly disagree, 5 = strongly agree).

Procedure

A cover letter (see Appendix C) was sent to each superintendent of the eight, rural school divisions in south central Virginia selected to participate in this study. The letter explained the purpose of the study, emphasized the confidentiality of the data collected, and stressed the anonymity of the school division and subjects. Once permission was granted by a school division, a packet containing a cover letter (see Appendix D) to the principals with directions for distribution of the surveys to subjects and survey packets for the subjects was mailed. Subjects received an envelope containing a cover letter (see Appendix E), a survey, and a self-addressed stamped envelope. The subjects were informed of the purpose of the research, the voluntary nature of the survey, the confidential treatment of information, and the preservation of anonymity. The subjects were asked to complete and return the survey directly

to the researcher within 10 days. Surveys were coded for the purpose of identifying which surveys had been returned. The code was removed prior to data analysis to ensure the anonymity of the subjects and the school divisions. The researcher made follow-up calls to the principals of schools in which surveys were not returned within 14 days. The principals were asked to remind the participating teachers who had not yet returned their surveys to complete and return their surveys.

Analysis of Data

The results of the study were analyzed using both descriptive and inferential statistics. The data concerning relationships between perceptions and demographic variables were tested using chi-square, t-test, and analysis of variance. The relationship between the means for desirability and feasibility of modifications was tested using Pearson-r. Comments were analyzed using qualitative analysis.

Results

Questionnaires were mailed to 192 (N = 192) special (n = 96) and general education (n = 96) teachers. Of the 192 surveys, 113 (58.85%) were returned and 103 (53.65%) were scorable. Three surveys were not scorable as more than 50% of the questions were not answered and seven surveys were returned after the statistical analysis was completed. Of the 96 special education teachers, 63 (65.63%) responded. Of the 96 general education teachers, 50 (52.08%) responded. Of the total number of respondents with scorable surveys (N = 103), 57 (55.34%) were special education teachers and 46 (44.66%) were general education teachers (see Table 1). Of the 103 respondents, 11 (10.68%) were males and 92 (89.32%) were females.

The respondents were almost equally distributed across groups by grade level. Of the 103 respondents, 35.92% (n = 37) were from the elementary school grades K-4, 33.98% (n = 35) were from the middle school grades 5-8, and 30.10% (n = 31) were from the high school grades 9-12.

Of all the respondents (N = 103), 89 (86.41%) have had experience teaching students with mild-moderate mental retardation. Eighty-three (80.58%) of the respondents have made modifications for students with mild-moderate mental retardation to assist in the general education classroom.

Of the 46 general educators, 25 (54.35%) have had coursework, workshops, or inservice training in adapting instruction for students with mild-moderate mental retardation (see Table 2). Of the 57 special educators, 42 (73.68%) were licensed to teach students with mental retardation and 15 (26.32%) were licensed to teach students with other disabilities (see Table 3).

Testing the Hypotheses

Hypothesis 1. There is no significant difference in the perceptions between general educators and special educators of the desirability and feasibility of modifications for students with mild-moderate mental retardation in the general education classroom.

The total number of subjects responding to this item was 103. Of those, 46 were general educators and 57 were special educators. The hypothesis was tested using a two-tailed t-test for independent samples (see Table 4). The t-value (101) for desirability was -.79. The t-value (101) for feasibility was -.19. Both t-values were not significant at the .05 level. Therefore, the null hypothesis was retained. That is, there was no significant difference between the means of the general educators and the special educators in their perceptions of the desirability and feasibility of modifications for students with mild-moderate mental retardation in the general education classroom.

Hypothesis 2. There is no significant difference in the perceptions of all respondents of the desirability and feasibility of modifications for students with mild-moderate mental retardation in the general education classroom based on groups by grade level.

The total number of subjects responding to this item was 103. Of those, 46 were general educators and 57 were special educators. The hypothesis for desirability and feasibility was tested using a chi-square (χ^2) (see Table 5). The χ^2 value (14, N = 103) for the desirability variable was 20.95 which was not significant (p = .05). The χ^2 value (20, N = 103) for the feasibility variable was 19.97 which was not significant (p = .05). Therefore, there was no statistically

significant difference between groups by grade level concerning their perceptions of the desirability and feasibility of modifications for students with mild-moderate mental retardation in the general education classroom.

Hypothesis 3. There is no significant difference in the perceptions of all respondents of the desirability and feasibility of modifications for students with mild-moderate MR in the general education classroom based on years of teaching experience.

Of the total number of respondents (N = 103) to this item, 46 were general educators and 57 were special educators. The difference in the mean scores between the groups was tested by a one-way analysis of variance (see Table 6). The F-calculated values (3, 99) of .50 for desirability and 1.36 for feasibility did not exceed the F-critical value of 2.70 at the .05 level. Therefore, the hypothesis was retained for both desirability and feasibility.

Hypothesis 4. There is no significant difference in the perceptions of all respondents of the desirability and feasibility of modifications for students with mild-moderate MR in the general education classroom based on gender.

The total number of subjects responding to this item was 103. Of those, 46 were general educators and 57 were special educators. The difference in the mean scores between the groups was tested using a two-tailed t-test for independent samples (see Table 7). The t-values (101) of .12 for feasibility and 1.7 for desirability did not exceed the t-critical value of 1.98 (p = .05). There were no statistically significant differences between the means for desirability and feasibility based on gender.

Hypothesis 5. There is no significant difference in the perceptions of all respondents of the desirability and feasibility of modifications for students with

mild-moderate MR in the general education classroom based on experience making modifications.

Of the total number of respondents (N = 103) to this item, 46 were general educators and 57 were special educators. The difference in the mean scores between the groups was tested by a one-way analysis of variance (see Table 8). The F-calculated values (2, 100) of 3.56 for desirability and .34 for feasibility did not exceed the F-critical value of 19.49 at the .05 level. Therefore, the hypothesis was retained for both desirability and feasibility.

Hypothesis 6. There is no significant difference in the perceptions of general educators of the desirability and feasibility of modifications for students with mild-moderate mental retardation in the general education classroom based on those who have and have not received special training in making adaptations to instruction for students with mild-moderate mental retardation.

The total number of subjects responding to this portion of the survey was 46 general educators. Of those, 25 teachers had either coursework, workshops, or inservice training in making adaptations for students with mild-moderate mental retardation and 21 had no specialized training. The hypothesis for desirability and feasibility was tested using a chi-square (χ^2) (see Table 9). The χ^2 value (14, n = 46) for the desirability variable was 21.32 which was not significant (p = .05). The χ^2 value (20, n = 46) for the feasibility variable was 12.76 which was not significant at the (p = .05). Therefore, the null hypothesis was retained. That is, there was no statistically significant difference between the means of the perceptions of general educators, who have and have not had special training in making adaptations, of the desirability and feasibility of

modifications for students with mild-moderate mental retardation in the general education classroom.

Hypothesis 7. There is no significant relationship in the perceptions of all respondents between the desirability and feasibility of modifications for students with mild-moderate MR in the general education classroom.

The total number of subjects responding to this item was 103. Of those, 46 were general educators and 57 were special educators. The correlation coefficient between desirability and feasibility was obtained using Pearson-r (see Table 10). The r-value (101) was found to be .25. This exceeded the r-critical value of .19 at the .05 significance level for two-tailed tests. Therefore, there was a significant relationship. As the feasibility increased, the desirability level also increased.

The mean score for each modification was higher than the mean score for feasibility. The five modifications rated as most desirable (see Table 11) and most feasible (see Table 12) by all respondents concerned the social or motivational adjustment of students. The five modifications rated as least desirable (see Table 11) and least feasible (see Table 12) by all respondents required teachers to adjust instructional practices, classroom management, and materials.

Qualitative Analysis

Although the researcher did not provide a section for comments, 21 surveys were returned with 63 comments. Of the 63 comments, 45 were written by general educators (n = 14) and 18 were written by special educators (n = 7). Qualitative analysis was used to analyze comments by themes (see Table 13).

Of the 63 comments, time (f = 22) was the most frequently mentioned factor for both general educators (f = 15) and special educators (f = 7). Time was mentioned as a restriction for the feasibility of modifications such as collaboration, adapting materials, adapting evaluation, communication, and monitoring students' progress. One special educator wrote, "All modifications are necessary - time is the only problem with whether they are feasible."

Adapting strategies, materials, and evaluation was a concern for general educators (f = 10) but was not mentioned by special educators (f = 0). One general educator wrote, "I don't think gen. ed. teachers should have to hassel [sic] with such irregular strategies." Another general educator said, "If in a regular classroom, regular rules and strategies should apply."

Class size (f = 7) and resources (f = 6) were also a concern to general educators but not as great a concern to special educators (class size f = 1, resources f = 1). Special educators mentioned collaboration (f = 4) and administrative support (f = 3) as their next areas of concern after time. One special educator stated, "Most of these [modifications] would depend on the cooperativeness, dedication and flexibility of regular classroom teachers." According to general educators, collaboration (f = 2) and administrative support (f = 1) were the least mentioned of their concerns.

The acceptance by general education students was mentioned by two general educators and one special educator. "I have different opinions about encouraging classmates to respect them [students with mild-moderate mental retardation].", was a comment by a general educator. A special educator responded, "Students tend to torment 'different' students."

Support personnel was commented on by one general educator who stated, "Inclusion does not work unless the school system is willing to provide appropriate support people." A special educator made a comment which showed that having support personnel made a difference: "The past two years have been unique to my inclusion teaching. I have had a full time instructional assistant and this has provided my two reg. ed. teacher colleagues with adequate support."

Discussion

No statistically significant difference was found for the perceptions of all respondents of the desirability and feasibility of modifications for students with mild-moderate mental retardation based on type of teacher, groups by grade level, years of teaching experience, gender, and previous experience making modifications. Also, no statistically significant difference was found between the perceptions of general educators based on training in special education. The results concerning the demographic variable, groups by grade level, were consistent with results found by Schumm and Vaughn (1991). Schumm and Vaughn also reported few differences in the perceptions of teachers based on groups by grade level.

The results based on some other variables such as years of teaching experience and special education training were not consistent with previous research. A possible reason may be that much of the previous research has been conducted in suburban and urban areas, rather than in rural areas. Teachers in suburban and urban areas tended to be more specialized in their job descriptions than teachers in rural areas. Teachers in rural areas were frequently required to fulfill multiple roles (Larsen, 1993; Queitzsch & Hahn, 1995).

One of the reasons cited by researchers in the past for teachers' reluctance in making modifications was a greater number of years of teaching experience (Taylor et al., 1997). However, the comments made by the respondents in this study showed that they were willing to make modifications if they had enough time. This was also reflected in the studies by Cook and Friend (1991), Shipley (1995), and Schumm and Vaughn (1995). Cook and

Friend (1991) stressed that time was needed to develop collaborative partnerships. Shipley (1995) reported that teachers felt too much of their time was spent adapting content for students with disabilities. Schumm and Vaughn (1995) found that general educators did not preplan adaptations for students with special needs in their classes because of insufficient planning time. Time was the most frequently mentioned restrictive factor for implementation of modifications in this researcher's study. Modifications identified as least desirable and feasible required the teacher take time to implement the modifications. Lack of time may be the equalizing factor for all teachers regardless of their years of teaching experience.

The perceptions of teachers who had previous experience with making modifications were not significantly different than those who had no previous experience. A possible reason for this was addressed by Schumm, Vaughn, Haager, et al. (1995). Students with learning disabilities reacted negatively to modifications by teachers because the students felt different than their classmates. Because of this, teachers stopped using the modifications. McIntosh et al. (1993) also stated that teachers and students may ignore or resist making adaptations. A possible reason for the inconsistency may be that teachers who have had previous experience making modifications may have viewed their efforts as unsuccessful because the modifications were perceived as too obtrusive in the general classroom setting. Another reason may be that some teachers who responded they had no previous experience making modifications, truly had. Many strategies were commonly used by general educators (Meikamp & Russell, 1996) such as cooperative learning and peer tutoring (Clark et al., 1994; Scruggs & Mastropieri, 1992). Teachers who use

these strategies may not perceive these strategies as ones that are used for students with special needs because they are so common place to the regular classroom.

The difference in the perceptions of the desirability and feasibility of modifications was not statistically significant between general and special educators. This is inconsistent with Shipley (1995) who found that 94% of parents and 98% of teachers surveyed reported regular classroom teachers were not properly trained for inclusion to be successful. Kearney and Durand (1992) found that undergraduate, general education programs required few classes or experiences in special education. Taylor, et al. (1997) found a statistically significant difference between general and special educators concerning placement of students with mental retardation. Based on previous studies, it would be reasonable to expect that special educators would have a more positive response than general educators. A reason for the inconsistency may be that the teachers who took the time to respond may be concerned teachers who care about the issues addressed in this research. Therefore, the general educators who responded may have a more positive perception of the desirability and feasibility of modifications than the population of general education teachers.

Special training for general educators was stressed in much of the previous research. The results of the present research concerning training in special education is inconsistent with previous research. Stoler (1992) found a statistically significant positive perception of inclusion in general educators with special training. Semmel et al. (1991) reported that general educators felt they lacked the necessary training to adapt instruction adequately. Kearney and

Durand (1992) suggested that training in special education would increase the ability of general educators to utilize strategies in the general education classroom. Regular educators reported they received training in ideas and philosophies concerning inclusion rather than concrete techniques (Shipley, 1995). Wolery et al. (1995) reported that 87% of all respondents perceived training as necessary; however, less than 50% said training was available. The reason there may not be a significant difference is the same as suggested for experience making modifications. The general educators who responded to this researcher's survey may not be typical of the population of general education teachers as they were selected through a convenience sampling rather than a random selection. The general educators who responded may be teachers who truly care about teaching all students and may have a more positive perception of the desirability and feasibility of modifications than the population of general education teachers.

The relationship in the perceptions of all respondents between the desirability and feasibility of modifications for students with mild-moderate mental retardation in the general education classroom was statistically significant. This result was consistent with the result found by Schumm and Vaughn (1991). An item analysis of the questions on desirability and feasibility showed that the social or motivational adjustment of the students was the most desirable and feasible. The two desirability modifications with the highest mean scores required the teacher to establish expectations for students (i.e., expect the best) and respect students as individuals with differences. The two feasibility modifications with the highest mean scores required the teacher to respect students as individuals with differences and be consistent so the

students know what is to be expected. These modifications may have been rated highest by respondents because the teacher is required to make very few adaptations with limited, if any, additional planning time.

An item analysis of the questions on desirability and feasibility showed the adjustment of instructional practices, classroom management, and materials to be the least desirable and feasible. The two desirability modifications with the lowest mean scores required the teacher provide individual instruction and use alternative materials. The two feasibility modifications with the lowest mean scores required the teacher provide individual instruction and adapt general classroom materials. These modifications may have been rated lowest because they are time consuming and take great effort by the teacher.

The mean score for each of the 30 modifications was higher for desirability than feasibility. This was also reflected in a comment written on a survey by a general educator. "I think all of these [modifications] apply to ALL students as individuals, and especially to any whose 'differences' affect learning. I also believe feasibility of implementation lags eternally behind desirability through lack of A) time, B) energy, and C) resources available to caring teachers."

Many of the sentiments from the caring teachers who have responded to the survey for this research are echoed in this statement written on a survey by a special education teacher:

> I would love to see more Inclusion but I have so many responsibilities that I do not have time even once a week to meet with 1/9th of the teachers I need to meet with to attempt to meet the needs you address in this rating scale. This is both frustrating and saddening to a teacher who

values education and believes in the potential of all students. Building collaborative relationships takes time. We have so little.

Limitations of the Study

The low percentage of surveys returned may have an effect on the generalizability of the results. Also, the school divisions and subjects for this study were chosen by a convenience sampling which may limit the generalizability of the results. Finally, the restricted sample using only rural school divisions in south central Virginia may affect the ability to generalize the results of this study.

Recommendations

The following recommendations should be considered for future studies. The subjects of this study were selected from rural school divisions in south central Virginia using a convenience sampling method. A random sampling method using school divisions from rural, suburban, and urban areas across the state of Virginia may enhance the generalizability of this study. A study of the perceptions of general and special education teacher pairs, who are involved in a collaborative partnership in an inclusive setting, towards the desirability and feasibility of modifications for students with mild-mental retardation should be conducted to determine if there is a difference. It would also be helpful to identify exactly why teachers consistently rate the desirability of modifications higher than the feasibility of modifications for students with special needs. A need exists for research to be conducted in order to investigate strategies or interventions to decrease or eliminate those factors which inhibit the feasibility of modifications for students with special needs.

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Appendix A

Survey for General Education Teachers

Desirability and Feasibility of Modifications Survey: General Education Teachers

Section I

Directions: Please circle the most appropriate answer which pertains to you.

Definitions: Students with Mild-Moderate Mental Retardation - Students who have been identified and found eligible for special education services. Students are functioning at least two years below their chronological-aged peers, academically. Students also have difficulties in the area of adaptive behaviors.

Inclusion - Students with special needs are educated in the general education classroom with any necessary special services provided by a special education teacher within the general education classroom.

1. School Level Presently Teaching:

   a. Elementary K-5
   b. Middle 6-8
   c. High School 9-12
   d. Other _____

2. Subject Presently Teaching:

   a. Language Arts
   b. Mathematics
   c. History
   d. Science
   e. All Subjects
   f. Other _____

3. Number of Years Teaching:

   a. 1-10
   b. 11-20
   c. 21-30
   d. 31 +

4. Gender:

   a. Male
   b. Female

5. Please list all areas in which you are licensed.

   a. _____
   b. _____
   c. _____
   d. _____

6. Have you had any coursework or workshops in adapting instruction for students with mild-moderate mental retardation?

   a. Yes
   b. No

6b. If yes, please describe. _____
_____

7. Have you ever taught students with mild-moderate mental retardation in your classroom?

   a. Yes
   b. No

8. Have you ever made modifications for students with mild-moderate mental retardation in your classroom?

   a. Yes
   b. No

9. Are you presently teaching students with mild-moderate mental retardation in your classroom?

   a. Yes
   b. No

Section II

Directions: Rate each of the modifications listed below on a 1 to 5 scale (1= strongly disagree; 5= strongly agree) in terms of its *desirability* (how much you would like to implement the modification in an inclusive classroom) and its *feasibility* (how practical it would be to actually implement the modification in an inclusive classroom).

Students on this survey refer to students with mild-moderate mental retardation, educated in an inclusive general education classroom.

1 = Strongly Disagree
2 = Disagree
3 = Undecided
4 = Agree
5 = Strongly Agree

	Desirability					Feasibility				
	SD	D	U	A	SA	SD	D	U	A	SA
1. Respect students as individuals with differences (e.g., be aware of their capabilities and problems and make exceptions accordingly, encourage all classmates to respect them).	1	2	3	4	5	1	2	3	4	5
2. Establish routine appropriate for students (e.g., establish setting so students know what is expected, be consistent).	1	2	3	4	5	1	2	3	4	5
3. Adapt classroom management strategies that are effective with students (e.g., time out, point systems).	1	2	3	4	5	1	2	3	4	5
4. Provide reinforcement and encouragement (e.g., encourage effort, provide support if students get discouraged).	1	2	3	4	5	1	2	3	4	5
5. Establish personal relationship with students (e.g., get to know students as individuals, determine student interests and strengths).	1	2	3	4	5	1	2	3	4	5
6. Help students find appropriate ways to deal with feelings (e.g., express feelings through drawing or writing, brief periods of time away from class).	1	2	3	4	5	1	2	3	4	5
7. Communicate with students (e.g., plan frequent, short, one-to-one conferences, discuss potential modifications with students).	1	2	3	4	5	1	2	3	4	5

	Desirability					Feasibility				
	SD	D	U	A	SA	SD	D	U	A	SA
8. Communicate with the special education teacher (e.g., write notes back and forth and/or talk informally with special education teacher).	1	2	3	4	5	1	2	3	4	5
9. Communicate with parents of mainstreamed students (e.g., write notes back and forth and/or talk informally with parents, encourage parents to provide support for students' education).	1	2	3	4	5	1	2	3	4	5
10. Establish expectations for students (e.g., expect the best from students).	1	2	3	4	5	1	2	3	4	5
11. Make modifications for students when developing long-range plans (e.g., establish realistic long-term objectives).	1	2	3	4	5	1	2	3	4	5
12. Make adaptations for students when developing daily plans (e.g., view plans with an eye for problems that could pose special problems for students).	1	2	3	4	5	1	2	3	4	5
13. Plan assignments and activities that allow students to be successful (e.g., structure assignments to reduce frustration).	1	2	3	4	5	1	2	3	4	5
14. Allot time for teaching learning strategies as well as content (e.g., test-taking skills, note-taking skills).	1	2	3	4	5	1	2	3	4	5
15. Adjust physical arrangement of room for students (e.g., modify seating arrangements).	1	2	3	4	5	1	2	3	4	5
16. Adapt general classroom materials for students (e.g., construct study guides, tape-record textbook chapters).	1	2	3	4	5	1	2	3	4	5
17. Use alternative materials for students (e.g., different textbooks, supplemental workbooks).	1	2	3	4	5	1	2	3	4	5
18. Use computers to enhance learning with students (e.g., as a tool for writing, as a tool for practicing skills).	1	2	3	4	5	1	2	3	4	5
19. Monitor the students' understanding of directions and assigned tasks (e.g., ask students to repeat or demonstrate what you have asked them to do, check in with students to be sure they are performing assignment correctly).	1	2	3	4	5	1	2	3	4	5

	Desirability					Feasibility				
	SD	D	U	A	SA	SD	D	U	A	SA
20. Monitor the students' understanding of concepts presented in class (e.g., attend to, comment on, and reinforce understanding of vocabulary, abstract ideas, key words, time sequences, and content organization).	1	2	3	4	5	1	2	3	4	5
21. Provide individual instruction for students (e.g., plan for one-to-one sessions after school, allocate time for individual instruction during class).	1	2	3	4	5	1	2	3	4	5
22. Pair the students with a classmate (e.g., to provide assistance with assignments, provide models for behavior and academics, for social support).	1	2	3	4	5	1	2	3	4	5
23. Involve students in whole class activities (e.g., allow students from different levels to work in small groups).	1	2	3	4	5	1	2	3	4	5
24. Involve students in whole class activities (e.g., involve student in class participation).	1	2	3	4	5	1	2	3	4	5
25. Provide extra time for students (e.g., schedule extra time for skill reinforcement and extra practice).	1	2	3	4	5	1	2	3	4	5
26. Adapt pacing of instruction (e.g., break down materials into smaller segments, use step-by step approach).	1	2	3	4	5	1	2	3	4	5
27. Keep records to monitor students' progress (e.g., keep a folder of students' papers, keep a progress chart).	1	2	3	4	5	1	2	3	4	5
28. Provide students with ongoing feedback about performance (e.g., meet with students periodically to discuss academic and behavioral performance).	1	2	3	4	5	1	2	3	4	5
29. Adapt evaluations for students (e.g., use oral testing, give more time for tests, modify administration procedures).	1	2	3	4	5	1	2	3	4	5
30. Adapt scoring/grading criteria for students (e.g. alter criteria for grades).	1	2	3	4	5	1	2	3	4	5

Note: Permission was granted to adapt the Adaptation Evaluation Instrument for this survey.
Schumm, J. S., & Vaughn, S. (1991). Making adaptations for mainstreamed students: General classroom teachers' perspectives. Remedial and Special Education, 12, 18-27.

Appendix B

Survey for Special Education Teachers

Desirability and Feasibility of Modifications Survey: Special Education Teachers

Section I

Directions: Please circle the most appropriate answer which pertains to you.

Definitions: Students with Mild-Moderate Mental Retardation - Students who have been identified and found eligible for special education services. Students are functioning at least two years below their chronological-aged peers, academically. Students also have difficulties in the area of adaptive behaviors.

Inclusion - Students with special needs are educated in the general education classroom with any necessary special services provided by a special education teacher within the general education classroom.

1. School Level Presently Teaching:

   a. Elementary K-5
   b. Middle 6-8
   c. High School 9-12
   d. Other _____

2. Subject Presently Teaching:

   a. Language Arts
   b. Mathematics
   c. History
   d. Science
   e. All Subjects
   f. Other _____

3. Number of Years Teaching:

   a. 1-10
   b. 11-20
   c. 21-30
   d. 31 +

4. Gender:

   a. Male
   b. Female

5. Area of Licensure: (circle all that apply)

   a. Mental Retardation
   b. Learning Disabilities
   c. Emotional/Behavior Disorders
   d. Other _____

6. I presently teach students with: (circle all that apply)

   a. Mild-Moderate Mental Retardation
   b. Learning Disabilities
   c. Emotional/Behavior Disorders
   d. Other _____

7. If you are not presently teaching students with mild-moderate mental retardation have you ever taught students with mild-moderate mental retardation in the past?

   a. Yes
   b. No

8. Have you ever made modifications for students with mild-moderate mental retardation to assist the students in the regular classroom?

   a. Yes
   b. No

9. Have you ever collaborated with a general education teacher who taught students with mild-moderate mental retardation in an inclusion program?

   a. Yes
   b. No

Section II

Directions: Rate each of the modifications listed below on a 1 to 5 scale (1= strongly disagree; 5= strongly agree) in terms of its *desirability* (how much you would like to implement the modification in an inclusive classroom) and its *feasibility* (how practical it would be to actually implement the modification in an inclusive classroom).

Students on this survey refer to students with mild-moderate mental retardation, educated in an inclusive general education classroom.

1 = Strongly Disagree
2 = Disagree
3 = Undecided
4 = Agree
5 = Strongly Agree

	Desirability					Feasibility				
	SD	D	U	A	SA	SD	D	U	A	SA
1. Respect students as individuals with differences (e.g., be aware of their capabilities and problems and make exceptions accordingly, encourage all classmates to respect them).	1	2	3	4	5	1	2	3	4	5
2. Establish routine appropriate for students (e.g., establish setting so students know what is expected, be consistent).	1	2	3	4	5	1	2	3	4	5
3. Adapt classroom management strategies that are effective with students (e.g., time out, point systems).	1	2	3	4	5	1	2	3	4	5
4. Provide reinforcement and encouragement (e.g., encourage effort, provide support if students get discouraged).	1	2	3	4	5	1	2	3	4	5
5. Establish personal relationship with students (e.g., get to know students as individuals, determine student interests and strengths).	1	2	3	4	5	1	2	3	4	5
6. Help students find appropriate ways to deal with feelings (e.g., express feelings through drawing or writing, brief periods of time away from class).	1	2	3	4	5	1	2	3	4	5
7. Communicate with students (e.g., plan frequent, short, one-to-one conferences, discuss potential modifications with students).	1	2	3	4	5	1	2	3	4	5

	Desirability					Feasibility				
	SD	D	U	A	SA	SD	D	U	A	SA
8. Communicate with the general education teacher (e.g., write notes back and forth and/or talk informally with general education teacher).	1	2	3	4	5	1	2	3	4	5
9. Communicate with parents of mainstreamed students (e.g., write notes back and forth and/or talk informally with parents, encourage parents to provide support for students' education).	1	2	3	4	5	1	2	3	4	5
10. Establish expectations for students (e.g., expect the best from students).	1	2	3	4	5	1	2	3	4	5
11. Make modifications for students when developing long-range plans (e.g., establish realistic long-term objectives).	1	2	3	4	5	1	2	3	4	5
12. Make adaptations for students when developing daily plans (e.g., view plans with an eye for problems that could pose special problems for students).	1	2	3	4	5	1	2	3	4	5
13. Plan assignments and activities that allow students to be successful (e.g., structure assignments to reduce frustration).	1	2	3	4	5	1	2	3	4	5
14. Allot time for teaching learning strategies as well as content (e.g., test-taking skills, note-taking skills).	1	2	3	4	5	1	2	3	4	5
15. Adjust physical arrangement of room for students (e.g., modify seating arrangements).	1	2	3	4	5	1	2	3	4	5
16. Adapt general classroom materials for students (e.g., construct study guides, tape-record textbook chapters).	1	2	3	4	5	1	2	3	4	5
17. Use alternative materials for students (e.g., different textbooks, supplemental workbooks).	1	2	3	4	5	1	2	3	4	5
18. Use computers to enhance learning with students (e.g., as a tool for writing, as a tool for practicing skills).	1	2	3	4	5	1	2	3	4	5
19. Monitor the students' understanding of directions and assigned tasks (e.g., ask students to repeat or demonstrate what you have asked them to do, check in with students to be sure they are performing assignment correctly).	1	2	3	4	5	1	2	3	4	5

	Desirability					Feasibility				
	SD	D	U	A	SA	SD	D	U	A	SA
20. Monitor the students' understanding of concepts presented in class (e.g., attend to, comment on, and reinforce understanding of vocabulary, abstract ideas, key words, time sequences, and content organization).	1	2	3	4	5	1	2	3	4	5
21. Provide individual instruction for students (e.g., plan for one-to-one sessions after school, allocate time for individual instruction during class).	1	2	3	4	5	1	2	3	4	5
22. Pair the students with a classmate (e.g., to provide assistance with assignments, provide models for behavior and academics, for social support).	1	2	3	4	5	1	2	3	4	5
23. Involve students in whole class activities (e.g., allow students from different levels to work in small groups).	1	2	3	4	5	1	2	3	4	5
24. Involve students in whole class activities (e.g., involve student in class participation).	1	2	3	4	5	1	2	3	4	5
25. Provide extra time for students (e.g., schedule extra time for skill reinforcement and extra practice).	1	2	3	4	5	1	2	3	4	5
26. Adapt pacing of instruction (e.g., break down materials into smaller segments, use step-by step approach).	1	2	3	4	5	1	2	3	4	5
27. Keep records to monitor students' progress (e.g., keep a folder of students' papers, keep a progress chart).	1	2	3	4	5	1	2	3	4	5
28. Provide students with ongoing feedback about performance (e.g., meet with students periodically to discuss academic and behavioral performance).	1	2	3	4	5	1	2	3	4	5
29. Adapt evaluations for students (e.g., use oral testing, give more time for tests, modify administration procedures).	1	2	3	4	5	1	2	3	4	5
30. Adapt scoring/grading criteria for students (e.g. alter criteria for grades).	1	2	3	4	5	1	2	3	4	5

Note: Permission was granted to adapt the Adaptation Evaluation Instrument for this survey.
Schumm, J. S., & Vaughn, S. (1991). Making adaptations for mainstreamed students: General classroom teachers' perspectives. Remedial and Special Education, 12, 18-27.

Appendix C

Cover Letter to Superintendents

Alice E. McCormick
(Address)
(Telephone Number)

(Address)

(Date)

Dear (Superintendent),

I am a graduate student at Longwood College in Farmville, Virginia. I am currently working on my Masters Thesis. I am requesting permission to survey four general education and four special education teachers at each level within your school division: elementary, middle, and high school. The survey will take no more than 15 minutes to complete and participation from your teachers is completely voluntary. I have enclosed a copy of the survey.

The purpose of this study is to examine the perceptions of general and special educators towards the desirability and feasibility of modifications for students with mild-moderate mental retardation in the general education classroom. All information will be kept confidential and your school division and teachers will be given anonymity.

Please return the enclosed permission sheet by (Date) in the self-addressed stamped envelope provided. I will appreciate it very much if you would please give permission to conduct this survey. When I receive your permission, I will mail a packet to the principals to distribute to teachers. I will provide teachers with self-addressed stamped envelopes to allow them to return the surveys directly to myself. Thank you for your time and consideration.

Sincerely yours,

Alice E. McCormick

I _____ grant/do not grant permission to Alice E. McCormick to conduct a study of the perceptions of general and special educators concerning the desirability and feasibility of modifications for students with mild-moderate mental retardation in my school division.

Signature_____ Date_____

Please make any corrections to the following information:

(Names of schools and their principals)

Appendix D

Cover Letter to Principals

Alice E. McCormick
(Address)
(Telephone Number)

(Address)

(Date)

Dear (Principal),

I am a graduate student at Longwood College in Farmville, Virginia. I am currently working on my Masters Thesis. I have received permission from your superintendent to survey general education and special education teachers within your school.

The purpose of this study is to examine the perceptions of general and special educators concerning the desirability and feasibility of modifications for students with mild-moderate mental retardation in the general education classroom. All information will be kept confidential and your school and teachers will be given anonymity. The survey will take no more than 15 minutes to complete and participation from your teachers is completely voluntary. Each survey is coded with a number so that I can identify if teachers from your school have responded. This is done to reduce the cost of follow-up and to eliminate the disruption of follow-up to you and those teachers who have returned the survey. The numbers will be destroyed when the surveys are returned.

Please distribute the enclosed packets to four of your general education teachers and four of your special education teachers who would like to participate in this study. I have provided teachers with self-addressed stamped envelopes to allow them to return the surveys directly to myself. Thank you for your time and cooperation.

Sincerely yours,

Alice E. McCormick

Appendix E

Cover Letter to Teachers

Alice E. McCormick
(Address)
(Telephone Number)

(Date)

Dear Teacher,

I am a graduate student at Longwood College in Farmville, Virginia. I am currently working on my Masters Thesis. I have received permission from your superintendent to conduct a survey within your school.

The purpose of this study is to examine the perceptions of general and special educators concerning the desirability and feasibility of modifications for students with mild-moderate mental retardation in the general education classroom. All information will be kept confidential and you and your school will be given anonymity. The survey will take no more than 15 minutes to complete and participation from you is completely voluntary. The number on the survey is a code so that I can identify if teachers from your school have responded. This is done to reduce the cost of follow-up and to eliminate the disruption of follow-up for your principal and those teachers who have returned the survey. The number will be destroyed when you return the survey.

Your cooperation is very important to the completion of this study. Please complete the survey and return it within 10 days in the self-addressed stamped envelope provided. Thank you for your cooperation and assistance.

Sincerely yours,

Alice E. McCormick

Table 1

Frequencies and Percentages of Demographic and Experiential Variables Regarding All Subjects

Table 1

Frequencies and Percentages of Demographic and Experiential Variables Regarding All Subjects

Variable	n	%
Teaching assignment		
Special education	57	55.34
General education	46	44.66
Grade Level		
Elementary	37	35.92
Middle school	35	33.98
High school	31	30.10
Years of Teaching		
1-10	46	44.66
11-20	33	32.04
21-30	20	19.42
31+	4	3.88
Gender		
Male	11	10.68
Female	92	89.32

N = 103

Table 2

Frequencies and Percentages of Demographic and Experiential Variables Regarding General Education Teachers

Table 2

Frequencies and Percentages of Demographic and Experiential Variables Regarding General Education Teachers

Variable	n	%
Training		
Yes	25	54.35
No	21	45.65
Teach students with MR		
Yes	30	65.22
No	16	34.78
Taught students with MR		
Yes	39	84.78
No	7	15.22
Made modifications		
Yes	33	71.74
No	13	28.26

N = 46

Table 3

Frequencies and Percentages of Demographic and Experiential Variables Regarding Special Education Teachers

Table 3

Frequencies and Percentages of Demographic and Experiential Variables Regarding Special Education Teachers

Variable	n	%
Licensed in MR		
Yes	42	73.68
No	15	26.32
Students taught		
MR	9	15.97
MR and other	23	40.35
Other	25	43.86
Taught students with MR		
Yes	49	85.96
No	8	14.04
Made modifications		
Yes	50	87.72
No	7	12.28
Collaborated		
Yes	39	68.42
No	18	31.58

N = 57

Table 4

Comparison of Perceptions between General and Special Educators of the Desirability and Feasibility of Modifications by t-Test

Table 4

Comparison of Perceptions between General and Special Educators of the Desirability and Feasibility of Modifications by t-Test

Group	n	$\bar{X}$	SD	t	tcv
		Desirability			
General ed.	46	.32	1.25	-.79	1.98
Special ed.	57	.18	.63		
		Feasibility			
General ed.	46	.54	1.62	-.19	1.98
Special ed.	57	.47	2.11		

$p = .05$

Table 5

Relationship of Perceptions of All Respondents of the Desirability and Feasibility of Modifications Based on Grade Level by Chi-Square

Table 5

Relationship of Perceptions of All Respondents of the Desirability and Feasibility of Modifications Based on Grade Level by Chi-Square

Group	df	χ^2	χ^2cv
Grade level			
Desirability	14	20.95	23.68
Feasibility	20	19.97	31.41

$p = .05$

Table 6

Comparison of Perceptions of All Respondents of the Desirability and Feasibility of Modifications According to Years of Teaching Experience by One-Way Analysis of Variance

Table 6

Comparison of Perceptions of All Respondents of the Desirability and Feasibility of Modifications According to Years of Teaching Experience by One-Way Analysis of Variance

Source	Sum of Square	df	Mean Square	F	Fcv
		Desirability			
Between groups	1.40	3	.47	.50	2.70
Within groups	91.54	99	.92		
Total	92.93	102			
		Feasibility			
Between groups	712.07	3	4.02	1.36	2.70
Within groups	293.39	99	2.96		
Total	305.46	102			

p = .05

Table 7

Comparison of Perceptions of All Respondents of the Desirability and Feasibility of Modifications Based on Gender by t-Test

Table 7

Comparison of Perceptions of All Respondents of the Desirability and Feasibility of Modifications Based on Gender by t-Test

Group	n	$\bar{X}$	SD	t	tcv
		Desirability			
Male	11	.27	.91	.12	1.98
Female	92	.24	.97		
		Feasibility			
Male	11	-39.54	1.62	-1.71	1.98
Female	92	-38.33	2.11		

$p = .05$

Table 8

Comparison of Perceptions of All Respondents of the Desirability and Feasibility of Modifications Based on Experience Making Modifications by One-Way Analysis of Variance

Table 8

Comparison of Perceptions of All Respondents of the Desirability and Feasibility of Modifications Based on Experience Making Modifications by One-Way Analysis of Variance

Source	Sum of Square	df	Mean Square	F	Fcv
		Desirability			
Between group	3.17	2	3.17	3.56	19.49
Within groups	89.76	100	.89		
Total	92.93	102			
		Feasibility			
Between groups	1.03	2	1.03	.34	19.49
Within groups	304.43	100	3.01		
Total	305.46	102			

$p = .05$

Table 9

Relationship of Perceptions of General Educators of the Desirability and Feasibility of Modifications Based on Training in Adapting Instruction by Chi-Square

Table 9

Relationship of Perceptions of General Educators of the Desirability and Feasibility of Modifications Based on Training in Adapting Instruction by Chi-Square

Group	df	χ^2	χ^2_{cv}
Training			
Desirability	14	21.32	33.68
Feasibility	20	12.76	31.41

$p = .05$

Table 10

Relationship Between the Desirability and Feasibility of Modifications Based on Perceptions of All Respondents Using Pearson-r

Table 10

Relationship Between the Desirability and Feasibility of Modifications Based on Perceptions of All Respondents Using Pearson-r

Variable	N	$\bar{X}$	SD	r	rcv
Desirability	103	.24	.96	.25*	.19
Feasibility	103	.50	1.89		

*$p < .05$

Table 11

Mean Scores, Modes, and Percentages of the Highest and Lowest Rated Desirability Modifications by All Respondents

Table 11

Mean Scores, Modes, and Percentages of the Highest and Lowest Rated Desirability Modifications by All Respondents

Variable	$\bar{X}$	Mode	%
	Highest		
Establish expectations	4.93	5	93.20
Respect as individuals	4.92	5	94.17
Reinforce and encourage	4.91	5	93.20
Establish relationships	4.88	5	88.35
Establish routine	4.85	5	87.38
	Lowest		
Adapt daily plans	4.58	5	66.99
Adapt pacing of instruction	4.58	5	64.08
Adapt grading criteria	4.53	5	66.02
Use alternative methods	4.48	5	59.22
Provide individual instruction	4.45	5	59.22

Table 12

Mean Scores, Modes, and Percentages of the Highest and Lowest Rated Feasibility Modifications by All Respondents

Table 12

Mean Scores, Modes, and Percentages of the Highest and Lowest Rated Feasibility Modifications by All Respondents

Variable	$\bar{X}$	Mode	%
	Highest		
Establish expectations	4.65	5	68.93
Reinforce and encourage	4.47	5	63.10
Establish routine	4.39	5	55.34
Respect as individuals	4.38	5	52.42
Establish relationships	4.35	5	52.43
	Lowest		
Teach learning strategies	3.60	4	38.83
Communicate with student	3.54	4	38.83
Use alternative methods	3.47	4	37.86
Adapt regular materials	3.45	4	42.72
Provide individual instruction	3.03	3	33.01

Table 13

Frequencies and Percentages of Comments by General and Special Educators and Totals

Table 13

Frequencies and Percentages of Comments by General and Special Educators and Totals

	General Educator		Special Educator		Total	
Variable	f	%	f	%	f	%
Time	15	33.33	7	38.88	22	34.92
Adaptations	10	22.22	0	0.00	10	15.87
Class Size	7	15.56	1	5.56	8	12.70
Resources	6	13.33	1	5.56	7	11.11
Collaboration	2	4.45	4	22.22	6	9.52
Admin. support	1	2.22	3	16.66	4	6.35
Acceptance	2	4.45	1	5.56	3	4.76
Support pers.	1	2.22	1	0.00	2	3.18
General comment	1	2.22	0	0.00	1	1.59
Totals	45	100.00	18	100.00	63	100.00