

**REGULAR AND SPECIAL EDUCATION TEACHERS' ATTITUDES
TOWARDS MAINSTREAMING: A META-ANALYSIS**

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I am submitting herewith a thesis written by Cheryl Dalton Swift entitled "Regular and Special Education Teachers' Attitudes Towards Mainstreaming: A Meta-Analysis." I have examined the final copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Arts, with a major in School Psychology.

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ABSTRACT

This meta-analysis was undertaken to obtain a better understanding of the attitudes of regular and special education teachers towards mainstreaming issues during the last decade. The Expanded Academic Index, Educational Resources Information Center, and Psychological Abstracts for the years 1982 - 1992 were used to identify published articles and documents which investigated teacher attitudes. Field indicators were mainstreaming, teacher attitudes, meta-analysis, and 1982-1992. Design qualities necessary for inclusion were appropriate quantifiable outcome data and comparison groups, normally samples of regular and special education teachers. Eight studies were selected for the meta-analysis. Research methodology was descriptively analyzed and effect size tests were calculated to evaluate outcome data.

Results showed a lack of generalizability of attitudes due to the variability of subject matter and a lack of random sampling. In most studies, the effect size testing showed a weak relationship between teacher status and the statistically significant differences in teacher attitudes.

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CHAPTER I

INTRODUCTION

Statement of the Problem

Mainstreaming has been one of the most controversial and often divisive issues (Madden, 1983) to emerge in American education during the past two decades. Recent efforts to provide exceptional individuals equal access to all areas of society has promoted integration (mainstreaming) as the dominant educational ideology (Chow & Winzer, 1992).

During the past two decades mainstreaming has been defined as the creation of a more individualized, personalized program in the regular classroom setting for children who have difficulties (Beery, 1972, p.6). Mainstreaming continues to be reviewed as the social and instructional integration of handicapped children in the regular classroom (Hill & Reed, 1982; Turnbull & Schyltz, 1979).

More recently, Schumm and Vaughn (1992) explained mainstreamed children as exceptional children (learning disabled, hearing impaired, visually impaired, behaviorally disordered, physically handicapped, and speech impaired) who may receive special education services for part of the day but who are integrated into general education classes for part or all of the school day. Mainstreaming, as defined by Schloss (1992), is placement in a regular classroom environment with or without other accommodations. This

placement is appropriate when educational and behavioral characteristics of the student are conducive to effective instruction. This emphasis implies a major shift in the role of the regular education teacher in the special education process. An awareness of interventions and learning characteristics of handicapped or exceptional students becomes a necessity.

Best (1981) described the ultimate purpose of research as the development of generalizations which may be used to explain phenomena and to predict future occurrences. There was a dearth of such research concerning regular teacher attitudes and mainstreaming in the 1980's (Diebold, 1986; Schmelkin, 1981; and Walker, 1987).

Assuming that there is a relationship between attitude and behavior (Thousand & Burchard, 1990), research in the last decade has continued to study regular educator attitudes as if they were at least as important as competencies (Chow & Winzer, 1992). Teacher attitudes toward the mainstreaming process have been highly variable, but they are deemed important determinants of teachers' reactions to the integration of handicapped pupils (Walker, 1987). Being able to predict the behavioral performance of the teacher by identifying various antecedents of behavioral intervention became the goal of several mainstreaming studies (e.g. Hanrahan, Goodman, and Rapagna, 1990; Leyser & Abrams, 1984; Ritter, 1989; Schumm &

Vaughn, 1992; and Thousand & Burchard, 1990) during the last decade.

Thomas (1985) expressed concern about the investigations into mainstreaming. He felt that they had been exploratory in nature and any generalizations were tentative and restricted to attitudes toward the intellectually handicapped. Thomas noted poor sampling techniques, which also disallowed generalizability beyond the sample to the whole teaching profession.

The lack of a substantive research base to effect strategies in the resource room, which would later generalize into the regular classroom, has been noted by Glomb & Martin (1991). Bridging the gap between successful strategies in the resource room and interventions in the mainstreamed, regular classroom may ultimately be the result of assessing regular and special education teachers' attitudes.

Semmel (1991) justified the need for more objective research related to issues concerning the Regular Education Initiative (REI) because of the "lack of available empirical data and the plethora of emotional and professional rhetoric dominating the field" (p.11). Braaten, Kauffman, Braaten, Polsgrove, and Nelson (1988) urged that educators proceed cautiously until empirical evidence for educational options becomes available.

Definition of Meta-analysis

Meta-analysis is "the statistical analysis of the summary findings of many empirical studies" (Glass, 1976, p.21). Rather than merely citing reviews, the meta-analysis allows a critical analysis of the analyses. Glass (1976) and Light & Smith (1971) promoted the meta-analysis of research because narrative integration of scholarly studies was inadequate. Conclusions from the accumulated outcome data warranted more sophisticated measurement techniques and contradictions among many research studies needed to be resolved.

Glass (1981) later expanded his perspective on meta-analysis by including the recording of methodological weaknesses or design flaws from the original, empirical studies and the subsequent relationship to the summary findings of these studies. Ideally, Glass sought to apply research methods to the characteristics and findings "of controlled, experimental studies" (p.23).

Purpose of the Study

Carlberg & Kavale (1980) described the essentials of a valid study as the presence of a comparison group with random assignment within the groups. Outcome data from such studies which compare regular and special educators' attitudes will be included in this meta-analysis. Assessing the attitudes of regular education teachers toward mainstreaming during the past decade is the focus of this

research investigation.

Descriptive, confirmatory, and inferential data will be analyzed. Effect sizes will be calculated from the relevant, reported statistics (Glass, 1976). Methodological weaknesses and design qualities will be included in the analysis.

CHAPTER II

OVERVIEW OF MAINSTREAMING

Historical Perspective

Notable in the integration of all children of difference was the case of Brown vs. Board of Education (1954). In support of the Fourteenth Amendment, separate, but equal, facilities were declared by nature to be unequal in the racially segregated schools of America. The separate education for all people of difference being declared unconstitutional, the movement formed to racially desegregate schools (Ysseldyke, Algozzine, and Thurlow (1992). The integration of children of physical and academic differences in the schools was to follow.

Prior to 1975, there was not a federal provision ensuring one's right as a handicapped person to an education. The Education for All Handicapped Children Act (EHA) of 1975 established the operating principles to ensure the rights of handicapped students.

Mainstreaming is an educational term which, according to the federal law, EHA or PL 94-142 (1975), required special education students to be educated in a regular education setting to the extent appropriate for the needs of that particular student. This mandate was in contrast to the popular, segregated special education setting. Mainstreaming intended that children who needed special education would receive it on a high quality level along with regular education students in the regular school

classes (Reynolds & Birch, 1977). PL 94-142 emphasized placement in the least restrictive environment (LRE) for each special education student. This federal regulation indicated that regular education and special education teachers would receive professional development to meet the requirements of the law (St. Paul Public Schools, 1984).

Section 504 of the Rehabilitation Act of 1973 also established guidelines for the placement of handicapped children. Included in the regulation were descriptors of the nature or severity of the handicap which would disallow handicapped children from being educated with the non-handicapped children in the regular classroom. Disruptive behavior of a handicapped child which significantly impairs the education of the other children was considered to be a viable factor to be used in placing the handicapped child outside the regular classroom setting.

As the "integration imperative" (Gilhool, 1989, p. 244) began to infiltrate the American school system, the mainstreamed student may have been placed in a new classroom setting, but the problems in the learning environment did not change (Kavanaugh, 1977). There existed a perception that the philosophical commitment of mainstreaming appeared firmer than the empirical evidence warranted (Carlberg & Kavale, 1980). From the empirical findings of 50 efficacy studies which investigated integrated versus segregated settings for the educably mentally retarded, learning

disabled or behaviorally disturbed students, Carlberg & Kavale (1980) could find no confident conclusion regarding the efficacy of mainstreamed classrooms.

In a research review by Madden & Slavin (1983) it was found that methodologically adequate studies favored the mainstreaming of academically handicapped students in regular classes. The mainstreaming included supplemental, individualized, instruction or resource programs designed for achievement, emotional adjustment, and behavioral adjustment. This review included only a handful of studies with inconsistent results.

The far-reaching implications of PL 94-142 for institutes of higher learning impacted the pre-service preparation of general and special educators. They were now expected to possess knowledge, skills, and attitudes beyond those considered essential prior to the implementation of the law (Leyser & Abrams, 1984).

In 1984, Assistant Secretary Madeleine Will presented a report to the Secretary of the U.S. Department of Education. She advocated radical reform for the education system of children with learning problems. A partnership was suggested between regular education and special education which became known as the Regular Education Initiative or REI. The regular education teacher was to assume more responsibility for students with special learning needs (Ysseldyke et al., 1992).

In October, 1990, PL 94-142 was revised and renamed PL 101-476, the Individual with Disabilities Education Act (IDEA). Students with special learning needs were guaranteed acceptance into free, public school programs with a curriculum as similar as possible to that of the non-disabled student.

Research Orientation

Throughout the evolution of the disabled student's rights, the issue of regular teacher attitudes surfaced as an aspect of the mainstreaming environment which needed to be investigated. Carlberg & Kavale (1980) found research attempts to integrate teacher attitude data were confounded because of the narrative nature of the reviews. There was, subsequently, an inability to assess the effects of special versus regular class placement and the outcome relationships.

In 1981, Schmelkin reported that any evidence of agreement or differences toward mainstreaming between regular and special education teachers was meager and inconclusive. Schmelkin's study found evidence that regular education teachers, when compared to special education teachers, felt more strongly that academic achievement would be negatively affected when a student was mainstreamed.

Gans (1985) and Diebold (1986) concluded that effective mainstreaming consultation results when the special education teachers understand the attitudes and aptitudes of

the regular education teachers.

With the REI underway, Kauffman, Gerber, and Semmel (1988) discovered that the teaching models, promoted by the REI, did not include the cognitive operations of the regular education teachers. The perceptions of, feasibility ratings and desirability for mainstream interventions were not taken into consideration. Welch (1989) also identified a lack of research data concerning the regular educators' acceptance of the merging of regular and special education during the waves of reform in the 1970's and the 1980's.

Regular educators were being encouraged to recognize and accommodate the needs of special students and not to label and separate (Stainback, 1984). Yet, PL 94-142 representing a medical model of disability, encouraged regular education teachers to treat the students who weren't meeting the classroom expectations in order to do away with school failure (Gelzheiser, 1987). Gelzheiser found that teacher expectations for student performance were based on assumptions about the handicap rather than knowledge of the individual. Furthermore, if modified classroom instruction and accommodation of differences were carried out, it appeared to be in opposition to the current view of educational disabilities.

An ecological model for mainstreaming children with mild handicaps, on the other hand, stressed the matching of the special student's characteristics and needs with special

regular classroom settings. Downing, Simpson, and Myles (1990) concluded that the attitudes and perceptions of regular educators must be considered since classroom expectations and demands of the teacher form the environment in which student skills must be performed. The attitudes and perceptions of the regular education teacher affect the academic and non-academic skills of the handicapped student.

Another research focus in the regular classroom during the last decade has been the capacity of the regular classroom teacher to provide adaptive instruction for handicapped students with more or less attention being paid to the management of disruptive behavior (Wang & Birch, 1984). Poor attending behavior, having been identified as a salient characteristic of the difficult-to-teach (Bay & Bryan, 1991; Fuchs & Fuchs, 1989; Speece & Cooper, 1990), the regular education teacher in the mainstreamed classroom may be confronted with more kinds of behavioral interventions in addition to planning for a diversity of academic levels.

Bay & Bryan (1991) found "empirical evidence indicates that teachers' perceptions of students' characteristics and behaviors affect the development of teacher perspective, which in turn, affect teachers' actions and behaviors" (p.28). Many studies have attempted to determine the degree of acceptance or tolerance of regular and special education teachers toward students with varying ability levels and

attending behavioral characteristics (Bay & Bryan, 1991; Diebold, 1986; Downing, Simpson, and Myles, 1990; McKenzie, 1991; Ritter, 1989; Schumm & Vaughn, 1992; Walker & Lamon, 1987; Ward & Center, 1987). The results have been varied and inconsistent.

Thousand (1990) in an attempt to promote the idea of reasoned action, the relationship of attitude to behavior, found that physical integration (mainstreaming) of students does not necessarily lead to the goal of positive social interaction. The regular educator must increase his/her classroom roles and responsibilities by deliberately structuring systematic interaction opportunities within the mainstream classroom.

Whether or not the expansion of instructional repertoires (Evans, 1990) for the regular educator can be made more effective through consultative services with the special education teacher (Schulte, 1990) or through a partnership model with support services within the classroom (Schumaker & Deshler, 1988) remains to be seen. Either way, the mainstreamed classroom must provide an environment that facilitates learning for a wide range of student abilities (Baker & Zigmond, 1990) and the regular education teacher is assumed to own the problem and have the competence to address it. There is, however, a lack of research to show

that regular educators welcome their increased responsibilities (Evans, 1990).

Since the beginning of the REI movement, the regular and special education systems have been merging to adapt the classroom with supports so that all children's needs can be met in general education settings. The most recent mainstreaming movement is inclusion. It will strive to educate all children in general education, including the mildly and severely disabled. The cry, nevertheless, continues to be heard that there is inadequate research to advocate this change in system design (Hallahan, Keller, McKinney, Lloyd, and Bryan, 1988; York, Vandercook, and McDonald, 1992).

Throughout the implementation of mainstreaming, the regular education teacher has been repeatedly interviewed and surveyed with opinionnaires, attitude scales, inventories, and behavior checklists among other instruments. Statistical analyses have failed to find consistent, confirmatory outcome data to allow for the identification and prediction of teacher attitudes (Thousand, 1990).

CHAPTER III

ANALYSES OF RELEVANT STUDIES

Selection Process

Initial investigation of possible studies to include in this meta-analysis yielded 19. A review of the literature indicated that most statements about attitudes of teachers toward mainstreaming were based on opinion and personal experience, but not on systematically collected empirical data. Eleven of the 19 studies had to be rejected for meta-analysis because of inadequate data, lack of a comparison group, or confounded findings. Each of the 11 studies will be identified with a brief explanation for the rejection.

Baker & Zigmond (1990) - The study included descriptive data. The narrative format lacked sufficient quantifiable data for effect size analysis.

Bay & Bryan (1991) - The outcome data was reflective of only regular education teachers. There was no comparison group. Teacher status was not the independent variable. Open-ended questionnaire format created limited comparison data.

Chow & Winzer (1992) - The data was pooled and comparison data could not be extricated.

Downing, Simpson and Myles (1990) - The data was pooled and comparison data could not be extricated.

Glomb & Morgan (1991) - Only resource teachers (special educators) were represented. An analysis of regular

teaching experience as a determinant of attitude lacked data for effect size analysis.

Leyser & Abrams (1984) - Only regular education teachers were studied.

McKenzie (1991) - Only special education teachers were tested.

Schumm & Vaughn (1992) - Only regular education teachers were tested.

Ward & Center (1987) - Regular and special education teachers were included in this study, but, data was pooled.

Winzer (1984) - Teacher variables were confounded with many subgroups.

York, Vandercook, MacDonald, Heise-Neff, and Caughey (1992) - An open-ended questionnaire format with descriptive data analysis precluded inclusion in the meta-analysis. Quantifiable data was not available.

Eight studies remained to be examined meta-analytically. Design qualities presented problems for interpretation.

Design and Outcome Summaries

Random sampling was used in 3 of the 8 studies to select test groups. A representative sampling of the teacher population in the geographical area was used in 1 of the 8 studies for the teacher test groups. Generalizability of the outcome data was limited to the original test samples in half of the studies.

Outcome data in these 8 studies was derived from an original and standardized tests. The test instruments included a questionnaire, a video observational assessment, an opinionnaire, a Teacher's Report Form and Child Behavior Checklist, an Instructional Priorities Inventory, an Attitude Toward Disabled Persons Scale, the Social Behavior Standards Inventory and the Social Behavior Standards Correlates Checklist, and the Regular Education Initiative Teacher Survey (REITS).

Two studies indicated that the mainstreamed student has the potential to be greeted by a more accepting teacher given certain additional exposure or training (Leyser & Abrams, 1983; McEvoy, Nordquist & Cunningham, 1984). Special pre-service or more inservice training programs were the areas surveyed.

Ritter (1989) surveyed regular and special educators to determine their perceptions of recently mainstreamed seriously emotionally disturbed students. Regular education teachers perceived a greater number of problem behaviors and a lower number of school competencies than the special education teachers.

Hanrahan et al. (1990) found higher priority ratings from regular education teachers than special education teachers when asked to rate instructional priorities before the mainstreaming of mentally retarded students. Regular educators felt more strongly than special educators that

reading and writing problems and aggressive behavior had to be under control before the student was mainstreamed.

Walker & Lamon (1987), using a random sampling of regular and special educators, surveyed differences in their demands and their expectations of mainstreamed students. Results suggested that regular educators have higher demand levels with regard to behavioral expectations of the mainstreamed student. The regular educator appears to have a lower tolerance for the conditions associated with the student's disability.

St. Paul Public Schools (1984) found strongly divergent views in their mainstreaming survey. Regular education teachers rated behavioral skills of the student and attitude of the teacher to be far less of a hindrance to mainstreaming than did the special education teachers.

In a 1991 study by Semmel, Abernathy, Butera, and Lesar, the REITS was administered to regular and special education teachers. In the identification of attitude differences toward pullout vs. consultative models, two significantly different factors were discovered. Regular education teachers felt less professionally prepared than special education teachers to work with mainstreamed students within the constraints of larger class size and available resources. Regular education teachers perceived that students with mild disabilities would take more time and effort away from regular pupils than did the special

education teachers. Results favored the pullout program.

The regular educator's willingness to teach a variety of handicap conditions was found to be significantly underestimated by special education teachers in a 1986 study by Diebold. These results emphasized the need for both groups of teachers to better understand each other.

Effect Size Analyses

All relevant statistics in the 8 selected studies were converted to correlation coefficients in order to compare their findings on a common scale. In each study, the special education teachers are used as the comparison group. A positive correlation indicates a higher or more positive result for the regular education teacher. Negative correlations indicate that the relevant statistic favored the special education teacher.

Study #1

The survey conducted in the Saint Paul Public Schools (1984) surveyed 225 randomly selected regular education teachers and 164 randomly selected special education teachers on a variety of topics. The difference between these two groups with regard to the importance of the classroom teacher attitude toward the mainstreamed disabled students is of particular interest. Special education teachers thought that teacher attitude was much more important for student adjustment than regular educators did. Correlation coefficients of $-.88$, $-.93$, $-.90$, and $-.82$ were

calculated.

Study #2

In 1991, Semmel et al. surveyed regular and special education teachers to assess perceptions of the REITS. All teachers were chosen through a representative sampling. Results indicated that special education teachers believed they were more professionally prepared than regular education teachers to work with mildly handicapped in large classes. Special education teachers felt that mildly handicapped students would not take as much time away from the regular pupils as the regular education teacher thought they would. Correlation coefficients were calculated for both sets of comparison data. Results revealed scores of $-.22$ and $-.14$.

Study #3

In obtaining the perceptions of a randomly selected group of regular and special education teachers, Diebold (1986) found one area of significant difference between the two groups. Regular education teachers were more positive in their willingness to teach handicapped students than was predicted by special education colleagues. A correlation coefficient of $.17$ was calculated.

Study #4

Ritter (1989) analyzed the degree to which regular and special education teachers agreed or disagreed in their Teacher Report Form (TRF) ratings of adolescents' behaviors.

Regular education teachers rated externalized and overall problem behaviors of adolescents as more problematic than did special educators. Correlation coefficients of .16 and .30 were calculated.

Study #5

Leyser & Abrams (1983) studied differences in the attitudes towards disability between regular and special teacher groups. Results suggested that regular education teachers without training perceived more dissimilarity between the disabled and non-disabled than teachers with training and special education teachers. Special educators appear to view the disabled more positively than regular educators. A correlation coefficient of $-.30$ was calculated.

Study #6

McEvoy, Nordquist, and Cunningham (1984) solicited teacher judgments about mentally retarded children in three integrated settings. The mean judgment of 10 statements was used as the score. Two-way analyses of variance (integration ratio x child) were conducted separately for regular and special education teachers. Special education teachers tended to be less influenced than regular education teachers in the judgments about disabled students when the student is placed in different integrated settings. Regular education teachers tended to react to behavior of individual students and the behavioral norms of the group. A

correlation coefficient of .14 was calculated.

Study #7

An Instructional Priorities Inventory was employed by Hanrahan, Goodman, and Rapagna (1990) to measure instructional priorities of special and regular education teachers. Regular education teachers seemed to place a higher priority than the special education teacher on the reading and writing skills of students before they are mainstreamed. Regular teachers also felt more strongly that aggressive behavior needed to be under control before students were mainstreamed. Correlation coefficients of .28 were calculated for each of the three areas rated by the teachers.

Study #8

Walker & Lamon (1987), in a comparative study of U.S. and Australian teacher groups, also assessed similarities and differences between regular and special educators in one U.S. school district. The social behavior standards and expectations of the two teacher groups from the U.S. were overall consistent. Responses on the Student Behavior Scale Inventory indicated that regular education teachers were more demanding than special education teachers in regards to expected behaviors in the classroom and the unacceptability of maladaptive behavior. Effect sizes were calculated for both areas of difference between the teacher groups. Correlation coefficients of .31 and .33 were obtained.

CHAPTER IV

CONCLUSION

Limitations

Only eight studies in the entire sample of published material in the 1982-1992 time frame had data adequate for meta-analysis. Unfortunately, even these studies have characteristics which restrict their usefulness for the meta-analytic purposes.

Most studies conducted multiple comparisons between special and regular educators, but only reported outcome data for those found to be statistically significant. There was little to be found in common in the factors which were found significant across the studies. The effect sizes computed for data in a particular study reflects the strength of relationships for that study but cannot be compared to other results.

The meta-analysis of the eight research studies from 1982-1992 revealed few consistencies in the outcome data. This was due to the variability in the purposes of research, research instruments, area of student handicap investigated, and grade level of teacher samples, among other observations made.

Since only 4 of the 8 studies included random sampling or confirmed some attempt at representative sampling, sampling bias was prevalent. It is assumed that many of the studies did not intend to generalize conclusions beyond the

sample observed. External validity was, therefore, lacking in the many of these research studies.

Due to the broad number of interpretations implicit in the word, attitude, reactions, opinions, degree of agreement or disagreement, identification of factors through open-ended questions and evaluation comments made the integration of common threads of data next to impossible. There were no replications of procedures or test instruments, nor was it the intent of the identified studies.

Just as Light & Smith (1971) attempted the systemic pooling of outcome data in studies as opposed to the pooling of words in the study conclusion, so has this research study. Limited by the research designs and intentions of 8 studies, the effect size (correlation coefficient) calculations revealed a weak to moderate relationship between the teacher status and differences in ratings or attitudes. One can re-evaluate the importance of the findings and realize that the significance of the findings loses credibility if the study does not include the effect size or strength of the relationship between the attitude ratings and the teacher group size.

Practical Implications

Results from these eight studies suggest that special education teachers may be more prepared to teach the disabled students, but many regular education teachers may also be more willing to teach the mainstreamed, disabled

students than is realized by their special education peers. Tolerance for externalized behavior and inappropriate behavior in the classroom may be lower for the regular classroom teacher, but training and pre-service exposure are found to positively affect this attitude. Overall, the regular education teacher is being given more responsibility for mainstreamed students when the special education teacher appears to be the best qualified in attitude and ability to deal with the mainstreamed students.

In order to contribute to the body of knowledge concerning the attitudes of regular education teachers, the attitudes and expectations need to be systematically and formally taken into account (Walker & Lamon, 1987). The empirically based programming practices which the education system appears to need have not been reaffirmed or identified in the diversity of weak results in this meta-analysis.

A common thread within these studies is difficult to find. If research in teacher attitudes could center itself around cognitive, affective or behavioral components and build upon the test sample size, perhaps, there would be a body of generalizations, instead of weak implications.

Instead of studying what attitudes special and regular teachers do or do not have in common, perhaps institutions of higher learning should just give all teachers-in-training the same courses and exposure to exceptionalities and then

survey both groups. The studies in this meta-analysis imply that training, exposure and knowledge encourage greater acceptance of the individual student's ability.

The research studies overall believe that the knowledge of the attitudes of regular education teachers is valuable. If becoming more aware of teachers' beliefs relates to the expectations they hold for the mainstreamed student and the behavior which they (the teachers) actually exhibit in the classroom, then this needs to be researched with vigor. If placement in the least restrictive environment is mandated, the restrictive attitude of the teacher may continue to be the systematic flaw.

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