Inclusive Teachers' Attitudinal Ratings of Their Students With Disabilities

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The purpose of this investigation was twofold: (a) to explore the use of a new rating scale that measures teachers' attitudes toward their students and (b) to investigate the attitudes of inclusive teachers toward their students with disabilities using the rating scale. Fifty inclusive elementary teachers in 12 northeast Ohio schools rated all of their students with disabilities ($N = 156$) and 4 students without disabilities in each of their classrooms in the attitudinal categories of attachment, concern, indifference, and rejection. Results indicated that (a) the rating procedure exhibited modest test–retest reliability and moderate concurrent validity with a previously validated nomination procedure; (b) in comparison to students without disabilities, included students with disabilities received significantly higher ratings of teacher concern, indifference, and rejection, and significantly lower attachment ratings; and (c) average teacher indifference ratings toward their included students related positively and significantly to presence of paraprofessionals, and average teacher rejection ratings of included students were inversely and significantly related to school district socioeconomic status. Implications for practice and policy are discussed.

The frequency with which students who have disabilities are educated alongside their nondisabled peers in general education classrooms has increased considerably in recent years, affecting virtually every aspect of contemporary schooling. The *24th Annual Report to Congress* (U.S. Department of Education, 2002) reported that 47.3% of students with disabilities were included (spent 79% or more of their school day in general education classrooms) in the 1999–2000 school year. This proportion is almost twice as high as 15 years previous (U.S. Department of Education, 2001). Marked increases in inclusive placements have occurred both for students with mild disabilities (e.g., the proportion of students with learning disabilities who were included rose from 20.7% in 1984–1985 to 45.3% in 1999–2000) and for students with severe disabilities (e.g., the proportion of included students with autism has increased from 4.7% to 20.6% in the same time frame).

Despite the increasing popularity of inclusion reforms, their impact remains unclear. Whereas advocates point to many potential benefits of including students with disabilities (e.g., Stainback, Stainback, & Ayers, 1996), researchers have documented that general education teachers do not traditionally provide the adaptations and accommodations that many students with disabilities need to succeed in inclusive environments (e.g., Baker & Zigmond, 1995; McIntosh, Vaughn, Schumm, Haager, & Lee, 1993). Studies of teachers' attitudes toward inclusion are a frequently explored means for examining inclusive reforms. In general, teachers have expressed positive feelings toward the general concept of inclusion, but have been less optimistic about the degree to which they are adequately prepared to successfully implement inclusion (see Scruggs & Mastropieri, 1996, for a review of this literature). However, an assumption upon which this body of research is based, that teachers' attitudes toward the concept of inclusion correspond with effective inclusive instruction and outcomes, has not been empirically confirmed. It is possible that some teachers who support the idea of inclusion do not engage in instructional interactions that engender desired outcomes for their included students. Alternatively, it is plausible that a number of teachers who are philosophically opposed to inclusion are very effective at it.

Before the advent of inclusive reforms, Silberman's (1969) analysis of teachers' descriptions of their pupils identified four attitudes held by educators toward their students: attachment, concern, indifference, and rejection. A series of observational studies established that teacher–student interactions consistently differed on the basis of these attitudes (Evertson, Brophy, & Good, 1973; Good & Brophy, 1972; Silberman, 1969). For instance, students nominated by their teachers in the

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attachment category typically received more teacher praise, less criticism, and higher quality process questions than did other students (Good & Brophy, 1972; Silberman, 1969). In contrast, the concern category reflected teachers' strong desires to support children experiencing academic difficulties in their classrooms (Good & Brophy, 1972; Silberman, 1969, 1971; Willis & Brophy, 1974). Not surprisingly, concern-category students frequently interacted with teachers pertaining to academic issues and received high levels of teacher praise, process feedback, and response opportunities (Evertson et al.; Good & Brophy; Silberman, 1969).

Teachers were generally disinterested and uninvolved with students nominated in the indifference category (Good & Brophy, 1972; Silberman, 1969). As one might expect, these students interacted infrequently with teachers and received little positive evaluation (Evertson et al., 1973; Good & Brophy, 1972; Silberman, 1969, 1971). Conversely, students nominated in the rejection category were regularly engaged in interactions with teachers; however, these exchanges generally focused on behavioral matters (Evertson et al., 1973; Good & Brophy, 1972; Silberman, 1969, 1971). Rejected students—who typically exhibit social, attitudinal, and behavioral problems (Willis & Brophy, 1974)—received limited instructional feedback and were frequently criticized (as well as praised) by teachers (Evertson et al., 1973; Good & Brophy, 1972; Silberman, 1969, 1971).

In summary, although dated, multiple studies corroborate the finding that teacher attitudes toward specific students correspond with the quantity and quality of interactions and support that teachers provide. We believe that analysis of inclusive educators' attitudes toward their students with and without disabilities offers meaningful insights regarding the impact of inclusive reforms and have, accordingly, applied this line of research in inclusive classrooms (Cook, 2001, 2004; Cook, Tankersley, Cook, & Landrum, 2000). In previous investigations, we utilized the formerly validated nomination procedure (e.g., Good & Brophy, 1972), in which teachers nominated three of their students to prompts associated with each of the four attitudinal categories.

Our research on teachers' attitudes in inclusive classrooms has been guided by a theoretical model of instructional tolerance (Gerber, 1988). This theory posits that given finite instructional resources (e.g., time, expertise, support) and significant variance in student learning characteristics, it is not possible for teachers to concurrently provide optimal instruction to all students. As a matter of course, some students will consistently fall outside the range of a teacher's instructional tolerance. Considering the nature and educational impact of disabilities, it is logical to assume that included students with disabilities are often those who fall at the cusps or beyond the boundaries of a teacher's instructional tolerance—which likely influences teachers' attitudes toward them.

We predicted that teachers are less likely to become attached to and more likely to reject students who, as a result of their disabilities, do not respond favorably to the teacher's instructional efforts. Many students with disabilities do not provide the teacher with sufficient recompense (in the form of student achievement) for the instructional effort invested. Furthermore, the problematic behavior that is characteristic of many students with disabilities seems to trigger teacher rejection and limit attachment. Indeed, in accordance with tenets of attribution theory (Brophy, 1986; Weiner, 1979), teachers may be most apt to reject students whom they perceive as being able, yet unwilling, to control undesired behavior (see Cook, 2004). In contrast, we predicted that teachers develop concern for their included students who are struggling but are believed to be capable of making appropriate academic gains—particularly when they are not engaged in undesirable behaviors, such as teacher defiance (see Brophy, 1986). We initially believed that the manifest learning and behavioral characteristics of students with disabilities made it unlikely for teachers to not notice or think about them, which has traditionally been reported in regard to students nominated in the indifference category.

Our previous investigations largely supported these predictions. We found that, as compared to typically developing children, students with disabilities were overrepresented among teachers' nominations in the categories of concern and rejection (Cook, 2004; Cook et al., 2000), and underrepresented with respect to attachment (Cook et al., 2000). In contrast to our initial prediction, included students were not underrepresented among teachers' indifference nominations. In fact, Cook reported that they were significantly overrepresented in this category. Rather than not noticing them, inclusive teachers' indicated that they nominated students with disabilities in the indifference category because they did not feel knowledgeable about them or responsible for their instruction (Cook et al., 2000). We also found that students with disabilities were more likely nominated in (a) the concern and rejection categories in schools located in high socioeconomic status (SES) districts (Cook, 2004), (b) the concern category by teachers with greater total teaching experience (Cook, 2004) and greater inclusive teaching experience (Cook et al., 2004), and (c) the rejection category in classrooms without paraprofessional support (Cook, 2000).

Although these findings shed light on teachers' attitudes toward students with disabilities in inclusive classrooms, using the traditional nomination procedure presents a number of limitations. In particular, although teachers nominate three students in each category, they may feel strongly about more, or less, than three of their students. Furthermore, the nomination procedure provides no way to differentiate teachers' attitudes among students who are nominated or among those not nominated. A rating scale would address these limitations by allowing teachers to express their attitudes toward any or all of their students. The purpose of this investigation was, therefore, twofold: to (a) pilot a new rating scale measuring teachers' attachment, concern, indifference, and rejection of their students and (b) replicate and extend our investigations of inclusive teachers' attitudes toward their students. Specifically,

we sought to examine the test–retest reliability and concurrent validity of the new rating scale. Utilizing this rating scale, we also tested predictions that, in comparison to students without disabilities, inclusive teachers feel greater concern, indifference, and rejection, but less attachment, toward their students with disabilities using the rating scale. Finally, we investigated the degree to which teacher experience, presence of paraprofessionals, and school district SES predict teachers' attitudinal ratings of their included students.

Method

Participants

Participants consisted of 50 inclusive teachers, the 156 included students with disabilities attending their classes, and 199 of their students without disabilities. This study was part of a larger investigation examining teachers' attitudes toward their included students involving 16 elementary schools located in northeast Ohio. Teachers in 12 of these schools participated in this investigation and completed a newly developed rating scale regarding their attitudes toward their students. Participating inclusive teachers in 6 randomly selected schools responded to the rating procedure twice (n = 30); teachers in the other 6 schools completed both the rating scale and the nomination procedure utilized in previous research (n = 20). (Teachers in the 4 remaining schools that participated in the larger study completed the nomination procedure twice; see Cook, 2004.) Fifty of the 84 teachers (59.0%) in the 12 participating schools who taught inclusive classrooms elected to participate in this study. See Table 1 for the demographic characteristics of participating classrooms and teachers.

Participating classrooms were attended by 1,204 total students, 156 of whom were considered to be included students with disabilities. Students identified as solely requiring speech or language services were not included in the sample of students with disabilities in this investigation, as this disability in isolation does not entail significant instructional or behavioral challenges; thus, it is unlikely to considerably affect teachers' attitudes. See Table 2 for included students' disability categories and the proportion of students who were fully included. On average, students with disabilities were included for most of the school day (M = 84.2%, SD = 25.2). The rating scale prompted teachers to provide ratings for two nondisabled boys and two nondisabled girls in addition to all included students with disabilities in their class. Because 1 teacher provided ratings for only 3 students without disabilities, teachers rated a total of 199 students without disabilities.

The median family incomes of the seven school districts in which participating schools were located ranged from $20,630 to $41,657 ($M$ = $30,243, SD = $7,814) in the 2000–2001 school year, in which data were collected. The median income level in four of the districts (in which 7 of the 12 participating schools were located) fell below the average family income level for the state of Ohio in 2000–2001 ($29,069; Ohio Department of Education, 2003) and were therefore considered low-SES districts. Three of the low-SES schools were located in inner-city environments. The remaining five schools were located in three districts with median in-

TABLE 1. Characteristics of Participating Teachers and Classrooms

Characteristic	*n*	%	*M*	*SD*
Gender				
Female	46	92.0		
Male	4	8.0		
Ethnicity				
Caucasian	47	94.0		
African American	3	6.0		
Years of teaching experience			17.4	10.5
Years of teaching experience in inclusive classrooms			12.2	10.3
Highest level of education				
Bachelor's degree	1	2.0		
Bachelor's + graduate hours	23	46.0		
Master's degree	4	8.0		
Master's degree + additional graduate hours	22	44.0		
College courses taken in inclusion/special education			2.6	4.0
Grade level taught				
Kindergarten	7	14.0		
First	10	20.0		
First/second combined	2	4.0		
Second	8	16.0		
Second/third combined	6	14.0		
Third	9	18.0		
Fourth	4	8.0		
Fifth	4	8.0		
Class size			24.1	6.3
Included students with disabilities enrolled			3.1	2.2
Hours per week co-teaching			2.7	6.4
Hours per week paraprofessional present			8.4	10.5
Hours per week spent collaborating with special educators outside of class			1.1	2.0

Note. n = 50.

TABLE 2. Characteristics of Included Students With Disabilities

Characteristic	*n*	% of sample
Categorical designation		
Specific learning disability	60	38.5
Mental retardation	43	27.6
Attention deficit (hyperactivity) disorder	14	9.0
Multiple disabilities	11	7.1
Behavioral disorders	8	5.1
Autism	7	4.5
Other health impairment	5	3.2
Orthopedic disability	3	1.9
504 plan (unspecified)	3	1.9
Unreported	2	1.3
Fully Included	63	40.4

Note. *n* = 156.

comes above the state average and were categorized as high-SES districts.

Instrumentation

Teachers who completed the nomination procedure nominated three of their students in response to each of the traditional prompts corresponding to the areas of attachment, concern, indifference, and rejection, respectively:

- If you could keep one student another year for the sheer joy of it, whom would you pick?
- If you could devote all your attention to a child who concerns you a great deal, whom would you pick?
- If a parent were to drop by for a conference, whose child would be least prepared to talk about?
- If your class was to be reduced by one child, whom would you be relieved to have removed?

So that teachers could express multifaceted attitudes toward students, they were permitted to nominate students in multiple attitudinal categories. Test–retest reliability of teachers' attitudinal nominations in inclusive classrooms has been reported to be adequate (Cook, 2004; Cook et al., 2000). The validity of the nomination procedure is supported by findings indicating that differential patterns of teacher–student interactions occur for students nominated in different attitudinal categories (Brophy & Good, 1974; Evertson et al., 1973; Good & Brophy, 1972; Silberman, 1969, 1971).

A new rating scale was developed for this study, on which the four attitudinal prompts were restated to reflect the rating format:

- I would like to keep this student for another year for the sheer joy of it.
- I would like to devote all my attention to this student because he/she concerns me.
- I would not be prepared to talk about this student if his/her parents dropped by for a conference.
- If my class was to be reduced, I would be relieved to have this student removed.

Teachers rated their agreement with each statement for selected students on a 4-point Likert-type scale (1 = *not at all true*, 4 = *extremely true*). A 4-point scale was selected to (a) force teachers to make a judgment as to whether each statement was true or not in relation to each child rated and (b) allow teachers to make differentiations regarding the degree to which the statements were true or not true. We developed the rating scale with only four items or prompts (one for each attitudinal category) so that it corresponded as closely as possible with the nomination procedure on which the rating scale was based. We were attempting to measure the same attitudes gauged by the nomination prompts and therefore felt it prudent to draw on prompts as similar as possible to those used in validating the attitudes. Furthermore, by limiting the rating prompts to four, even teachers who rated multiple students were able to complete the process in a timely manner, thereby minimizing the attrition rate.

Procedure

Data collection occurred during the latter half of the school year at schoolwide faculty meetings. Teachers brought class rosters with them to the meetings and were asked to consecutively number their students on that roster. In six randomly selected schools, teachers were initially asked to complete the nomination procedure by nominating three students, by code number (to protect anonymity), to each of the nomination prompts. In the other six schools, teachers were asked to complete the ratings procedure by listing, by code number, the first two nondisabled boys and first two nondisabled girls appearing on their roster, as well as all students with disabilities on the rating form. They were then instructed to rate each child listed in response to the four rating prompts. All teachers provided demographic information regarding (a) their included students with disabilities (e.g., disability category, proportion of typical day included), (b) themselves (e.g., gender, ethnicity, years of teaching experience), and (c) their classroom (e.g., class size, presence of paraprofessionals, amount of coteaching with a special education teacher). Teachers who did not complete the forms during the meeting were asked to complete them over the next 2 weeks and return them to a labeled envelope in their school office. After an additional 2 to 3 weeks, all teachers were asked to complete the ratings procedure. In six schools, this was the second time teachers completed the ratings (allowing us to investigate test–retest reliability); in

the remaining six schools, it was the first time teachers had completed the rating scale (allowing us to examine the relation between attitudinal nominations and ratings). Teachers were asked to complete these rating forms on their own within two weeks and return them to a labeled envelope in their school office. Written directions were provided for completing the rating forms, and the first author's contact information was provided to participants so that he could answer any questions the teachers might have.

Analyses

Zero-order correlations were conducted on teachers' attitudinal ratings in the four categories to examine whether the prompts measured independent constructs. Test–retest reliability of the ratings was evaluated by correlating the ratings at Time 1 and Time 2, collected from 2 to 7 weeks apart. The subsample of students involved in this analysis consisted of the first two nondisabled boys and girls on teachers' rosters and all students with disabilities in the classrooms of teachers who completed the rating procedure twice ($n = 30$).

To provide a preliminary exploration of the concurrent validity of teachers' attitudinal ratings, a percentage agreement measure was calculated based on crosstabs between teachers' attitudinal ratings and the previously validated attitudinal nominations (see Brophy & Good, 1974). From the classes of teachers who completed both the nomination and ratings procedures (2 to 7 weeks apart), we determined the percentage of students who were nominated in a given category and received a rating as high as or higher than any of their classmates who were not nominated. These were considered instances in which the ratings and nominations agreed. Ratings and nominations disagreed when a student nominated in a given category received a rating lower than that of a classmate who was not nominated. The variability in teachers' rating patterns necessitated using this procedure, rather than simply examining the proportion of students who were both nominated and received the highest rating. For example, many teachers rated all of their students with a 1 or 2 in the concern and indifference categories. The number of students who were both rated and nominated varied by attitudinal category, ranging from 19 to 22, because the extent to which teachers happened to nominate (teachers could nominate any three of their students in each category) the same students whom they rated (i.e., their included students with disabilities and the first two nondisabled boys and girls on their roster) differed between categories. For example, a teacher could have nominated two of the students he or she rated in the indifference category, but nominated only one of the rated students in the concern category.

A MANOVA was conducted to determine if teachers' ratings differed toward their students with and without disabilities across attitudinal categories. This analysis involved all participating teachers' ratings (the initial ratings of teachers who completed the procedure twice). If the MANOVA indicated a statistically significant effect of disability, univariate analyses of variance (ANOVAs) were then conducted to determine in which attitudinal categories differences existed.

Four multiple regression equations were conducted to determine which, if any, teacher- and classroom-level variables predicted teachers' attachment, concern, indifference, and rejection ratings toward their students with disabilities. As teacher was the unit of analysis for these equations, teachers' average attitudinal ratings toward all of their included students with disabilities served as dependent variables. Because the assumptions of regression analysis restricts the number of independent variables involved in a particular equation as a function of number of subjects, a limited number of independent variables were selected on the basis of findings from previous research (Cook, 2004; Cook et al., 2000). These studies reported that teachers' attitudinal nominations of their included students with disabilities significantly differed as a function of years of total teaching experience, years of inclusive teaching experience, hours of paraprofessional presence per week, and school district SES (as measured by median family income). Zero-order correlations were conducted to examine the independence of these variables. Of the six correlations, only one was greater than +/– .17 ($n = 50$ teachers). A moderate correlation of .76 ($p < .001$) was found between years of total teaching experience and years of inclusive teaching experience. Therefore, years of inclusive teaching experience—which appears to be more directly related to teachers' attitudes toward their included students than does total years of teaching—was retained as an independent variable.

Results

As indicated in Table 3, correlations among teachers' ratings in the four attitudinal categories were relatively low, with the exception of the moderate, negative correlation between attachment and rejection, which is consistent with the meaning of these categories. To gauge test–rest reliability of the ratings, 25 of the 30 teachers (83.3%) who had completed the original ratings in these schools rated the same students a second time 2 to 7 weeks later. Two separate ratings were attained for 158 students in these classrooms—93 students without disabilities and 65 students with disabilities (teachers did not rate 6 students without disabilities, and 8 included students with disabilities in their second ratings, probably due to withdrawal from the school or oversight; the teacher who rated only 3 students without disabilities was also included in this subsample). Pearson correlations for the attachment, concern, indifference, and rejection ratings were .77, .70, .71, and .74 (all $p < .001$), respectively (the correlation for rejection ratings is based on 157 pairs of ratings; 1 teacher who rated all of her students in the other attitudinal categories did not rate 1 nondisabled student in rejection on the second rating procedure).

To investigate the relation between the newly developed rating procedure and the previously validated nomination method, we identified agreements (i.e., students who were nominated in a given category and received a rating as high as or higher than any unnominated classmates) and disagreements (i.e., students who were nominated but who received a lower rating than a classmate who was not nominated), using the subsample of teachers in the six schools who completed both the nomination and rating procedures. Twenty of the 21 teachers (95.2%) who initially completed the nomination procedure subsequently completed the rating procedure on 149 of their students. Crosstabs are presented in Table 4. Agreement rates for the attachment, concern, indifference, and rejection categories, respectively, were 95% (20 of the 21 students who were nominated and rated), 77% (17 of 22 students), 74% (14 of 19 students) and 89% (17 of 19 students). It should be noted that, unlike the other attitudinal categories in which all or the vast majority of nominated students received high ratings, teachers provided a rating of 1 or 2 to almost half of the students they nominated in the indifference category.

Means and standard deviations for teachers' ratings of students with and without disabilities are presented in Table 5. The MANOVA was interpreted to indicate that teachers' ratings differed across attitudinal categories as a function of disability, $F(4, 350) = 35.71$, $p < .001$, $\eta^2 = .29$. Univariate ANOVAS were interpreted to indicate that included students with disabilities received significantly higher ratings from their teachers than did students without disabilities in the categories of concern, $F(1, 353) = 106.37$, $p < .001$, $\eta^2 = .23$; indifference, $F(1, 353) = 6.80$, $p = .01$, $\eta^2 = .02$; and rejection, $F(1, 353) = 35.11$, $p < .001$, $\eta^2 = .09$; and significantly lower

TABLE 3. Zero-Order Correlations Between Four Categories of Teachers' Attitudinal Ratings as a Function of Nomination Status (n = 355 students)

	Attachment	Concern	Indifference
Concern	–.24***		
Indifference	–.12*	.03	
Rejection	–.74***	.20***	.16**

*$p < .05$. **$p < .01$. ***$p < .001$.

TABLE 4. Comparison of Teachers' Attitudinal Ratings as a Function of Nomination Status

		Ratings			
Attitudinal category	Nomination status	1	2	3	4
Attachment[a]	Not nominated	29	37	35	27
	Nominated	0	0	1	20
Concern[b]	Not nominated	52	18	24	33
	Nominated	0	2	7	13
Indifference[c]	Not nominated	106	16	4	4
	Nominated	6	3	9	1
Rejection[c]	Not nominated	76	40	9	5
	Nominated	0	2	3	14

[a]n = 21 nominated students, n = 128 not nominated. [b]n = 22 nominated students, n = 127 not nominated. [c]n = 19 nominated students,

TABLE 5. Comparison of Teachers' Attitudinal Ratings of Students With Disabilities and Nondisabled Students

	Students with disabilities		Nondisabled students	
Attitudinal category	*M*	*SD*	*M*	*SD*
Attachment	2.36	1.03	3.04	0.99
Concern	2.97	1.01	1.85	1.03
Indifference	1.33	0.70	1.17	0.46
Rejection	2.03	1.07	1.44	0.81

Note. Students with disabilities: n = 156; nondisabled students: n = 199.

ratings in the attachment category, $F(1, 353) = 39.35$, $p < .001$, $\eta^2 = .10$.

Four separate multiple regression equations were used to assess whether school district SES, inclusive teaching experience, and presence of paraprofessionals predicted teachers' mean ratings of their included students in the four attitudinal categories. Bivariate correlations between teachers' average attitudes toward their included students and these three predictor variables are presented in Table 6. The combination of independent variables did not explain a significant amount of variance in teachers' mean attachment, $F(3, 46) = 0.92$, $p > .05$, $r^2 = .06$; concern, $F(3, 46) = 0.32$, $p > .05$, $r^2 = .02$; indifference, $F(3, 46) = 01.53$, $p > .05$, $r^2 = .09$; or rejection, $F(3, 46) = 1.50$, $p > .05$, $r^2 = .09$, ratings of their included students with disabilities. However, with all the other variables held constant, presence of paraprofessionals did significantly predict teachers' average indifference ratings of their included students. Each hour of paraprofessional presence per week was associated with a .014 increase in teachers' average indifference ratings toward their included students with disabilities, $t(46) = 2.09$, $p < .05$, $\beta = .30$. That is, average indifference ratings of included students rose by one point for every 71 hr of additional paraprofessional presence per week. School district SES also explained a significant amount of unique variance in average teacher rejection ratings, in an inverse direction. Holding the other variables constant, rejection ratings decreased by .00003 for every additional dollar of average school district annual income, $t(46) = -2.05$, $p < .05$, $\beta = -.29$. In other words, average teacher rejection ratings decreased by one for every additional $32,258 of average income.

Discussion

Rating Scale Integrity

Test–retest correlations for teachers' attitudinal ratings ranged from .70 to .77. Nunnally and Bernstein (1994) suggested that a .70 correlation indicates modest reliability. Reliability of teachers' attitudinal ratings in this study is very similar to that reported for sociometric ratings, on which classmates rate their feelings toward one another. For example, in a meta-analysis of the reliability of sociometric measures, Jian and Cillessen (2005) reported that the mean test–retest correlation for acceptance ratings was .72 (across 30 samples) and .70 for rejection ratings (across 11 samples). Attitudinal measures tend to exhibit lower reliability than do achievement tests (Wiersma, 1991), which may explain why both teachers' and classmates' ratings of their feelings toward students are not more consistent. It appears, then, that teachers' attitudes toward their students exhibit some fluctuation, but do not change radically across short periods of time. For example, only 28 of 631 [4.4%] of teachers' attitudinal ratings differed by more than one response option from Time 1 to Time 2. These findings appear consistent with reports that teacher impressions are formed early in the school year and remain relatively steady over time (Patrick, Turner, Meyer, & Midgley, 2003).

The agreement rate, indicating that a student who was nominated in an attitudinal category received a rating as high as or higher than all of their unnominated classmates, was high (≥ 89%) in the attachment and rejection categories, but more moderate for the concern and indifference categories. It appears, then, that inclusive teachers' attitudinal ratings are associated with the formerly validated attitudinal nominations, especially in the attachment and rejection categories. It is possible that the agreement rates in the indifference and concern categories were negatively affected by the modest reliability of teachers' attitudinal ratings. The correspondence between indifference ratings and nominations appears most tenuous due to a strong "floor effect"; the vast majority of teachers' indifference ratings were 1's, which likely contributed to the modest agreement rating between ratings and nominations in this category. The finding that 6 students nominated in the indifference category received the lowest indifference rating raises serious questions about the validity of ratings in this category and warrants caution when interpreting indifference ratings.

TABLE 6. Zero-Order Correlations Between Teachers' Average Attitudinal Ratings Toward Included Students With Disabilities and Independent Variables in Multiple Regression Analyses

	Independent variable		
Attitudinal category	**District socio-economic status**	**Inclusive teaching experience**	**Presence of paraprofessionals**
Attachment	.23	.02	.01
Concern	.06	.11	.05
Indifference	–.04	–.03	.29*
Rejection	–.28*	–.00	–.08

*$p < .05$.

Teachers' Attitudinal Ratings

Teachers' ratings differed in all four attitudinal categories as a function of disability status in the predicted directions, corroborating the findings of Cook (2004) and Cook et al. (2000). We conjecture that the learning and behavioral problems exhibited by students with disabilities that led to their identification as disabled also engendered inclusive teachers' relatively high rejection and low attachment ratings. Perhaps participating teachers tended to develop concern for those included students with disabilities who (a) had instructional needs that the teachers could reasonably address and (b) did not exhibit the behaviors (e.g., teacher defiance) that elicit teacher rejection. Previous research in noninclusive classrooms found that students nominated in the indifference category did not stand out to their teachers. However, teacher indifference toward included students with disabilities may be qualitatively different from the indifference described by Good and Brophy (1972) in noninclusive classes. General educators' perceived lack of experience, knowledge, or responsibility regarding the instruction of students with disabilities (see Cook et al., 2000), rather than teacher disregard, may explain the higher indifference toward included students with disabilities.

It is important to note that although teacher ratings differed by disability status, the majority of included students with disabilities did receive low indifference (e.g., 90% received a rating of 1 or 2) and rejection (e.g., 71% received a rating of 1 or 2) ratings. In addition, although teachers' mean ratings in attachment were below a theoretical neutral rating of 2.5, 64 included students with disabilities (41.0%) received ratings of 3 of 4. Teachers' feelings of attachment, concern, and rejection toward their included students with disabilities appear to vary, likely in correspondence with differences in student characteristics. In contrast, teachers' indifference ratings were fairly uniform, 79% of students with disabilities and 87% of students without disabilities received ratings of 1 in this category. It appears that teachers do not feel that they are unprepared to talk with the parents of the vast majority of students with or without disabilities, or do not feel comfortable expressing their lack of preparedness in a rating format.

The regression equations indicated that (a) paraprofessional presence positively predicted teachers' average indifference ratings of their included students, and (b) school district SES predicted teachers' average rejection ratings. Although statistically significant, the practical significance of these relationships is questionable and difficult to interpret. Averaging teachers' attitudes toward all included students; measuring SES at the district, rather than school or classroom, level; and the floor effects of teachers' ratings in these two attitudinal categories, particularly in indifference, may have obscured stronger relations among these variables. Further research measuring a wider range of variables is needed to investigate and clarify the nature of these relations. For example, future research could examine (a) if teacher indifference toward their included students is associated with teachers perceiving that paraprofessionals are primarily responsible for educating included students with disabilities (see Giangreco, Edelman, Broer, & Doyle, 2001; Marks, Schrader, & Levine, 1999) and (b) the relation between specific resources and instructional conditions found in higher SES schools (see Darling-Hammond, n.d.; Education Week, 2003) and teacher rejection of included students.

Implications and Recommendations

The rating scale allows for efficient measurement of teachers' attitudes of attachment, concern, indifference, and rejection toward any and all of their students. The ratings exhibited modest test–retest reliability and corresponded with previously validated attitudinal nominations. Future validation of the rating scale is critical and should involve direct observations of teacher–student interactions. Upon further validation of the rating scale's psychometric integrity, we believe that it can be a valuable tool for researchers to investigate the attitudes that teachers hold toward various groups of students (e.g., English language learners, gifted, low-achieving). Future researchers may wish to explore the reliability and validity of a modified indifference rating prompt that is reworded to yield greater variance in teacher ratings.

To the degree that the patterns of teacher–student interactions associated with teachers' attitudinal nominations (see Good & Brophy, 1972) apply to teachers' ratings, findings that included students with disabilities were rated significantly higher than were their nondisabled classmates in concern, indifference, and rejection suggest both positive and negative implications. For example, many included students appear to receive levels of teacher concern and instructional support not typically provided to their nondisabled classmates. Whether heightened teacher concern results in included students with disabilities achieving appropriate outcomes requires additional empirical investigation. Alternatively, findings regarding teachers' rejection ratings portend negative teacher–student interactions for a disproportionate number of included students. The student behaviors that often trigger teacher rejection, such as hostility and defiance (see Brophy, 1986; Brophy & Evertson, 1981), tend to be stable or increase over time (Achenbach, Howell, McConaughy, & Stranger, 1995). Thus, reducing teacher rejection appears to necessitate proactive intervention. Training and support in implementing behavior management techniques may enable teachers to better understand and change inappropriate behavior, rather than allowing it to engender rejection. Teachers' higher indifference ratings of their included students may appear worrisome—since students with disabilities typically require more, not less, teacher interaction. However, further research is needed to definitively determine the implications of teacher indifference ratings of included students that (a) although higher than those of students without disabilities, are still very low and (b) may reflect teacher indifference that is dissimilar in nature to that previously investigated in noninclusive classrooms.

Limitations

One primary limitation of this study is that all participants were located in northeast Ohio. Generalizing findings to other locations may not be warranted. Another significant limitation is that the test–retest reliability of teachers' attitudinal ratings was modest; accordingly, caution should be used in interpreting the results. Making changes to the rating scale and its administration (e.g., increasing the number of items, directly supervising each administration) to increase its reliability should be explored. Future research might also monitor teachers' attitudes toward students across the school year or examine the impact of particular events or behaviors (e.g., a student's verbal outburst) on teachers' attitudes. Perhaps the most important limitation to this study is that although teachers' attitudinal ratings of their students did relate to students' nomination status—which research conducted 30 to 35 years ago in non–inclusive classes related to important patterns of student–teacher interactions—this constitutes only the most initial and tentative evidence regarding the validity of teachers' ratings. The validity of the indifference ratings, which exhibited a strong floor effect, seems to be particularly problematic and should be interpreted cautiously. Contemporary research concretely validating teachers' attitudinal ratings is needed.

Conclusion

We have described the initial administration of a new rating procedure for measuring teachers' attitudes toward their students that (a) exhibits modest reliability and corresponds with a previously validated nomination procedure, (b) allows teachers to express attitudes toward all of their students, and (c) is efficient (i.e., can be completed quickly and anonymously). Silberman (1969) proposed that teachers often make decisions by relying on their feelings toward students, rather than logically analyzing different potential courses of action. As such, findings that teachers rated themselves as significantly more concerned, indifferent, and rejecting toward their included students with disabilities, as compared to their students without disabilities, have important implications for inclusive policy and practice.

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