Does Inclusion Help Students: Perspectives from Regular Education and Students with Disabilities

Bonnie Dupuis, MA [1]
Facilitator for Inclusive Practices
Polk County Public Schools

Joyce W. Barclay, Ed.S.
Florida Inclusion Network Facilitator
Polk County Public Schools

Sherwin D. Holmes, MS
Director, Exceptional Student Education
Polk County Public Schools

Morgan Platt
Assessment, Accountability & Evaluation
Polk County Public Schools

Steven H. Shaha, PhD, DBA
Director of Research & Evaluation
Performance & Growth through Impacts (PGI)

Corresponding Author:
Valerie K. Lewis, MPA
President and CEO
Performance & Growth through Impacts (PGI)
2174 New Horizon Drive
Sandy, UT 84093
(801) 943-0358
Fax (801) 947-0842
lewisva@comcast.net

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This research focused on verifying the impacts of Inclusion on both students with disabilities (SWDs) and their Regular Ed classmates. High school students (n=364) within inclusive classes completed surveys reflecting their perceptions of the effectiveness of the learning environment and the attitudinal impacts of Inclusion. Results documented significant positive attitudinal and self-reported learning impacts of Inclusion for both SWDs and Regular Ed peers. SWDs reported higher self-concept, liking of school and teachers, and greater motivation to work and learn. Unexpectedly, Regular Ed student responses followed the same patterns, reflecting significantly higher attitudes across the board and perceived academic achievement, as well as higher tolerance for SWDs. The importance of anonymity for SWDs is discussed in light of significantly higher attitudinal ratings among Regular Ed students most aware of the presence of SWDs. Implications for the future of Inclusion are discussed.

Introduction

The value and impact of education has been clearly defined as a balance not only of achievement and learning, but also of the attitudinal, social and personality-based effects on students (Bernhardt, 1998; Daniels, 2002; Dewey, 1916; Lewis & Shaha, 2003). The importance of the two-fold measurement of success is nowhere more important than for the subset of students whose learning and physical needs make school either challenging or overwhelming. In the age of accountability, the goals of Inclusion must echo those of education as a whole: to help Students with Disabilities gain the maximum in attitudinal impacts and social benefits from their school experiences (Baker & Zigmond, 1995; Fuchs & Fuchs, 1988; Salisbury, Gallucci, Palombaro & Peck, 1995; Soodak, Podell & Lehman, 1998).

Much research has focused on establishing the validity of the argument that Inclusion is beneficial to Students with Disabilities. Studies have shown that Students with Disabilities benefit socially with fewer negative labels, reduced stigma, and increased interaction with Regular Ed peers (Brady & Taylor, 1989; Huefner, 1988; Snyder, 1999; Wang & Birch, 1984). Some evidence suggests that achievement and learning for Students with Disabilities may also be benefited by Inclusion (Barclay, Holmes, Elmore, Dupuis, Lewis, & Shaha, 2006; Soodak, Podell & Lehman, 1998).

For many educators, however, the practice of Inclusion remains clouded in controversy (Davis, 1989; Fuchs, Fuchs & Fernstrom, 1993; Klingner, Vaughn, Schumm, Cohen & Forgan, 1998). While much can be found regarding the apparently favorable impact of Inclusion on Students with Disabilities, little research addresses the potentially negative impact on the Regular Ed Students. It may be considered "politically incorrect" to question such an important and sensitive topic that emphasizes the needs of the disabled, hence the paucity of data asking the risky questions.

Do we think so little of Inclusion that we don't dare ask the full set of questions regarding its impact on the entire range of students? Do we favor the few so sensitively that we are unwilling to be concerned about the Regular Ed Students whose classrooms are being adapted to meet the needs of others? Are we truly committed to the educational experience of all students, and if so are we as educators willing to ask the frightening questions regarding the impact of Inclusion on

all students? If as much as $60 billion a year is spent on the 12 percent of Students with Disabilities, do we not have an obligation to document whether that lop-sided expenditure represents any benefit to Regular Ed Students (Kavale, 2002)? On the other hand, do Students with Disabilities experience favorable attitudes toward learning and their personal capabilities within inclusive settings, or are the benefits only social?

The purpose of this research was to quantify the attitudinal impacts of Inclusion on both Students with Disabilities and their Regular Ed classmates. Our objective was to verify claims by other researchers that Students with Disabilities prefer and feel benefited by Inclusive classroom settings. In addition, our design was to answer the more dangerous, more sensitive and too-seldom-asked questions regarding the impact of Inclusion on the Regular Ed Students into whose classroom the Students with Disabilities have been included.

Method

The Student Survey was created collaboratively in two versions for assessing the attitudinal impacts of Inclusion on students and their perceptions of Inclusion. Representatives engaged in the creative process included three key high school leaders, three district Inclusion resource personnel, a local university expert in exceptional student education, and two professional survey design experts as consultants (Shaha, Lewis, O'Donnell & Brown, 2004). The language, structure and execution methodology for the Survey were designed to ensure privacy and anonymity for the students, and adherence to politically correct language.

The Student Survey was developed in two versions, one for each student type (see Appendices A and B). Both versions included 17 "identical" items: 15 were Likert-scaled items (ratings from 0 to 5), and two were open-ended items. The items used virtually identical wording for each of the two survey versions, the only difference being the substitution of student type labels for each of the complimentary versions. In addition to the identical items, the Student Survey version for Students with Disabilities included three non-identical items (20 items total) regarding their personal experience within Regular Ed classrooms. The version for Regular Ed students included two additional non-identical items (19 items total) regarding their perceptions of Students with Disabilities sharing classroom experiences. All items required response except for the two open-ended items.

All students voluntarily completed the web-based Student Survey in the computer lab during the same one-week time period in the spring term of 2005. The resulting response rate was 100%, and no student chose not to complete the survey. To protect crucial student privacy and anonymity during participation in the Student Survey, a teacher initiated the survey process for each student by first answering the question, "Does this student have an IEP?" If the answer was "yes" (i.e. this is a Student with Disabilities), the respondent was presented the survey for Students with Disabilities (see Appendix A). Conversely, if the answer was "no" to the IEP question, the respondent was presented the survey for Regular Ed students (see Appendix B). Directions for students clarified that there were multiple versions of the survey so as to not draw attention to visible differences in Survey items for Students with Disabilities versus Regular Ed classmates.

Respondents to the Student Survey included 364 high school students (grades 9-12) enrolled in intact, inclusive classrooms within a single high school in rural Florida, including 98 Students with Disabilities and 266 Regular Ed students. The study was limited to a single High School setting in order to increase interpretive and inferential capabilities by reducing as much as possible any explanations of findings attributable to differences between school settings, leadership, or other variables. Inclusive classrooms were defined as those in which Students with Disabilities were intentionally placed among Regular Ed Students as part of the District and High School Inclusion program (c.f. Fink, 2004). The classes engaged in the study were limited to mathematics, English and reading. Inclusive classrooms reflected a structure involving two teachers each for the entire classroom period, including one Regular Ed teacher, and one additional SWD expert resource in a co-teaching model. Students with Disabilities included those students classified as SWDs based on Florida State Department of Education guidelines (State Guidelines, 2006). All other respondents were classified as Regular Ed students.

All analyses were conducted using SPSS (ver 11.0 or higher). Responses for Likert-scaled items (0-5) were categorized as favorable when group means were equal to or greater than 2.5, wherein 0-2 represented unfavorable responses and 3-5 represented favorable. Cumulative Attitudinal Rating scores were created by summing the 15 Likert-scale items uniform between survey versions (i.e. versions for Included and Regular Education students) – the maximum Cumulative Rating was, therefore, 75.

Results

Attitudinal Impacts on Students

Responses to the web-administered Student Survey were analyzed, including responses from 364 students participating in inclusive classrooms. Students with Disabilities represented 26.9 percent (n=98) of the respondents, and Regular Ed student represented 73.1 percent (n=266).

Included Students

Data clearly established that students with disabilities included in regular education classrooms were uniformly and systematically positive (ratings of 3 or greater) in their motivation and fulfillment, and reported being focused and successful, academically and socially (see Table 1). Per-item data indicated highly favorable attitudinal impacts of inclusion on Included Students with Disabilities for every item. Cumulative Attitudinal Ratings (see Figure 1) were very favorably skewed with a mean of 60.2 of the maximum 75.

One item on the Student Survey was unique for Included Students with Disabilities: “I work harder to learn when I am included with my regular education peers.” Data showed that Included Students with Disabilities reported highly favorable tendencies to “work harder to learn” in the inclusive classroom settings (see Figure 2).

Regular Education Students in Inclusive Classrooms

Analyses of data from the Regular Education Students revealed mix favorable and unfavorable results (see Table 2). The mean Cumulative Attitudinal Rating was 30.38 of the maximum 75, a value that was near but *below* the mid-point of 35. Per-item analyses showed favorable mean

ratings (means > 2.5) for six of the 15 items, while unfavorable results were found for the other nine items.

Superficial interpretation of the unfavorable response patterns was found to be *misleading* as a result of further analyses conducted. Investigation into the data revealed a fascinating phenomenon that uncovered a highly favorable underlying pattern among the Regular Ed Students that is best explained through a two-step analytic process:

Step 1. "Anonymity." The first step involved examination of responses by Regular Ed Students to the item unique to their version of the survey that read, "There are students with disabilities in my classes." Data indicated that 47.0 percent of the Regular Ed Student respondents – remembering that they are all in inclusive classrooms – reported being completely unaware of the presence of the Included peers with disabilities (see Table 3 and Figure 3). A total of 76.7 percent of the Regular Ed Students reported *little or no* awareness (ratings of 2 or lower) of the presence of Students the Disabilities in their Inclusive classes. Fully 47.0 percent of the Regular Ed Students reported *no* awareness of the Included peers. Based on this pattern, correlational analyses were undertaken to discern whether attitudinal responses differed for Regular Ed Students aware versus unaware of their peers with disabilities.

Step 2. Correlation of Attitudes with Level of Awareness. Data were therefore further scrutinized to understand response patterns correlated with levels of awareness. Regular Ed Students were grouped into two subgroups as either Aware (ratings from 3-5) or Unaware (ratings from 0-2) that students with disabilities were included in their classrooms based on the corresponding survey item. It remains important to remember that 100 percent of responding Regular Ed Students were in Inclusive classrooms.

Results revealed statistically significant correlations between attitudinal ratings and levels of awareness of the presence of Included Students with Disabilities. However, the pattern was somewhat *counterintuitive*: The greater the awareness of Included students, the higher the attitudinal ratings were for the Regular Ed Students.

ANOVAs were conducted to quantify contrasts between Unaware and Aware groups (see Table 4). Statistically significant differences were verified for Cumulative Attitudinal Ratings (see Figure 3) and for *every item*, with corresponding p-values of .002 or less (except one item marginally significant at p=.058). All differences favored the significantly higher attitudinal ratings among the students Aware of Students with Disabilities (SWD) (ratings of 3-5 on each respective item). The resulting levels of significance (p-values) are also included in Table 4.

Correlation coefficients were also computed for each item between level of awareness (0-5) and the ratings on each item, leveraging Spearman's Rho as the statistic of choice (Kendall's Tau for confirmatory purposes). Statistically significant correlations were verified for *every item*, and every item had a corresponding p-value of less than .001 (see right-most column of Table 4). The interpretation of the correlation is that "the higher the level of awareness among Regular Ed Students of the presence of Included Students with Disabilities, then the higher their attitudinal ratings" for each item.

Conclusion and Discussion

Results clearly document the positive attitudinal impacts of Inclusion for both Students with Disabilities and their Regular Education peers. Students with Disabilities uniformly reported being highly motivated and fulfilled, and reported being focused and successful both academically and socially. Students with Disabilities reported better social and learning environments in inclusive settings furthering their motivation to learn and to work harder. Included Students with Disabilities reported that their learning proficiency increased with the Regular Ed Students along side them.

While the favorable attitudes among Students with Disabilities could have been expected, the favorable results for Attitudes of Regular Ed Students were encouraging. What was most validating was the discovery that highest attitudes were correlated with higher awareness of the inclusion of peers with disabilities. This is a fascinating finding that suggests that Regular Ed Students are happier and more positive about the classroom, their peers, their personal learning and themselves when they are aware of the inclusiveness of the setting (c.f. Huefner, 1988; Wang & Birch, 1984). This finding suggests that the more they know and understand about their environment the less they may be encumbered by any potential inconveniences that inclusive classroom settings might bring.

Another finding in this study is that Regular Ed students were on the whole unaware of the included students and unable to identify students with disabilities in their inclusive classes. For many included students, this apparent blindness to their disabilities is precisely the anonymity they *desire and prefer,* as they want their disabilities to be invisible so they can be "just like their peers without disabilities." In high school they just want to learn and participate in school classes and activities and not be singled out because of their disabilities.

The desire for anonymity among the Students with Disabilities seems to be in conflict with the apparently favorable effects of informed Regular Ed Students. It would potentially be dangerous to the beneficial impacts of Inclusion to purport that Regular Ed Students should be fully informed of the disabilities of their *invisible* classmates that appear normal (c.f. Davis, 1989; Snyder, 1999). The main question remaining is how do we balance the need for anonymity for students with disabilities with the need for awareness for their peers without disabilities. More research is needed to discern a clearer understanding of the needs of all students in inclusive classroom settings. In the absence of such research, however, these data clearly show that Inclusion is mutually beneficial to the attitudes of both Students with Disabilities and their Regular Ed peers, and that Inclusive practices should not be held back pending more data.

The data in this research were limited to the attitudes of high school students in order to maximize the precision and interpretability of the findings. While further research is needed involving other age groups, in our opinions there is no reason to believe that the positive attitudes expressed toward Inclusion by either student type would be different in any negative sense. We particularly anticipate that to be the case for the interesting balance uncovered between the desire for anonymity on the part of the Students with Disabilities, and the benefits of awareness on the part of the Regular Ed classmates.

The goals of education remain increased learning and best social impacts. Inclusion has been proven once again to be a valid and favorable approach for meeting those goals for both Students with Disabilities, and also their Regular Ed peers. Taken in concert with recently established correlation between the attitudinal impacts and *achievement* gains for both Included and Regular Ed students (c.f. Barclay, Holmes, Elmore, Dupuis, Lewis & Shaha, 2006; Elmore, Collins, Lewis & Shaha, 2006), and the overwhelmingly positive attitudinal impacts on both Special and Regular Ed teachers (Barclay, et.al, 2006), little question or controversy remains as to the favorable attitudinal power inclusion provides for students.

Table 1. Mean Ratings from Included Students for 15 Student Survey Items Common to Both Survey Versions.

	Mean	Std. Deviation	N
Cumulative Attitudinal Ratings	60.2	13.3	97
I like Ss w/ disabilities & Reg Ed in my classes	4.4	1.2	97
My classes are better w/ disabilities & Reg Ed	3.9	1.4	97
I learn better w/ disabilities & Reg Ed in class	3.9	1.2	97
I learn better w/ multiple teachers in class	3.9	1.4	97
I work harder to learn w/ Reg Ed Ss in class	4.0	1.3	97
I learn better ... teachers teach in different ways	3.9	1.3	97
All learn better ... all treated fairly	3.8	1.5	97
No one is really disabled .. just learn differently	4.1	1.4	97
All are equal members of the class	4.1	1.4	97
Care about and value my peers	4.0	1.4	97
I have friends ... Reg Ed vs w/ disabilities	4.5	1.1	97
My peers care about me and value me	3.6	1.4	97
I spend time outside of class with my ... peers	3.7	1.6	97
Because of experience, I am more comfortable around ...	4.1	1.3	97
Because of experience, more respectful ...	4.0	1.4	97
I feel better about myself since shared classes	4.2	1.2	97

Table 2. Mean Ratings from Regular Education Students for 15 Student Survey Items Common to Both Survey Versions.

	Mean	Std. Deviation	N
Cumulative Attitudinal Ratings	30.4	18.1	266
I like Ss w/ disabilities & Reg Ed in my classes	1.4	1.5	266
My classes are better w/ disabilities & Reg Ed	1.0	1.4	266
I learn better w/ disabilities & Reg Ed in class	0.9	1.3	266
I learn better w/ multiple teachers in class	1.4	1.6	266
I learn better ... teachers teach in different ways	1.5	1.7	266
All learn better ... all treated fairly	2.1	1.9	266
No one is really disabled .. just learn differently	2.8	2.1	266
All are equal members of the class	3.1	2.0	266
Care about and value my peers	3.2	1.8	266
I have friends ... Reg Ed vs w/ disabilities	2.5	2.0	266
My peers care about me and value me	2.0	1.8	266
I spend time outside of class with my ... peers	1.4	1.7	266
Because of experience, I am more comfortable around ...	2.1	1.8	266
Because of experience, more accepting and patient ...	2.5	1.9	266
Because of experience, more respectful ...	3.1	1.9	266
I feel better about myself since shared classes	1.9	1.8	266

Table 3. Ratings from Regular Ed Students for "There are students with disabilities in my classes"

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	125	47.0	47.0	47.0
	1	53	19.9	19.9	66.9
	2	26	9.8	9.8	76.7
	3	27	10.2	10.2	86.8
	4	14	5.3	5.3	92.1
	5	21	7.9	7.9	100.0
	Total	266	100.0	100.0	

Table 4. Statistical Summary for Regular Ed Students Unaware versus Aware of Included Students

		N	Mean	Std. Deviation	ANOVA (p-values)	Correlation with Awareness (p-value)
Cumulative Attitudinal Ratings	Unaware (0-2)	204	26.45	16.995	0.000	0.000
	Aware of SWDs (3-5)	62	43.29	15.753		
I like Ss w/ disabilities & Reg Ed in my classes	Unaware (0-2)	204	1.11	1.336	0.000	0.000
	Aware of SWDs (3-5)	62	2.34	1.609		
My classes are better w/ disabilities & Reg Ed	Unaware (0-2)	204	0.7	1.094	0.000	0.000
	Aware of SWDs (3-5)	62	1.95	1.644		
I learn better w/ disabilities & Reg Ed in class	Unaware (0-2)	204	0.61	1.038	0.000	0.000
	Aware of SWDs (3-5)	62	1.82	1.694		
I learn better w/ multiple teachers in class	Unaware (0-2)	204	1.05	1.349	0.000	0.000
	Aware of SWDs (3-5)	62	2.39	1.885		
I learn better ... teachers teach in different ways	Unaware (0-2)	204	1.21	1.521	0.000	0.000
	Aware of SWDs (3-5)	62	2.65	1.865		
All learn better ... all treated fairly	Unaware (0-2)	204	1.79	1.83	0.000	0.000
	Aware of SWDs (3-5)	62	3.03	1.81		
No one is really disabled .. just learn differently	Unaware (0-2)	204	2.47	2.066	0.000	0.000
	Aware of SWDs (3-5)	62	3.98	1.594		
All are equal members of the class	Unaware (0-2)	204	2.85	2.073	0.000	0.000
	Aware of SWDs (3-5)	62	3.9	1.686		
Care about and value my peers	Unaware (0-2)	204	3.12	1.843	0.058	0.003
	Aware of SWDs (3-5)	62	3.61	1.623		
I have friends ... Reg Ed vs w/ disabilities	Unaware (0-2)	204	2.21	2.016	0.000	0.000
	Aware of SWDs (3-5)	62	3.29	1.74		
My peers care about me and value me	Unaware (0-2)	204	1.74	1.707	0.000	0.000
	Aware of SWDs (3-5)	62	2.76	1.817		
I spend time outside of class with my ... peers	Unaware (0-2)	204	1.16	1.58	0.000	0.000
	Aware of SWDs (3-5)	62	2.35	1.812		
Because of experience, I am more comfortable around ...	Unaware (0-2)	204	1.87	1.774	0.000	0.000
	Aware of SWDs (3-5)	62	2.84	1.71		

Because of experience, more accepting and patient ...	Unaware (0-2)	204	2.21	1.853	0.000	0.000
	Aware of SWDs (3-5)	62	3.32	1.735		
Because of experience, more respectful ...	Unaware (0-2)	204	2.86	1.975	0.000	0.000
	Aware of SWDs (3-5)	62	3.85	1.556		
I feel better about myself since shared classes	Unaware (0-2)	204	1.72	1.727	0.002	0.000
	Aware of SWDs (3-5)	62	2.52	1.79		

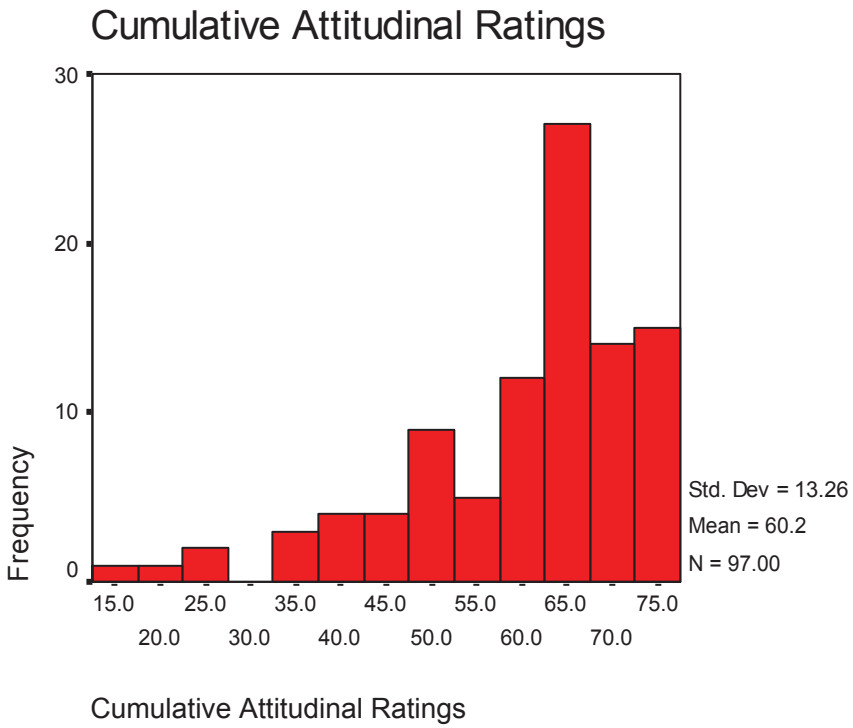

Figure 1. Cumulative Attitudinal Ratings for Included Students

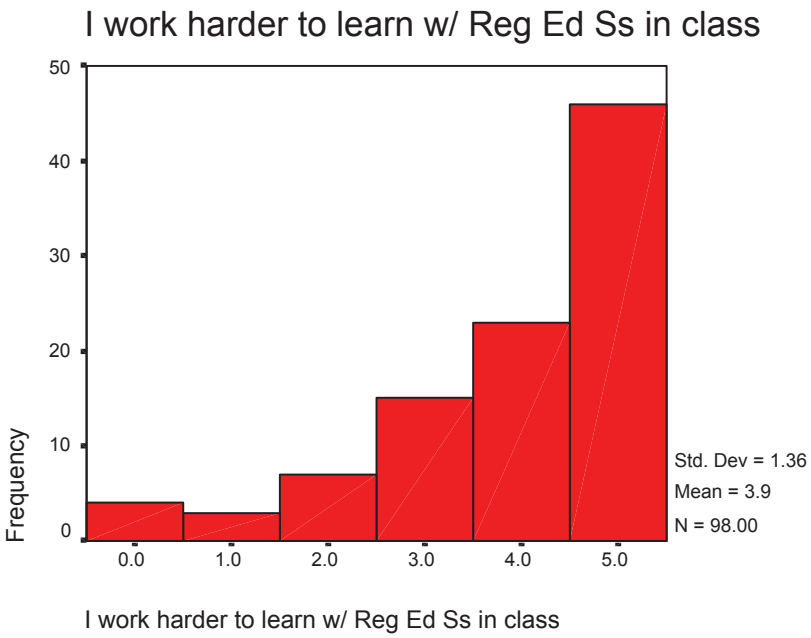

Figure 2. Ratings for Students with Disabilities to the item, "I work harder to learn when I am included with my regular education peers."

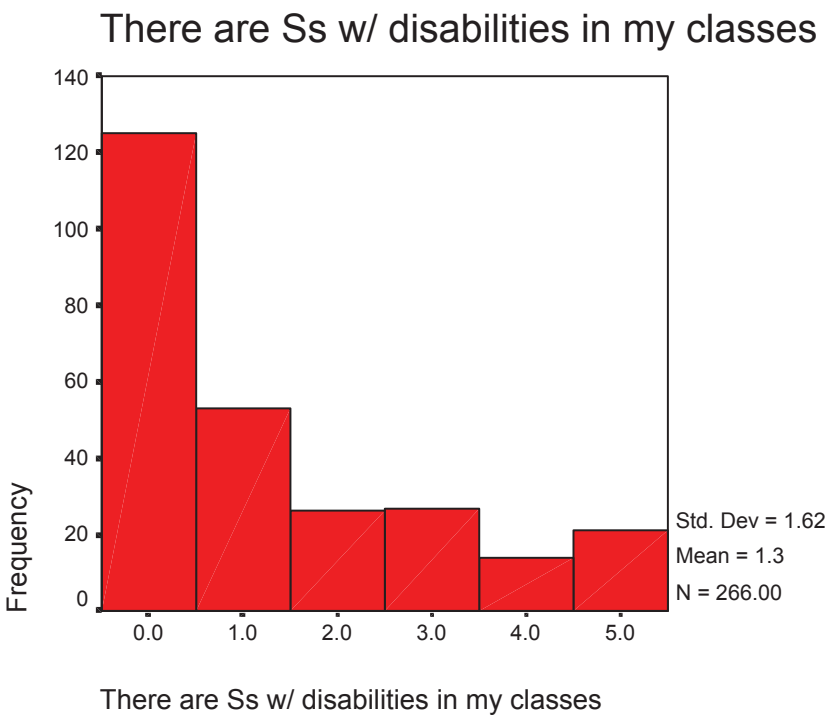

Figure 3. Histogram for Ratings from Regular Ed Students for "There are students with disabilities in my classes".

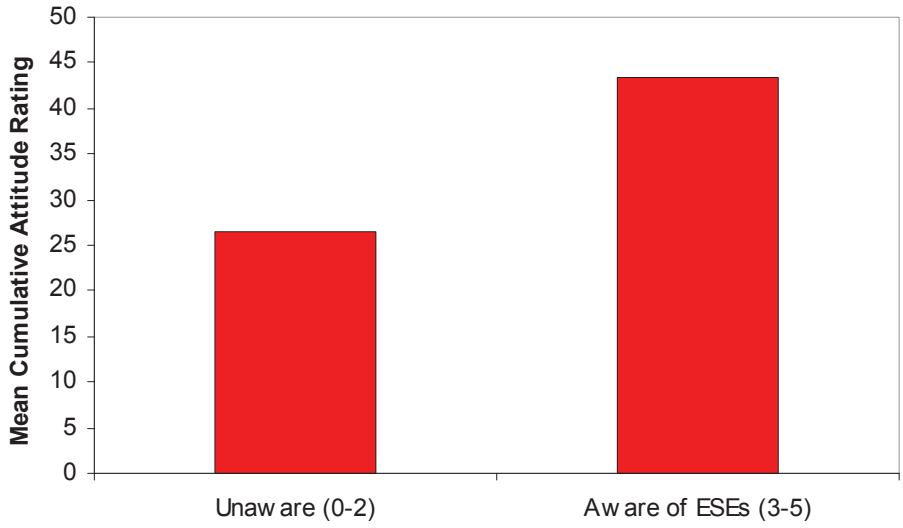

Figure 4. Mean Cumulative Attitudinal Ratings from Regular Ed Students Unaware versus Aware of Students with Disabilities (SWD) students included.

Student Survey

Teacher:

Does this student have an IEP? Y N
Student:
Date: _____
School _____
Grade: _____
Student number: _____

You are in classes that have some students that need different kinds of help to learn well.

Polk County School District is doing a study of how this works for students. Please be honest in your responses. There are multiple surveys being given, and no one will know which survey YOU get, or anyone else gets.

Please read each statement and report the degree to which you agree using the rating scale provided, from zero (0 = Totally DISagree) to five (5 = Totally AGREE):

		I totally DISagree	I totally AGREE
1.	There are students with disabilities in my classes.		
2.	I like being in classes with students with disabilities.		
3.	My classes are better because it includes students with disabilities.		
4.	I learn better in classes with students with disabilities.		
5.	I learn better in my classes with students with disabilities because there are multiple teachers or adult professionals helping students.		
6.	I learn better in my classes with students with disabilities because teachers teach in a lot of different ways.		
7.	The students with disabilities learn better in this class because we are all treated fairly.		
8.	Because of my classes that include students with disabilities, I understand now that students with disabilities are not really “disabled”, but that they just learn differently.		
9.	My classmates with disabilities are equal members of the class.		
10.	I care and value my peers with disabilities.		
11.	I have friends with disabilities.		

12. My peers with disabilities in my classes care about and value me.

13. I spend time outside of class with my peers with disabilities that I met in my classes.

14. Because of my experience with students with disabilities in classes, I am more COMFORTABLE around people with disabilities.

15. Because of my experience with students with disabilities in classes, I am more ACCEPTING and PATIENT with people with disabilities.

16. Because of my experience with students with disabilities in classes, I have more RESPECT for people that are different than me, like those that have different beliefs, different ethnic backgrounds, different social background, etc.

17. I feel better about myself since I have had classes that include students with disabilities.

Open-ended

18. What I LIKE MOST when students with disabilities are included in my regular education classes is ……

19. What I LIKE LEAST when students with disabilities are included in my regular education classes is……

Student Survey

Teacher:

Does this student have an IEP? **Y** N

Student:

Date: _____

School _____

Grade: _____

Student number: _____

You are in classes that have some students that need different kinds of help to learn well.

Polk County School District is doing a study of how this works for students. Please be honest in your responses. There are multiple surveys being given, and no one will know which survey YOU get, or anyone else gets.

Please read each statement and report the degree to which you agree using the rating scale provided, from zero (0 = Totally DISagree) to five (5 = Totally AGREE):

How many school years have you been included in regular classrooms *before* this year? ____ years

		I totally DISagree	I totally AGREE
1.	I have always been in regular education classes before this year.		
2.	I like being in classes with regular education students.		
3.	My classes are better because they include regular education students.		
4.	I learn better in classes with regular education students.		
5.	I learn better in my classes because we have multiple teachers or adult professionals helping students.		

6. I work harder to learn when I am included with my regular education peers.

7. I learn better in my regular education classes because teachers teach in a lot of different ways.

8. I learn better in my regular education classes because we are all treated fairly.

9. Because of my regular education classes, I understand now that students with disabilities are not really "disabled", but that they just learn differently.

10. All my classmates are equal members of the class.

11. I care about and value my regular education peers.

12. I have regular education friends.

13. My regular education peers in my classes care about and value me.

14. I spend time outside of class with my regular education peers that I met in my classes.

15. Because of my experience with regular education students in classes, I am more COMFORTABLE around my peers.

16. Because of my experience with regular education students in classes, I am more RESPECTFUL of people that are different than me, like those that have different beliefs, different ethnic backgrounds, different social background, etc.

17. I feel better about myself since I have had classes with regular education students.

Open-ended

18. How many school years have you been included in general education classrooms BEFORE this year? How many years has it been since you were pulled out for certain subjects? (tell us the number of years):

19. What I LIKE MOST about being included in regular education classes is ……

20. What I LIKE LEAST about being included in regular education classes is……

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About the Authors:

Bonnie DuPuis. Bonnie DuPuis has over 14 years of experience in educating students from kindergarten to 8th grade. Her greatest passion has been teaching students in inclusive settings. She holds a Masters degree in Varying Disabilities and an Undergraduate degree in Early Childhood Elementary Education. Bonnie has piloted various educational initiatives to assist school districts in providing best practices for all students, including students with significant disabilities.

Sherwin Holmes. Sherwin Holmes holds a Masters of Science in Audiology, a Florida Teaching Certificate for Hearing Impaired K-12 and Certification in Educational Leadership. He has 19 years of experience in education with over 15 years in the administration of Special Education. Sherwin's current position is the Director of Exceptional Student Education managing an $18,000,000.00 budget in a school district of approximately 90,000 total students.

Joyce Barclay. Joyce Barclay works with the Florida Inclusion Network in Polk County Schools in central Florida. She has an Educational Specialists Degree in Educational Leadership. She has worked in the field of special education for 28 years in the roles of staffing specialist, program coordinator, senior manager, and inclusion facilitator. She also teaches courses in Exceptional Student Education at Florida Southern College in Lakeland, FL.

Valerie K. Lewis. Valerie Lewis has over 15 years of experience in Education from high school teacher to college administrator. Her Masters is in Public Administration. Valerie has worked with multi-million dollar grants on measurement, assessment and continuous improvement to aid Educational organizations. She is currently President and CEO of *Performance and Growth through Impacts.*

Morgan Platt. Morgan Platt holds graduate and undergraduate degrees in Education and Business Administration. He is an advanced Ph.D. student in Research and Measurement. He has 11+ years experience teaching course in education, as well as research methods and statistics. He has led numerous evaluation projects at the local school district level and oversees a local data management and evaluation company.

Steven H. Shaha. Dr. Steven Shaha holds 2 masters degrees in Education and doctorates in Research Methods and Applied Statistics and in Business Administration. He has presented 150+ papers, has 200+ publications, many chapters and two books, assisted in creating the *Baldrige Awards* for Education and Healthcare, and has consulted throughout the U.S. and in 13 countries internationally.