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Pre-Service Teacher Attitudes toward Inclusion in the Classroom

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Cover Page Footnote

This research would not be possible without the support of Dr. David L. Bolton and Dr. Vicki McGinley.

Introduction

Inclusion involves the education of students with special needs in the regular classroom as opposed to educating them in exclusive, separate classrooms (Allday, Neilsen-Gatti, & Hudson, 2013). This practice has been advocated for more than two decades in the United States, and is constantly changing in both the educational and political spheres. Parents, especially, have been paramount in the formation of how inclusion is handled in today's climate (McLeskey, Rosenberg, & Westling, 2017). However, these initiatives have also added pressures to educators (Hanushek & Raymond, 2003). Including students with special needs has the potential to increase difficulties in the classroom for the teacher who will need to address the needs of all students as well as monitor their progress toward meeting the state-aligned standards (Pierangelo & Giuliani, 2006; Salend & Duhaney, 1999). Even with an instructional support teacher, the inclusion of students with special needs has the potential to be a distraction to the teacher and other students. On the other hand, the inclusion of students with special needs can be quite beneficial to the included students both academically and emotionally, reducing their isolation (Cook, 2002). If handled appropriately, inclusion can also be beneficial for students without special needs as well, promoting growth in learning to understand and accept others.

Deng (2008) conducted a study of attitudes toward inclusion among Chinese primary school teachers. The study confirmed the contradictory nature of attitudes toward inclusion

(Deng, 2008). Deng used a 27-item instrument to assess teacher attitudes. Data from 223 rural and urban teachers were analyzed using principal components factor analysis with Varimax rotation. Three factors were found: positive effect of inclusion, negative effect of inclusion, and benefits of segregated special education. The high means from these three separate entities showed that both positive effects of inclusion and benefits of segregated special education indicated that teachers viewed both inclusion and segregated education positively.

Tubele, Margevica, Bolton, Doan, & McGinley (2017) used a variation of Deng's (2008) instrument to determine Latvian students' attitudes toward inclusion. Factor analysis found three factors: Negative Effect of Inclusion, Positive Effect of Inclusion, and Benefits of Segregated Special Education. The current study replicates the previous studies, surveying U.S. students. It is hypothesized that the same three factors will be the found. In addition, differences in attitudes between males and females will be analyzed. The study will help educators in understanding the conflicting views of students about inclusion so that they can better prepare them for teaching in included classrooms.

Methods

The design of the study was survey research. Those filling out the survey were students attending West Chester University as declared education majors and who were 18 years of age or older. There were 13 sections surveyed. Seven out of 13 were special education courses, with each

one being a different course. One of the special education courses was an introductory course in special education, which all early and middle grade students are required to take. The rest were courses which special education majors and minors were required to take. In addition to the special education courses, there were two sections of Educational Foundations, two educational psychology courses, and two assessment courses – one for early grades and one middle grades.

Faculty members were asked to allow the student researcher ten minutes to administer the survey. The student researcher initially explained the purpose of the survey, and asked the students in the classes to participate. If they did, they signed a consent form. The researcher explained that the surveys were both voluntary and anonymous, and that multiple forms of action would be taken to ensure the confidentiality of the surveys. Participants were also informed upon administration of the survey that by choosing to participate, they would be entered into a random drawing for eight $20 Amazon gift cards. This is recognized as an incentive to participate in the survey. Students then filled out the survey.

This questionnaire contained 21 questions, each utilizing a 5-point Likert scale (strongly disagree, mildly disagree, neutral, mildly agree, and strongly agree) which examined each student's personal views and opinions on including children with disabilities into general classrooms. Additionally, participants were asked to identify their gender. A similar methodology was used by Deng (2008) in assessing the attitude of teachers towards inclusion. The instrument

used by Deng (2008) was modified for a study of Latvian students' attitudes toward inclusion (Tubele, Margevica, Tubele, Bolton, Doan & McGinley, 2017). This study is follow-up to the Latvian study using American students.

Analysis and Results

Once the surveys were collected, the data was entered into an Excel spreadsheet. Each participant was assigned a number. The data from the survey was coded numerically. The spreadsheet was then uploaded into SPSS and analyzed.

Initially, frequencies were obtained for demographic data, including gender and major. The sample consisted of 200 females and 32 males, with one person not reporting gender. Thus, the large majority (86%) was female. This is not surprising since the large majority of the students in the education programs are female.

The percent of students in each class are provided in Table 1. Of the 232 students, 69% were juniors, seniors, or graduate students. This would be expected since nine out of the 13, 69%, of the classes are junior or senior level courses. The large majority (96.5%) was pursuing an undergraduate degree leading to teaching certification. With the exception of one student who

was pursuing a graduate degree without certification, the other students were either pursuing teacher certification with or without a graduate degree.

Table 1 Frequencies and Percentages of Students in Classes

	Number	Percent
Freshmen	37	15.9
Sophomore	34	14.7
Juniors	78	33.6
Seniors	81	34.9
Graduate Students	2	.9
Total	232	100.0

Of the 233 who completed the survey, 132, 56.7%, were pursuing a B.A. or a M.A. degree in early grades (K-4) education, 31, 13.3%, were pursuing a B.A. or a M.A. in middle grades (4-8) education, 144, 61.8%, were pursuing a B.A. or a M.A. degree in special education, and 2, .9%, were pursuing a B.A. or a M.A. degree in literacy. Of the 132 pursuing a B.A. or M.A. degree in early grades education, 110, 83.3%, were also pursuing a B.A. or M.A. in special education. And, of the 31 students pursuing a B.A. or M.A. in middle grades education, 17, 54.8%, were pursuing a dual degree with special education. These high percentages are higher

than typical for students pursuing degrees in early or middle grade degrees. But, this is not unexpected since most of these special education courses were requirements for a dual degree. Out of the 132 pursuing a degree in early grades education, eight students, 6%, were working toward a special education minor. Out of the 31 pursuing a degree in middle grades education, no students were working toward a special education minor. Of the 233 respondents, only 31, 13.3%, were pursuing secondary education degrees. None of the secondary education students were pursuing either a major or minor in special education. Only six were pursing certification to teach without pursuing a degree.

Overall, the sample is weighted more heavily with females, with students in the early and middle grades, with students in the upper grades, and with those pursuing a dual degree, with one degree being a B.S. in special education or with a minor in special education. The larger number of females and the large number of early and middle grade students is a reflection of the overall population of education majors. The larger number of upper grade students is to a great extent the result of the fact that education courses are generally upper level classes. The large number of students pursuing special education majors and minors is due to the courses selected for the sample. The courses selected are requirements for these majors and minors.

As was done previously with Deng (2008), principal components factor analysis with Varimax rotation was used to analyze the data. After examining the scree plot and different

solutions, it was decided that a three-factor solution made the most sense statistically and conceptually. These three factors explained 32.7% of the variance. The three-factor model obtained parallels the model obtained by Tubele, Margevica, Bolton, Doan & McGinley (2017), which also had the three-factor solution. Many of the same items loaded together, resulting in the same three factors: Negative Effect of Inclusion, Positive Effect of Inclusion, and Benefits of Segregated Special Education. The three factors were extracted in the same order, indicating that Negative Effect of Inclusion explained the most variance of the three factors and Benefits of Segregated Special Education explained the least variance for both solutions. In the current study, Negative Effects of Inclusion explained the most variance, 12.7%, followed by Positive Effects of Inclusion, 10.1%, and Benefits of Segregated Special Education classrooms, 9.9%. The loadings can be found in Appendix 1 for both studies (Tubele, Margevica, Bolton, Doan & McGinley, 2017). As can be seen, there was some variation in terms of the items, which loaded on the same factors from one study to another. However, the majority of the items overlapped. And the other items, which did not load in the different models, appeared to fit conceptually with the overall meaning of the factors. As a result, the factors derived from this data represented

conceptually the same factors obtained previously by Tubele, Margevica, Bolton, Doan & McGinley (2017).

Using the factor loadings, factor scores were calculated for each of the three factors for all students. T-tests were used to determine if there were differences between males and females for each of the three factors (see Table 2). A significant difference at the .05 level was found between males and females on factor 1, but not on factors 2 or 3. Based upon this result, it was concluded that males viewed inclusion more negatively.

Table 2

Difference in Factor Scores by Gender

Factor	Gender	N	Mean	SD	t (sign.)
Negative Effect of Inclusion	Male	179	-.097	.940	-4.547 (.000)
	Female	23	.875	1.147	
Positive Effect of Inclusion	Male	179	.039	.976	1.468 (.144)
	Female	23	-.289	1.221	
Benefits of Segregated Special Education Classes	Male	179	.002	.970	1.219 (.224)
	Female	23	-.270	1.278	

Note: sign. Refers to the probability of the results occurring by chance.

Conclusions and Implications

The three-factor structure from the current study is similar to the factor structure found in Deng (2008) and Tubele, Margevica, Bolton, Doan, & McGinley (2017). Thus, this three-factor structure appears to be quite stable across types of subjects: 1) Deng (2008)'s participants were

teachers, while 2) the participants Tubele, Margevica, Bolton, Doan, & McGinley (2017) and the current study were students. It also appears to be stable across countries – Deng's (2008) study was conducted in China, the study by Tubele, Margevica, Bolton, Doan, & McGinley (2017) conducted in Lativa, and the current study was conducted in the United States.

The conclusion of this and the other two studies (Deng, 2008; Tubele, Margevica, Bolton, Doan, & McGinley, 2017) is that attitude toward inclusion is a multidimensional construct, which addresses both negative and positive dimensions. The seemingly contradictory nature of this construct indicates how complex it is. Students appear to be able to see the potential problems of inclusion, while still seeing its benefits.

Some of the responses to the items may be students feeling overwhelmed by the prospect of dealing with an inclusive classroom ("It is unfair for general education teachers who already have a heavy load to include students with disabilities in their class," "Children with severe disabilities should be educated in special education settings"). But other responses indicate a need for more education among some of the students in that they show that students possess misconceptions about inclusion ("Normally developing students will be academically disadvantaged by having students with disabilities in the same class," "Children who communicate in special ways (e.g., sign language) should not be placed in a general education classroom"). Some of the reasons for students' responses may simply be the fact that the students

are dealing with something which is, as of now, unknown ("Inclusion sounds good in theory but does not work in practice," "It is difficult to maintain order in a general education classroom that contains a child with a disability").

These reasons were confirmed by Avramidis, Bayliss, and Burden (2000) in a study of mainstream teachers. Avramidis et al. (2000) concluded that mainstream teachers had an overall positive attitude toward inclusion across the board. However, in addition, the researchers also concluded that professional development in special education had a significant impact attitude. The less training a teacher had, the less positive the attitude. So, even if the teachers had a positive attitude toward inclusion, they also had concerns that were impacted by professional development. The same was true for active experience with students with special needs. Although teachers may have been positive about the idea of inclusion, not having active experience with students with special needs raised red flags about the idea. In particular, these concerns about dealing with students with special needs were amplified when the students had greater needs (Avramidis et al., 2000). Thus, as would be expected, attitude toward inclusion changes when dealing with more difficult situations – ones for which they may not have the training or experience.

The fact that the Negative Effect of Inclusion explains more variance than the Positive Effect of Inclusion does not mean that students see inclusion as a negative. It indicates that there

is relative agreement on the benefits of inclusion compared with the negative effects. (The relative agreement was confirmed by Avramidis et al., 2000). The greater variance of the factor, Negative Effect of Inclusion, indicates that there is more disagreement about the potential problems with inclusion.

Some of the variance of the first factor is due to the gender differences. Males were more likely to see the negative effect of inclusion. This study surveyed 179 females and only 23 males. This indicted that 88.613 percent of the respondents identified as female. As of 2015, 87.148 percent of teachers in the United States identified as female (World Bank Group, 2019). Despite the substantial population difference between male and female participants, the percentages show that the survey's population is an accurate representative of the teacher population in the United States. However, because males are underrepresented among early and middle grade pre-service teachers at the university and overrepresented among secondary education majors, the difference may actually be due to experiences related to the program, rather than being a gender issue. Indeed, preservice teachers in early and middle grade preservice are more likely to have a second major or a minor in special education. As a result, female students in the teacher education

program are likely to be better educated about inclusion. This conclusion points to a need for more inclusion education among secondary education majors.

It is important to note evidence of self-selection bias in this study. According to the *Encyclopedia of Survey Research Methods*, self-selection will, in most instances, lead to biased data, as the respondents who choose to participate will most likely not represent the entire target population (Sage Publications, inc, & Lavrakas, 2008). For ethical and legal measures of this survey, it was impossible to secure cooperation from all participants. Therefore, it is important to address how self-selection bias plays into the results of this survey, and factor in error for its inevitable presence in the data.

Future Research

More research is needed to confirm the conclusions of this study, specifically focusing upon how students develop their attitudes toward inclusion. One way of doing that would be to conduct focus groups. The use of focus groups would allow me to determine why students' view inclusion in both a positive and negative light. It could address how experience with students with special needs, as well as what type and amount of professional development has helped

shape student attitudes toward students with special needs. This research would also allow me to determine if the attitude difference is a gender issue or a program issue.

Limitations

As with many studies of attitude, this study relies upon self-report. Self-report studies require that the participants have an adequate level of self- knowledge. Students are particularly vulnerable to this concern since, while they may have knowledge about inclusion, they generally have no experience in teaching students with special needs. Their responses, therefore, are based upon limited experience.

Of the 202 participants, only 23 were male. Thus, the results indicating a difference between males and females need to be interpreted cautiously. It is not clear whether these males are representative of all male education majors at the university. However, it should be noted that there are far fewer male preservice education students than female preservice education students,

with most being secondary education majors. As stated above, further inclusion studies should focus upon male education majors to determine if the impact is gender or program.

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Appendix 1

Survey Instrument Questions

	1 Strongly Disagree	2 Mildly Disagree	3 Neutral	4 Mildly Agree	5 Strongly Agree
1. Students with disabilities in general classrooms take too much of the teachers' time for instruction and behavior management.	1 SD	2 MD	3 N	4 MA	5 SA
2. All children should be educated in general education classrooms.	1 SD	2 MD	3 N	4 MA	5 SA
3. Children with severe disabilities should be educated in special education settings.	1 SD	2 MD	3 N	4 MA	5 SA
4. Children who cannot read normal print size should be excluded from the general classrooms.	1 SD	2 MD	3 N	4 MA	5 SA
5. Inclusive classrooms will promote the academic growth of both students with and without disabilities.	1 SD	2 MD	3 N	4 MA	5 SA
6. The self-esteem of students with disabilities is easily harmed in an inclusive classroom.	1 SD	2 MD	3 N	4 MA	5 SA
7. Children who communicate in special ways (e.g., sign language) should not be placed in a general education classroom.	1 SD	2 MD	3 N	4 MA	5 SA

8. An inclusive classroom is likely to have a positive effect on the social and emotional development of students with disabilities.	1 SD	2 MD	3 N	4 MA	5 SA
9. The needs of students with disabilities can be best served in special, separate settings.	1 SD	2 MD	3 N	4 MA	5 SA
	1 Strongly Disagree	2 Mildly Disagree	3 Neutral	4 Mildly Agree	5 Strongly Agree
10. Normally developing students will be academically disadvantaged by having students with disabilities in the same class.	1 SD	2 MD	3 N	4 MA	5 SA
11. An inclusion program results in a genuine sharing of instructional responsibilities between special and general education teachers.	1 SD	2 MD	3 N	4 MA	5 SA
12. Inclusion sounds good in theory but does not work in practice.	1 SD	2 MD	3 N	4 MA	5 SA
13. Significantly lower-achieving students should be excluded from the general education classroom.	1 SD	2 MD	3 N	4 MA	5 SA

14. The social and emotional demands of students with disabilities can be met well in special education settings.	1 SD	2 MD	3 N	4 MA	5 SA
15. General education teachers are willing and have the skills to make needed instructional adaptations for students with disabilities.	1 SD	2 MD	3 N	4 MA	5 SA
16. If I were a teacher, I would view a student with a disability as a member of the class rather than as a burden.	1 SD	2 MD	3 N	4 MA	5 SA
17. An inclusive classroom provides different students with opportunities for mutual communication, thus promote students to understand and accept individual differences.	1 SD	2 MD	3 N	4 MA	5 SA
18. Students with disabilities will develop academic skills more rapidly in a special education classroom than in general education settings.	1 SD	2 MD	3 N	4 MA	5 SA
	1 Strongly Disagree	2 Mildly Disagree	3 Neutral	4 Mildly Agree	5 Strongly Agree

19. It is unfair for general education teachers who already have a heavy load to include students with disabilities in their class.	1 SD	2 MD	3 N	4 MA	5 SA
20. Teachers' instructional effectiveness will be enhanced by having a student with disabilities in class.	1 SD	2 MD	3 N	4 MA	5 SA
21. It is difficult to maintain order in a general education classroom that contains a child with a disability.	1 SD	2 MD	3 N	4 MA	5 SA

Appendix 2

Comparing the Factor Loadings for a Three-Factor Solution for the Latvian Study and the WCU Study

	Items	**Latvian Study**	**WCU Study**
Factor 1 Negative Effect of Inclusion	Students with disabilities in general classrooms take too much of the teachers' time for instruction and behavior management.	.686	.584
	Children with severe disabilities should be educated in special education settings.	-----	.401
	Children who communicate in special ways (e.g., sign language) should not be placed in a general education classroom.	.446	.613
	Normally developing students will be academically disadvantaged by having students with disabilities in the same class.	.510	.607
	An inclusion program results in a genuine sharing of instructional responsibilities between special and general education teachers.	-----	-.429
	Inclusion sounds good in theory but does not work in practice.	-----	.662
	Significantly lower-achieving students should be excluded from the general education classroom.	.555	.432
	If I were a teacher, I would view a student with a disability as a member of the class rather than as a burden.	-.503	-.414
	An inclusive classroom provides different students with opportunities for mutual communication, thus promote students to understand and accept individual differences.	-----	-.412
	It is unfair for general education teachers who already have a heavy load to include students with disabilities in their class.	.655	.652
	It is difficult to maintain order in a general education classroom that contains a child with a disability.	.670	.707
	Children who cannot read normal print size should be excluded from the general classrooms.	.529	-----

	Items	**Latvian Study**	**WCU Study**
Factor 2 Positive Effect of Inclusion	Inclusive classrooms will promote the academic growth of both students with and without disabilities.	0.672	.623
	All children with disabilities should be educated in general education classrooms	0.623	.700
	An inclusion program results in a genuine sharing of instructional responsibilities between special and general education teachers.	0.59	-----
	An inclusive classroom is likely to have a positive effect on the social and emotional development of students with disabilities.	0.542	.766
	The social and emotional demands of students with disabilities can be met well in special education settings.	0.541	-----
	An inclusive classroom provides different students with opportunities for mutual communication, thus promote students to understand and accept individual differences.	0.538	.439

	Teachers' instructional effectiveness will be enhanced by having a student with disabilities in class.	0.482	.495
	The self-esteem of students with disabilities is easily harmed in an inclusive classroom.	-----	-.506
Factor 3 Benefits of Segregated Special Education	Students with disabilities will develop academic skills more rapidly in a special education classroom than in general education settings.	0.596	-----
	The self-esteem of students with disabilities is easily harmed in an inclusive classroom.	0.584	-----
	The needs of students with disabilities can be best served in special, separate settings.	0.583	.615
	Inclusion sounds good in theory but does not work in practice.	0.55	-----
	General education teachers are willing and have the skills to make needed instructional adaptations for students with disabilities.	-0.405	.434

	Children with severe disabilities should be educated in special education settings.	0.487	.468
	The social and emotional demands of students with disabilities can be met well in special education settings.	-----	.674

Note: Items are listed which loaded on the factor in either or both studies. Only items with loadings of .40 or greater were considered large enough to define the factor. An item which did not----- indicates that the item had a loading which had an absolute value less than .40.