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Attitudes of University Students toward Individuals with Exceptionalities and Inclusive Practices: A Baseline Analysis of Students Enrolled in the Introductory Course

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Practices: A Baseline Analysis of Students Enrolled in the Introductory Course

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Attitudes of University Students toward Individuals with Exceptionalities and Inclusive Practices: A Baseline Analysis of Students Enrolled in the Introductory Course

Introduction

The passage of the Education for All Handicapped Children Act of 1975 mandated changes in the educational system to provide free, appropriate education for all children with disabilities. The most recent reauthorization of this act, Individuals with Disabilities Education Improvement Act of 2004, continues the pattern of revision and refinement of special education services with the targeted purpose of assuring all students with disabilities access to the general education setting and curriculum (Heward, 2009). Over the last three decades, the service options for students with disabilities have shifted from segregated settings to the practice of full inclusion of these students in the general education classroom. From the beginning of this legal mandate to its status today, a critical obstacle still remains-attitudinal barriers. The remarks expressed by Reginald J. Jones (1984) in his book, *Attitudes and Attitude Change in Special Education: Theory and Practice*, still resound in 2008:

We can legislate physical access and the provision of educational opportunity as we have done, but we cannot legislate acceptance; and it should not be surprising to any informed observer that meaningful implementation of legislative acts will require that we give as much attention to attitudinal barriers as we have given to the elimination of barriers of physical access, barriers of employment access and barriers of education access. (Jones, 1984, p. vii)

Positive attitudes and sentiments are paramount for successful and effective inclusionary practices (Avramidis & Norwich, 2002) and yet, 24 years after Jones' seminal work on attitudes in special education, the challenge of fostering positive attitudes remains central to the provision of quality inclusive practices.

For more than two decades, researchers have been investigating the opinions of pre-service and practicing teachers regarding the inclusion of individuals with disabilities in general

education settings (Harvey, 1985; Leyser & Lessen, 1985; Stainback, Stainback & Dedrick, 1984). Based on the premise that “the successful implementation of any inclusive policy is largely dependent on educators being positive about it” (Avramidis & Norwick, 2002, p. 129), researchers have focused on providing information related to improving teachers' attitudes toward inclusion included comparing teachers' opinions across cultures (Leyser, Kapperman & Keller, 1994), staff roles (Garvar-Pinhas, & Schnellkin, 1989), and experience with inclusion (Garmon, 2005; Vaughn, Schumm, Jallad, Slusher & Saumell, 1996).

Researchers found teachers' attitudes toward inclusive practices can be strongly influenced by factors such as teacher gender (Ellins & Porter, 2005), severity of the students' disabling conditions (Burke & Sutherland, 2004; Cook, Cameron, & Tankersley, 2007; Jung, 2007), and sensitivity training (Jung, 2007; Pivik, McComas, & LaFamme, 2002; Rice, 2005). In addition to these factors, other variables included the number of pre-service special education courses completed (Bradshaw & Mundia, 2006; Burke & Sutherland, 2004), core subjects taught by teachers (Ellins & Porter, 2005; Scruggs, Mastropieri, & McDuffie, 2007), teachers' perceived lack of experience and knowledge (Idol, 2006; Pivik et. al, 2002), teachers' self-confidence (Jung, 2007), availability of support services (Scruggs et. al., 2007), and experiences and/or guided field experiences with students who have disabilities (Burke & Sutherland, 2004; Cook, et.al., 2007; Cameron, & Tankersley, 2007; Ellins & Porter, 2005; Idol, 2006; Jung, 2007; Pivik, et.al., 2002; Rice, 2005; Scruggs et. al., 2007).

Other researchers reported on the attitudes of pre-service teachers toward inclusion and how teacher preparation programs might positively influence these future teachers' opinions of inclusion. Researchers reported pre- /post- opinion survey results from pre-service teachers enrolled in specific teacher education course or courses. Results from these studies indicated that pre-service courses can significantly increase knowledge about individuals with disabilities

(Kirk, 1998), positive attitudes (Campbell, Gilmore & Cuskelly, 2003; Shade & Stewart, 2001; Sprague & Pennell, 2000), and willingness to include students with disabilities in classrooms (Shippen, Crites, Huchins, Ramsey & Simon, 2005). In addition, researchers suggested a need to extend beyond course content knowledge to include structured hands-on field-based experiences with individuals with disabilities in the school environment in order to produce positive attitudes of pre-service students and a willingness to co-teach (Campbell, Gilmore & Cuskelly, 2003; Evans, 2004; Sprague & Pennell, 2000).

The purpose of this study is to further investigate the variables that influence university students' attitudes toward inclusion. The *Introduction Course Teaching Team (ICTT)* investigated the following research questions during the initial phase of our study:

- Are there significant correlations between student demographic variables (i.e., gender, age), familiarity variables (training, legislation, confidence, and teaching), and types of personal experiences with individuals with disabilities (i.e., babysitting, camp counselor), the frequency of these interactions (time and category) and Bloomsburg University students attitudes toward inclusive practices?
- Are student attitudes of majors enrolled in various disciplines (i.e., early childhood, elementary education, secondary education, special education, non-education programs) similar or significantly different?

By the end of the semester additional data will be collected to investigate the following questions:

- Is there a significant difference in students' attitudes toward inclusive education prior to and after the completion of the course, Introduction to Individuals with Exceptionalities, at Bloomsburg University?
- What reasons or factors are stated in the students' essays (Personal Belief Statement on

Inclusive Practices) to support their opinions and/or attitudes toward inclusion?

At this point in time, the research team has completed the initial phase of the research, the administration of *The Sentiments, Attitudes, and Concerns about Inclusive Education Scale*. Data results discussed in this paper are relevant only to the first two research questions listed.

Method

Participants

Participants in this study consisted of 421 university students. Of the 421 students, 331 identified themselves as female and 89 reported themselves as male. Of the age ranges, 390 students were between ages 18-22, 29 between the ages of 22-29, and 2 between the ages of 30-39. With regard to the number of credits completed at the university, 240 (57%) completed between 1-30 credits, 107 (25%) between 31-60 credits, 46 (11%) between 61-90 credits, and 28 (7%) completed 90+ credits. The majority of the students were of freshmen and sophomore standing. The highest level of education completed was high school for 403 (96%) students, with 18 (4%) student having completed an undergraduate degree. The academic major for the students varied (see Table 1). All students were enrolled in sections of 70.101 taught by the *Introduction Course Teaching Team* and volunteered to complete the initial survey. Neither participation nor lack of participation in this study affected a student's course grade.

Materials

During the past two years, the ICTT collaboratively developed a standardized course syllabus, wrote a quiz/test item bank, designed in-class disability simulations, developed assignment rubrics and performance-based assignments (critiques of research articles and development of Personal Belief Statements essays regarding inclusive practices), and utilized a common Blackboard structure for course documents, chapter outlines, online chapter quizzes, and Turnitin project submissions. Although each member of the team possesses unique teaching

qualities, our approach to the incorporation of a standardized syllabus, textbook (one instructor opted to use an alternate text), assignments, and exams (as mentioned above) minimized any dissimilar course delivery.

Survey items were included to collect demographic data (i.e., gender, age range, education level, number of credits earned, major), frequency of interactions with individuals with disabilities (e.g., time and extent of interactions), types of interactions (i.e., babysitting, camp counselor), familiarity with disabilities (training, legislation, confidence, and teaching), and the greatest influence on beliefs as perceived by the student. In order to measure attitudes, participants completed the *Sentiments, Attitudes, and Concerns about Inclusive Education Scale (SACIE Scale)* (Loreman, Earle, Sharma, & Forlin, 2007; Loreman, Forlin, Sharma, & Earle, 2008). The items in the scale measure three factors including sentiments (i.e., *Students who need an individualized academic program should be in regular classes*), concerns (i.e., *I am concerned that my workload will increase if I have student with disabilities in my class*), and attitudes (*I would feel terrible if I had a disability*). The SACIE scale assessed these factors using a Likert scale with the response anchors of *Strongly Agree, Agree, Disagree, and Strongly Disagree* to rate 19 statements. Three items on the scale are reverse scored so that high rankings indicated positive attitudes. A high score on the *SACIE Scale* indicated an individual has a more positive attitude toward including students with disabilities in the general education setting.

Validity of SACIE Scale.

The *SCAIE Scale* was revised by a select group of researchers with expertise in inclusive education, as well as in measurement and research design. This group was presented with the scale and asked to provide suggestions about the anchors, the wording, and the appropriateness

of the items. The suggestions were “recorded, discussed, and where appropriate, included in the *SCAIE* by the research team” (Loreman et al., 2007, p.151).

An author of the *SACIE Scale* (T.J. Loreman, personal communication, September 4, 2008) was consulted in regard to the fit of this scale to the research questions by our Introduction Course Teaching Team. It was determined that the design and content of the scale was an ideal fit for the research questions proposed in this study.

Reliability of SACIE Scale.

The *Attitudes towards Inclusive Education Scale (ATIES)*, *Interactions with People with a Disability Scale (IPD)*, the *Concerns about Inclusive Education Scale (CIES)*, all have moderate to high reliability (Loreman et al., 2007). This indicates that the *Sentiments, Attitudes, and Concerns about Inclusive Education Scale (SACIE)*, developed based on research data using a modified *IPD*, *ATIES*, *CIES*, also should have moderate to high internal reliability.

In the current study, to ensure inter-rater reliability, two graduate assistants were trained by the lead researcher to score the surveys. After all surveys were scored, four pairs of graduate assistants were trained to code and input the data. Each team completed this task under the supervision of the lead researcher. The pairing system was implemented to create a crosscheck of all data entries to ensure accuracy of the coding and of the data input procedure. A master coding sheet was developed and distributed to each team to minimize any error in this process.

A comparison of the codes of the original and rescored surveys was conducted to determine inter-coding reliability. Three randomly selected surveys from each of the 12 course sections (9% of the total surveys) were rescored to determine coding reliability. The inter-rater reliability for coding the survey items was 98% accuracy (22/1404 items; 39 items on the survey x 36 surveys =1404).

Procedures

Phase One: Current Research.

During the second week of classes, the administration of the SACIE survey was provided by an individual from the ICTT who was not teaching that section of the course (*Introduction to Individuals with Exceptionalities*). They disseminated informed consent forms while providing a scripted oral overview of the purpose and methodology of the study. Students were informed that participation in this study was voluntary and would not impact their grade in any fashion. After collecting the informed consent forms, the surveys were disseminated to all students. Students used their Student Identification Number to facilitate the tracking of pre and post survey data. Students completed the *SACIE Scale* during class time and inserted the completed forms in an envelope. Students choosing not to participate were asked to return blank survey forms at the same time as those students who chose to complete the survey. All survey forms were placed in a sealed envelope and given to the lead researcher of the project. Using SPSS software, descriptive and correlational statistics were completed to determine the relationships between total scores on the *SCAIE Scale* and other demographic information collected during Phase One of this research project.

Phase 2: Future Research.

Although separate from data reported in this paper, it should be noted that procedures for collecting data to investigate questions 3 and 4 listed previously have been established. During the final week of the semester, the *SACIE Scale* will be re-administered to the students using an identical procedure. Statistical analysis will determine if there is a significant difference between the pre and post *SACIE Scale* scores. Data collection strategies will be the same for future semesters and implemented by ICTT members, with standardized procedures collaboratively developed and then reviewed each semester.

At the end of the semester a constructed response activity will be assigned to the class. Each student will be asked to write a *personal belief statement* concerning their beliefs on the inclusion of individuals with disabilities. Inclusion is a broad concept that includes the schools, the community, the workplace, and any other environment where people may coexist. Qualitative research software (e.g., Nivivo) will be used to determine themes of student beliefs toward inclusive education.

Results

Results for the first part of the study to answer research question one were analyzed to find and measure any correlations between demographic, familiarity, personal experiences, frequency of interactions, and attitude variables from the *SACIE Scale*. The results for student attitudes by major were also examined in an effort to answer research question two.

Demographic information of significance was evaluated based on the factors of gender, age range, credits completed, highest level of education, and major. Analysis of variance assessing the relationship of these demographic variables and total score indicated significant effects only for the category of major, $F(15, 341) = 2.123, p < .01$. The number of students in each major can be seen in Table 1.

Analysis of variance was conducted on familiarity which consisted of four questions related to training, legislation, confidence, and teaching compared to the total score. University students indicated their level of training relevant to the education of individuals with disabilities as *none, some, or high-at least 40 hours*. Items measuring their *knowledge of legislation and or policy as it pertains to individuals with disabilities* and *level of confidence in teaching individuals with disabilities* were rated as *none to very good*. *Level of experience teaching/tutoring an individual with a disability* was identified as *none, some, and high-at least 30 full days*. A significant effect was found for the level of confidence question, $F_{(4,80)} = 2.610, p$

= .035. Means and standard deviations are report in Table 2. Contrast coefficient analysis indicated students with high confidence levels reported significantly higher positive attitudes on the *SACIE Scale* than students in other categories.

Analysis of variance was conducted on the types of experiences with individuals with disabilities (i.e., babysitting, camp counselor, service clubs, helping friends, no experience, and other experiences). The only significant effect on types of experiences was found for babysitting, $F_{(1,384)} = 3.818$, $p = .051$. Students with babysitting experience ($M = 51.849$, $SD = 6.241$) reported higher total scores on the SACIE scale than students with no babysitting experience ($M = 49.286$, $SD = 5.452$). Means and standard deviations are reported in Table 3.

Subsequent analyses included only total scores as the dependent variable. The relationship of the total SACIE Scale score and the variables of frequency of interactions with individuals with disabilities (e.g., time and extent of interactions), types of interactions (i.e., babysitting, camp counselor), and familiarity with disabilities (e.g., training, legislation, confidence, and teaching) was assessed with ANOVAs. Analysis of variance was conducted on the two measures of frequency of interactions (time and extent of interactions) and total *SACIE Scale* score. The time measure indicated if the students had interactions *daily*, *weekly*, *monthly*, or *very rarely* with a person with disabilities. With the extent of interactions item, students characterized their experience with individuals having disabilities as *none or relatively limited*, *some-moderate amount*, *extensive-a close friend or family members has a disability*, or *I have a disability*). A significant effect was found for the extent of interactions measure, $F_{(3,405)} = 6.441$, $p < .001$. As shown in Table 4, mean scores increased with experience. Contrast coefficient analysis indicated that students reporting *I have a disability myself* had higher total scores than students in other categories.

Analysis of variance for attitudes was conducted by comparing the total score for the *SACIE Scale* and the three separate factors of sentiments, attitudes, and concerns. This was done to compare the results of this study with those of a previous study completed by Loreman, Earle, Sharma, & Forlin (2007). Correlations are shown in Table 5. The three factors of the scale significantly correlated with the total score. Within the factors of sentiments and concerns, all items correlated as expected. However, item 2 (*I am grateful that I do not have a disability*), within the attitude factor did not correlate with scale items 3 (*I feel comfortable around people with disabilities*) and 4 (*I am afraid to look a person with a disability straight in the face*) and correlated negatively with scale item 1 (*It is rewarding when I am able to help people with disabilities*). This is consistent with the previous findings of Loreman et.al (2007). As a result of these findings, a revised scale has been developed that eliminated item 2 and this revised scale will be used by this research team for further studies and is also being used by the Loreman et.al (2008) research team.

Results which answered the second question of attitudinal differences by major were found. Students majoring in exceptionalities tended to have higher scores compared to students in the K-12 general education or the liberal arts majors. Analysis of variance assessing the relationship of total score to major indicated significant effects only for this category, $F(15, 341) = 2.123, p < .01$. This relationship of major to total score seems to be a logical finding. When students were asked to identify the biggest influence on their current beliefs about individuals with disabilities, 83.1% of the responses from Table 6 show teachers and family members have the greatest influence on university students' beliefs.

Conclusions

Results of the current study, Phase One, appear to indicate that student major was a strong variable for attitudes of acceptance and inclusive practices. This could be seen as a logical conclusion since students who plan on working with individuals with disabilities should have a positive attitude regarding this population. However, the significance of major to attitudes toward inclusive practices cannot be so readily assumed. This study would indicate a strong correlation between the two and positively supports the relationship between choice of major and positive attitude for inclusive practices. This result is similar to the correlation between *levels of confidence in teaching individuals with disabilities*, where again; the strongest relationship was between the level of confidence and the student's major in special education.

An additional strong correlation existed with types of experience and comfort levels when students provided babysitting with individuals with disabilities. Although service clubs and camp counseling were expected to have significant relationships to attitudes, it was babysitting that provided the strongest link. Apparently, volunteer group experiences cannot be assumed to be as valuable as one-on-one care. It is unknown what variables within each of these types of experiences influenced the results.

Data from students with self-reported disabilities provided the strongest relationship with the extent of experiences as these students live with disabilities on a daily basis. There is not enough information to determine why this relationship is so strong, beyond the fact that if a student lives with a disability and is in an inclusive setting, such as a college classroom, then they may feel very positively about inclusive practices. They are likely to be keenly aware of the importance of others' attitudes toward their inclusion in typical environments. This topic may be an excellent one for further research.

Overall, positive correlations were found between the SACIE Scale and factors of sentiments, attitudes, and concerns. This would seem to indicate that there is a strong

relationship between attitudes regarding inclusive practices and individuals with disabilities that can be registered on the SACIE Scale. This registration of thoughts and feelings should then be able to be translated into strategies within courses that can be taught to students preparing to work in the field of special education.

Results relating the SACIE Scale with the student's major were strong, demonstrating a relationship between student career choice and attitudes toward individuals with disability. The strength of the relationship between attitude and inclusive practices was hoped for but not necessarily expected. The connection may be due to the fact that individuals choosing the field of special education may already possess an empathetic predisposition and sensitivity for individuals with disabilities. In conclusion, the SACIE Scale seemed to be a strong indicator of attitudes regarding individuals with disabilities and inclusive practices.

Limitations

The following limitations may impose constraints on this mixed methodological study. Some limitations are typical of research utilizing survey/self report data and others are specific to the design of this study. Limitations include:

- 1) This convenience sample consists of subjects primarily from the Northeast Region of the United States. Participants were acquired exclusively from Bloomsburg University of Pennsylvania.
- 2) There exists no measure of practice or consistency of behavior in relation to the stated views of participants. Therefore, the potential exists that espoused beliefs may differ from actual beliefs. The data presented are based upon self-report procedures which may represent responses the subjects felt were "right" or would be acceptable by professors rather than in a way that is reflective of their own personal views.

- 3) The voluntary participation structure of this research study may limit the number of those possessing negative attitudes.
- 4) The qualitative data obtained through future research is confined by the parameters presented in the writing assignment, since students were asked to cap responses at two pages and disclose opinions as they specifically relate to the topic of inclusion in schools, employment and neighborhoods.
- 5) The personal beliefs and ethics held by varied instructors regarding the inclusion of students with disabilities may impact the developing perspectives of the student participants. This could impact the results of the follow-up surveys.

Implications

The overriding goal of this research is to provide recommendations to universities for the development of quality and effective coursework that contribute to the preparation of all future educators. The findings of this study will provide a comprehensive description of the impact of the *Introduction to Individuals with Exceptionalities* course on university students' attitudes toward individuals with exceptionalities. These attitudes as measured by comparing pre and post course survey results from the Sentiments, Attitudes, and Concerns about Inclusive Education Scale and content analysis data of students' essays entitled Personal Belief Statements on Inclusive Practices will determine if a content-infused approach to teaching positive attitudes towards inclusion is effective. Additionally, comparisons will reveal attitude variations present across different academic disciplines and/or demographic variables. Research results will allow faculty to identify variables that impact university students' attitudes and provide a mechanism to nurture, foster and reinforce the existence of those variables. Furthermore, this research will

continue for five years. During the five year span a new policy will be enacted requiring pre-service teachers to complete nine credits of special education coursework. The intent is to compare the attitudes of students prior to and at the conclusion of the additional classes.

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Table 1.

Frequency Scores for Academic Majors (N = 421)

Academic Major	Frequency	Percentage
Early Childhood	6	2
Primary/Elementary	85	20
Dual: Early Childhood/Elementary Education	24	6
Secondary Education	62	15
Special Education	9	2
Dual: Special Education/Elementary Education	58	14
Special Education/Deaf Education	2	>1
Special Education/Elementary Education/Deaf Education	10	2
Secondary/Special Education	4	1
Dual: Early Childhood/Special Education	3	>1
Music Education	2	>1
Education of the Deaf	4	1
Speech Pathology and Audiology	28	7
Business Education	20	5
Other (e.i., biology, sociology, psychology, liberals arts, nursing, communication studies, medical imaging, premed,, math, chemistry)	104	25

Table 2.

Univariate Analysis of Variance for Familiarity Survey Items

Survey Item	df	Mean Square	F	Sig
Training	2	19.267	.657	.519
Legislation	4	39.778	1.357	.248
Confidence	4	76.498	2.610	.035*
Teaching	2	58.031	1.980	.140

Table 3.

Univariate Analysis of Variance for Type of Experiences Items

Survey Item	df	Mean Square	F	Sig
Babysitting	1	114.090	3.818	.051*
Camp	1	21.718	.727	.394
Counselor				
Participation in Service Club	1	9.654	.323	.570
Helping Friend or Family Member with Disability	1	68.009	2.276	.132
I have none	1	2.143	.072	.789
I have other experiences	1	.010	.000	.970

Table 4.

Descriptive Statistics for Experience Survey Item

Category	N	%	Mean	SD
None or relatively none	135	32	47.3407	5.12116
Some-a moderate amount	208	49	50.8702	5.27481
Extensive-A close friend or family member has a disability	65	15	51.0769	6.35735
I have a disability myself	13	4	54.6923	6.62551
Total	421	100	49.8884	5.74368

Table 5.

Correlations of SACIE total score with factors of sentiments, attitudes, and concerns

	S17	S5	S16	S10	S13	S9	S19	S4	S12	S15	S8	S1	S2	S3	S6	S7	S11	S14	S18	TOTAL	
S17	1																				
S5	.025	1																			
S16	.134**	.038	1																		
S10	.039	.251**	.076	1																	
S13	.115*	-.048	.248**	-.057	1																
S9	.045	.323**	.095	.229**	.109*	1															
S19	.232**	.060	.347**	.042	.428**	.167**	1														
S4	.027	.052	.098*	-.013	.114*	.125*	.244**	1													
S12	.101*	.204**	.089	.289**	-.081	.164**	.047	.091	1												
S15	.064	-.049	.380**	-.069	.174*	.017	.274**	.210**	-.039	1											
S8	.094	.288**	.034	.254**	.004	.331**	.055	.036	.254**	-.034	1										
S1	.022	.156**	.159**	.022	.110*	.105*	.305**	.197**	.035	.272**	.050	1									
S2	.088	.031	.058	.129**	-.016	.130**	.126**	.084	.005	.028	.089	-.098*	1								
S3	.073	.097*	.202**	.022	.124*	.026	.382**	.276**	.104*	.331**	.035	.403**	-.014	1							
S6	.049	.424**	.069	.205**	.083	.374**	.088	.082	.121*	-.017	.273**	.151**	.056	.064	1						
S7	.025	.270**	.082	.258**	.029	.135**	.120*	.031	.172**	.088	.230**	.119*	.011	.019	.319**	1					
S11	.123*	.195**	.199**	.164**	.034	.236**	.199**	.025	.205**	.048	.318**	.119*	.167**	.037	.322**	.231**	1				
S14	.115*	-.024	.400**	0.107*	.330**	.088	.283**	.088	.015	.202**	.014	.050	.052	.110*	-.008	.054	.094	1			
S18	.191**	.092	.326**	.084	.194**	.162**	.427**	.127**	.111	.126*	.038	.072	.155**	.196**	.087	.062	.240**	.252**	1		
TOTAL	.324**	.390**	.511**	.319**	.377**	.482**	.620**	.354**	.342**	.393**	.417**	.396**	.258**	.432**	.450**	.383**	.506**	.401**	.499**	1	

** . Correlations are significant at the 0.01 level (2-tailed).

* . Correlations are significant at the 0.05 level (2-tailed).

Table 6.

Descriptive Statistics Influence on Beliefs Survey Item

Category	N	%
Former Teachers and/or school experiences	192	45.6
Family member/neighbor/friend	158	37.5
Media (newspapers, movies)	21	5.0
Other	19	4.5
Teacher & Family	19	4.5
Teacher/Family/Media/Other	11	2.9
Total	421	100