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Teachers' Attitudes and Perceptions of Inclusion in Relation to  
Grade Level and Years of Experience

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### Abstract

The practice of inclusion is increasingly evident in today's schools and expectations continue to rise with respect to how all students perform on high-stakes standardized testing. Positive attitudes about inclusion and concomitant lower stress levels among teachers would provide the most conducive environment for positive student outcomes. The authors investigated the relationship between teacher grade levels, years of experience, and their attitudes and perceptions toward inclusion. It was hypothesized that teachers of lower grade levels and with fewer years of experience would have more negative attitudes toward inclusion. A previously developed survey instrument was used to gather data from teachers in an elementary school. The authors concluded the study with highlighting the importance of providing pre-service and ongoing training to teachers of lower grade levels and suggestions were made for future study.

## Teachers' Attitudes and Perceptions of Inclusion in Relation to Grade Level and Years of Experience

The work of educating children with special needs has been constantly evolving. With the passage of public law 92-142 in 1975, each state was mandated to provide a free and appropriate public education for children with special needs (U.S. Department of Education, 2007). Under this law, children with special needs are to be educated within the public school system and given educationally related services designed to assist them in receiving instruction and in learning. Children with special needs were placed along a continuum which defined the types of supports they would receive according to their specific need. Each degree of need defined the type of restrictive environment to which the child had access and in which the specific need could be met. Children whose needs defined them as being on the profound level were more often placed in the most restrictive environment, the self-contained classroom which does not include any children without special needs. Over the years, however, new educational standards have been developed that now require states to increase the rigor with which children are taught core content subjects. Since the passage of the No Child Left Behind Act (NCLB) in 2001, states were mandated to examine and implement ways in which all children with special needs can potentially be taught in a regular classroom environment, increasing the rigor of instruction for the core content subject areas. This mandate has led the way to the policy and practice of inclusion.

Inclusion is defined as the process of including children with special needs into the general educational environment and providing their educationally related services within this environment (Wisconsin Educational Association Council, 2012). A core principle of the practice of inclusion is the belief that children with special needs are to be placed in the general

educational environment first and only then removed if their educational needs cannot be met within this environment (Wisconsin Educational Association Council, 2012) This practice is in opposition to the practice of mainstreaming in which children are to be placed in the self-contained classroom first and then placed in the general educational environment if they have demonstrated that they would benefit from such placement (Wisconsin Educational Association Council, 2012).

Many states, such as Florida, are now looking to inclusion as a viable option for students with special needs to attain the level of learning needed to be deemed proficient in the core content subject areas. Florida students participate in annual high-stakes assessment known as the Florida Comprehensive Achievement Test (FCAT), a test designed to measure students' proficiency on specific standards as outlined in NCLB. Previously, the scores of students with special needs were not weighted as heavily as other students' scores when average scores for a particular grade level or school were calculated. Recent changes in FCAT testing procedures now require that the scores of students with special needs be weighted equally with scores of all other students (Beech, 2010). As a result, educators are looking to inclusion as a way to ensure that children with special needs are receiving the same level of rigor as all students in the core content areas and that they are achieving the FCAT scores needed to demonstrate proficiency in those content areas. However, recent studies show that not all teachers are ready to accept the idea of inclusion and that they express negative attitudes that follow from the perceived amount of stress that may result as teachers strive to meet the educational needs of children with special needs (Brackenreed, 2011; Fuchs, 2010; Hwang & Evans, 2011).

Teacher stress can lead to negative outcomes in the classroom for students. Teacher stress has been associated with lower teaching standards and an increase in negative teacher-

student interactions, resulting in lower quality student learning experiences and lower academic outcomes (Stevenson & Harper, 2006). Geoff (2000) also found that stress led to more negative teacher-student interactions, which then had a negative impact on teacher self-efficacy.

Furthermore, when teachers in educational settings where changes are constantly being imposed upon them, they experience an increased prevalence of alienation and other stress factors, resulting in high teacher attrition rates (Margolis & Nagel, 2006). McCormick and Barnett (2011) found that teachers most often cited the reason for teacher burnout as being the result of classroom management issues with high levels of teacher stress related to student misbehavior leading to lowered teacher self-efficacy.

The reason for teacher stress has also been attributed to a lack of administrative and special education teacher support (Avramidis et al., 2000; Fuchs, 2010; Hwang & Evans, 2011), as well as to a lack of teacher training, either preservice or ongoing inservice training (Alahbabi, 2009; Hwang & Evans, 2011; Itkonen, 2007; Odom et al., 2011; Wah, 2010). While there have been numerous studies describing the reasons for teacher stress in the classroom in general, there has also been research that specifically investigated teacher stress when providing instruction for a particular student demographic having to do with requiring more than “regular” classroom instruction. Ozdemir (2006) compared stress levels of teachers of ADHD students to the stress levels of teachers of non-ADHD students. Results were reported across 3 domains – exhaustion, depersonalization with others, and perceived self-efficacy as a teacher – and indicated that, while the two groups were similar with respect to levels of depersonalization and exhaustion, teachers of ADHD students scored lower in the perceived self-efficacy as a teacher domain.

The current study sought to examine the relationship between teachers' attitudes and perceptions toward inclusion and their grade level taught and the relationship with their years of

teaching experience. It was hypothesized that teachers of lower grade levels or with fewer years of teaching experience would have a more negative attitude toward inclusion when compared to their counterparts. Such negative attitudes would, arguably, contribute to teacher stress and the resulting negative outcomes for learners. Findings would be important when deciding on the level of supports needed to increase positive attitudes which would lead to decreased stress among general education teachers as they prepare special education students to meet the demands required for success on state-mandated standardized assessments. The findings would also assist administrators and other stakeholders in determining the extent to which professional development for teachers might be needed in order that they experience a greater level of self-efficacy, another aspect of stress reduction, as they provide instruction in increasingly inclusive classrooms. As noted by Greenfield, et al (2010), vital to the implementation and success of a school-wide instructional reform initiative is assessing the perceptions of educators, and in this study, understanding the perceptions of teachers will enhance instructional quality by heightening teacher competence in serving special education students in inclusive classroom settings.

## **Methods**

### **Participants**

Participants consisted of a convenience sample of 33 kindergarten through fifth grade regular education teachers from an elementary school in Pensacola, Florida. For the 2012-2013 school year, the total number of the school's instructional staff was 52, with 44% of the teachers holding advanced degrees and 100% of the teachers considered highly effective according to the Florida Department of Education teaching standards. For the purpose of this study, exceptional

student education teachers and special area teachers, such as reading or mathematics specialists, were not included as only the regular education teachers were of interest.

For the 2012-2013 school year, the school's demographic information reflects the percentage of student population on free or reduced lunch to be at 65%. The student population is comprised of 55% white students, 19% African-American, 12% Hispanic, 6% Asian, and 7% multiracial. The school served 22 migrant students and 55 homeless students for the 2012-2013 school year.

### **Measuring Instrument**

The Multidimensional Attitudes Toward Inclusive Education Scale (MATIES) (Mahat, 2008) was used (see Table 1). The survey item responses are Likert scale as follows: Strongly disagree, disagree, somewhat disagree, somewhat agree, agree, strongly agree. Survey items are categorized into 3 domains: cognitive, affective, and behavioral. Two additional items were included in the present survey to gather demographic information about grade level taught and years of teaching experience. Half of the MATIES items' expressed positive attitudes about inclusion and the other half, negative (see Table 2).

### **Procedure**

Permission to contact the teachers was obtained from the principal of the school. Plans for the study and details of the survey were presented and explained by the author of the study to the faculty during a weekly faculty meeting. Teachers were sent a link to the survey instrument via their school email addresses provided by the Escambia County School District email account service (GroupWise). The email contained information regarding informed consent with the embedded link to the survey instrument in Survey Monkey. Informed consent was obtained once the teacher clicked on the link to begin the survey. Once the survey was completed and submitted

by the participant, the completed form was returned to an account on Survey Monkey that was created by the researcher to collect the survey responses.

### **Reliability and Validity**

The MATIES used item and teacher separation indices to arrive at high levels of reliability. Cronbach's alpha was calculated at between 0.77 and 0.91. Internal validity was obtained through the use of a correlational design to study the relationship between the variables. Internal validity was also obtained through the use of a measuring tool (MATIES) that measured high in the areas of construct validity and content validity. Because the sample population of teachers used ( $n = 33$ ) was higher than the required amount for generalizability to the population when conducting correlational studies, findings are generalizable to the target population of teachers, thus fulfilling the requirements for external validity.

### **Data Analysis**

Survey response data compiled in Survey Monkey was coded and entered into SPSS for descriptive and statistical analysis. Participants were divided into two groups for grade level taught, one for grades kindergarten through two and the other for grades three through five. Participants were also divided into three groups for years of experience, with the first group having 1-5 years of experience, the second 6-10, and the third 11+ years of experience. In addition to demographic frequency data and descriptive analysis of individual item responses, independent sample t tests and ANOVA were performed between and among demographic groups' responses to examine differences. Since half of the MATIES items were identified as negative, values for those items were converted to their positive counterparts, thus enabling the researchers to obtain an overall positive attitude score for each participant. Corresponding percentage scores were then calculated allowing for further descriptive analysis of the responses.

Responses were also examined with respect to the cognitive, affective and behavioral domains of the survey items for differences

### Results

Descriptive statistics for individual responses to MATIES items in this survey design study are presented in Tables 2, 3, and 4. Table 2 displays results for all participants for each item on the survey as well as identifies each item with respect to whether it expresses a positive or a negative attitude about inclusion. In general, the means indicated a more positive attitude than negative. Item 13, having to do with social rather than instructional activities in the classroom, elicited the strongest positive response. Item 4, which affirmed a belief that all students could learn in a regular classroom, embodying the fundamental spirit of inclusion, elicited the least positive response. Overall, average responses were in the 3-4 range (somewhat disagree to somewhat agree).

Table 3 displays average individual item responses by groups of grade level taught. An independent samples t test showed a significant difference for Item 11 only ( $p = .03$ ). Average individual item responses by years of experience groups are displayed in Table 4. ANOVA results for these groups showed no statistically significant differences across items.

In order to obtain values for each item that reflect a positive attitude toward inclusion respectively, values for those items identified as negative were reversed and the results are displayed in Figure 1. With converted values for each item, an overall positive attitude score for each participant was calculated, with the overall average being 65.09%. Analysis of average scores by participants' grade level taught showed that the mean for higher grade level group ( $M = 69.70$ ,  $SD = 11.53$ ) was higher than that for the lower grade level group ( $M = 63.26$ ,  $SD = 14.91$ ). However, an independent samples t test showed no statistically significant difference

between the groups ( $p = .067$ ), although it did closely approach significance. As a result, the first part of the hypothesis – that teachers of lower grade levels would have a less positive attitude than that of their counterparts – was not supported by the findings. Items 5, 12, and 16 were those for which teachers in the lower grade levels group had a more positive attitude than their counterparts. There was no difference between the groups on Item 6.

Analysis of average positive attitude scores by years of experience showed that the group with the least years of experience (1-5 years) had the highest mean score ( $M = 69.31$ ,  $SD = 18.77$ ) and the group with the most years of experience (11+ years) had the lowest mean score ( $M = 64.96$ ,  $SD = 12.35$ ). The middle group (6-10 years) mean was 65.39 ( $SD = 13.42$ ). ANOVA analysis showed no statistically significant differences among these groups ( $p = .781$ ). Findings did not support the second part of the hypothesis – that teachers with fewer years of teaching experience would have a less positive attitude toward inclusion than their counterparts. Teachers with the most years of experience did have the most positive attitude about inclusion on Items 5, 8, and 17. There was no difference among the groups for Item 18.

As previously noted, the individual items on the MATIES are grouped into three domains: cognitive, affective, and behavioral. The average positive attitude for each domain was 3.56, 4.04, and 4.32 respectively. The behavioral domain was the one for which participants expressed the most positive attitude, although the behavioral items are an expression of what the participants would be willing to do as opposed to what they may actually be doing in their classrooms.

### **Discussion**

The purpose of this study was to identify the nature of the relationship between teachers' attitudes and perceptions about inclusion, their grade levels taught, and their years of teaching

experience. Although statistical analyses of the data showed no significant differences, with the exception of the one item noted, a few data trends are of interest. One such trend showed a higher average score for positive attitudes toward inclusion among teachers of higher grade levels. The same trend was also found among teachers with fewer years of experience. A recommendation could be made for teachers of lower grade levels or with more years of experience to be provided increased or ongoing professional development to further their competence in and confidence with providing instruction in an inclusive classroom. Teachers previously identified as having positive attitudes toward inclusion were those with more knowledge of inclusion practices (Pearson, Gray, & Campbell-Evans, 2010). Teachers can feel overburdened by the demands and responsibilities of teaching in an inclusion classroom and not have a positive attitude about it (Fuchs, 2010). One could conclude that the findings of the current study indicate a need for teachers to have ongoing training in inclusive practices, especially for teachers of lower grade levels and for teachers with more years of experience.

It was hypothesized that teachers of lower grade levels and those with fewer years of experience would have more negative attitudes toward inclusion. The findings that teachers of lower grade levels will have more negative attitudes toward inclusion was also supported by Alahbabi (2009), whose study found that teachers of kindergarten were unsure of the practices of inclusion and were not in support of it as much as those in upper grade levels.

Recommendations for professional development can be made to provide inservice training opportunities for teachers of lower grade levels. In support of the data trend finding a more positive attitude for teachers with less years of experience, Hwang and Evans (2011) found that teachers with fewer years of experience expressed more positive attitudes toward inclusion.

They attributed their findings to recent efforts in teacher training programs to provide exposure to and best practices for inclusion in the curriculum.

A limitation to the current study is the type of school in which the study was conducted and that only one school was included. Further studies should be conducted at middle or high school levels to determine if similar differences are found among those faculty, who often do not participate in as rigorous teacher training programs as do elementary grade level teachers.

Another limitation is that there were no male teachers among the participants. It would be of interest to know if one gender experiences more stress in the inclusive classroom than the other gender or if gender is even a factor in this consideration. Lastly, it is interesting and relevant to note that teachers in this study with a more positive attitude about inclusion taught at the grade levels in which the FCAT is given, namely, third, fourth, and fifth grade. Another recommendation for further study would be to determine the degree of the relationship of attitudes toward inclusion among groups of teachers of third, fourth, and fifth grade. Such a study would encompass more schools, perhaps all schools within a given school district so as to have a larger sample size than was available here.

Preparation for high-stakes tests such as the FCAT is arguably among the most difficult challenges for today's teachers. Compounded with daily classroom issues such as classroom management and the demands of the curriculum, teachers are facing even more demands as they are now required to include children with special needs in their classrooms and they will also be included in the high-stakes testing outcomes. The demand for more highly qualified teachers will only become more pressing as inclusion practices increase. Understanding the factors that contribute to the fears and stressors associated with inclusion is important for administrators and other stakeholders as they determine the amount and nature of preservice and ongoing training

opportunities to provide to teachers. When factors such as adequate training and continued support are provided, teachers feel more confident providing instruction in the inclusive environment, thus leading to increased student gains (Geoff, 2000).

## References

- Alahbabi, A. (2009). K-12 special and general education teachers' attitudes towards the inclusion of students with special needs in general education classes in the United Arab Emirates (UAE). *International Journal of Special Educations*, 24(2), 42-54.
- Avramidis, E., Bayliss, P., & Burden, R. (2000). A survey into mainstream teachers' attitudes towards the inclusion of children with special educational needs in the ordinary school in one local education authority. *Educational Psychology*, 20(2), 191-211.
- Beech, M. (2010). Guide to FCAT and FCAT 2.0 Accommodations for Students with Disabilities. Retrieved June 12, 2012, from <http://www.fldoe.org/ese/pdf/fcatteam.pdf>
- Brackenreed, D. (2011). Inclusive Education: Identifying Teachers' Strategies for Coping with Perceived Stressors in Inclusive Classrooms. *Canadian Journal of Educational Administration and Policy*, 122
- Fuchs, W. (2010). Examining Teachers' Perceived Barriers Associated with Inclusion. *SRATE Journal*, 19(1), 30-35.
- Geoff, T. (2000). Teacher stress in the low-trust society. *British Journal of Sociology of Education*, 21(3), 331-353.
- Greenfield, R., Rinaldi, C., Proctor, C., & Cardarelli, A. (2010). Teachers' Perceptions of a Response to Intervention (RTI) Reform Effort in an Urban Elementary School: A Consensual Qualitative Analysis. *Journal of Disability Policy Studies*, 21(1), 47-63.
- Hwang, Y. & Evans, D. (2011). Attitudes towards Inclusion: Gaps between Belief and Practice. *International Journal of Special Education*, 26(1), 136-146.
- Itkonen, T. (2007). PL 94-142: Policy, Evolution, and Landscape Shift. Issues in Teacher Education, *Issues in Teacher Education*, 16(2), 7-17.

- Mahat, M. (2008). The development of a psychometrically-sound instrument to measure teachers' multidimensional attitudes toward inclusive education. *International Journal of Special Education*, 23(1), 82-92.
- Margolis, J. & Nagel, L. (2006). Education Reform and the Role of Administrators in Mediating Teacher Stress. *Teacher Education Quarterly*, 33(4), 143-159.
- McCormick, J. & Barnett, K. (2011). Teachers' attributions for stress and their relationships with burnout. *The International Journal of Educational Management*, 25(3), 278-293.
- Odom, S., & Buysse, V., & Soukakou, E. (2011). Inclusion for Young Children with Disabilities: A Quarter Century of Research Perspectives. *Journal of Early Intervention*, 33(4), 344-356.
- Ozdemir, S. (2006). Burnout Levels of Teachers of Students with AD/HD in Turkey: Comparison with Teachers of Non-AD/HD Students. *Education & Treatment of Children*, 29(4), 693-709.
- Pearce, M., Gray, J., and Campbell-Evans, G. (2010). The Inclusive Secondary Teacher: The Leaders' Perspective. *Australian Journal of Teacher Education*, 34(6), 101-119.
- Stevenson, A. & Harper, S. (2006). Workplace stress and the student learning experience. *Quality Assurance in Education*, 14(2), 167-178.
- U.S. Department of Education. (2007). Archived: A 25 Year History of the IDEA. Retrieved June 10, 2012, from <http://www2.ed.gov/policy/speced/leg/idea/history.html>
- Wah, L. (2010). Different Strategies for Embracing Inclusive Education: A Snap Shot of Individual Cases from Three Countries *International Journal of Special Education*, 25(3), 98-109.

Wisconsin Education Association Council. (2012). Special Education Inclusion. Retrieved June 10, 2012, from

[http://www.weac.org/Issues\\_Advocacy/Resource\\_Pages\\_On\\_Issues\\_one/Special Education/special\\_education\\_inclusion.aspx](http://www.weac.org/Issues_Advocacy/Resource_Pages_On_Issues_one/Special_Education/special_education_inclusion.aspx):

Table 1

*Items on the Multidimensional Attitudes Toward Inclusive Education Scale (MATIES)*

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	<u>Cognitive</u>
1	I believe that an inclusive school is one that permits academic progression of all students regardless of their ability.
2	I believe that students with a disability should be taught in special education schools.
3	I believe that inclusion facilitates socially appropriate behavior amongst all students.
4	I believe that any student can learn in the regular curriculum of the school if the curriculum is adapted to meet their individual needs.
5	I believe that students with a disability should be segregated because it is too expensive to modify the physical environment of the school.
6	I believe that students with a disability should be in special education schools so that they do not experience rejection in the regular school.
	<u>Affective</u>
7	I get frustrated when I have difficulty communicating with students with a disability.
8	I get upset when student with a disability cannot keep up with the day-to-day curriculum in my classroom.
9	I get irritated when I am unable to understand students with a disability.
10	I am uncomfortable including students with a disability in a regular classroom with other students without a disability.
11	I am disconcerted that students with a disability are included in the regular classroom, regardless of the severity of the disability.
12	I get frustrated when I have to adapt the curriculum to meet the individual needs of all students.
	<u>Behavioral</u>
13	I am willing to encourage students with a disability to participate in all social activities in the regular classroom.
14	I am willing to adapt the curriculum to meet the individual needs of all students regardless of their disability.
15	I am willing to physically include students with a severe disability in the regular classroom with the necessary support.

- 16 I am willing to modify the physical environment to include students with a disability in the regular classroom.
- 17 I am willing to adapt my communication techniques to ensure that all students with an emotional and behavioral disorder can be successfully included in the regular classroom.
- 18 I am willing to adapt the assessment of individual students in order for the inclusive education to take place.

Table 2

*Responses for MATIES Items for All Participants*

Item	Type	Mean	Std. Dev.
1	Positive	3.58	1.32
2	Negative	3.82	1.26
3	Positive	3.39	1.37
4	Positive	2.73	1.49
5	Negative	2.64	1.14
6	Negative	3.00	1.28
7	Negative	2.97	1.40
8	Negative	3.06	1.58
9	Negative	2.45	1.23
10	Negative	2.88	1.54
11	Negative	3.39	1.58
12	Negative	3.00	1.44
13	Positive	5.06	1.03
14	Positive	4.42	1.15
15	Positive	3.91	1.61
16	Positive	4.24	1.06
17	Positive	4.33	1.24
18	Positive	4.00	1.28

*Note.* n = 33. Type refers to positive or negative attitude with respect to high score on item. 1 = Strongly Disagree, 2 = Disagree, 3 = Somewhat Disagree, 4 = Somewhat Agree, 5 = Agree, 6 = Strongly Agree.

Table 3

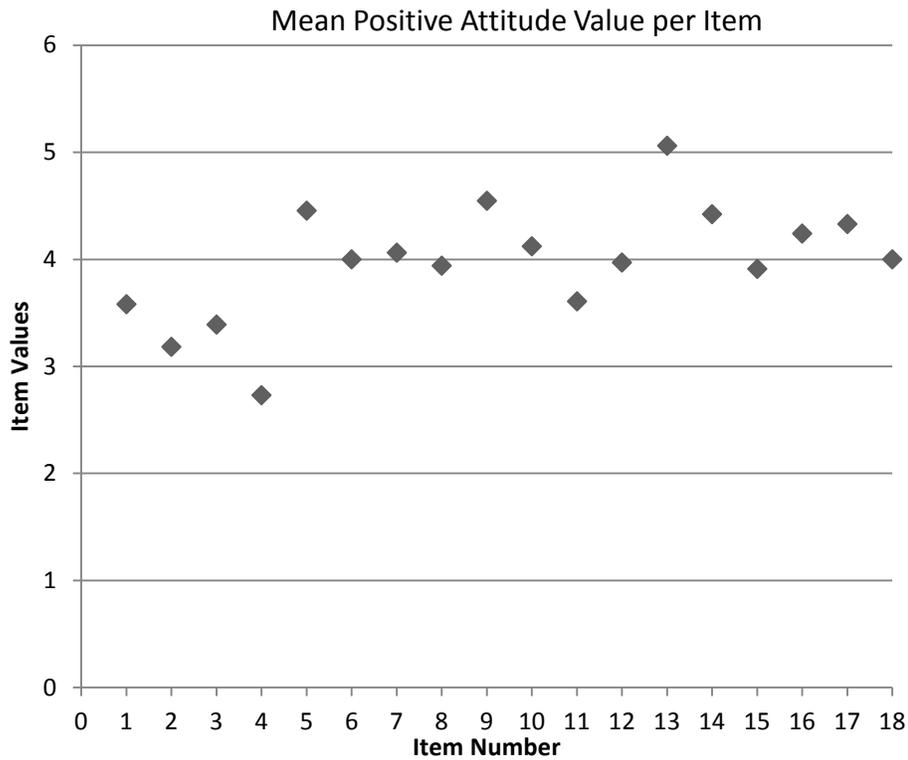
*Responses on Individual Survey Items for Grade Level Groups*

Item	K – Grade 2 (n=19)		Grade 3 – 5 (n=14)	
	Mean	Std. Dev.	Mean	Std. Dev.
1	3.37	1.34	3.86	1.29
2	4.05	1.18	3.50	1.35
3	3.00	1.37	3.93	1.20
4	2.16	1.54	3.50	1.02
5	2.42	1.12	2.93	1.14
6	3.00	1.33	3.00	1.24
7	3.32	1.42	2.50	1.29
8	3.21	1.69	2.86	1.46
9	2.58	1.35	2.29	1.07
10	3.16	1.57	2.50	1.45
11	3.47	1.74	3.29	1.38
12	2.89	1.41	3.14	1.51
13	4.84	1.17	5.36	0.75
14	4.32	1.20	4.57	1.09
15	3.79	1.72	4.07	1.49
16	4.26	1.15	4.21	0.98
17	4.26	1.41	4.43	1.02
18	3.74	1.33	4.36	1.51

Table 4

*Responses on Individual Survey Items for Years of Experience Groups*

Item	1 – 5 Years exp. (n=7)		6 – 10 Years exp. (n=8)		11+ Years exp. (n=18)	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
1	3.71	0.95	3.50	1.07	3.56	1.58
2	3.71	1.11	3.88	1.25	3.83	1.38
3	3.57	1.40	3.38	1.06	3.33	1.53
4	3.14	1.68	2.38	1.30	2.72	1.53
5	2.71	0.95	2.88	1.36	2.50	1.15
6	2.71	0.95	2.88	1.36	3.17	1.38
7	2.57	1.27	3.63	1.60	2.83	1.34
8	3.43	1.72	3.00	1.85	2.94	1.47
9	2.29	1.11	2.88	1.64	2.33	1.09
10	2.57	1.81	3.00	1.51	2.94	1.51
11	2.86	1.68	3.00	1.31	3.78	1.63
12	2.71	1.38	2.38	1.18	3.39	1.50
13	5.29	0.76	5.13	0.84	4.94	1.21
14	4.43	1.81	4.50	0.54	4.39	1.09
15	4.43	1.90	4.00	1.41	3.67	1.61
16	4.43	1.40	3.88	0.99	4.33	0.97
17	4.43	1.81	4.00	0.93	4.44	1.15
18	4.00	1.92	4.00	0.93	4.00	1.19



*Figure 1.* Mean positive attitude values per survey item for all participants with negative item values converted to positive values.