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The effects of in-service training on teachers' attitudes towards inclusion

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**THE EFFECTS OF IN-SERVICE TRAINING ON TEACHERS' ATTITUDES
TOWARDS INCLUSION**

by
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Dedications

This manuscript is dedicated to my wonderful mother Anita L. Moore, and my amazing sister Jenna L. Moore who have always believed in me.

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Abstract

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The purposes of this study are to a) evaluate teachers' attitudes towards inclusion and willingness to provide supports to students with special needs, b) evaluate teachers' willingness to collaborate and use co-teaching models after training, c) evaluate whether or not teachers feel more comfortable about inclusion, and d) evaluate whether or not teachers becomes more positive toward students with disabilities and willing to work with them in an inclusion setting. A total of 16 teachers, 9 general education and 7 special education participated in the study. A pre and post group design was used using a Likert Scale survey with 4 to1 representing strong agreement to strong disagreement at the beginning and end of the training to compare teachers' opinions about inclusion and special education. Results show that all participants gained significantly higher scores in the areas of special education, instructional adaptation, co-teaching, and laws and regulations after the training. It indicates that teacher training could improve their understanding of inclusion and become positive towards students with special needs.

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Chapter 1

Introduction

The field of special education is ever growing and changing due to new ideas and protocols. One such idea or protocol that has been at the fore front of educational policy as noted by Paliokosta and Blandford (2010) is called "inclusion," where students with disabilities are placed in regular education classrooms with general education students to receive instruction. Inclusion is designed as the "best" way to provide an equal opportunity for students with disabilities to learn academic content and social skills following the general education curriculum together with their age appropriate peers (Dillenburger, 2012). Inclusion is not only placing students with special needs physically in a regular education classroom, but refers to the means the school will take to keep these students as active members in their school community and make efforts to meet their needs (Winter, 2006). The goal of inclusion is more than just having an information center located within the school environment but allowing for equal opportunities for both special and general education students to become engaged in their school activities to learn skills (McAllister & Hadjri, 2013). Inclusion is needed because it provides students with exceptional needs the opportunities to receive classroom instruction with high expectations that are not only relevant but also tailored specifically to help them be successful (Obiakor et. al., 2012). The instruction in inclusive classrooms is designed and implemented with the help of a special education teacher that collaborates with the general education teacher to- ensure that the specific adaptations, modifications, and accommodations are being followed to meet each special education student's needs addressed in his or her IEP.

Statement of Problems

Inclusion seems to be changing teaching personnel and students in a traditional instructional setting. For example, there may be two teachers in the classroom, one being the general education teacher, and the other being the special education teacher. The student population has become diverse because students with special needs are included in the classroom. The main concern, however, the teachers raised is about students with special needs. As indicated by Campbell et. al. (2003), general education teachers are not accepting inclusion and not used to having students with moderate or severe disabilities in their classroom. They are worried about providing the time needed to meet these individual needs, without receiving enough support or training. For general education teachers, inclusion is a challenge because they are not sure how to handle those students in their classroom. They are not aware of their classification, characteristics, and possible supports needed in the classroom. In essence, inclusion may change the way the teachers plan lessons, deliver instruction, and assess both student and teacher performance. In an inclusive classroom, the general education teacher may co-plan and teach lessons with a special education teacher. This could change the dynamic of the instructional methods previously used. In the same respect, the special education teacher may face the challenge of teaching in a large environment instead of the traditional self-contained setting with a small group of students. Due to the fact that two teachers are responsible for the success of the students in the same classroom, tensions can develop as a result of conflicting viewpoints. This sometimes is because the general education teachers feel as though the special education teachers are "intruding" on the instruction and management of their class. They usually view the classroom as theirs, and feel as

though the special education teacher is telling them how to "do their job" by expressing concerns. It is especially true when handling student discipline if one teacher holds different beliefs as to how to solve behavioral problems or has a more lenient philosophy as to how a classroom should be managed. Issues can arise as well if the general and special education teachers have varying teaching styles, and present the curriculum and material in different ways. For example, one teacher may present a lesson more traditionally with lecturing, while the other may group students into small teams using centers. Due to different ideas, conflict may arise when collaboratively planning lesson and implementing instruction. Concerns may also arise when grading students' assignments due to questions developed as to who is responsible for grading what assignments (Stivers, 2008). When it comes to inclusion, for some teachers, these problems can be quite serious or confusing. Along with this, general education teachers may be unfamiliar with the collaborative instruction and collaborative teaching models, and view the special education teacher as an assistant (Stivers, 2008). With another teacher in the same room, it may be difficult to share responsibility. All of this seems a result of the viewpoints and attitudes of the general education teachers toward inclusion and special education. In the end, however, it could just be a difference of personalities between the general and special education teachers (Stivers, 2008). Thus, both teachers must collaborate in class instruction to avoid the situation of which one is left in a paraprofessional role. They should create a grading policy, develop a conflict resolution plan, and collaborate to create lesson plans, and manage a diverse classroom (Stivers, 2008). Inclusion will always be difficult if teachers are not ready to stay steadfast to the

way it is supposed to be implemented and be ready to instruct all children (Glazzard, 2011).

As a result of our state's adherence to the least restrictive environment (LRE) and the mandate of IDEA (2004), more and more students with disabilities are being placed in general education classrooms. Teachers are therefore challenged by such diverse classrooms to meet the different needs of their students. Professional development is needed for teachers to understand their students and to learn different instructional strategies to teach diverse learners in such an inclusive environment. It is noted that professional development towards inclusion helps teachers become more positive towards inclusion compared to those teachers without training (Jobe et. al., 1996). For example, teachers that took college coursework on inclusion would accept inclusion (Jobe et. al., 1996), and with in-service training, teachers can be prepared for working with students with disabilities (Jung, 2007). There seems to be a link between teacher training and their attitude and the possible success for inclusion. Therefore, inclusion can only be effective when general education teachers receive proper professional development to meet the needs of the special education students in their classroom (Snyder, 1999). According to Swain et. al. (2012), teacher training must provide teachers with strategies and techniques necessary for effective instruction within the classroom for students with special needs. It is clear that with thorough training, teachers could develop higher self-efficacy and gain more confidence in their instruction, leading to an overall positive attitude towards inclusion, and possible effective instruction. Training areas could include motivation, communication, and behavior management of students with special needs, IEP development and review, assistive technology, adaptation of

curriculum and lesson materials, and collaboration with other school personnel, parents, and families (Buell et. al., 1999).

Significance of the Study

It is noted that there is numerous research on teachers' in-service training (Pickard, 2009, Khudorenko, 2011, Hue, 2012), little research has been devoted to collecting multifaceted data towards teacher attitudes regarding inclusion before and after their professional development. Research seems to aim towards novice teachers who have taken special education coursework in a college, rather than employed teachers in school districts (Campbell et. al., 2003, Winter, 2006, Swain et. al., 2012). Therefore, data seems missing on the training effects for general and special education teachers in our country employed in school districts on collaborative teaching. My research is designed to create in-service training for both general and special education teachers and evaluate their attitude changes.

The training developed will be a series of six sessions, 30 minutes each, focusing on various topics of inclusion including the laws and regulations in the area of special education, IEPs, disability categories and characteristics, collaborative instruction, inclusion practices, and instructional adaptation. Each session will involve a PowerPoint presentation together with lecturing followed by discussions and group activities. A survey is given before and after the training to evaluate the participants' learning outcomes.

Purposes of the Study

The purposes of this study are a.) to evaluate teachers' attitudes towards inclusion in terms of their willingness to provide accommodations, modifications, and adaptations

to students with special needs, b.) to evaluate teachers' willingness to collaborate and use various co-teaching models after training, c.) to evaluate whether or not teachers feel more comfortable about inclusion after training once they understand who to go to for support and services, and d.) to evaluate whether or not through training teachers becomes more sympathetic for students with disabilities and therefore are more willing to work with them in an inclusion setting.

Research Questions

The research questions of this study are as follows:

1. Will general and special education teachers change their attitudes towards inclusion prior to and after the in-service training?

2. Will general and special education teachers change their attitudes towards collaborative teaching prior to and after the in-service training?

Chapter 2

Review of the Literature

Inclusion serves as an educational model in which students with disabilities are allowed to receive instruction in a general education setting to guarantee equal education in public schools (Horrocks et. al., 2008). NCLB (2001) and IDEA (2004) mandate a least restrictive environment for students with disabilities. To comply with this legislation, more and more students with disabilities are placed in the classrooms. In such an inclusion environment, teachers are responsible for all students' success (Casale-Giannola, 2012). It is found that inclusion can be effective only when teachers are willing to teach all students regardless of their ability, and provide appropriate services required to help those with disabilities (Haq & Mundia, 2012). Thus, general education teachers in an inclusive classroom have a responsibility to work with these students and provide the appropriate instructional adaptations to ensure their needs are met (Turner, 2003). It is noted that teachers' attitudes are the priority for the success of inclusion practice (Winter, 2006).

Teachers' Attitudes Towards Inclusion

Since the inclusion movement in the 1990's, research on teachers' attitudes has been investigated. Snyder (1999) examined teachers' opinions about inclusion and their training. Participants in this study were teachers employed in school, attending college classes. They were placed in groups according to their teaching experience in the field such as Elementary or Secondary School, and were asked to "reflect" upon special

education programs and the administrative support in their school, and training they received.

As reported by the teachers, special education students in their school district were placed in resource rooms, self – contained and inclusion settings. Their concerns included lack of support, limited training, lack of communication between general and special education teachers, and understaffing in the special education program. In addition, they reported that special education teachers rarely make contact with the general education teacher to provide consultative support or services based on a particular situation. Most teachers have not had any training and felt unprepared when actually teaching students with disabilities. All teachers indicated training is needed for inclusion to be successful as well as communication between general and special education teachers.

A study by VanWeelden and Whipple (2014) aimed to review if music teachers' experiences effected their views on adapting instruction. Participants were selected randomly among those who taught various music classes. Teachers were recruited through online websites from a list of schools in several states. A total of 100 music teachers per state were chosen to participate in the study with 58% teaching Elementary School and 41% teaching Middle School or High School Choir, and 50% Middle School or High School Instrumental.

These music teachers were sent an e-mail to fill out a survey for their opinions on how well they felt they worked with students with disabilities by providing instruction and adaptions. This survey was posted online with instructions and consent. It was open for four weeks, with a follow up e-mail sent by the authors during Week 2. Questions on

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the survey requested answers to such items as their school size and student economic status, years of teaching experience and courses taught, and if and how they worked with students with special needs. Following these demographic questions, participants had to respond to questions using a 4 point Likert Scale with a degree of "never to always" regarding what students with disabilities they had experienced in teaching.

Results showed that 99% of the participants stated that all special education students took or had the opportunity to choose music classes in their district, and 61% of teachers felt they were able to meet the needs of these students in inclusion classes. Also, 49% of the participants reported that they felt that students with special needs would be better taught in separate classes. Also, 62% of the teachers indicated they were able to effectively adapt instruction, and 53% indicated they were able to modify their lessons to meet those with special needs. However, 42% of the teachers felt as though students with disabilities are not on the same level of academic performance as their typically growing peers. These findings were similar regardless of demographics and years of experience among the participants. It seems that teachers are involved in inclusion practice are required by the school assignment, but often do not receive appropriate training.

Teacher Training for Inclusion

There are two types of professional training. One is to attend in-service training in school to update knowledge and another is to attend college classes to learn new skills. Professional training seems to provide teachers an opportunity to update their understanding of teaching and learn information on instruction for students with special needs. Training is imperative for teachers to be prepared for inclusion.

In-service training. This type of training is always provided in school for teachers to share their experiences and update their knowledge and skills. It is found that teachers' confidence and ability in teaching students with disabilities have been enhanced through in-service training (Hardin, 2005). In Hardin's study (2005), five physical education teachers participated. They were contacted by a teacher of the initial teacher training program ranging from the East Coast to Southeastern United States, and then contacted by the author by telephone. These participants were new teachers with two to five years of teaching experiences who taught students with a variety of disabilities on a daily basis including autism, physical impairments, down syndrome, cerebral palsy, hearing impairments, cognitive or visual impairments, and behavioral disorders.

Observations were provided in the field together with structured interviews. During a 90 minute interview, participants were asked about educational courses and teaching experience, as well as what effected their "comfort level" in teaching in an inclusive environment. They were also asked about their preparedness in teaching students with disabilities. This was followed by two weeks of observations and follow-up interviews. During the interview, participants were asked to sort and rank 11 knowledge source cards from most to least importance. These cards represented course work, early field experiences, student teaching, journals and magazines, professional conferences, in-service training, teachers, students, teaching experience, films and video, and others. Then, another interview was conducted for the participants to explain reasoning for ranking the cards. Responses were taped and transcribed and their reasoning for decision making was discussed.

It is found that the most significant tool in gaining knowledge and confidence was teaching experience. This included learning from mistakes and learning what to say or to do. A significant source of knowledge was learning from other teachers (Hardin, 2005). For example participants would request other teachers' advice or help. The other significance was found to be their coursework in college. It is noted that these participants only had one course focusing on students with disabilities and 3 out of 5 participants did not have any students with disabilities in their student teaching. It is suggested that a college course with content of disabilities and students teaching in an environment including students with disabilities should be considered in a college's physical education teaching program (Hardin, 2005).

Kosko and Wilkins's study (2009) presented data on how training and experiences effected general education teachers' perceptions on their skills at modifying instruction based on a special education student's IEP. Phone interviews were provided to teachers, administrators, and paraprofessionals during the 1999-2000 school year to find areas in personnel development.

Three school district samplings were selected randomly. These included local school districts and those managed by the state. The study reported that 76 state managed schools for students with sensory impairments were involved. There were a total of 1,126 participants, of these 226 majored in Early Childhood education, 383 in Elementary education, 101 in Social Sciences, 237 in Language Arts, 114 in Mathematics, and 65 in Science.

A questionnaire using a Likert scale was given to all participants to rate themselves on levels on providing adaptations to students with special needs. The ratings

were 1 for "not at all," 2 for "small extent," 3 for "moderate extent," and 4 for "great extent." Meanwhile, participants responded with a 1 for "yes" or 0 for "no" on questions about types of training. The respondents were also asked how much training they received and how many years they have taught students with disabilities.

It is found that participants were relatively confident in adapting their instruction to students with disabilities. Along with this, there was a positive correlation between the amount of professional development the participants received and their views on their ability to adapt instruction. In fact, those who had 8 or more hours of training were more confident than those who had less. Kosko and Wilkins (2009) concluded that training had provided an impact on perceived ability of adapting instruction, and the more training one received the greater the impact it may have on their confidence to teach students with disabilities.

It seems that professional training is very important for preparing teachers to be positive and confident towards students with disabilities and to develop skills in instructional adaptation to meet these students' needs. However, research seems to focus on the views of general education teachers, or on those who just completed college coursework. What effects does training have on the attitude of teachers who have years of experience? What effects does training have on the attitude of special education teachers? My research will provide data by including participants who are special education teachers, and teachers who have been teaching for many years.

College training. According to Jung (2007), college courses prepare future teachers for positive attitudes towards students with disabilities and appropriate teaching skills.

In Jung's study (2007), 68 freshmen took a special education course, and 57 seniors in student teaching. First, the participants took a test to determine their present views on themselves. Categories on the scale included benefits of inclusion, classroom management, instructional ability, and special as opposed to inclusion classrooms. These participants then took a 20 minute, 25 statement survey using a 1 (disagree strongly) – 6 (agree strongly) Likert Scale. The categories on the scale included inclusion benefits, classroom management, instructional strategies, and special versus inclusion classrooms.

Results showed that among the participants, those in student teaching gave themselves lower ratings. With this, freshman rated themselves the highest in the inclusion category. Surprisingly, the study also found that the participants provided a more positive view on inclusion during their coursework before their student teaching. It seems a trend that once students finished their student teaching their attitudes decline to accepting inclusion. This is because the students do not believe their capabilities in teaching children with disabilities. It is also explained that participants who were in Early Childhood or Specialists courses rated higher in instructional strategies, because they had taken more special education courses and successful field experiences (Jung, 2007). There needs to be more opportunities and training for pre-service teachers with a focus on inclusion, so that they can be prepared to teach students with special needs in inclusive environments.

Swain et. al.'s study (2012) documented the change in attitude and beliefs of 777 pre-service teachers with 76% female and 24% male, regarding inclusion after they finished a course in special education and 20 hours in the field. These participants included undergraduate students from five different sections each semester for two

semesters of the same course to learn laws and regulations in special education, collaboration, universal design, behavior management, and curriculum and material adaptation. The course was instructed to cover topics such as laws disabilities, behavior management, and adaptations. Participants also have a 20 week field experience.

At the end of the course, participants were asked to complete a survey with 38 questions. This survey was placed online at the first and last week of the class, and participants were unable to review their answers to the first survey until they had submitted the second survey at the end of the class. Also they were allowed to respond to a reflection question at the end.

The results demonstrated that participating students had minimal knowledge of special education at the beginning of the course, but as the course progressed, their learning experiences gained. They learned to provide adaptations and modifications for students with disabilities, and realized that it is important for students with disabilities to be in the general education classroom with their peers. The research stated that according to the participants they believed that general education teachers have the skills necessary to teach students with disabilities but more training is still needed. They also indicated that before the course they had a limited understanding of inclusion, and the course helped their understanding of students with disabilities. It is found that college coursework combined with field experience would help pre-service teachers build confidence in teaching all students in inclusive classrooms, and develop a positive attitude towards inclusion practice.

Summary

A teacher's attitude towards inclusion seems to rely heavily on the teacher's perceived self-efficacy. This viewpoint directly effects his or her belief in his/her abilities and willingness to work with students with disabilities and to include them in his/her classroom (Leyser et. al., 2011). Kosko and Wilkins (2009) described how those teachers with high self-efficacy are more apt to be able to reach their students with disabilities, while a teacher with low self-efficacy will not display the positive behavior to reach his or her students. In order to build a teacher's self-efficacy in teaching students with disabilities, professional development including in-service training and college coursework must be provided, as well as school's proper support. General education teachers must be properly supported by school administration and other personnel to develop collaboration with special education teachers. Communication is essential for both to understand one another's' roles in an inclusive setting to meet the needs of all students including those with disabilities.

Reviewing research on teacher training and inclusion, it is found that the training was limited for a very specific participant group, such as physical education and music teachers. Data are missing in research on inclusion in terms of effects in each area, such as collaboration or co-teaching. Will the chance in collaboration between the general and special education teachers impact their teaching practice or their student learning? Will their in-service training impact their attitude changes towards their students, especially those with disabilities? These questions are not answered yet. My research will collect data on in-service training in a high school setting and examine its impact on the

collaboration of special education and general teachers, and their attitudes towards

students with disabilities.

Chapter 3

Methods

Setting

This study was conducted in a high school located in southern New Jersey. There are approximately 55 teachers and 800 students ranging from grades 9 through 12 in this school. Students with disabilities are placed in various class settings such as general education, inclusion, language learning, life skills, self-contained, and ESL to meet their needs. The school is classified by the Department of Education (2000) as an "A" District Factor Group (DFG) which means it is located in a low social economic status (SES), rural area.

This study was conducted in a classroom of the high school for teachers from various departments to participate in "inclusion" professional development. The classroom is equipped with computers, video, audio, and internet access for power point presentations and other activities using technology.

Participants

Teachers. A total of 16 teachers, 9 general education and 7 special education, 13 females and 2 males participated in the study. They were assigned to teach students in different settings such as inclusion, self-contained, and language learning in core academic subjects such as Language Arts, Mathematics, Science, and History. Table 1 presents the general information of the participants.

Table 1

General Information of Participating Teachers

Age					Gender			Years of Teaching				Years of Teaching in Special Education		
25-30	31-40	41-50	51-60	N/A	F	M	N/A	1-9	10-15	16-20	21-30	0-9	10-15	N/A
4	7	1	3	1	13	2	1	7	7	1	1	8	6	2

Training Materials

    Training topics. The training consisted of 3 sessions, lasting 45 minutes to one hour each, adopted from

http://strategiesforinclusion.wikispaces.com/file/view/Inclusion+training.ppt. These topics include laws and regulations in the area of special education, individualized education plans (IEPs), disability categories and characteristics, collaborative instruction, practices in inclusive classrooms, and instructional adaptations. During the training

sessions, there were power point presentations, video demonstrations, handouts, delivery, and lectures with group discussion (See an example in Appendix A). All sessions were developed by the researcher based on other professional training on inclusion through an intensive literature review.

Training materials.

A. Power Point – The slides in the power point for each training varied in length. The slides were used to introduce topics and pose questions to participants to generate discussion. While some slides were used to summarize information, a majority of the slides were embedded with links to outside resources and websites with relevant explanation of the topics. Other things embedded in the power point were handouts and videos for the participant to view. Such slides included topic headings so participants knew what the links pertained to. The power point was e-mailed to participants as a resource.

B. Video – Videos in the power point presentation were included to further ideas of the topics and show examples. For example, one video included was to explain the idea of including special education students in the general education setting. It had students and teachers explaining and discussing their views on the issue. Another video embedded in the power point was used to demonstrate the various co-teaching models. Two teachers recorded themselves using each model in their classroom.

C. Handouts - Handouts were given to participants to give hard copies of information. These handouts were embedded into the power points as links for participants to still access while viewing the power points. One handout

was the roles of special and general education teachers in the classroom.
Another handout was the various disability categories defined by IDEA
(2004) listed and explained.

Measurement materials.

Survey. This survey was developed by the researcher based on one given by
Weiner (2003) and given to the participants at the beginning and end of training. It
consisted of 60 questions pertaining to inclusion in a Likert Scale format ranging from
numbers 4 to 1, with 4 representing "strongly agree," 3 "agree," 2 "disagree," and 1
"strongly disagree." All questions are ranged from how teachers perceived themselves in
being ready to teach students with disabilities and their willingness to work with these
students in an inclusive setting (See an example in Appendix B). These questions were
divided into 6 groups with 10 in each related training topic. For example, the first group
of 10 questions is regarding IEPS, the second group of 10 related to laws and regulations
in the field of special education, the third group pertained to the topic of disability
categories and characteristics, the fourth group regarding the topic of instructional
adaptation, the fifth group covering the topic of inclusion practices, and the sixth group
related to collaborative instruction.

Procedures

Participants were required to complete the entire survey of 60 questions at the
beginning of the training. Then, they were invited to participate in professional
development sessions relating to laws and regulations in the area of special education,
IEPs, disability categories and characteristics, collaborative instruction, inclusion
practices, and instructional adaptation. Sessions had questions to lead participants in

discussion about their experiences and practices. Answers were then shared in a whole group, followed by further explanation in the power point presentation to explain the relevant information. Power point presentations included video segments with opportunities for participant discussion. After and during the power point presentation, participants would be able to share thoughts with others and review the topic. Meanwhile, the power point was provided as visual reference through e-mail for the participants to further understand the topic. When all topics were complete at the end of the training, participants were required to respond to the survey questions again.

Research Design

A pre and post group design was used in this study to compare teachers' opinions about inclusion and special education with a pre and post survey. All participants were required to complete the survey at the beginning and end of the training to record their responses. All responses were placed in a data file for analysis to compare their attitudes towards inclusion and teaching students with disabilities.

Data Analysis

The pre and post survey responses were compared using ANOVA analysis of the SPSS program. Descriptive data including means and standard deviations were demonstrated in a table as well as the results of ANOVA analysis.

Chapter 4

Results

All participants' responses were recorded in an Excel program based on individual ratings on the Likert Scale to each survey question. The means and standard deviations were calculated for each topic with ten questions covered in the training. For both pre and post surveys an ANOVA analysis was used to examine the difference between the pre and post survey responses. Table 2 presents the means and standard deviations.

Table 2

Means and Standard Deviations of the Pre and Post Survey Responses

Topic	Pre – Survey		Post Survey	
	Mean	SD	Mean	SD
1. IEPs	3.10	.57	3.66	.37
2. Laws and Regulations	2.98	.47	3.61	.38
3. Disabilities	2.65	.46	3.31	.57
4. Instructional Adaptation	2.92	.40	3.50	.41
5. Inclusion	3.30	.38	3.56	.42
6. Co-Teaching	3.14	.35	3.56	.45

Tables 3, 4, 5, 6 and 7 present the ANOVA analysis on survey responses to each topic respectively. There is a significant difference between the pre and post responses to each topic (Topic 1, F=15.36, p<.00; Topic 2, F = 20.76, p <.00, Topic 3, F =33.57, p <.00,

Topic 4, F = 48.13, p < .00, Topic 6, F = 9.08, p < .00), except topic 5 which is not

significant.

Table 3

Topic 1

Topic 1	Sum of Squares	Df	Mean Square	F	Sig.
Pre vs post	2.58	1	2.58	15.36	.00
	2.52	15	.16		

Table 4

Topic 2

Topic 2	Sum of Squares	Df	Mean Square	F	Sig.
Pre vs post	3.25	1	3.25	20.76	.00
	2.34	15	.15		

Table 5

Topic 3

Topic 3	Sum of Squares	Df	Mean Square	F	Sig.
Pre vs post	3.51	1	3.51	33.57	.00
	1.56	15	.10		

Table 6

Topic5

Topic 4	Sum of Squares	Df	Mean Square	F	Sig.
Pre vs post	2.70	1	2.70	48.13	.00
	.84	15	.056		

Table 7

Topic 6

Topic 6	Sum of Squares	Df	Mean Square	F	Sig.
Pre vs post	1.44	1	1.44	9.08	.00
	2.38	15	.15		

Chapter 5

Discussion

The purpose of this study was to examine the effect of in-service training on teachers' perspectives about teaching students with special needs and their special education programs. A total of 16 teachers, 9 general education and 7 special education, participated in training sessions of 6 topics. A pre and post survey was used to evaluate their opinion changes. For this study, the average score on a survey was 2.5, therefore any answers above 2.5 would be considered as an agreement with the survey statements. Results showed that all participating teachers gained scores in their post survey, and in particular, there is a significant difference between the pre and post responses to topics 1, 2, 3, 4 and 6, except topic 5 (i.e.Topic 1: F=15.36, p<.00; Topic 2: F = 20.76, p <.00;Topic 3: F =33.57, p <.00; Topic 4: F = 48.13, p < .00; Topic 6: F = 9.08, p < .00). This means that a significant change overall in the teachers' attitudes towards special education and students with disabilities after the training. These findings indicate that participants have learned to understand special education, adapting instruction, and co-teaching, and especially they learned about special education laws and regulations. The results also showed that the participants learned the information about inclusion, but their responses were not significantly different from their pre-survey. Average scores on the pre survey were already high, so on the post survey there was not much room for growth in their responses. Although 10 out of 16 participants showed increased agreement in responses to topic 5, 4 participants had lower scores and 2 participants remained the same.

Based on the survey results, it is found that after training, teachers did not significantly change their viewpoints on teaching students with special needs in an inclusive setting, though they had a positive attitude towards co-teaching. It seems that the topic of inclusion may need to be discussed further and to involve participants in teaching experiences to share with others. Overall, it is evidenced that in-service training is important to enhance teacher's learning experiences and update their knowledge. As a result, training indeed had an impact on the views of the participants.

The-findings are similar to that in the study of Kosko and Wilkins (2009). In their study, it is indicated that training has positively impacted participants' attitudes towards adapting instruction for students with special needs. The current study demonstrated the similar results and added consistent information to the teacher training and its effect. Findings in this current study are also consistent with those of Jung's study (2007). Similarly, participants rated themselves higher in being able to explain, understand, and use modified instruction in the classroom, which matched with those of Swain et al (2012) and VanWeelden and Whipple (2014) as well. Participants in this study showed an overall improved understanding of special education. It seems that teacher training is an influencing factor for teachers to become competent to teach students with special needs.

Despite the positive findings, there are some limitations in this study. The first would be the sample size of only 16 participants. Thus, the results of the participant responses might be limited. Another would be the demographic-concern. A majority of the participants already has experienced in teaching students with special needs or in inclusive settings. With a few males and no minorities participating in this survey,

gender and race are not well represented in the participant pool. Time for this research project was also a limitation. The session of each topic was short without a thorough discussion. This may lead to another limitation where research procedures are varied. For example, some participants may complete some training materials on their own by working through the power point presentations. This may impact their self-reported responses to the survey.

The findings of this study show that if teachers are required to be prepared for teaching students with special needs, they must have adequate training. Teacher training helps to improve their understanding of and attitude towards students with special needs, and special education programs. Such training also allows teachers to better understand the laws and regulations involving special education and the diverse students they teach. Therefore, school districts should offer professional development such as in-service teacher training on special education, as well as in-house virtual training such as PD360. If possible, school administrators should provide opportunities for co-teachers in inclusion settings to attend training sessions together in order to prepare paired teachers to become comfortable incorporating co-teaching models in their instruction. Teachers should also be allowed to have access to other supporting materials in school to help prepare for instructing students with special needs.

Recommendations

In the future, more time must be considered for the training to cover each topic for discussion in detail, so that participants are able to experience the training in the same way with more time for learning and sharing with each other.

Results in this study may indicate that training is integral and extremely important in ensuring teachers to be well prepared for teaching students with special needs. Training will allow teachers to become competent to provide adaptations and modifications in assignments and curriculum, and work collaboratively with their co-teachers to instruct students with and without disabilities.   In addition, training is essential as it gives teachers a better understanding of the rules and regulations in special education, and students with various disabilities. If teachers understand their students, they may become comfortable and be willing to teach students with special needs. Training, therefore, creates a way to help teachers build a positive attitude towards students with special needs and special education programs.

This study could be improved by finding the current level of knowledge of the participants, and streamlining training based on their needs and views. This way, content in topics that participants are extremely familiar with can be briefly discussed, while information participants have limited knowledge can be emphasized. For example, participants could be personalized in training sessions on particular areas.

My plan of action is to take these results to my school the administrators and request a professional development opportunity for all teachers. I would like to continue to present some training topics at a large faculty meeting as to reach more teachers regarding special education.   I believe that all students could benefit from the strategies and teaching methods currently applied in the field of special education, leading to better instruction for all students. If possible, the training materials could be posted on line for all teachers in school.

Conclusions

It has been found that teacher training ultimately has a positive impact on teachers to change their viewpoints on special education. Thus, it is imperative that teachers who instruct students with disabilities are trained so that they can become fully prepared for providing rigorous and individualized instruction to their students. As a result, it is the responsibility of school administrators to provide opportunities for teachers to obtain professional development, and to search resources available for all professionals in school to support teachers of students with disabilities.

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Appendix A

Training Materials

INCLUSION TRAINING

SESSIONS 5 and 6

FACILITATOR: Heather L. Moore

LRE – Inclusion

Can anyone recall what a LRE is for a student?

What does inclusion mean to you?

Inclusion -

- What is it?
- http://www.pbs.org/parents/education/learning-disabilities/inclusive-education/

Inclusion –

- Do you see any benefits to inclusion? What are they?

Benefits of Inclusion

- http://www.pbs.org/parents/education/learning-disabilities/inclusive-education/the-benefits-of-inclusive-education/

Making Inclusion Work

- http://www.pbs.org/parents/education/learning-disabilities/inclusive-education/making-inclusion-a-reality/

Misconceptions of Inclusion

- http://www.pbs.org/parents/education/learning-disabilities/inclusive-education/common-misconceptions-about-inclusive-education/

Inclusion

- What do you think? Discuss

Co-Teaching

- Inclusion means as a general education teacher having a special education co-teacher in the room as well.

- How is this made successful ?
http://www.nea.org/tools/6-steps-to-successful-co-teaching.html

https://www.gadoe.org/Curriculum-Instruction-and-Assessment/Special-Education-Services/Documents/Teachers%20and%20Students%20Succeed%20in%20the%20Co-Taught%20Classroom.pdf

Co-Teaching

- Discuss - How many different types of co-teaching models are there? What are they?

The Co-Teaching Models

- One Teach/One Observe
- Parallel Teaching
- Alternative Teaching
- Station Teaching
- One Teach/One Assist
- Team Teaching

Co-Teaching

- What does it look like?

- http://www.ctserc.org/initiatives/teachandlearn/coteach.shtml

- https://www.youtube.com/watch?v=TCn4qDyuZVE

Co-Teaching

- What models have you used?

- Which ones do you think are most effective? Why?

Co-Teaching Benefits

- http://www.friendshipcircle.org/blog/2013/03/25/the-benefits-of-co-teaching-for-students-with-special-needs/

Survey

Statements	Strongly Disagree 1	Disagree 2	Agree 3	Strongly Agree 4
1. I can explain what inclusion is and what it is not				
2. I can explain how inclusion works and why				
3. I believe that inclusion is beneficial for special education students				
4. I believe that inclusion is beneficial for general education students				
5. I believe that inclusion is a collaborative effort that involves not just the teachers and students, but the students' family as well				
6. I would be willing to teach inclusion classes with special education students				
7. I feel as though inclusion must make special education students a part of the learning community to work				
8. I feel as though it is the responsibility of general education teacher as well to ensure inclusion students' success				
9. It is necessary for teachers to receive training on inclusion for it to be successful and used properly				
10. Inclusion is an answer to help struggling special education students to become successful academically as well as socially				

11. I am able to effectively define co-teaching				
12. I am able to list and effectively describe the six co-teaching models				
13. I would be willing to co-teach in my classroom using the six co-teaching models				
14. I feel as though co-teaching can be beneficial to the students' academic progress				
15. I feel as though co-teaching could help me grow professionally as a teacher				
16. I believe that I can overcome obstacles that may arise while co-teaching				
17. I understand what it takes to make a co-teaching paring successful				
18. I understand how to make both co-teachers "equal" in the classroom in the eyes of the students				
19. Co-teaching overall leads to a more successful learning environment				
20. Co-teaching involves adapting or modifying materials and instruction				