5-4-1999

Comparing the stress levels of inclusion teachers and non-inclusion teachers

Michelle Lynne Robertson
Rowan University

COMPARING THE STRESS LEVELS OF INCLUSION TEACHERS AND NON-INCLUSION TEACHERS

by
Michelle Lynne Robertson

A Thesis
Submitted in partial fulfillment of the requirements of the
Master of Arts Degree
of
The Graduate School
at
Rowan University
May 4, 1999

Approved by_____

Date Approved 5-4-99

ABSTRACT

Michelle L. Robertson
Comparing the Stress Levels of Inclusion and Non-inclusion Teachers
1999
Dr. John Klanderman
Dr. Roberta Dihoff
Master of Arts in School Psychology

The purpose of this study was to determine whether or not the practice of inclusion had a significant effect on the stress levels of inclusion teachers. Forty-seven elementary school teachers were compared across various teacher demographics. The hypothesis stated that the stress levels of inclusion teachers would be higher than the stress levels of regular education teachers based on the belief that inclusion teachers have a heavier workload. In previous studies, a heavier workload has been shown to be significantly related to higher stress levels. The Occupational Stress Inventory was administered in two schools in Southern New Jersey in January 1999. Scores were statistically analyzed using one way ANOVA's and t tests. Results of this study indicated no significant differences when comparing the stress levels of inclusion teachers and non-inclusion teachers, however significant differences in stress levels were seen when teachers were compared by years of experience, age and level of education.

MINI-ABSTRACT

Michelle L. Robertson
Comparing the Stress Levels of Inclusion and Non-inclusion Teachers
1999
Dr. John Klanderman
Dr. Roberta Dihoff
Master of Arts in School Psychology

The study sought to determine if the practice of inclusion had a significant effect on the stress experienced by inclusion teachers. Results indicated that no significant differences existed when the stress levels of inclusion teachers and non-inclusion teachers was compared, however significant differences were found when teachers were compared by years of experience, age and level of education.

Acknowledgements

This author would like to acknowledge several people who made this thesis possible. First, she would like to thank the principals and teachers who willing gave their time to participate in taking the inventory. Next, she would like to acknowledge the individuals who administered the inventories in their schools, Crystal Catlett and Joan Robertson. Their efforts were very much appreciated. Third, a special thanks to the program advisors, Dr. John Klanderman and Dr. Roberta Dihoff, for making this experience as least stressful as possible. Next, the author would like to thank her sister, Lisa Bechler. Lisa was a sounding board and a source of continuous support throughout this project. She kept the author sane during the stressful times that did occur. Lastly, the author would like to express her gratitude to her husband, Brian Robertson. He is truly deserving of an "A" for his efforts to tolerate the author and her ranting and raving about the difficulties encountered throughout the past nine months. He was also discreetly absent on many weekends and evenings when she needed silence in the house. Without all of the above-mentioned people, this thesis would not have been created. The author sincerely and whole-heartedly offers her deepest thanks and appreciation.

Table of Contents

List of Tables

Chapter 1: The Problem

Introduction

Teachers. Professors. Educators. All have the busy, time consuming job of educating the youth. As with any profession, teachers may experience stress as part of their job. For instance, they may feel stress as a result of policies, procedures or politics surrounding their job. They might even feel stress about how they perform their job. Teachers have a unique way of evaluating their own job performance; they can use their student's performance as an indicator of their teaching ability. Although there are other factors that contribute to how well the students learn, more often than not, teachers are judged by how well their students perform on given tests, such as district-wide standardized testing. Teachers may feel an exceptional amount of stress due to the fact that their performance is constantly being evaluated through the abilities of their students. If teachers feel too much stress, it is conceivable that they will not be able to teacher to the best of their ability. Is this in the best interest of the children? Is this in the best interest of anyone?

The organization of a school system can be an important factor in the amount of stress a teacher experiences. For example, how children are grouped can make a difference in the ease at which a teacher instructs. The controversial issue of inclusion has been an area of dispute for at least a decade. Inclusion is the practice of including disabled children in the regular classroom for the majority of the school day so that they can receive instruction with their peers and, at the same time, receive individualized services to

meet their needs (Davis, 1998). The most basic premise behind this concept is that children learn better among their peers than when segregated from them. The earliest roots of inclusion date back to the Education for All Handicapped Children Act (P.L. 94-142, 1975). This federal law was the first to require a "free and appropriate public education" for every child between the ages of three and twenty-one years old, regardless of how serious the disability. This act required that parents are involved in all decisions regarding their child, and it mandated an Individualized Educational Program (IEP) for each disabled student. This law also defined the "least restrictive environment" as placing the student in the most normal setting possible. Over the years, this law was amended to further define age limitations, and to provide for funding for these students. In 1990, the act was re-named the Individuals with Disabilities Education Act (P.L. 101-476). This act, which provided an umbrella for all the earlier laws, replaced the word "handicapped" with the word "disabled" and hence expanded services for these students. This law also made due process available to all students. (Howell, 1999)

All students must be taught in the best possible environment, whether disabled or not. The laws requiring inclusion exist in order to provide the best possible environment for disabled students. If inclusion does indeed provide this environment, then problems shouldn't exist. However, there is a growing concern about how inclusion affects the classroom teacher. Are teachers prepared to teach both nondisabled and disabled students at the same time? How does inclusion affect the classroom environment? Are adequate resources provided to lend support to a teacher who has an inclusion class? How, overall, does inclusion affect the stress level of the teacher? This study seeks to examine this question, as well as examine other factors that may contribute to the stressful conditions

that exist. Hopefully, if school districts become more aware of how the practice of inclusion is currently affecting its' teachers, they will find ways to remedy any potentially stressful situations.

Purpose

The purpose of this study was to examine how the practice of inclusion affects the stress level of teachers. Two groups of teachers were compared: those with disabled students included in their class and those with non-disabled students only. Stress levels were measured using the Occupational Stress Inventory, Revised Edition, written by Samuel H. Osipow.

Hypothesis

In this study, it was expected that teachers with both non-disabled and disabled students in their classes (inclusion classes) would report higher stress levels than those teachers who have non-disabled students only.

Theory

It is the premise of this study that the practice of inclusion increases the amount of stress that teachers feel while performing their jobs. The validity of the practice of inclusion will not be debated, but rather the effect it has on the teachers who have inclusive classrooms. Close examination of stress theories will reveal that if the increased stress does exist, then it is possible that this may have an adverse effect on the teacher's job performance.

A person experiences stress when environmental demands are appraised and perceived as exceeding available resources and the results are undesirable physiological, psychological, behavioral and social outcomes (Salas, Driskell & Hughes, 1996). In other

words, stress is felt when high demands are placed on someone, the person feels inadequate in meeting those demands, and resulting anxiety is felt.

It seems possible that inclusion can contribute to the amount of stress a teacher feels. Consider the following example of what types of factors a teacher must consider when teaching one lesson in an inclusive classroom. Is the lesson plan adaptable for two distinct groups of students (disabled and non-disabled)? Will the teaching methods be effective for both groups? Is enough time allotted for the disabled learners to complete their work, and if not, what will the non-disabled learners do in the lag time? Are there appropriate resources available for both groups? These questions are discernible to non-educator, but for an educator, there are additional questions, which need to be answered before she can teach effectively. Is the teacher herself educated properly to teach disabled students? What is her personal attitude on "including" these students? Does she feel supported by the special education staff and administration in meeting the additional needs of these students? Pijl, Meijer, and Hegarty (1997) report "...the way in which teachers realize inclusion in the classroom largely depends on their attitude towards pupils with special needs and on resources available to them" (p. 9). Also, "...teachers are confronted with the question of how to instruct these pupils...teachers will feel the need to expand their resources; more time, materials and knowledge. The problem is that teachers may have limited access to additional resources " (p. 10). It should be apparent that a teacher in an inclusive classroom has to consider not only the day to day lesson planning, but the broader issues which personally affect how she teaches.

Through the above example, it can easily be seen that a teacher in an inclusive classroom may be likely to have a significantly heavier workload than those who teach in a

non-inclusive classroom. As will be discussed in the next chapter, studies have shown that a heavy workload can contribute to job stress. Indirectly then, inclusion could be contributing to the stress a teacher experiences. Further, job stress has been shown to disrupt task performance (Driskell, 1996). If this is the case, the question that arises is whether or not we should implement inclusion knowing that it could increase job stress and, in turn, disrupt the job performance of the teachers.

This study seeks to examine if the link between inclusion and job stress is significant. If the current implementation of inclusion is significantly increasing the stress level of our teachers, then changes must be made. Teachers will not be able to successfully "include" all children if their stress levels interfere with how well they perform their jobs.

Definitions

disabled students - any student that is classified under the Individuals with Disabilities Education Act (IDEA) (P.L. 102-119, 1991)

non-disabled students - any student who is not classified under the IDEA

inclusion – an educational approach in which children with disabilities are placed in the same programs or classrooms alongside their non-disabled peers, where they receive individualized and appropriate services (Davis, 1998)

stress – the anxiety felt when environmental demands exceed the available resources that a person has to cope with those demands (Salas, Driskell and Hughes, 1996)

Assumptions

For the purposes of this study, it has been assumed that the sample of teachers, gathered from two different school districts was a random sample. It has been assumed that the teachers represented a random sampling of position, age, level of education and

years of experience. It has also been assumed that stress was perceived and felt similarly by all of the teachers. For example, it was assumed that a significant increase in workload would cause similar stress in different teachers. Also, it has been assumed that teachers were able to differentiate between job stressors and life stressors. Further, the teachers were able to report feelings about them independently of one another when they participated in the Occupational Stress Inventory. Lastly, it was also assumed that the practice of inclusion had been implemented in a similar fashion in both schools.

Limitations

As a result of these assumptions, limitations of this study do exist. The sample was limited to southern New Jersey. This part of New Jersey may be unique in its style of teaching, its pace of life, and its attitude toward education and so, the sample should not be considered representative of all teachers. Assuming that different people perceived stress similarly is limiting in that people are individuals. Every person feels and perceives stress in a particular way. For example, an average teacher may feel that her job takes up too much of her time outside of school. She takes work home, and attends after school activities several times a week. She feels extreme stress because she does not have time for herself or her family. Another teacher spends the exact same amount of time doing work at home and attending school functions. Although she is busy, she does not feel stress from keeping this schedule. Her husband travels frequently and her children are grown, so she prefers being busy with school rather than being alone at home. The difference that exists between these two teachers is how they perceive potentially stressful job factors, like having too much to do. The first teacher is stressed because she doesn't have enough time. The second teacher isn't stressed, but might be if she had to go home

each day and be alone. The point is that job factors, and how they are perceived will cause varying amounts of stress to different people. It is a limitation to assume otherwise.

Overview

The following study is divided into several chapters. The next chapter will review the current thought and literature about inclusion and teacher stress. The design of the study will be discussed in Chapter Three. This will include discussion of the sample, the dependent and independent variables, as well as the different statistical analysis used. Also in this chapter is a description of the Occupational Stress Inventory. In Chapter Four, results of this study are reported. Finally, in Chapter 5, the author will summarize and discuss all findings of this study. She will also provide possible explanation for the results and suggest implications for future studies.

Chapter 2: The Review of Literature

Introduction

Quite a bit of literature exists in the area of stress, more specifically occupational stress. There are also many, many articles about the practice of inclusion in the public schools. This review of literature will extensively discuss the dynamics of occupational stress as well as factors that affect it. Additionally, it will highlight the most common teacher-reported factors that are associated with job stress. Next, inclusion will be discussed, in particular, how the implementation of inclusion can affect a teacher and her classroom environment. This review of literature will conclude with a glimpse towards the possible bridge that exists between teacher stress and inclusion.

Stress

In the past 15 years, there have been many empirical studies that have examined the factors that contribute to teacher stress. As defined previously, a person feels stress when demands from the environment exceed the person's available resources that allow them to cope with those demands (Salas & Driskell, 1996). Although this is an adequate definition of stress, there are several models of occupational stress that will provide a theoretical definition of "stress". Job stress is defined as a response or "strain" that is the result of an interaction between a person and his/her work environment. There are three parts to this definition, one, the work environment or the source of the stress, two, the person who brings personality, perceptions and coping resources to the situation, and three, the response or the resulting stress that is felt through physiological, psychological

and behavioral dysfunctions. Examples of work stressors could include poor working conditions, heavy workloads, and lack of resources and/or lack of decision-making ability. (Guglielmi & Tatrow, 1998).

With a working definition of stress in place, these three factors need to be examined more closely. How do the person, the work environment and the stress response interact with one another? There are two basic ways in which these three factors can interact. The first interaction, commonly referred to as the person-environment fit, (as cited in Milstein, Golaszewski & Duquette, 1984) views the stress response as a result of a mismatch or "poor fit" between the demands of the job (work environment) and the person's ability to cope with them. In this model, the reduction of job stress is accomplished not by changing the work environment, but by replacing the poorly fit person who cannot cope with the high demands. The alternate to this model is the demand-control or the job strain model. This model suggests that job stress is a result of the interaction between high demands (work environment) and low decision latitude (autonomy and control). In other words, a person experiences high stress when there are too many demands and no power to control them. In order to decrease job stress in this model, the demanding environment must change not the employee. This model tends to be the dominant theory among occupational stress theories. (Guglielmi & Tatrow, 1998)

According to Borg, Boyle, Falzon, & Baglioni (1995) stress is typically defined in terms of the interaction between the external environment, and the individual's emotional state (1995). This is similar to Guglielmi and Tatrow's three-part model. In comparing the two, the work environment parallels the external environment, the person parallels the individual's emotional state and the resulting stress parallels the interaction. Borg et al.

(1995) believes the stress response is a result of factors in the external environment including perceived work stressors, actual stressors, personality characteristics and coping mechanisms. He also holds, in agreement with the demand-control model, that it is more productive to adjust the environment, to ensure a better interaction, rather than replacing the person. (Borg et al., 1995)

In reviewing the three factors that define stress - the person, the environment and the stress reaction - an employer must decide which one of those factors is most easily changed. Obviously, changing the person or the way a person perceives stress is unrealistic, and changing the stress reaction (physiological, psychological or behavioral) is not feasible. Most logically, this leaves the employer to change the source of the stress, which is the environment. When considering teachers, a principal would need to consider changing the environmental factors that contribute to teacher stress, but what are those factors? There are easily hundreds of articles about teacher stress. Most of the factors that have been associated with causing teacher stress all revolve around the same general aspects of the occupation. These aspects include feeling unable to cope, too much work, large class size, staff relationships, classroom discipline, lack of resources, poor management, role ambiguity and conflict, lack of professional recognition, inadequate reward, and insufficient student motivation (Fimian, 1987; Pithers, 1995; Trendall, 1989; Jenkins & Calhoun, 1991; Milstein et al, 1984).

Borg et al. (1995) reported four dimensions that include all of the factors listed above. In his original study completed in 1991, seven hundred ten full-time elementary teachers completed a comprehensive survey about teacher stress, job satisfaction and career commitment. The results showed four areas of their job that contributed most to

the stress they felt. The areas they reported as being most stressful were pupil misbehavior, time/resource difficulties, professional recognition, and poor relationships. Test items in the dimension of pupil misbehavior included stressors such as noisy students, difficult class, maintenance of discipline, and large class size. Time/resource difficulties included lack of sufficient time for individual instruction, and shortage of both equipment and resources. Professional recognition items included poor advancement opportunities, inadequate salary, and lack of recognition for doing a good job. Poor relationship items described how peer relationships were perceived. In 1995, Borg et al completed further statistical testing on the original sample and found a fifth dimension, workload, which was also a perceived cause of teacher stress. Further, workload (too much work) and the previously reported pupil misbehavior were the only two dimensions that had a significant relationship to teacher stress. Although all five areas contributed to the stress teachers felt, workload and pupil misbehavior were the only significant predictors of it.

The results of the above study echo earlier results found by another researcher. This particular study utilized three different questionnaire scales, interviews and case studies to examine teacher stress and its relation to teacher effectiveness. Then, all the results were compared across mainstream and regular education teachers. Subjects included a total of two hundred thirty-seven teachers, but lesser numbers participated in the interview (n=70) and case studies (n=30). Despite the complexity of the research, the top four stressors chosen from a list of twenty were lack of time, large class size, teaching workload and pupil misbehavior. (Trendall, 1989)

In related studies, Jenkins and Calhoun (1991) examined teacher stress and ways to manage it. One hundred twenty-four female teachers in Georgia reported that the top

three causes of stress at work included overload (67% of respondents), pressure as defined by demands on time (65%) and inadequate reward (53%). In an Illinois study, the stressors with the highest means on a sixty-six item stress test were disruptive students, inadequate salary, lack of time to provide individual attention, lack of planning and preparation time, and student attitude (Montalvo, Bair, & Boor, 1995).

Throughout these studies it can be seen that workload, pupil misbehavior/discipline and lack of (or demand on) time each significantly contributed to the stress teachers felt in their jobs. It remains to be seen what the experts think. In a 1987 study, an expert was defined as "...one who was knowledgeable about teacher stress and burnout; each had either: (a) authored one or more stress articles, monographs, or books, (b) conducted quantitative, qualitative, and/or combination stress research, and/or (c) conducted stress management workshops for practitioner." (Fimian, 1987) These two hundred twenty-six experts in the field were surveyed to determine the relevance of forty-nine items to the overall concept of teacher stress. This study was completed to aid its author in the design of a teacher stress test. In the opinion of the experts, "feeling unable to cope [with demands]" was the most relevant item to teacher stress. Other factors that ranked in the top twenty as causing the most stress were too much work (13th), and large class size (14th). Lack of preparation time was ranked twenty-ninth out of forty-nine items. Although the expert rankings for some of the items were lower, all forty-nine items were considered relevant or very relevant and were retained in the stress inventory. (Fimian, 1987)

It seems noteworthy that agreement exists between the experts and the teachers; workload, insufficient time and pupil misbehavior all appear to significantly contribute to

the stress teachers experience. The question that now needs to be examined is what are some of the effects of inclusion? Does inclusion contribute significantly to any of the areas that cause teacher stress? The following section will review the literature about attitudes and beliefs surrounding inclusion, as well as some of its effects on the classroom environment.

Inclusion

To reiterate the previous definition, inclusion is the implementation of a program where all students, whether disabled or not, are educated in a regular education classroom by a regular education teacher (Davis, 1998). The are various definitions of inclusion that exist simply to clarify what type of in-class support, if any, the teacher will receive. (Jobe, Rust & Brissie, 1996)

Pearman, Huang and Mellblom (1997) designed a study to investigate educator's concerns and incentives when confronted with the task of providing an inclusive education. Two hundred seventy-six participants completed a questionnaire that included items about time issues, training, evaluating work, and maintaining discipline in an inclusive classroom. Results show that the areas of concern were as follows. The area of most concern was lack of time to meet the needs of all the students and lack of planing time for lessons (92%). This was followed by concerns about the lack of ongoing training and assistance while teaching inclusive students (88%). The next strongest concern was that teachers felt inadequately trained (pre-service) to teach disabled students (85%), and closely related was the concern that they would not be able to individualize their lessons to include the disabled students (78%). The last concern that many of the teachers felt was the amount of time that would be needed for additional paper work (74%). The pressing

needs reported by these teachers were for reduced class sizes, more support staff, and more time to work with the special education teachers in lesson planning. (Pearman et al, 1997)

In another study, three hundred forty-two teachers participated in a survey about their attitudes on inclusion. It was hypothesized that teacher training, in-school services and additional resources would be associated with a more positive attitude toward inclusion. The results showed that seventy-five percent of the teachers felt that regular education teachers did not have the training for inclusion to succeed, and seventy-two percent felt that it would not succeed because of teacher resistance. Fifty-seven percent of the teachers felt resources were not available for a successful inclusion program. (Monahan, Marino & Miller, 1996)

In yet another study, a national sample of one hundred sixty-two teachers volunteered across forty-four states to take a survey about teacher attitudes on inclusion. The survey included items that covered four broad areas: the benefits of inclusion, inclusion classroom management, perceived ability to teach students with disabilities and special education vs. inclusion general education. The results, although moderate, indicated that inclusion in-service training would have a significant impact on attitudes in the areas of the benefits of inclusion and classroom management. Special education teachers had moderately more positive attitudes toward inclusion. Also, handwritten notes on the sides of the survey indicated that teacher attitudes would be affected by how severely disabled the students were. (Jobe, Rust, & Brissie, 1996) Even though the results only indicated moderate significance, it can be reported that additional training would be likely to improve teacher attitudes when considering inclusion.

In reviewing the studies, it can be concluded that teachers are concerned in several main areas. These areas of concern are a lack of time for both preparation and individualized attention, a lack of resources and support services (human), an inability to maintain classroom management, and an inability to teach effectively due to inadequate, pre-service training. It is noteworthy that three of these areas of concern - lack of time, lack of resources and classroom management parallel the factors that are thought to cause teacher stress – demands on time, workload, and pupil misbehavior. Specifically, demands on time parallel lack of time, workload parallels lack of resources in that if a teacher does not have the needed resources, she will have to increase her own workload, and classroom management parallels pupil misbehavior. This is an interesting link because the very factors that are thought to cause teacher stress appear to be the same factors that teachers are concerned about when anticipating inclusion. This, in itself should be a warning to administrators and teachers, alike. These issues must be addressed and resolved if inclusion is to succeed. Teachers must feel capable of coping with the additional responsibilities that inclusion brings, if they are to continue teaching to the best of their ability. This review of literature will conclude with what should realistically occur in an inclusive program in order to maintain a productive classroom environment.

Summary and Conclusions

A closer look at what an inclusive classroom entails will illustrate the amount of time and energy a teacher must expend to continue performing her job effectively. Kauffman, Lloyd, Baker & Riedel (1995) report on what an effective special education program should include. A teacher in an inclusive classroom must consider the following items for her disabled students while at the same time attending to the needs of her non-

disabled students. First, all interventions should be systematic and data based, and there should be continuous assessment and monitoring of progress. The educational plan should be matched carefully and specifically to the nature and severity of the disability while a multi-component treatment or a team approach should exist. There should be provisions for frequent and guided practice of academic and social skills, and a program for transference and generalization will help ensure that skills learned can be carried outside of the school. Finally, the teacher should display a commitment to sustained intervention. Realistically, one can see that in order to implement all of these items for each disabled child in the room, a considerable amount of work is involved.

An overwhelming feeling is certain to exist for any teacher facing an inclusive classroom. Further, it can easily be seen that additional work should be assumed. This may lead to decreased time to prepare. A lack of time for each student should be expected when individualized attention will have to be given to those who need it most. Classroom management will definitely become an issue if the teacher's attention is divided as such. The lack of resources is already a well-documented problem in both public and special education schools, so one can reasonable anticipate a lack adequate resources in inclusive classrooms. Lastly, and most importantly, teachers are expected to know how to implement all these tasks, regardless of their training.

The above description is extreme, but not so extreme that it is unrealistic. Inclusion is reality. Its basic premise is a fair one - to provide a free and appropriate education to disabled students in the least restrictive environment. The struggle that exists has been in the interpretation of this federal law. "Inclusion is not trying to fit students with special needs into the mainstream; instead it means creating a mainstream where everyone fits",

and undoubtedly, "...providing a comfortable fit for the student with a disability is a challenge to everyone involved". (as cited in Strosnider, Lyon & Gartland, p. 220, 1997) Unfortunately, as superintendents, principals and teachers alike struggle to implement an inclusive program in their schools, teachers seem to be feeling a disproportionate amount of the stress involved. The following study seeks to confirm what appears to be supported by the literature, and what seems to be obvious - inclusion, as it is currently being implemented, increases the workload of a teacher, which in turn significantly increases the amount of stress a teacher experiences.

Chapter 3: Design of the Study

Sample

The sample of teachers obtained for this study was chosen primarily for convenience and accessibility. This sample was assumed to be both representative and random. Originally, the author hoped to include teachers from three different schools, however, one of the principals declined the participation of his teachers, due to the focus on stress. He preferred to focus on the positive aspects of the profession and hence, decided not to participate. As a result, only two schools were utilized for participation in this study. All the teachers were employed at either Hillside Elementary in Mount Laurel, or Merchantville Elementary in Merchantville. Both of the schools were located in a suburban area, within twenty-five miles of the nearest metropolitan area. The author was previously employed at Hillside Elementary, and she had familial connections with a teacher at Merchantville Elementary. Seventy-eight teachers were asked to participate in this study, with forty-seven of the stress inventories being returned (n=47). In addition to the survey, the participants were asked to complete a demographics information sheet. (Appendix A) This sheet was utilized to categorize the teachers in five different areas: gender, age, teaching experience, education level and position held. Unfortunately, eighty-five percent (n=40) of the teachers were female. Since there were so many female teachers in the sample, gender was not used as a comparative factor when completing the analysis of the results. Table 3.1 shows that thirty eight percent (n=18) of the teachers were between forty and fifty years old, and another thirty eight percent (n=18) were

between fifty and sixty. Therefore, the vast majority, seventy six percent of teachers in this study were above the age of forty. Only seven percent (n=3) of teachers who participated were between twenty and thirty years old.

Table 3.1: Percent of Sample in Each Age category

Age	*Sample Size*	*Percent*
20-30 years	N=3	7%
30-40 years	N=8	17%
40-50 years	N=18	38%
50-60 years	N=18	38%
60 years +	N=0	0%

In the area of experience, forty-five percent (n=21) had over twenty years of experience. Table 3.3 shows that another nineteen percent (n=9) had between fifteen and twenty years of experience. So, the majority of teachers (64%) in this category had over fifteen years of experience (n=30).

Table 3.2: Percent of Sample in each Experience category

Yrs. of Experience	*Sample Size*	*Percent*
0-5 years	N=6	13%
5-10 years	N=2	14%
10-15 years	N=9	19%
15-20 years	N=9	19%
More than 20 years	N=21	45%

In the category of education, forty percent (n=19) of the teachers had attained a bachelor's degree only, while thirty-four percent (n=16) had an advanced degree

(master's or beyond). The remaining twenty six percent (n=12) were considered to have an "other" level of education and included teachers who had a bachelor's degree and then had some credits towards a master's or second certification. (Table 3.3)

Table 3.3: Percent of Sample in each Education category

Education	*Sample Size*	*Percent*
Bachelor's Degree	N=19	40%
Advanced Degree	N=16	34%
Other Degree	N=12	26%

Finally, Table 3.4 shows the percentages for each position held. Thirty-four percent (n=16) of the teachers taught regular education, while thirty two percent (n=15) taught in inclusive classrooms.

Table 3.4: Percent of Sample in each Position category

Position	*Sample Size*	*Percent*
Regular Education	N=16	34%
Inclusion	N=15	32%
Special Education	N=7	15%
Specialist	N=9	19%

Measures

The instrument used for this study was the Occupational Stress Inventory Revised Edition (Osipow, 1998). This instrument measures three dimensions of occupational adjustment. The three adjustment dimensions are occupational stress (stress-inducing work roles), psychological strain (vocational, psychological, interpersonal or physical responses) and coping resources. Osipow and Spokane developed the original version in

1981 and it had two main purposes. The first purpose was to develop measures that would apply across many occupations, and the second was to develop a measurable link between sources of job stress, the actual stress felt and the coping resources in an individual. According to the authors, the stress inventory can be used as a screening instrument to identify persons under high stress as a result of their job. Specific to the present study, the instrument was used to identify teachers under high stress, and identify possible sources of the stress. Only one dimension of this inventory was used in this study, the occupational stress dimension. The reason the other dimensions were not included is because these portions of the inventory do not examine causes of stress, rather they look at manifestations of the stress, and how capable one is in handling stress.

The occupational stress dimension consisted of six scales, collectively called the Occupational Roles Questionnaire. The six scales are Role Overload (RO), Role Insufficiency (RI), Role Ambiguity (RA), Role Boundary (RB), Responsibility (R), and Physical Environment (PE). Each of the six sections contained ten statements that were rated through the use of a Likert scale where 1 = rarely or never true and 5 = most of the time. The Role Overload scale consisted of items that measure the extent to which job demands exceeded that person's resources and the extent to which the workload was accomplished. Role Insufficiency items measured the extent to which the person's training, education, skills and experience were appropriate to the job requirements. The scale about Role Ambiguity revealed the extent to which job priorities and expectations were clear to the individual. Role Boundary items examined the extent to which the individual was experiencing conflicting role demands and loyalty while the Responsibility scale examined to what extent the person felt a great amount of

responsibility for the welfare of co-workers. Finally, the extent to which the individual was exposed to extreme or unpleasant aspects of the environment was examined in the Physical Environment scale.

The Occupational Stress Inventory was normed from a sample of nine hundred eighty-three participants. The participants had a mean age of 36.3 years, and sixty-three percent were male. Eighty-five percent of the sample was Caucasion with the other fifteen percent was African American, Hispanic, Asian and Native American. Thirteen percent had a college degree, and twenty seven percent had an advanced degree (master's or beyond). Occupations included a full range of professions; unfortunately, no teachers were part of the norm-referenced sample.

Many statistical tests were used to validate the revised version of the OSI-R. Two different reliability estimates were reported. The test-retest method was used on sixty-two airforce cadets to measure the correlation between the total questionnaire score and the fourteen individual scales (this includes the two dimensions not utilized for the present study). Results ranged from low (.39) to high (.74). All the correlations found were significant at the .01 level. An internal consistency analysis was run to determine if the actual questions were reliable as opposed to the individual scales. The alpha coefficient for the total questionnaire scores were .88 for the occupational roles section, .93 for the personal strain dimension and .89 for the coping resources dimension. These coefficients are similar to the original version of the Occupational Stress Inventory, and therefore considered reliable. Validity testing was completed by forty-five highway cadets using both the original and the revised version of the inventory. The resulting correlation coefficients were all .63 or greater and were all statistically significant. Due to the high

correlation between the two versions, validity of the original version can be generalized to the revised edition. Other statistical testing included factor analysis, and convergent validity studies. Throughout the other testing, the OSI-R showed moderate to high validity.

Scores on this survey could range from a converted *t* score of twenty to eighty. *T* scores below forty showed an absence of stress, scores between forty and fifty were considered in the normal range, scores between sixty and sixty-nine showed mild levels of stress which could be considered maladaptive, and scores that were at or above seventy were considered to show a strong probability of maladaptive stress. (Osipow, 1998) Table 3.5 shows the range of stress level scores for the sample of teachers who participated in this study. See Appendix B for all converted *t* scores.

Table3.5: Ranges and Means of Stress Scores on the OSI-R

Stress Measure	*T score ranges*	*Mean*
Role Overload	41-77	58.40
Role Insufficiency	31-61	42.70
Role Ambiguity	33-68	48.94
Role Boundary	33-79	47.26
Responsibility	30-70	50.26
Physical Environment	37-73	53.28

Design

Prior to administering the stress inventory in either school, a letter was sent to the principal requesting permission to survey the faculty. The author followed up with a

phone call approximately one week after the letter was sent to make direct contact and obtain verbal permission. During this conversation, a date was set for the stress inventory to be administered during a faculty meeting. At Hillside Elementary, a previous coworker and friend of the author administered the inventory. At Merchantville Elementary, a family member of the author, who was employed at that school, administered the inventory.

The actual administration took place in each school within a week of each other during the month of January. The stress inventory was presented as simply that – a survey measuring the stress each teacher felt in her occupation. Attached to the inventory were the demographics sheet, instructions and a scoring sheet. After completing the inventory, it was returned to the person administering the test. All the completed inventories were returned to the author within one week of the administration.

In this study, the independent variable was the presence of any inclusion students in the classroom. The dependent variable was the score obtained from the inventory. Although not a hypothesis of this study, trends were explored when comparing age, education level and teaching experience across the various stress scores. The data was analyzed using parametric statistics, specifically, one way ANOVA's and *t* tests.

Testable Hypothesis

Using the work-related experiences of forty-seven teachers in Southern New Jersey, statistical testing was completed to determine if inclusion increased the stress levels of teachers. More specifically, this study sought to reject the null hypothesis, which stated that there was no significant difference in the amount of stress experienced by teachers of inclusion students when compared to those teachers without inclusion

students. Instead, the hope was to accept the alternate hypothesis, which stated that there was a significantly higher level of stress experienced by teachers of inclusion students when compared to teachers without inclusion students.

Summary

This study utilized a random sampling of teachers, the Occupational Stress Inventory and statistical analysis to test the hypothesis being studied. The participants were surveyed, the tests were scored and statistical tests were completed. Were inclusion teachers more stressed than regular education teachers? If so, what factors contributed to the stress they experienced? In Chapter 4, the results of the study will be reported and any significant interactions between age, experience or education level and scores on the inventory will be discussed.

Chapter 4: Analysis of Results

This study hypothesized that teachers with inclusion students feel significantly more stress than teachers who have no inclusion students in their classroom. The hypothesis is based on the belief that teachers with inclusion students have a heavier workload than those without, and a heavier workload has been shown to be significantly related to higher levels of job stress.

Analysis of Results

As mentioned previously, the Occupational Stress Inventory measured six areas of job stress. The area of Role Overload measured stress that resulted from the extent to which job demands exceeded resources and the extent to which the workload was accomplished. This particular section of the inventory was most closely linked to the hypothesis itself, in that stress resulting from a heavy workload would be measured in this area. For this reason, significant interactions between the Role Overload score and the teacher's position (regular education, inclusion, special education or specialist teacher) became a primary indicator of whether or not the hypothesis was supported. Statistical analysis was completed to compare the stress reported by regular education teachers versus the stress reported by inclusion teachers in the area of Role Overload. The results of this *t* test produced no significant results. Inclusion teachers did not report significantly higher levels of Role Overload stress when compared to regular education teachers. Additionally, results of a one way ANOVA showed no significant results when inclusion teachers were compared to the other three positions. The teachers in the various

positions did not report significantly different amounts of stress in any of the six areas measured by the stress inventory. Specific to the hypothesis, inclusion teachers did not report higher levels of stress in Role Insufficiency, Role Ambiguity, Role Boundary, Responsibility, Physical Environment or Role Overload as measured by this inventory. Thus, this study failed to reject the null hypothesis.

Teachers were also categorized by years of experience, age and level of education. Additional statistical testing was completed to explore for any significant interactions between these groupings and the stress inventory scores. One way ANOVA's were completed to compare each of the three categories across the various test scores. There were several significant results.

When years of experience was compared across the six different test scores, a significant interaction was revealed between Role Ambiguity and years teaching; teachers with a different amounts of experience did report significantly different amounts of stress. $F(4,42) = 2.69$, $p<.05$. The *t* tests revealed that teachers with twenty or more years of experience felt significantly higher stress in Role Ambiguity stress when compared to those with between fifteen and twenty years of experience, $t(28) = 2.69$, $p<.05$.

Table 4.1 Mean Scores on Role Ambiguity as compared by Years Teaching

Years Teaching	*Mean RA Score*	*Std. Deviation*
0-5 years	43.33	12.27
5-10 years	52.00	0.00
10-15 years	48.11	5.78
15-20 years	43.67*	6.22
20 or more years	52.86*	9.32

* denotes scores were significantly different at the .05 level

When compared by age, one way ANOVA results showed no significant differences across any of the test scores, however *t* tests results did. *T* tests revealed that those who were twenty to thirty years old felt significantly less stress than forty to fifty years old, when compared by scores in Role Overload, $t(19) = 2.75$, $p<.05$. Significance was shown again when those twenty to thirty years old were compared to those fifty to sixty years old, also in Role Overload, $t(19) = 2.55$, $p<.05$. In other words, younger teachers felt significantly less stress in the area of Role Overload when compared to teachers who were forty years and older. It should be noted that the sample size of twenty to thirty years was extremely small (n=3), while those in the forty to fifty years old and the fifty to sixty years old (n=18 for each) were much larger. For this reason, the data did not reach a level of significance in the ANOVA, and it should be tested further for more reliable results. However, in support of the significant *t* test results, a correlation did reveal that age and Role Overload were significantly related, $r=.29$, $p<05$, indicating that as a teacher gets older, it is possible to state that she is likely to feel more stress in the area of Role Overload.

Table 4.2 Mean scores on Role Overload as compared by age

Age	*Mean RO Score*	*Std. Deviation*
20-30 years old	46.67 [1,2]	8.96
30-40 years old	58.13	8.32
40-50 years old	59.00 [1]	6.95
50-60 years old	59.89 [2]	8.22
More than 60 years	58.40	8.18

[1,2] denotes scores that were significantly different at the .05 level

Lastly, level of education was considered when comparing stress scores. An ANOVA showed significant interactions in two areas. Level of education was significantly related to the stress measured in the area of Responsibility, $F(2,44) = 3.69$, $p<.05$ and in the area of Role Overload, $F(2,44) = 5.49$, $p<.01$. Further statistical testing showed those with a bachelor's degree felt significantly less stress in Role Overload than those who were in the "other" category, $t(29) = 2.44$, $p<.05$. Similarly, those in the advanced category also felt significantly less stress than those in the "other" category, $t(26) = 3.37$, $p<.01$. Correlations revealed a significant interaction between education and Role Overload, $r=31$, $p<.05$. In this particular instance, the "other" category was statistically defined by the highest numerical value (bachelor's = 1, advanced = 2, other = 3), so the correlation can be interpreted as showing that the closer a teacher was to a value of three, the higher the stress level reported in Role Overload.

Table 4.3 Mean scores on Role Overload as compared by level of education

Level of Education	*Mean RO Score*	*Std. Deviation*
Bachelor's Degree	57.21[1]	8.04
Advanced Degree	55.31[2]	6.32
Other Degree	64.42 [1, 2]	7.97

[1] denotes scores that were significantly different at the .05 level
[2] denotes scores that were significantly different at the .01 level

Summary

In summary, although inclusion teachers did not feel significantly more stress than the other teachers, some significant differences were seen when comparing teachers by age, experience and education level. These types of results have been supported in the review of literature. More experienced teachers felt significantly more stress in the area of Role Ambiguity. These results show that with more experience, the teachers felt more

stressed about their roles and what was expected of them. They may have felt that their position was not as clearly defined, and the priorities may have been less clear to them.

Similarly, older teachers (40-60 years old) felt more stress in Role Overload when compared to younger teachers (20-30 years old). These results need to be interpreted with caution due to the fact that the *t* tests revealed significance, while the ANOVA did not. Since the sample size of the younger teachers was inadequate, and a strong statement of significance is not possible. A correlation between age and Role Overload was significant, but only mildly so. Since two of the statistical tests were significant, it does seem to indicate that there was a significant link between the two, but these results should be tested further with a more appropriate sample size.

Perhaps in the most interesting results, it was seen that teachers who were in the "other" category of education were significantly more stressed in Role Overload than those who had either a bachelor's, or an advanced degree. These results will be discussed further in Chapter Five.

In conclusion, age and level of education emerged as the two factors that contributed to the amount of stress reported in Role Overload, while years of experience seemed to contribute to the Role Ambiguity stress. These results will be discussed further in the next chapter, along with possible reasons for the given results and areas for modifications. The author will also discuss suggested areas of further study.

Chapter 5: Summary and Conclusions

The stress levels of forty-seven elementary school teachers were compared across various teacher demographics in this study. The hypothesis stated that the stress level of inclusion teachers would be higher than the stress level of regular education teachers, based on the belief that inclusion teachers have a heavier workload, and therefore higher stress levels. The Occupational Stress Inventory was administered in two schools in Southern New Jersey, in the month of January, shortly after winter break. This self-report survey measured six different areas of job stress. These areas were Role Overload, Role Ambiguity, Role Boundary, Responsibility, Role Insufficiency and Physical Environment. Results were statistically analyzed for any significant differences in reported levels of stress. For purposes of analysis, teachers were grouped into four different categories. One category was for the sole purpose of testing the hypothesis, the other three categories were utilized to examine for trends among the teacher's stress levels. The four categories were position held, years of experience, age and level of education; gender was not included because there was an inadequate number of males in the sample. Results of this study indicated no significant differences when comparing teachers by position held; inclusion teachers did not report significantly higher levels of stress when compared to regular education teachers in any of the six areas measured by the inventory. Thus, this study failed to reject the null hypothesis. However, significant results were revealed in each of the other three categories. In years of experience, teachers with twenty or more years of experience reported significantly higher levels of

Role Ambiguity stress when compared to those with fifteen to twenty years. When compared by age, twenty to thirty year olds felt significantly less Role Overload stress than those above the age of forty. Finally, teachers who were in between levels of education reported significantly higher Role Overload stress than those with either bachelor's or advanced degrees.

Discussion

Although the inclusion teachers did not report significantly higher levels of stress than the other teachers did, there may be possible reasons as to why these results were obtained. To begin with, the sample consisted heavily of older, more experienced teachers. Seventy-six percent of the teachers were forty years or older, and forty-five percent had twenty or more years of experience. It is possible that this may have biased the obtained results. It could be stated that since older teachers tend to have more years of experience, they have probably been exposed to a wider range of learning abilities in the many children they have taught. Hence, these teachers may be better able to cope with teaching two distinct levels of students, as is required in an inclusive classroom. The inclusion of disabled students may not increase their workload as dramatically as was anticipated.

Another possible factor that may have influenced these results is that the inventory may not have tapped into stressful factors related to teaching, specifically. This inventory was applicable to many, many different occupations, so matters concerning teaching were not directly addressed. Also, the teaching profession was not part of the norm-referenced sample for this inventory. As a result, it is unclear to the author whether or not teacher stress was measured as accurately as it could have been in this inventory.

There are two other factors that may have contributed to the results of this study. Besides using a sample that consisted heavily of older and more experienced teachers, it was a small sample as well. Future studies should utilize a much larger sample. Also, the timing of the inventory could have been a factor. The administration of the inventory was shortly after the winter break. This time was chosen intentionally, in the hopes that the teachers would be feeling relaxed and willing to participate. It was feared that had the author given the inventory during a more stressful time, there would have been a much poorer response. Frankly, the teachers surveyed may not have been stressed enough when the survey was given, and as a result, the resulting stress scores may not have been accurate.

So, for the variety of reasons listed above, it is possible that the results would have been different had the above-mentioned reasons been taken into account. It is feasible that the null hypothesis could not be rejected largely because of these factors.

As mentioned previously, the teachers were grouped into categories beyond the hypothesis of this study, in order to examine any significant trends when comparing teachers by years of experience, age and level of education. When grouped by years of experience, teachers who had twenty or more years on the job felt more Role Ambiguity stress than those who had between fifteen and twenty years. The area of Role Ambiguity measured how well the teachers understood their role as a teacher, what the priorities of the job were, and what was expected of them. A possible explanation for the difference in stress levels could be related to how the teachers were feeling about their jobs at that point in their careers. For example, a teacher who has between fifteen and twenty years of experience may be confident and secure in both her teaching abilities and her place in the

school while a teacher with twenty or more years is not as confident. It might be that the older teacher is at a point where she is questioning her own purpose as a teacher, and she is feeling less secure about her methods and techniques. Also, as teacher becomes older, it is conceivable that she could begin taking note of the younger teachers that are coming into the school with new ideas, and as a result, she may feel inadequate in her position and less confident. These types of esteem issues could be more related to her life in general, but extend into her professional life as well. Further, anyone in any job for twenty years or more may begin to have doubts and feelings of insecurity in respect to age, especially in our society. All of these issues could be possible explanations for the higher level of stress reported in Role Ambiguity by the older teachers.

Although the next set of results need to be interpreted with caution, there was some evidence that teachers older than forty experienced significantly more stress in Role Overload when compared to teachers who were twenty to thirty years old. These results could be closely linked to the significant results found between years of experience and Role Ambiguity. The link between years of experience and age is obvious – as a teacher gains experience in years, she is also aging in years. It seems to then follow that the issues that face teachers with more years of experience could be similar to the issues that are faced by older teachers. That is to say, that a teacher who is fifty to sixty years old may be facing similar issues to a teacher who has twenty plus years of teaching experience. An older teacher, like a more experienced teacher, may feel inadequate when comparing her abilities to teachers who are significantly younger. She may also begin questioning her ultimate career path. She might begin thinking about whether or not being a classroom teacher is all she wants. She could even start considering alternatives

to teaching such as administrative positions. It is possible that this may cause her job duties to weigh more heavily on her, and she may feel less able to meet the demands of her job. This might affect the amount of stress she feels in the area of Role Overload. This could be why the older teachers reported significantly more stress in this area.

The last set of significant results was seen when the teachers were compared by levels of education. Teachers in the "other" category of education (in between levels of education) reported higher stress in Role Overload than either those with a bachelor's or an advanced degree. At first glance, these results were surprising to the author because it was believed that the more educated a teacher was, the better she would be at handling stressful situations. This belief was held because obtaining an advanced degree is a demanding and stressful goal, especially when the teacher might already be employed full-time. If a teacher is capable of performing her job satisfactorily and pursuing an advanced degree at the same time, it was assumed she would be better able to handle a heavier workload. Contrarily, a teacher with just a bachelor's degree would not be as able to handle a heavier workload because she would not be used to that type of demanding time schedule. It was assumed that the teacher with a bachelor's degree only would feel more stress in the area of Role Overload, when compared with the other levels of education. However, this was not the case. The results indicated that those with an "other" level of education were significantly more stressed in the area of Role Overload than both those with a bachelor's or an advanced degree. These results clearly contradict that those with a bachelor's degree will feel the most stress. However, based on these results, and the other significant results found in this study, it now seems clear that a possible reason as to why the "other" category of teachers may have been more stressed

was due to the fact that they simply had more to do. It seems feasible to say that since they had more demands on their time, they felt more stress in the area of Role Overload. Incidentally, the teachers in the advanced category did have significantly less stress than those in the "other" category, but it appears that these results are related to demands on time versus a higher level of education. This is supported by the fact that teachers with a bachelor's degree did not differ significantly from those with an advanced degree on any of the stress scores.

Conclusion

In reviewing all of the results, two dimensions seemed to be related to the amount of stress the teachers reported - Role Overload and Role Ambiguity. These dimensions measured the extent to which a teacher felt she was meeting the demands of her job, and the extent to which the teacher understood the expectations and priorities of her job. Taken together, it seems that the factors that contributed most to the stress reported in this study were demands on time, heavy workload (both Role Overload), and unclear expectations or priorities of the job (Role Ambiguity).

Since heavy workload was shown to be a factor related to higher stress, it still seems reasonable to state that inclusion teachers could have higher stress levels. Although this study did not show evidence of this link, the author feels that these results are due to flaws of the study.

Incidentally, this author is not opposed to inclusion. She feels that inclusion is an appropriate choice for the majority of higher functioning disabled students. However, she does object to the way that inclusion is currently being implemented in many schools. In her experience, regular education teachers are being assigned many disabled students

with virtually no additional resources, either human or otherwise. Many times, these teachers are left to wade through the waters of "including" all students with very little added support through the special education professionals, additional training or additional materials. It seems highly likely that including all students, without extra support, does increase the workload of the teachers and that this workload could significantly increase the stress the teacher feels. Relatively speaking, inclusion is still in its infancy, and future ramifications have not yet been seen. Further research must be completed; it is in the best interest of both the students and the teachers that inclusion be implemented fairly and appropriately in all schools.

Implications for Further Research

The author has several specific suggestions for future studies. A large, random sample is imperative. Both genders, as well as all age ranges and experience levels, should be represented adequately. Ideally, a stress inventory designed specifically for teachers should be utilized. And perhaps the stress inventory could be administered more than once throughout the year so that more accurate results could be obtained. This study only focused on elementary education, but all education levels should be included. Although only a minor issue in this study, the districts that are used should have a clearly stated plan as to how inclusion is being implemented in their district, and what types of resources the students and teachers are receiving. This would be an important issue when using many districts, across a large area, because the practice of inclusion varies widely in different parts of the country. Also, teacher certification may be factor. Newer trends in education are requiring prospective teachers to become dually certified in both special education and regular education. This is likely to be in response to the federal mandates

for inclusion. The above lists only some of the areas of improvement for this study. It is the hope of the author that future, more expansive studies about inclusion yield the same result; inclusion is working for both the students and the teachers. However, if this is not the case, it is hoped that the implementation of inclusion be improved upon so that the teachers and students alike are receiving the benefits of this well-intentioned practice.

Reference List

Boyle, G. J., Borg, M. G., Falzon, J. M., & Baglioni, A. J. (1995). A structural model of the dimensions of teacher stress. British Journal of Educational Psychology, 65. 49-67.

Bullough, R. V., & Baughman, K. (1995). Inclusion: a view from inside the classroom. Journal of Teacher Education, 46. 85-93.

Davis, M. D., & Kilgo, J. L. (1998). Young Children with Special Needs: A Developmentally Apppropriate Approach. Boston: Allyn & Bacon.

Driskell, J. E., & Salas, E. (Eds). (1996). Stress and Human Performance. Mahwah, NJ: Lawrence Erlbaum Associates.

Fimian, M. J. (1987). Teacher stress: an expert appraisal. Psychology in Schools, 24. 5-14.

Guglielmi, R. S., & Tatrow, K. (1998). Occupational stress, burnout, and health in teachers: a methodological and theoretical analysis. Review of Educational Research, 68(1). 61-99.

Havey, J. M. (1998). Inclusion, the law, and placement decisions: implications for school psychologists. Psychology in Schools, 35. 145-152.

Howell, A. (1999). *Law and the exceptional student*. American Psychological Association, Retrieved April 8, 1999 from the World Wide Web: http://www.apa.org/journals/webref.html

Jenkins, S., & Calhoun, J. F. (1991). Teacher stress: issues and intervention. Psychology in Schools, 28. 60-69.

Jobe, D., Rust, J. O., & Brissie, J. (1996). Teacher attitudes toward inclusion of students with disabilities into regular classrooms. Education, 117(1). 148-153.

Kauffman, J. M., Lloyd, J. W., Baker, J., & Riedel, T. M. (1995, March). Inclusion of all students with emotional disorders? Let's think again. Phi Delta Kappan, pp.542-546.

Lombardi, J. D. (1995, January/February). Do you have teacher burnout? Instructor, pp. 64-65.

Long, L. J. (1998, May). Less stress in schools. Education Digest, pp.37-38.

Milstein, M. M., Golaszewski, T. J., & Duquette, R. D. (1984). Organizationally based stress: what bothers teachers. Journal of Educational Research, 77. 293-297.

Monahan, R. G., Marino, S. B., & Miller, R. (1996). Teacher attitudes toward inclusion: implications for teacher education in Schools 2000. Education, 117(2). 316-320.

Osipow, S. H., (1998). Occupational Stress Inventory Revised Edition (OSI-R) Professional Manuel. Odessa, FL: Psychological Assessment Resources, Inc..

Pearman, E. L., Huang, A. M., & Mellblom, C. I. (1997). The inclusion of all students: concerns and incentives of educators. Education and Training in Mental Retardation and Developmental Disabilities, 32(1). 11-20.

Pijl, S. J., Meijer, J. W., & Hegarty, S. (Eds). (1997). Inclusive Education: A Global Agenda. London: Routledge.

Pithers, R. T. (1995). Teacher stress research: problems and progress. British Journal of Educational Psychology, 65. 387-392.

Strosnider, R., Lyon, C., & Gartland, D. (1997). Including students with disabilities into the regular classroom. Education, 117. 611-617.

Trendall, C. (1989). Stress in teaching and teacher effectiveness: a study of teachers across mainstream and special education. Educational Research, 31. 52-58.

Appendix A: Demographics sheet

This survey contains statements about work situations and individual habits. Please be sure to respond to all of the statements.

Begin by completing the information below, and then turn the page for instructions on completing the ratings.

Position: (check one)
____ regular education teacher
____ regular education teacher with inclusion students – if so how many? ____
____ special education teacher
____ specialist - what type? _____

Current Grade Level Taught: _____

Please circle the appropriate responses below.

Years Teaching:
0-5years 5-10years 10-15years 15-20years more than 20 years

Age:
20-30 years old 30-40 years old 40-50 years old 50-60 years old 60+ years

Gender: male female

Highest level of education attained:
Bachelor's Degree Advanced Degree Other _____

Appendix B: Raw data converted to standard T scores

Converted Standard T scores on the OSI-R

	Role Overload	Role Insufficiency	Role Ambiguity	Role Boundary	Responsibility	Physical Environment
1	63	44	68	79	64	72
2	64	41	44	40	35	40
3	53	38	53	48	68	44
4	51	41	48	47	38	41
5	56	36	43	42	54	49
6	51	37	44	42	39	54
7	57	35	39	47	58	62
8	77	42	52	37	51	52
9	57	48	38	42	46	50
10	59	42	52	34	56	40
11	63	36	61	74	70	65
12	45	40	38	39	52	43
13	73	46	64	61	54	54
14	45	47	55	56	34	49
15	59	47	54	43	54	54
16	67	34	36	42	59	54
17	63	47	52	42	38	69
18	67	37	52	35	58	62
19	66	52	39	58	70	57
20	61	54	33	36	30	43
21	57	52	60	40	46	54
22	52	35	43	42	60	49
23	41	31	33	33	51	37
24	42	48	66	48	38	49
25	55	56	55	43	42	59
26	56	42	44	42	48	66
27	71	53	46	46	51	43
28	56	44	52	59	37	59
29	60	44	55	43	34	59
30	51	32	49	48	45	47
31	51	50	47	42	50	56
32	51	45	46	35	45	46
33	56	36	43	37	51	46
34	64	39	49	64	48	59
35	68	39	50	56	56	54
36	51	33	33	33	39	47
37	66	42	55	53	63	47
38	59	44	55	37	54	53
39	57	38	43	45	55	62
40	53	35	35	37	48	50
41	71	34	66	69	58	73
42	55	55	58	55	46	59
43	53	61	52	69	46	65
44	70	45	50	51	51	46
45	64	42	38	45	55	46
46	52	51	60	55	51	54
47	66	37	52	50	66	65