# The Effects of Substitute Teacher Training on the Teaching Efficacy of Prospective Substitute Teachers in the State of West Virginia

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(ABSTRACT)

Teacher absenteeism, retirement, and attrition have led to a widespread shortage of substitute teachers throughout the United States, resulting in the hiring of individuals who lack teacher certification and educational pedagogy. In the past decade, West Virginia joined many other states confronted with the decreased substitute teacher pool and the hiring of non-certified individuals in the classrooms.

With the *highly qualified teacher* requirements of the No Child Left Behind Act of 2001 (NCLB), focus was situated on the adequate qualifications of substitute teachers. Many substitute teachers do not have the educational pedagogy or teacher certification necessary to be considered *highly qualified* by the NCLB. Mandatory training for non-certified substitute teachers lacking proper certification and educational pedagogy became the focus to *qualify* these individuals for the classroom. This study focuses on the self-efficacy of non-certified individuals attending the substitute teacher training in the Regional Education Service Agencies (RESAs) in the state of West Virginia to determine if their self-efficacy beliefs change after two days of mandatory substitute training or after classroom experience.

The Teacher's Sense of Efficacy Scale (TSES) developed by Tschannen-Moran and Woolfolk-Hoy (2001) was the instrument used to measure the self-efficacy of non-certified substitute teachers. Findings indicate that the teaching self-efficacy of non-certified substitute teachers significantly increased from pre-training to post-training, but significantly decreased from post-training to post-teaching experiences. Additionally, findings revealed that age and gender did not have a significant influence on self-efficacy from pre-training, to post-training, to post-teaching. Finally, applications and ramifications of these results are then discussed.

# DEDICATION

This is dedicated to my mother, Phyllis Stepp, who passed away on February 18, 2003. Her kindness and thoughtfulness encouraged me to thrive to be the best I could be. Although her passing was before the completion of my dissertation, I was never alone. My mother was always with me in my heart and mind from beginning to end. She had created a place filled with priceless memories of happy times shared with family and friends. A home filled with understanding and love. This is the place I often went to during this process to find the purpose to continue, put a smile back on my face and warmth back in my heart. For this, I thank you Mom, I love you dearly.

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# CHAPTER I

# INTRODUCTION

## *The Effects of Substitute Teacher Training on the Teaching Efficacy of Prospective Substitute Teachers in the State of West Virginia*

Students today are suffering academically in part due to the extensive nationwide teacher shortages; consequently, teacher shortages have been a growing concern throughout the United States since the early 1980s (Croasmun, Hampton & Herrmann, 1999; Roth & Swail, 2000). Nationwide, there is an estimated 274,000 substitute teachers hired daily to fill vacant positions (Smith, 2002; U.S.H.R.-3688, 2002). Unfortunately, many of the substitute teachers hired to fill these vacant teaching positions lack the appropriate certification for the subjects that they will teach (National Council on Teacher Quality, 2003). Furthermore, approximately five million children encounter a substitute on a daily basis due to teacher shortages. Estimations reveal that one full year of a child's formal education before graduation is spent with substitute teachers, many of whom may not have the educational background, pedagogical knowledge, teaching certification or licensure necessary for teaching children (Lonhurst, Smith & Sorenson, 2000; Nidds & McGerald, 1994; Russo, 2001; Sheppard, 1997; Smith, 2002). Russo (2001) further states that if a school district experiences compulsive teacher absenteeism, it is possible for a child to spend two years with substitute teachers. Congress reported in 2002, that over 28 states hired substitute teachers with only a high school diploma or general equivalency degree (GED) and without the professional knowledge requirements of certified classroom teachers (Carter, 2002; Smith, 1999).

The No Child Left Behind Act of 2001 (NCLB) has made it imperative for regular classroom teachers to be highly qualified in the subjects in which they teach. Based on the number of substitutes hired with a minimal education, it is questionable if these substitutes are qualified to provide students the quality education they deserve when federal law requires highly qualified teachers in every classroom.

Although most substitute teachers are hired on a daily basis, depending upon the need of school districts, many are retained in the classroom as permanent or long-term substitutes throughout the year. The No Child Left Behind Act of 2001 strongly recommends that a long-term substitute teacher, one who teaches for an extended period of time with teacher certification

as defined by the states, meets the requirements of a highly qualified teacher (U.S. Department of Education, 2003). Boehner (2002) supports the idea that every child in America deserves the opportunity to learn from a highly qualified teacher. The No Child Left Behind Act of 2001 requires every state to have a well prepared, highly qualified teacher in every classroom by the 2005-2006 school year. Previously, Title I of the Elementary and Secondary Education Act (ESEA) required highly qualified teachers to be employed in core subjects after the 2003-2004 school year. The continuous reference to the *highly qualified teacher* augments the question regarding the definition of a highly qualified teacher.

The U.S. Secretary's Annual Report on Teacher Quality (2002) defines a highly qualified teacher as one who (a) has obtained full state certification, for example, passed the state teacher licensing examination and holds a license to teach in the state; (b) has obtained a minimum of a bachelor's degree; and (c) demonstrated competence in the academic subjects taught in compliance with Title II of the Higher Educational Act. Furthermore, the Department of Education Title IX, Section 9101 (23) General Provisions section indicates requirements of a highly qualified teacher in the public school as those who teach a core academic subject, such as English, reading or language arts, mathematics, science, foreign language, civics and government, economics, arts, history, and geography. Highly qualified teachers cannot have certification or licensure requirements waived on an emergency, temporary or provisional certificate unless they have a four-year college degree. They must also demonstrate subject matter competence; receive intensive and classroom-focused professional development to obtain a positive, long-lasting impact on classroom instruction; engage in an intensive program on supervision consisting of structured guidance or a teacher mentoring program; function as a teacher for a specified period of time not to exceed three years; and demonstrate satisfactory progress toward full teacher certification. It is the responsibility of each state to ensure that all of these provisions are met. Ultimately, results have led to developing and implementing hiring policies that ensure comprehensive recruitment efforts as a way to expand the applicant pool such as identifying teachers certified through alternative routes, and using a system of intensive screening designed to hire the most qualified applicants (National Center for Education Information [NCEI], 2003). Therefore, the question transpires concerning how schools will meet the requirements of having highly qualified teachers in every classroom while hiring substitute teachers without the proper certification or licensure.

To meet the need for highly qualified teachers, many school districts are now requiring comprehensive training of substitutes to address diverse problematic areas they may encounter. The Substitute Teaching Institute at Utah State University recommended core elements of training for substitutes to include classroom management techniques, instructional and teaching strategies, school policies, as well as legal and emergency procedures (Smith, 1999). Jones and Sandidge (1997) further suggested that substitute teachers undergo a screening process involving prescreening, paper and pencil screening, interviewing, and background checks, as well as continuous implementation and updated training procedures. Consequently, the "No Substitute for Quality Teaching Demonstration Act" (2002) reports substitute training is non-existent in 77% of schools across the nation. Smith (2002) considers the lack of funding may be the rationale for the insignificant training of substitute teachers.

Due to the increased need for substitute teachers in certain geographic regions as well as various academic disciplines, recruitment of professionals from other fields was implemented to relieve teacher shortages. For example, non-certificated teachers have been recruited in academic disciplines such as math and science, special education bilingual education and foreign languages in various rural and urban areas across the nation (Goldberg & Proctor, 2000). In response to these shortages, the No Child Left Behind Act of 2001 reauthorization of the Elementary and Secondary Education Act (ESEA) authorizes the recruitment of qualified professionals from other fields and provides them with alternative routes to teacher certification (U.S. Department of Education, 2003). Along with this requirement came funding to support these programs.

The President's fiscal year 2003 budget requested and received from Congress a $2.93 billion grant for a new "Teacher Quality State Grants Program" under Title II of the Elementary and Secondary Education Act. The grant supports activities to improve teacher quality, including changes to teacher certification or licensure requirements, alternative certification, tenure reform, merit-based performance systems, differential and bonus pay for teachers in high-need subject areas, and teacher mentoring programs (Feistritzer, 2002).

The U.S. Department of Education earmarked funds in the amount of $35 million in 2002 budget and $41.7 million in the 2003 budget for a Transition to Teaching program to help mid-career professionals obtain certification as elementary and secondary school teachers (Feistritzer, 2002). The two principal groups benefiting from this program are The Troops to Teachers (TTT)

and the Teach for America programs. The Troops to Teachers program encourages men and women in the military, especially with interests in math and science, to become teachers. The Teach for America program, a national organization that began in 1990, requires a two-year commitment of college graduates from all academic majors and backgrounds to teach in urban and rural public schools (U.S. Department of Education, 2003).

The National Commission on Excellence in Education (1983) and the National Academy of Sciences' (1987) highly publicized reports predicted that the nation would have severe teacher shortages in elementary and secondary schools resulting from converging demographic trends such as increased student enrollment, teacher migration, and increasing teacher attrition due to a "graying" teacher work force (i.e., retirement). In addition to teacher attrition and teacher migration, other rationales accounting for the increased demand of substitute teachers in American schools include teacher absenteeism, low salaries, and lack of interest by individuals to enroll into educational programs (Abdal-Haqq, 1997; Nidds & McGerald, 1994). These reports also suggested that teacher shortages would force school systems to lower their standards to fill teacher openings, thus resulting in higher levels of under qualified teachers and lower school performance. Due to teacher shortages, the need for substitute teachers has become more widespread in public schools throughout the United States (National Center for Education Information, 2003).

In response to the lowered standards for filling teacher positions, Ingersoll (1998) disclosed that within the past decade, substitutes have been hired without the educational pedagogy, teacher certification, or other academic requirements previously deemed necessary by public school districts; further, Russo (2001) reports that Iowa is currently the only state that requires substitutes to be fully certified teachers. Additionally, Russo explains that many large city schools throughout the United States are utilizing employment agencies such as Kelly Educational Staffing, a program of Kelly Services, Inc., to guarantee a more stable substitute teacher pool.

Kelly Educational Staffing includes recruiting, screening, orientation or training, scheduling, quality control and retention of substitute teachers. Employer obligations related to a school's substitute teacher program, include payroll taxes, worker's compensation and unemployment. Substitute teachers must meet state and local certification requirements for any K-12 teaching situation in a public or private school if they want to apply for Kelly services.

Kelly Educational Staffing offers orientation training for applicants that include information on topics such as being prepared and professional, classroom management, legal and health issues, teaching activities and more. Kelly Educational Staffing (2003) is available in the United Kingdom and thirty-six states in the United States to provide services for substitute teachers.

Many other large city schools are using online services such as Frontline Data's Internet or the telephone based substitute management system known as AESOP, the Automated Educational Substitute Operator, to simplify the process of obtaining a substitute teacher (Sargent, 2001). The Automated Educational Substitute Operator allows teachers to post their absences over the internet that may be viewed and responded to immediately by qualified substitute teachers. Substitutes, approved by their local school districts, have access to the pin numbers in the system.

In 2002, the National Center for Education Statistics (NCES) predicted between 2000 and 2010 the total public and private K-12 enrollment will jump to 59 million students, indicating substitute teachers as a continued necessity throughout the nation. Statistics further indicate that the largest growth in population will occur in the thirteen Western states of the United States, signifying the largest need for substitute teachers in that area, whereas the Northeast will experience an overall decrease in enrollment (NCES, 2002).

Increased student enrollment, coupled with classroom teacher and substitute teacher shortages as well as the No Child Left Behind Act of 2001 for *highly qualified teachers*, creates an additional question. Why would individuals applying for teaching positions with four-year degrees in various disciplines, lacking educational training or certification, believe they could fulfill the requirements of a licensed teacher?

Bandura's (1986) *self-efficacy theory*, based upon Julian Rotter's (1966) social learning theory, suggests that individuals' beliefs in their capabilities led them to pursue tasks they believe will produce positive outcomes; the higher an individuals' self-efficacy, the more positive the outcome expectancy. Therefore, individuals without teacher licensure or certification possessing four-year baccalaureate degrees in various disciplines may be led to pursue tasks in lieu of their trained positions based upon *self-efficacy*. Subsequently, these individuals may pursue substitute-teaching positions in relation to their *teaching efficacy*, based upon the theoretical framework of Bandura's *self-efficacy theory*. *Teaching efficacy* is defined as an individuals' belief about his own capabilities to produce desired outcomes of student

engagement and learning, regardless if the student is difficult or unmotivated. Individuals possess measures of high or low teaching efficacy. Teachers with high teaching efficacy are the ones who believe they can motivate even the most difficult students; they also believe in their use of instructional strategies and show positive teaching behaviors.

The following literature review will be twofold. Initially, it will focus on the profiles of substitute teachers, their reasons to become substitute teachers and the problems they may encounter during their endeavor. Secondly, the literature review will provide insight involving *self-efficacy* and *teaching efficacy* constructs, and why individuals, without an educational background or teacher certification or licensure, believe they have the capabilities of becoming substitute teachers.

# CHAPTER II

# LITERATURE REVIEW

## *Substitutes*

The following section of this document will address substitute teachers in the United States, with emphasis on substitute teachers in West Virginia. Additional focus will include the various levels of substitutes: profiles of substitutes (e.g. retirees, military personnel, certified teachers and non-certified individuals), substitute training, reasons for substituting, and the problems substitutes face in the classroom. Although the United States has experienced teacher and substitute shortages for a number of years, West Virginia did not experience a substitute shortage until 2001, whereupon retired teachers returned to the classroom for an unlimited number of days under certain circumstances (West Virginia School Law Book, 2001).

### *U.S. Substitutes*

The United States Department of Education (2003) and the American Federation of Teachers (2003) refer to the various levels of substitutes to include short-term, per diem, level or cluster, and long-term. The short-term substitute is defined as a licensed educator who temporarily replaces the classroom teacher for fewer than thirty consecutive instructional days; a per diem substitute is an individual subjected to day-to-day assignments or reassignments to fill positions on an interim basis; a level substitute is any person with proper qualifications, including but not limited to a satisfactory performance evaluation as a long term substitute teacher in a prior year, who is assigned to a level office for a full year to rotate in the various level schools, as needed, on a daily basis; and a long term substitute is any person with proper qualifications who is assigned to fill a position of teacher which is a temporary vacancy and serves continuously in the same assignment in the same school. A temporary vacancy is one which is anticipated to be vacant for more than 20 consecutive workdays but less than a full school year, or one in which an assigned substitute actually serves continuously for more than 20 consecutive days (American Federation of Teachers, 2001; U. S. Department of Education, 2001). Individual states have developed their own substitute teacher policy.

*West Virginia Substitutes*

West Virginia Policy 5202 refers to substitute levels as long-term and short-term. This policy permits counties to hire both long-term and short-term substitutes based upon the need of the school(s). A long-term substitute may serve in a teaching position for more than 30 consecutive instructional days in accordance with the long-term substitute permit. The long-term substitute permit is valid for only three consecutive years, ending on June 30 of the third year. After these three years, substitutes are required to complete eighteen hours of renewal substitute training. However, if an applicant with a valid West Virginia Professional Teaching Certificate applies for a long-term substitute permit for any specialization area(s) for which he or she qualifies, the eighteen hours of mandatory substitute training is not required. In addition, the West Virginia School Laws (2001) book requires long-term substitutes assigned to a specific position to complete the following:

> (a) a minimum of a bachelor's degree through an accredited institution of higher education plus 15 semester hours of approved graduate coursework from an accredited institution of higher education as defined in West Virginia Policy 126-136-4.2; (b) the general requirements specified in West Virginia Policy 126-136-13.1 requiring substitutes to be a United States citizen, unless otherwise noted; of good moral character; physically, mentally and emotionally qualified to perform the duties to which he or she is assigned; and attained the age of eighteen years on or before the first day of October of the year in which the license is issued; (c) graduated with a minimum grade point average of 2.0; and (d) the conditions for issuance specified in West Virginia Policy 126-136-14.1.3.

A long-term substitute may also serve as a short-term substitute in any curricula area. Accordingly, short-term substitutes, regardless of their license specialization, may be assigned a teaching position for thirty consecutive days or less. West Virginia Policy 5202, states that if a county superintendent is unable to fill a teaching position with a long-term substitute, the county superintendent must request a waiver from the state superintendent of schools indicating the efforts made to employ a fully qualified substitute before a short-term substitute may be hired. In the meantime and in the best interest of students, the county superintendent must continue to seek a substitute with the appropriate requirements for the position. An individual hired on a substitute permit as previously mentioned, may complete the renewal requirements of earning six

semester hours with a 3.0 grade point average from an approved college program to convert to a long-term substitute permit. Applicants may use this course renewal option only once to obtain a long-term substitute permit.

With consideration of the similarity of definitions involving U.S. and West Virginia substitute teachers, the next section of this document will comparatively address the typical pool of individuals who work as substitute teachers in U.S. and West Virginia classrooms.

## *Profiles of Substitute Teachers*

In today's learning environment, the pool of substitutes has expanded to include retired teachers, retired military personnel, professionals from other fields without teacher licensure or certification, recently graduated education majors, and even high school graduates in times of desperation. (Abdal-Haqq, 1997; Griswold & Hughes, 1999; National Science Board, 1999; Rushlo, 1998; Smith, 1999; Snyder, 1998). In addition, Russo (2001) reported that Poudre, Colorado, has hired parents and paraprofessionals as substitute teachers.

The following section discusses four profiles of U.S. and West Virginia substitute teachers. These include retired teachers, retired military personnel, certified teacher substitutes, alternatively certified, also referred to as emergency certificates, and non-certified substitutes from various fields.

### *U.S. Retired Teachers*

Baby boomers hired in the 1970s are beginning to retire and will continue to retire for the next ten years. The U.S. Bureau of Labor Statistics (2003) reports that 22 million teachers are now age 45 years and older and 67% of these teachers are expected to retire by 2008. Between 1998 and 2008, it is estimated that schools across the nation will need an estimated total of 418,000 elementary school teachers and 378,000 secondary school teachers to replace these retirees.

Gaines (2002) states in 1996 approximately 26% of U.S. teachers were more than 50 years of age with 36% having more than 20 years of teaching experience. Consequently, retired teachers have been rehired in order to ease the substitute teacher shortage due to their certification and years of experience (Rushlo, 1998). For example, in 2000-2001 various states experienced a substantial rehiring of retired teachers, such as North Carolina with nearly 400

retired teachers and South Carolina with nearly 500 retired teachers returning to the classroom (Gaines, 2002).

Formerly, teachers were required to retire due to their age; however, the Age Discrimination in Employment Act of 1967, with amendments made in 1978, abolished mandatory retirement due to age (Chronister, & Kepple 1988). For many years, teachers would not consider retirement until they could draw from their Social Security pension fund (U.S. Bureau of Labor Statistics, 2000); however, early retirement incentive programs became increasingly popular in the 1970s. Many school districts offered incentives through an early retirement incentive plan (ERIP) to retirement age teachers to leave their jobs before the end of the qualification period of 62 years of age when they could draw partial pension from Social Security as well as their retirement funds (Auriemma, Cooper & Smith, 1992; Tarter and McCarthy, 1989). In 2000, Congress dismissed early retirement incentives and increased retirement age for individuals to draw full Social Security pension to age 65, which will increase in increments to age 67 by 2020, in an attempt to encourage teachers to remain in the workforce longer.

*West Virginia Retired Teachers*

West Virginia's substitute teacher pool has generally consisted of retired teachers for many years due to early retirement incentives. On the first day of April 1988, West Virginia presented an early retirement incentive to teachers deemed the "rule of eighty." With this new provision, teachers were able to retire with full pension rights if their age plus years of teaching experience equaled or exceeded eighty (School Laws of West Virginia, 2001). This incentive resulted in the retirement of many teachers, subsequently increasing the substitute teacher pool. West Virginia no longer recognizes the "rule of eighty" as a retirement incentive (West Virginia Department of Education, 2003). Consequently, before 2001, retired teachers who decided to substitute were allowed to teach for no more than 120 days before losing their retirement, regardless of a school's critical needs such as lack of teachers in geographic areas or subjects such as math, foreign language or special education. In 2001, the School Laws of West Virginia reported that West Virginia teachers were eligible for retirement with full benefits at the age of 60 or after 35 years of total service in the teaching field.

West Virginia allows retired teachers to substitute teach in shortage areas while continuing to receive retirement benefits under certain provisions such as critical need areas or

subjects. However, if a county is not designated as a critical need area, retired teachers are only allowed to substitute for 120 days prior to losing part of their retirement annuity (West Virginia Consolidated Public Retirement Board, 2001).

In 2001, West Virginia's Regular Legislative Session introduced Senate Bill 227, which made provisions for retired teachers to substitute for an unlimited number of days under certain specified circumstances each fiscal year. However, retirees may not begin substituting until after the fiscal year of retirement. In compliance with Senate Bill 227, the state superintendent as well as the state board of education recommends a policy for those counties in which there is a critical need and shortage of substitute teachers. This policy is effective for one school year but may be renewed by the county board on a yearly basis and need. West Virginia retirees do not contribute to the retirement system or earn additional service credit under this policy (Southern Regional Education Board, 2002).

*U. S. Retired Military Personnel*

Military personnel are eligible for early retirement after twenty years of service, allowing them to pursue a second career (Feistritzer & Chester, 2000). In 2003, approximately 5,000 military personnel entered into the teaching field as their second career. The majority of these placements, approximately 80%, were made during calendar years 1995, 1996, and 1997 with 76% of the retired military personnel between the ages of 35 and 49. Feistritzer (2000) reported that 27 states offered transition programs into the teaching field for retiring military personnel (see Appendix A). In 2003, Troops to Teachers, a military transition program, reports 32 States now have placement assistant offices to assist the participants of the program (see Figure 1).

The Troops to Teachers (TTT) program was originally established in 1994 by the Department of Defense to provide referral assistance and placement services to service members and civilian employees who were interested in working as a teacher or teacher's aide. In 2000, the National Defense Authorization Act transferred the responsibility for program oversight and funding to the U.S. Department of Education, although it remained under The Department of Defense and managed by the Defense Activity for Non-Traditional Education Support (DANTES). The No Child Left Behind Act of 2001 provides for the continuation of Troops to Teachers through 2006. In 2002, President Bush authorized the Troops to Teachers program into

Figure 1. Troops to Teachers

States with TTT Office

Note: Source: U.S. Department of Education. (2003). Troops to teachers status report for 2002. Retrieved February 12, 2004 from http://www.dantes.doded.mil/dantes_web/danteshome.asp. Copyright 2004, Used with Permission.

law. This expanded the program to include those serving in the Reserves and National Guard. The Troops to Teachers program makes it possible for eligible military personnel to have the opportunity to pursue a second career in public education (Kentucky Department of Education, 2003). The 2003 Troops to Teachers profiles of individuals entering into the program is as follows:

> (a) 90% are male; (b) nearly 29% are from a minority or ethnic group; (c) 91% are currently between the ages of 35 and 54; (d) 29% reported they were teaching mathematics along with 8% teaching biology, 5% teaching chemistry, 3% teaching physics, 8% teaching physical sciences, 11% teaching general special education, and 7% teaching emotionally disturbed children; and (e) one in four or 24% teach in an inner-city school (see Appendix B).

Military personnel considered for teacher or substitute positions are hired to help relieve teacher shortages in high need areas such as math, science, and special education; to provide positive role models for students; and as a transition to teaching as a second career (Kentucky Department of Education, 2003). To pursue a teaching career, The Troops to Teachers program requires retirees to possess a bachelor's degree or a minimum of one-year equivalent of college and 6 years of experience in a vocational/technical area to be eligible to substitute teach. States who allow individuals with four-year baccalaureate degrees in any field to substitute teach after attending required training, are also allowing military personnel with four year degrees in any discipline to substitute following the same requirements. If military personnel are interested in

teaching vocational subjects such as electronics, computers, and construction trades, they do not need a college degree to apply, but must be able to prove their skill level. Through the Troop to Teachers program, teacher shortages are relieved by filling classrooms with mature, motivated, experienced and dedicated educators already trained in providing positive role models.

*West Virginia Retired Military Personnel*

West Virginia has hired only five participants from the Troops to Teachers program as compared to the surrounding states such as Maryland (81), Ohio (150), Kentucky (115), Pennsylvania (52), and Virginia (425) (see Appendix C ). West Virginia's requirements for hiring military personnel into the school system include: (a) 3.0 GPA in their undergraduate/graduate program; (b) a copy of their transcripts; (c) provide at least three letters of recommendation; (c) attend an interview session with the county personnel director; and (d) complete substitute training within the county they want to teach (West Virginia Department of Education, 2003).

*U.S. Certified Teachers and Substitutes*

Wise (2003) states that most states have similar provisions for individuals aspiring to become certified teachers. Certified teacher candidates are required to obtain full certification or licensure through completion of various requirements. Candidates completing these requirements are eligible for teacher licensure, valid for not less than one year, and no more than three years. These requirements include a four-year bachelor's degree from an accredited liberal arts college; a negative tuberculosis test; successful completion of state required tests such as the PRAXIS series; and a criminal background check. For example, a four-year bachelor's degree obtained from an accredited college with a major (required in middle and high schools) or minor in education is required for all teacher candidates. Accreditation for a college is a voluntary process of self-regulation and peer review adopted by individual colleges and completed by a regional national accreditation agency (e.g., National Council for Accreditation of Teacher Education [NCATE], 2003). The U.S. Department of Education (2003) must approve accreditation agencies.

Another means towards certification/licensure includes a strong liberal-arts college or university approved by the Academic Affairs Committee (2003) offering general course studies including courses in natural science and mathematics, social and behavioral science, humanities,

and fine arts. Liberal-arts colleges or universities emphasize the importance of active learning experiences in and out of the classroom, focus on student outcomes, and are committed to creating an intimate learning environment characterized by high quality student or faculty interactions.

Subsequently, teacher certification involves successful completion of a state test or tests. The PRAXIS I and PRAXIS II tests are required in 39 states, the District of Columbia and the U.S. Virgin Islands for successful teacher certification/licensure (Educational Testing Service [ETS], 2003).

The most recent requirement for full certification, licensure or employment in most states involves a criminal background check through the Federal Bureau of Investigation (FBI). States require certified and non-certified positions in school districts seeking an initial teacher or administrative license, accepting a teaching position in a new district, seeking renewal of a teaching or administrative license, or obtaining a substitute permit, to sign a waiver in order to have a state or national criminal background check that also involves fingerprinting (see Appendix D). Many states, such as Illinois, will not allow college students to perform any field placement experiences without first undergoing the criminal background check (Illinois Committee on Initial Teacher Certification, 2003). Few states, including Texas, Alabama, and West Virginia require background checks before issuance of certification (Southern Regional State Board, 2003). All fifteen states involved in the Southern Regional State Board (2003), with the exception of Mississippi, require criminal background checks of teachers. If a person has pleaded guilty or nolo contendere to, or been found guilty of any of the offenses (see Appendix E), he or she may be denied entrance into the public school system to conduct observations, begin student teaching, or obtain a teaching certification or licensure. Information concerning criminal records cannot be shared with any party other than the applicant or their authorized representative (Educational Testing Service, 2003).

Many beginning teachers cannot locate jobs in the geographic or subject area in which they are certified, thus they choose to substitute teach until openings become available. Individuals seeking certification undergo extensive requirements in the teacher education program. In most states, school districts as a rule call certified substitute teachers to fill positions before non-certified substitutes (American Federation of Teachers, 2003). However, certified

substitutes must maintain the same requirements of certified classroom teachers during this timeframe in order to keep their certification up-to-date.

The Education Commission of the States (ECS, 2003) reports that certified teachers, in most states, are required to renew their certification or license periodically to make certain that they are knowledgeable about innovative advancements in their field. Formerly, teachers were required to ensue a certain number of continuing education credits or earn a master's degree (in any subject) to maintain licensure; however, holding a master's degree alone will not guarantee certification renewal. A master's degree must be directly related to an individual's content knowledge or teaching skill before granting continuing education hours (Stilwell, 1999). The purpose of continuing certification requirements is to motivate teachers to pursue more directed, research-proven career growth activities (Education Commission of the States 2003). The requirements for continuing certification are steadily being aligned with standards for high-quality professional development (Stilwell, 1999).

Substitute teachers from various disciplines without certification or licensure or an educational background from an accredited college or university, are not required to undergo the PRAXIS test series; however, they are hired with similar expectations to teach in the classroom comparatively to certified teachers. Substitute teachers from various disciplines are required to have a background check and receive limited training involving educational procedures and policies, which will be discussed in detail further into the document.

*West Virginia Certified Teacher and Substitutes*

West Virginia colleges or university programs are consistent with various other states concerning teacher certification. West Virginia requires individuals enrolled in teacher education to go through traditional programs designed to enhance educational pedagogy as well as undergo clinical field experiences before entering into the classroom (West Virginia Department of Education [WVDOE], 2003). The traditional educational program also involves a series of tests (Praxis I and II) including cut-off scores adopted by the West Virginia Department of Education (2002) before issuance of a professional teaching certificate/licensure. West Virginia requires candidates to provide evidence of having successfully completed test requirements in the following areas: basic skills (Praxis I - Pre-Professional Skills in Reading, Writing, and Mathematics or waivers based on the American College Test (ACT) or the Scholastic Assessment Test (SAT) Scores); the subject assessment(s) test (PLT); and the professional

knowledge test (Praxis II) (West Virginia Department of Education, 2003). Professional certificates or licenses are issued only on the successful completion of an approved educational preparation program at an accredited college or university, recognized by the West Virginia Board of Education, or through an experienced educator option approved by the State Board (West Virginia Department of Education, 2003). Applicants must hold a license appropriate for the specialization(s) and grade level(s) of assignment in order to teach in the public schools. They must also be a citizen of the United States; of good moral character; physically, mentally, and emotionally qualified to perform the duties of a teacher; and eighteen years of age. Furthermore, the applicant must also have a 2.5 overall grade point average from an accredited college in order to obtain a full-time license (West Virginia Department of Education, 2003).

According to West Virginia Code §18A-3-10, as of January 1, 2002, initial license applicants must be fingerprinted by the West Virginia state police in accordance with state board policy to check for a national or state criminal history record through the central abuse registry. Upon completion of student teaching, coursework, and testing, the applicant's fingerprint card, application for licensure and transcript are sent to the West Virginia Department of Education. This information is forwarded to the Federal Bureau of Investigation for further investigation to determine the applicant's suitability for licensure (West Virginia Department of Education, 2003). If the applicant is approved, he or she may begin teaching as a certified teacher or substitute teacher in the public school system.

### *U.S. Alternative Certification of Teachers and Substitutes*

Traditionally, teacher certification has been obtained through four-year collegiate programs; however, in recent years alternative routes have challenged these programs. There was a rapid growth in the 1990s of the alternative certification route due to teacher shortages. Sadker and Sadker (2000) define alternative certification as "allowing individuals with limited training to enter into the classroom and teach children without completing a traditional university-based program" (p. 17). These alternative routes of certification allow professionals holding a bachelor's degree with professional experience to consider an accelerated route into the K-12 classrooms (Feistritzer, 1998).

Roth and Swail (2000) report that in 1998-99 the National Center for Education Information (NCEI) found most alternative programs focused on middle-career transition, recent

liberal-arts graduates, reentering teachers needing upgraded credentials, or transitioning military personnel. To further support this finding, Roach and Cohen (2002) acknowledge three types of alternative certification programs found at the national, state, and district levels. The national programs focus on preparing a particular type of candidate for teaching such as retiring military professionals (Troops to Teachers) or recent, high-achieving college graduates (Teach for America, 2003). State programs focus on statewide shortages as well as building a diverse pool of candidates. District programs focus on specific shortages, especially in urban and rural areas (Humphrey, et al., 2002). Any one of these programs may take as little as three months or as long as three years to complete (Ruhland & Bremer, 2002). In 1990, the Teach for America program began to encourage individuals without an education background, but motivated to teach for at least two years in inner-city and rural areas with teacher shortages to begin an alternative teaching route (Sadker, et.al. 2000, p. 39-40).

Research supports evidence of the increase of alternative certification. Feistritzer and Chester (2003) reported only eight teachers had alternative licensure in 1983, when approximately eleven years later, forty states offered some form of an alternative certification program (ACP). The National Center for Education Information (NCEI) survey shows that 46 out of 50 states and the District of Columbia now have an alternative certification program (Feistritzer, 2003). Kwiatkowski (1999) estimated over 50,000 teachers received training and certification through alternative certification programs between 1983 and 1996. Furthermore, the National Center for Education Information (2002) reported that in each of the past three years, 25,000 teachers were certified through alternative routes, possibly accounting for one third of our new teachers today (Feistritzer, 2003).

Many choose the alternative route to certification because it does not require individuals to acquire the pedagogical knowledge needed to communicate subject matter knowledge and experience to students (Darling-Hammond & Ball, 1998; Stoddart & Floden, 1995). Instead, alternative certification programs usually focus on the pragmatic aspects of teaching rather than the theoretical or philosophical aspects and may prepare graduates to work with the curriculum requirements of a specific school district (Humphrey, et al., 2002; Stoddart & Floden, 1995).

The Elementary and Secondary Education Act, 2001 allows states to recruit qualified professionals from fields other than a traditional college or university-based program to pursue alternative routes to teacher certification (Feistritzer, 2002). These non-certified individuals may

be eligible for certification and teach with an alternative certificate; however, they are usually trained to teach in areas with content-specific needs but without the pedagogical background experiences of their counterparts (Roth & Swail, 2000). Most of these applicants consist mainly of those with interests in teaching specific content and curriculum such as math, science, vocational and special education; they are more than likely to be males and minorities; and tend to be people over the age of 30 (Feistritzer, 2003; Humphrey, et al., 2002). Rural and urban areas have the greatest demand for new teachers, thus, many alternatively certified teachers are trained to teach in these geographic areas (Feistritzer, 2003). However, attrition rates for these rural and urban-trained teachers are very high due to the challenging teaching situations and requisite courses required to meet teaching credentials (Feistritzer & Chester, 2003; Teach for America, 2003).

The rules governing alternative teacher certification change regularly and vary greatly across states. Feistritzer (1998) defined nine types of alternative certification programs which may be found nationwide in the "Alternative Teacher Certification: A State-by-State Analysis." Feistritzer (1998) classified these alternative certification programs from Class "A" being the "true" alternative program to Class "J" designed to eliminate emergency routes to teaching (see Appendix F). Many states have a number of different options and names for alternative certification, including the emergency certification (American Institute of Physics, 2003). In fact, the most popular alternative certification program is Class "F", the emergency certificate or waiver that allows individuals to teach without support or supervision while taking traditional teacher education courses requisite for full certification (Kwiatkowski, 1999).

Emergency certification is a form of alternative certification issued primarily in the areas of special education, math, science and foreign languages in rural and high poverty urban schools in the United States (Humphrey, et al., 2002; Kwiatkowski, 1999; Roth & Swail, 2000). Emergency certificates, also referred to as conditional certificates, are issued on temporary basis to individuals who do not meet current licensure standards but will meet certain needs of specific schools due to teacher shortages. The emergency certificate is typically granted on a temporary basis with the expectation that the teacher or substitute teacher will obtain the necessary credentials to become fully certified (Sadker, 2000, p. 37). These certificates are substandard teaching licenses awarded to individuals who may not have completed college or possess degrees in other disciplines (National Council for the Accreditation of Teacher Education, 2003). For

example, the state of Kansas has issued emergency substitute certificates to individuals who have only 60 hours of credits from an accredited college. However, Kansas' emergency substitute certification limits individuals who have less than a bachelor's degree, to only work 60 days a semester or 15 days in the same assignment; whereas, those with a bachelor's degree are allowed to substitute for 30 days in the same assignment (Chick, 2002).

Further, the number of California teachers with emergency permits in the past ten years has tripled (see Table 1) to 28,500 teachers or more than 10% in 1998-99, of the California teaching force, were employed based on emergency permits.

Table 1

*Growth of Teachers on Emergency Permits in California*

| | Years for California Emergency Permits | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1991-92 | 1992-93 | 1993-94 | 1994-95 | 1995-96 | 1996-97 | 1997-98 | 1998-99 |
| Approximate Number of Permits Issued | 12,000 | 8,000 | 10,000 | 11,000 | 11,000 | 18,000 | 26,000 | 28,000 |

Note. From the California Commission on Teacher Credentialing *Preliminary data. The CTC anticipates that the actual count will be slightly higher. The Center for the Future of Teaching and Learning (2000). Copyright 2004, Used with Permission.

The California-based Center for the Future of Teaching and Learning (2000), reports that more than one million California students attending schools are taught by under-qualified teachers. The report shows that there are10 times more under-prepared teachers in high-minority schools; that non-certified teachers have high attrition rates (70% leave within 3 years) creating a parade of unskilled individuals in minority schools; and students taught by under-qualified teachers have significantly lower achievement in reading and mathematics, thus making these schools dysfunctional (Roth & Swail, 2000).

Keleher, Piana, and Fata (1999) report that with the current teacher shortage estimated at 13%, the California Commission of Teaching Credentialing will issue emergency permits to individuals on the following conditions: (a) those who possess a bachelor's degree; (b) those who pass the California Basic Education Skills Test (CBEST); and (c) those who have some

knowledge of the subject they will teach (especially for middle or high school teachers where subjects are departmentalized). Keleher (1999) further elucidates that the teachers who hold emergency certificates are not evenly distributed around the state of California, but are concentrated in school districts with higher concentrations of poor students and students of color. Consequently, by 2020, 40% of the K-12 school population in California will be minority students (Newman & Thomas, 1999).

Emergency certificates are frequently issued in the field of special education. In May 2002, the Education Professional Standards Board (EPSB) reported the state of Kentucky had a four-year steady increase in the number of emergency certificates issued in the area of special education. In fact, in the 2001-02 school years, 1,766 special education teachers in the state of Kentucky held emergency certification. Unfortunately, most of these teachers will not remain in the positions they hold to attain full certification in the field of special education due to burnout brought on by recent expectations for inclusive instruction, the changes in disciplinary tactics as reflected in the recently mandated behavioral intervention plans, and the ever- increasing paperwork (Fore, Martin, & Carter, 2001).

Furthermore, the Southeast Center for Teaching Quality Summary and Analysis of "Highly Qualified Teacher" Definitions (2003) reports that North Carolina schools will do away with alternative certifications for the core academic subjects as follows: emergency permits (for candidates with a bachelor of arts degree, but no major in field); provisional licenses (for teaching out-of-field); temporary licenses (for teachers who have not satisfied Praxis requirements); endorsements (for teaching out-of-field 50% of the time or less); and validated licenses (for teachers with expired licenses). According to No Child Left Behind Act of 2001, states must develop plans to achieve the goal that all teachers of core academic subjects be highly qualified by the end of the 2005-06 school year. In compliance with the No Child Left Behind Act of 2001, North Carolina school teachers must be issued one of the following licenses by the year 2006: initial licenses (for newly certified teachers); continuing licenses (at least three years of experience and completion of an initial licensure program which must be renewed every five years); and lateral entry licenses (issued to individuals who are neither graduates of a teacher-preparation program nor licensed in other states). The lateral entry license will be the only alternative certification issued to North Carolina teachers holding at least a bachelor's degree along with the equivalence of a college major in the subject they are assigned to teach by

June 30, 2006 (McColl, 1998). McColl states that teachers may hold a lateral entry license for three years during which they must complete an approved program of coursework as designated by an affiliated college or university or the state's new Regional Alternative Licensure Centers. Schools are also required to provide a two-week preservice orientation and a mentor for lateral entry-level teachers. Kwiatkowski (1999) agrees with this lateral entry program based upon his four distinct models of alternative certification to: (a) increase the number of teachers available in specific subject areas;(b) increase the numbers of teachers from underrepresented backgrounds; (c) bring more teachers to rural or inner-city areas; and (d) decrease the need for emergency certification. The Washington-based National Center for Education Information (2002) indicated that Texas, California and New Jersey are three major states that will gain a significant percentage of teachers through alternate routes due to teacher shortage.

Feistritzer (2002) suggests that it is essential for effective or exemplary alternative certification programs to include characteristics such as rigorous screening processes, field experiences, mentors, professional education studies, and high standards for program completion. Subsequently, substitute teachers without certification and hired through alternative routes, are required to achieve a limited amount of observation hours within a specified number of hours for substitute training (Smith, 1999). These individuals may enter into the teaching field through emergency certification.

*West Virginia Alternative Certification of Teachers and Substitutes*

West Virginia's alternative certification programs (ACP) include "Class A", "Class F" and "Class G" (see Appendix F) of the nine types of alternative certification programs, which may be found nationwide (The National Center for Education, 2003). Although these alternative certification programs are permitted in the state of West Virginia, Feistritzer and Chester (2003) indicate that there were no alternative program graduates in 1997-98 (see Appendix G). West Virginia, in comparison with various other states, allows Class "F", the emergency certificate or waiver program, consistent with individuals teaching without support or supervision while taking courses to satisfy the traditional teacher certification, to transpire when necessary. For instance, Ludlow (2002) confirms that the urgent need for special education teachers in West Virginia has resulted in many individuals hired to work on emergency permits or out-of-field authorizations. Out-of-field or misassignment of teachers will be discussed in further detail within the "substitute difficulties" section of this document.

In conclusion, the aggregate pool of substitute teachers is composed of retired teachers, retired military personnel, and certified and non-certified teachers or substitutes. Many states permit retired teachers to substitute without restrictions of their retirement plan; West Virginia restricts retired teachers to 120 days without penalties unless there is a critical need shortage. Previously, the retirement "rule of eighty" produced an abundant amount of substitutes for the state of West Virginia, nullifying the need for non-certified substitutes. The profiles for certified teachers or substitutes, including West Virginia, have a greater degree of similarity than other profiles. Alternatively or non-certified substitutes in West Virginia previously referred to as individuals who maintain a teaching licensure but teach out of field on an emergency certificate, now include individuals with four-year baccalaureate degrees in various disciplines without teacher certification or licensure. Based upon this definition, West Virginia and other states are mandating training for non-certified individuals seeking substitute positions due to teacher shortages. The next section will address substitute teacher training.

### *Substitute Training*

Alternative certification programs emerged in part due to the nationwide teacher shortage that resulted in hiring substitute teachers; consequently creating a shortage of substitute teachers. In 1999, the Substitute Teaching Institute, located at Utah State University, reported that 96 percent of the nation's districts face substitute teacher shortages (Smith, 1999). Due to this severe shortage, many states and localities began searching for unique ways of supplying and preparing enough substitute teachers for the nation's classrooms. Today, fewer than 10% of all school districts require regular substitute teacher training beyond basic orientation of district policies and 53% provide no training (Longhurst, Smith, & Sorenson, 2000; Smith, 1999). Substitute teacher training gives substitutes the information and skills they need to be successful in the classroom as well as increases longevity in the number of applicants and employees and cutting complaints about substitutes in half (Jones, 1999; Smith 1999). Smith (1999) recommends training for substitute teachers to go beyond a basic orientation of district policies. The following section will examine substitute training present in randomly selected states throughout the United States.

*U.S. Substitute Training*

It has become increasingly difficult to retain qualified substitute teachers in rural and urban areas as well as various curricular disciplines within the public school systems throughout the United States due to low paying salaries, retirements, decrease in student population, and various other reasons (Smith, 1999). Most school districts throughout the United States require substitutes to have attained a baccalaureate degree or receive appropriate training on the local or district level. Every school district in the United States is responsible for providing their own professional development training for substitutes. Topics for general professional development for substitutes may include the following: (a) professionalism - the role of a substitute, (b) health and safety issues, (c) overall classroom management, (d) maintaining discipline, (e) age-appropriate teaching strategies, (f) lesson plans, (g) practical ideas and resources, (h) communicating with staff, (i) special education students and instruction, (j) bag of tricks in the classroom, and (k) policies and procedures addressing accidents, legal issues, first aid, and ethics. (Griswold & Hughes, 1999; Jones, 1999; Longhurst, Smith, & Sorenson, 2000; San Diego Office of Education, 1998; Sheppard, 1997; Smith, 1999). The following examples will disclose substitute teacher requirements of randomly chosen states throughout the nation.

California's minimum requirements for substitute teaching assignments consist of a bachelor's degree and passage of the state teacher's exam. Once these requirements are met, individuals may apply for an emergency 30-day substitute permit. The substitute permit is valid for one year and allows substitutes to teach on a day-to-day basis for up to 30 days in the same classroom (San Diego Office of Education, 1998).

Iowa's substitute teacher requirements are more comprehensive and consist of the following components: a minimum of 15 clock hours of classroom management, strategies for learning, diversity, and ethics. In addition to these components, substitute teachers must have achieved at least one of the following: a baccalaureate degree from a regionally accredited institution, or completed an approved paraeducator certification program and hold a paraeducator certificate. Iowa's substitute teachers must have attained a minimum age of 21 years and successfully completed an Iowa division of criminal investigation background check (Iowa State Board of Education, 2003).

The state of Michigan encourages urban school districts to create programs that would grant one-year temporary substitute teaching credentials to unemployed workers who have a

bachelor's degree, are enrolled in a teacher certification program, completed student teaching, and teach in critical shortage areas such as early childhood, early elementary, or bilingual education, in addition to secondary math and science. Michigan formerly required a four-year degree, including six course credits in professional education, to become a substitute teacher; however, that was dropped to 90 course credits and the professional education requirement was dropped due to teacher shortages (Michigan Education Report, 2002).

A substitute teacher in Seminole County Florida must file a complete set of fingerprints, provide a High School Diploma or documentation of a Junior or Senior status in an accredited university or college, and be at least 18 years of age for issuance of a Seminole County Substitute Certificate. This group of substitutes may be employed for ten or more consecutive days; however, employment for 30 or more consecutive days requires the substitute teacher to hold a valid Florida Educator's Certificate or Bachelor's or higher degree with a major in the area of the teaching assignment or be eligible for a state issued teaching certificate (Seminole County Public School, 2000).

Missouri requires applicants to have completed at least 60 hours of college credit from an approved institution. They must apply in the county in which they wish to substitute and fill out a background check form (Missouri Department of Elementary and Secondary Education, 2002).

Virginia's substitute teacher policy requires that an individual must be a minimum of 18 years with a preferred 21 years of age, possess good moral character; earned a high school degree or GED; and attend an orientation to school policies and procedures conducted by the local school division (Commonwealth of Virginia Department of Education, 2000). Virginia also requires fingerprinting of any employee, whether permanent or temporary. Individuals are required to attend a one-day training session, provide an updated physician's certification of a tuberculosis test, three letters of recommendation and complete application forms (Rockingham County Public Schools, 2003).

*West Virginia Substitute Training*

West Virginia's substitute training programs began in 1999 in response to the shortage of the substitute teacher pool. West Virginia conducts substitute training through contracted services hired by the eight Regional Education Service Agencies or employees of the agencies (RESA, 2003). These regional units in the state school system were originally established in 1972 under West Virginia Code 18-2-26 Policy 3233, to provide high quality, cost effective

education programs and services to students, schools, and school systems addressing the following areas: assessment of educational needs, computer basic skills support, computer information systems, cooperative purchasing, cost effective programs, equal educational opportunities, exemplary teacher recognition, feasibility studies, instructional models, and legislative evaluation reports. However, in 2002, West Virginia Code 18-2-26 experienced a dramatic change under the purpose section of the Code. The Code now requires the multi-county regional service agencies to provide the following services: (1) technical assistance to low performing schools and school systems; (2) high quality, targeted staff development designed to enhance the performance and progress of students in state public education; (3) facilitation, coordination, and cooperation with county school boards in the sharing of specialized personnel, cooperative purchasing, communications and technology, curriculum development, and operation of specialized programs for exceptional children; (4) installation, maintenance and repair of education related technology equipment and software with special attention to the state level basic skill and Success program; (5) receive and administer grants under the provisions of federal and state law or by the state board; and (6) development and implementation for any other programs or services as directed by law or by the state board (RESA, 2003).

The Regional Education Service Agency was divided into eight regions by the State Board of Education as follows: RESA I - southern West Virginia; RESA II - south western West Virginia; RESA III - west central West Virginia; RESA IV - south eastern West Virginia; RESA V - central West Virginia; RESA VI - northern panhandle of West Virginia; RESA VII - north central West Virginia; and RESA VIII - eastern panhandle of West Virginia (see Figure 2). Each of these Regional Education Service Agencies is responsible for specific counties designated by the West Virginia State Board of Education (see Appendix H). West Virginia Policy 5202 mandates that individuals hired to conduct training by a Regional Education Service Agency must hold the same licensure required for an educator employed by a board of education (West Virginia Board of Education, 2003).

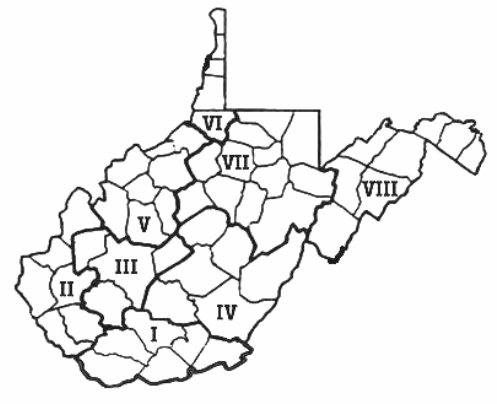


*Figure 2*. Regional Education Service Agency locations of the eight RESAs in West Virginia

Note: Retrieved October 11, 2003 from RESA I Website http://resa1.k12.wv.us/about.htm . Copyright 2004, Used with Permission.

The eight Regional Education Service Agencies (RESA I – RESA VIII) throughout the state of West Virginia offer substitute training within their regions for those persons who have a baccalaureate degree, a 2.0 grade point average and a recommendation by the county superintendent. Training is dependent upon the need of substitutes within the public school systems in the fifty-five counties in West Virginia. Non-certified individuals interested in substitute teaching are required to complete 18 clock hours prior to issuance of a substitute permit. The first 12 hours of the 18 hours of the required training must involve, but are not limited to, training in classroom management, state and local policies, the West Virginia Content Standards, and an overview of school law pertaining to reporting child abuse. Other topics that may be included in this training include: the role of a substitute teacher, teaching strategies, student or teacher code of conduct, sexual harassment, confidentiality, content standards, bullying, safe schools, fire drills, lock downs, special education issues, 504 plans, lesson plans, "bell ringers or sponge activities", appearance, positive attitude, substitute evaluations, multiple intelligences, cooperative learning activities, various methods to call on students, preventive discipline, handling disruptive students, higher level questioning, legal aspects, communication strategies, how to handle absences, homework, and the utilization of a resource kit or substitute Sub-Pack obtained from the Substitute Teaching Institute, Utah State University (RESA, 2003).

Participants of the substitute training are presented certificates upon completion of the first 12 hours of orientation which must be turned in to the counties' personnel director(s) for proof of attendance. After evidence that the first twelve hours have been successfully completed, the six hour classroom observation phase of the training is set up at the board of education in each county by the personnel director at various times during the school year. Classroom observations may be dependent upon whether the individual will be teaching on the elementary or secondary level. Counties determine whether the substitute will observe in one or both of these levels. A county's observation form or a personal letter from the classroom teacher depicting the total hours and concentration of observations may complete proof of observation. During the observations, individuals are encouraged to reflect upon the topics discussed during the substitute training (e.g. classroom management, instructional strategies, and lesson plans utilizing WV Content Standards). Upon completion of the substitute training process and approval by the county superintendent, individuals are presented with a substitute permit. Three years from the initial application date, non-certified substitutes are required to complete retraining and obtain recommendation of the county superintendent in the county in which the applicant is employed, for renewal of another three-year permit (RESA, 2003).

Further requirements of the substitute teacher procedure include a satisfactory criminal background check and an up-to-date negative tine (tuberculosis) test. First time attendees to the training are required to order an official transcript of undergraduate classes with the official raised seal, a resume, and three letters of recommendation (RESA, 2003).

Substitute teacher training involving schools' policies and procedures has been encouraged throughout the states in order to comply with the *highly qualified teacher* requirement for substitute teachers in the "No Child Left Behind Act of 2001." West Virginia requires 12 hours of training involving policies and procedures, in addition to six hours of observation within the school setting, an interview with the personnel director, fingerprinting in order to complete a background check, and approval by the board of education. Conversely, there is no national policy depicting the extent of substitute training throughout the United States.

Individuals interested in substituting in the classroom have many requirements to become substitute teachers. Additionally, non-certified substitute teachers have little or no pedagogical

background or experience in the classroom. This gives rise to question of why these non-certified substitute teachers have a desire to teach. The next section will describe the various reasons individuals consider positions as substitute teachers.

### *Reasons for Substituting*

Substitute teachers replace regular classroom teachers on an estimated 5-10% of their classroom time during the K-12 years; while during the course of one day, 10% of the nation's students may be taught by a substitute teacher (Billman, 1994; Nidds & McGerald, 1994; Ostapczuk, 1994; Wyld 1995). Few individuals work as substitutes for more than a year, and even fewer make a career of it, thus the composition of the substitute pool constantly shifts, necessitating a continual need to replenish the supply of qualified individuals. (Abdal-Haqq, 1997; Snyder, 1995; Wyld, 1995). Fortunately, these individuals believe they have something to offer students and that they can make a difference in a child's life. These individuals become substitute teachers for various personal reasons such as gaining experience in the classroom, a second income, networking in order to find permanent jobs, a flexible work schedule, and to learn about different schools and school policies (Abdal-Haqq, 1997; Nidds & McGerald, 1994; Russo, 2001; Snyder, 1995; Wyld, 1995).

Substitute teaching in today's schools has become a major emphasis and necessity due to various reasons, such as a reduction in force (RIFs), teacher retirement, student enrollment increases, general attrition, efforts to reduce class size, and the Family Medical Leave Act (FMLA) of 1993 (AFT Principals for Professional Development, 2003; Department of Education 2001; Feistritzer, 2002). The next section of this document will discuss these reasons in further detail to make evident the increased need for substitute teachers.

#### *U.S. Reduction in Force (RIF)*

A reduction in force (RIF) occurs when a layoff of teachers is necessary in a subject area or program during the regular school year, therefore reducing the number of regular substitutes in that area or program. Regular substitutes have no recall rights, whereas teachers who have been involved with a reduction in force and not placed in other full time teaching positions, tend to be given priority for long-term substitute positions for which they are qualified (U.S. Department of Education, 2003). The reduction in force teachers are usually placed on a preferred recall list and recalled primarily on the basis of seniority in areas in which they

previously had been employed, or to any lateral position for which the employees are qualified or to a lateral area for which employees have certification or licensure (U.S. Department of Education, 2003).

Several reasons, including declining student enrollment, reduced staff turnover, limited financial resources, and changes in instructional programs have caused a reduction in force for public school systems throughout the United States (U.S. Department of Education, 2003). In 2002, 29 states implemented targeted or across-the-board budget cuts; while in 2003, 11 states cut K-12 educational spending, with 11 others slashing revenue sharing with local governments resulting in teacher reductions in force (RIFs). Winans (2002) predicts negative effects for public schools lasting for at least the next two years due in part to a reduction in force.

*West Virginia Reduction in Force (RIF)*

West Virginia follows the same procedures as other states for a reduction in force. For example, according to West Virginia RIF Policy 805.00, if the number of personnel is in excess of the funding provided by the state foundation allowance or by other sources, a reduction in force is necessary (West Virginia Department of Education, 2003). In compliance with Bates v. Board of Education, (West Virginia Code 18A-2-2), if a teacher is released from employment due to a lack of need for her services, she will be placed on a preferred recall list (West Virginia Department of Education, 2003). Reduction in force and the policy to rehire these individuals first, puts West Virginia at a disadvantage of hiring new teachers (The Council for Basic Education, 2000).

The number of general and special education teachers involved in a reduction in force for the state of West Virginia between 1997-1999 indicated a significant increase of 79 to 615 respectively; however, there was a significant decrease of 615 to 60 teacher reductions between 1999-2000 (see Table 2).

This increase was due to the 1990s recession resulting in budgetary cuts and decreased enrollment in public schools (Weber, 1996). The data also show a significant increase in the number of educators receiving a leave of absence from 1999-2000, with the availability of positions increasing in the same school year.

Table 2

*WV Trend Data for Total Positions*

*Posted Total Non-Returning Educators and Terminations Due to Reductions in Force: (1997-98 through 1999-00) Reported by Specialization and Full-Time Equivalency (*)*

| | 1997-98 | | | 1998-99 | | | 1999-00 | | |
|---|---|---|---|---|---|---|---|---|---|
| | A | B | C | A | B | C | A | B | C |
| General Ed | 1080 | 404 | 61 | 1462 | 538 | 60 | 760 | 711 | 54 |
| Special Ed. | 319 | 101 | 18 | 458 | 109 | 14 | 486 | 138 | 6 |
| Admin/Support | 288 | 124 | 6 | 378 | 174 | 3 | 349 | 193 | 3 |
| Voc Ed | 79 | 44 | 7 | 107 | 70 | 13 | 152 | 69 | 6 |
| Other | 23 | 12 | 0 | 39 | 7 | 0 | 31 | 11 | 0 |
| TOTAL | 1789 | 685 | 92 | 2444 | 898 | 90 | 2778 | 1122 | 69 |

Note. From the West Virginia 1999, Data Report Educational Personnel Table C6. (*) This is a summary of table C6. Key: A = Total positions Posted; B = Total Non-returning Educators; C = Terminated Due to Reduction in Force. Note: The numbers in this chart have been rounded to the nearest tenth for summary purposes. Copyright 2004, Used with Permission.

*U.S. Teacher Retirements*

The increase of "baby boomers" in the public school systems are at retirement age, thus creating a teacher shortage and the need for substitute teachers to fill many of the positions. In response to America's impending "retirement crisis", the U.S. Bureau of Labor Statistics (2003) reported that half of secondary school teachers are age 45 years and older (see Table 3), and 67% of those expect to retire by 2008.

It is estimated that more than 76.1 million Americans were born between 1946 and 1964, deemed the titled of "baby boomers" and are now between 36 and 54 years old. (U.S. Bureau of Labor Statistics, 2003).

Two demographic trends, growing student enrollments and retirement of thousands of baby boomer teachers, increase the need for substitute teachers who may not have certification. It is estimated that between the years 1998 and 2008, 418,000 elementary school teachers and 378,000 secondary school teachers will be needed to replace the retirees in the United States (Snyder, Edwards, & Folsom, 2002). Retirement of these teachers, coupled with other factors

Table 3

*Comparison Percentage between the U.S. and Mid-Atlantic Region*

*Age Group of Teachers (2000)*

| Age: | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 | 45-49 | 50-54 | 55-59 | 60-64 |
|---|---|---|---|---|---|---|---|---|---|
| Mid Atlantic | 8 | 9 | 12 | 11 | 12 | 20 | 18 | 6 | 5 |
| U.S. | 6 | 13 | 12 | 13 | 13 | 17 | 14 | 8 | 4 |

Note. From the Center for Applied Demography & Survey Research, University of Delaware. Copyright 2004, Used with Permission.

influencing teacher shortage, will increase the substitute teacher pool. Subsequently, more individuals will be able to substitute teach on a regular basis.

*West Virginia Retired Teachers*

In 1999-2000, West Virginia had 1,044 teachers who qualified for retirement under the rule of eighty (i.e., 55+30), and 630 educators who were qualified to retire by age 60+5. (Council for Basic Education, 2000). Four hundred seventy four teachers out of 929 non-returning teachers (excluding administration) actually retired in 1999-2000 school year. (see Table 4), increasing job positions or a need for substitute teachers.

*U.S. Professional Development Training*

Professional development training has also increased the need for hiring substitutes due to classroom teachers' requirements to accumulate a specific number of hours considered

necessary for the improvement of instruction (Griswold & Hughes, 1999; Russo, 2001). The No Child Left Behind Act of 2001 describes the purpose for professional development as to improve and increase teachers' knowledge of academic subjects and to enable them to become highly qualified (Title IX, Part A, Section 9101). The No Child Left Behind Act of 2001 also recommends that professional development programs are not one-day or short-term workshops or conferences.

The American Federation of Teachers, a national teacher organization, suggests that in order to provide teachers with effective professional development, school districts should provided sufficient time, support, and resources to enable teachers to master new content and pedagogy and to integrate these into their practice (American Federation of Teacher's Principles for Professional Development, 2003). Purnell and Hill (1991) suggest one way to promote professional development is for schools to use substitutes in order to free teachers to attend professional development workshops, conferences or observe other classes.

*West Virginia Professional Training*

West Virginia Policy 5500 requires the county boards of education to mandate 18 clock hours each year of staff development programs providing professional job-related training for school personnel on three non-instructional days, days that school is not in session. At least two of the three days of mandatory staff development programs or their equivalent must be scheduled prior to January 1. In lieu of non-instructional days, teachers may use staff development or credit time during the workday to attend professional development activities or workshops; otherwise, it is referred to as staff development release time. If credit time for staff development were utilized, it would be essential to hire a substitute teacher to cover the class(es).

*U.S. Teacher Attrition*

Teacher attrition also contributes to the need for hiring substitutes. Ingersoll (2001) reported to the National Commission for Teaching and America's Future that 33% of new teachers leave the teaching profession within the first three years and 46% are gone by five years. Teacher attrition results from various reasons such as low pay, lack of support and respect, being unprepared for the courses presently taught or in the near future, pursuing careers outside the classroom, family or personal matters, retirement, unmanageable students, and total

Table 4

*West Virginia Age Distribution of Employed Educators (1999-00)*

| Number of Personnel within Span and Percentage of Total | | | | | | |
|---|---|---|---|---|---|---|
| Age | 20-29 | 30-39 | 40-49 | 50-54 | 55-60 | Over 60 |
| Number | 1,635 | 4,165 | 10,308 | 5,482 | 2,399 | 535 |
| Percentage | 6.67% | 16.98% | 42.03% | 22.35% | 9.78% | 2.18% |

Total Number of State Personnel: 24,524

Average Age in Years: 45.2

Note. From the West Virginia 1999, Data Report: Education Personnel, Table A1. Copyright 2004, Used with Permission.

dissatisfaction with teaching as a career (Mezzacappa, 2003; National Center for Education Statistics, 2003). Ingersoll (1999) reported the two highest reasons for teacher attrition were family matters (48%) and job dissatisfaction (30%). Subsequent to these two primary attrition reasons for teachers were to pursue other careers (25%) and retirement (18%).

Teacher attrition is a component of teacher turnover, which may involve exiting the profession as well as changing fields such as special education, or changing schools (Croasmun, Hampton & Herrmann, 1997). Newly "minted" teachers, who are replacing the baby-boomer or retirement-aged teachers, are more likely to leave the profession at a higher rate than mid-career teachers due partly to working conditions (Feistritzer, 1998; Freeland & Meade, 2001). The National Center for Education Statistics Schools defines newly "minted" teachers as those who have recently completed a college education program and not yet entered into the teaching field (Feistritzer, 1998).

Ingersoll (2001) conveys a detailed description of teacher attrition in "Teacher Turnover, Teacher Shortages and the Organization of Schools." He perceives beginning teacher attrition as a serious problem as follows: (a) schools lose about the same number of teachers they hire each year; (b) teacher attrition is costly to the school systems; (c) teacher attrition is detrimental to low

income students; and (d) many working conditions and pay as the largest factors in teacher attrition.

*West Virginia Teacher Attrition*

The Mid-Atlantic Regional Teacher's Project (MARTP, 2000) reported that West Virginia's teacher attrition based upon retirement, death, termination due to reduction in force (RIF), termination due to non-RIF, and resignation to accept out of state teaching positions indicates approximately 660 regular and special education teachers did not return to their positions in the 1990-2000 school year. The report implies that teacher age and experience was an indicator (rule of eighty) for predicting eligibility for retirement thus contributing to teacher attrition (see Table 5).

*U.S. Student Enrollment*

Student enrollment in the United States has been on the increase primarily due to baby boomers' children. Consequently, this enrollment increase has decreased the substitute pool (Rushlo, 1998). The U.S. Census projection of education statistics for the 50 United States and the District of Columbia indicates a 7% increase in elementary and secondary schools from 1995 through the year 2007 due to the increase of births since 1977 (Bruno, 2003; National Center for Education Statistics [NCES], 2003). Furthermore, public school enrollment is projected to rise from 46.4 million in 1997 to 48.3 million by 2007, resulting in an increase of 4 percent (National Center for Education Statistics, 2003). The increase in school population between 1970 and 1995 occurred more abundantly in the South and West while declining in the Northeast and the Mid-west. The National Education Association (NEA, 2003) provides information from the *Rankings & Estimates: Rankings of the States 2000 and Estimates of School Statistics 2001*, indicating that school-aged children are one of the fastest-growing segments of the population in the past 10 years. This report also informs us that in 1998, 18.8% of the U.S. population was school age children with only 12.8% being 65 and older. The National Center for Education Statistics (2002) further adds that public elementary and secondary enrollment is projected to reach 47.4 million before decreasing slowly from 2002 through 2005, with California experiencing the largest increase (see Figure 3).

Table 5

*WV Numbers and Reasons for Non-returning Educators by Specialization and Full-Time Equivalency (*)*

| Speciali-zation | A | B | C | D | E | F | G | H | I | J | Total number Non-returning |
|---|---|---|---|---|---|---|---|---|---|---|---|
| General Ed | 325.41 | 9.00 | 53.90 | 6.00 | 85.40 | 82.50 | 20.00 | 1.00 | 53.50 | 74.50 | 711.21 |
| Special Ed | 18.00 | 2.00 | 6.00 | 1.50 | 37.10 | 33.50 | 3.00 | 2.00 | 5.00 | 29.50 | 137.60 |
| Admin/ Suppt | 86.09 | 1.00 | 3.00 | 2.50 | 26.50 | 46.00 | 4.00 | 2.00 | 6.00 | 16.00 | 193.09 |
| Voc Ed | 36.50 | 0.00 | 5.50 | 0.00 | 7.00 | 9.00 | 2.00 | 0.00 | 1.00 | 7.50 | 68.50 |
| Other | 10.50 | 8.00 | 0.00 | 0.00 | 0.00 | 1.50 | 0.00 | 1.00 | 0.00 | 0.00 | 10.50 |
| TOTAL | 474.0 | 12.0 | 68.40 | 10.00 | 156.0 | 172.5 | 29.00 | 6.00 | 65.50 | 127.50 | 1,120.9 |

Note: From the West Virginia 1999 Data Report Educational Personnel, Table C4.) (*) This is a summary of Table C4. Key: A = Retired; B = Deceased; C = Terminated due to RIF; D = Terminated due to non-RIF; E = Resigned to accept out-of-state education position; F = Resigned to accept education position in WV; G = Resigned to accept employment in non-education position; H = Resigned to pursue full-time graduate studies; I = Received leave of absence; J = Other. 

California's increase in school population has been the result of immigration (Smith & Edmonston, 1997). Smith and Edmonston (1997) also revealed that in the 1970s, 380,000 foreign-born children entered the California school system; otherwise, enrollment would have dropped. Subsequently, the number of immigrant children were as comparable in the 1980s in addition to an increase of native-born children under the age of 12, which increased by more than 1.1 million.

*West Virginia Student Enrollment*

West Virginia is experiencing a decline in enrollment. West Virginia's K-12 school age children enrollment in 1990 was 320,000, compared to 290,000 school-age children in 2000 (The Council for Basic Education, 2000). An electronic statewide data system, West Virginia Education Information System (WVEIS), developed in 1996 under West Virginia Code §18- 2E- 4, created a more accurate way to gather data from all of the public schools in West Virginia (West Virginia Department of Education, 2003). Enrollment information gathered by the West Virginia

Education Information System contains indicators that are cited in the legislation as well as individual school report cards, which are disseminated to parents. The West Virginia Report Cards: State, County and School Data for 2000- 2001 indicated a decline in enrollment in West Virginia from 1996 to 2001. Excluded from this report was alternative, special education, vocational and certain state-funded schools. Although West Virginia experienced a decrease in enrollment due in part to teacher attrition and retirement, 2,778 jobs were posted with an estimated 1,122 teachers not returning.

*U.S. Reduction in Class Size*

In November 1999, President Clinton reported to Congress that progress was needed to reduce class size in the early grades (1-3). The U.S. Department of Education's Class Size Reduction Program was designed by Congress to hire 100,000 high quality teachers over the next 6-7 years to reduce class size. In compliance with the program, Congress set aside $2.5 billion to help states and local school districts reduce class size; however, in 2002, the federal government withdrew specific financial support for class size reduction, lumping it together with other funds to make available a variety of education programs and hiring only a total of 37,000

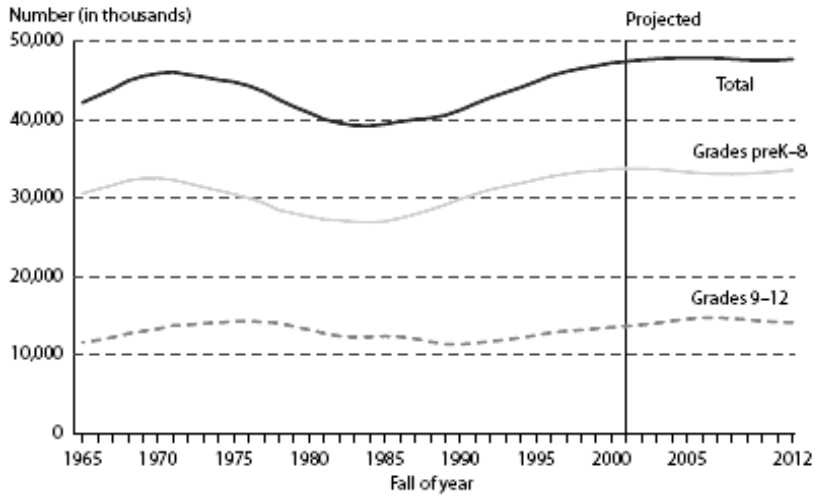


*Figure 3*. Public elementary and secondary school enrollment in PreK-12 (in thousands), by grade level, with projections: Fall 1965-2012

Note. From the U.S. Department of Education, NCES. (2002). *Projections of Education Statistics to 201* (NCE2002–030), table 1 and *Digest of Education Statistics 2001* (NCES 2002–130), table 37. Data from U.S. Department of Education, NCES, Common Core of Data (CCD), "State Non-fiscal Survey of Public Elementary/Secondary Education," 1987–2000 and *Statistics of Public Elementary and Secondary School Systems*, various years. Copyright 2004, Used with Permission."

new teachers (United States Department of Education, 2001). Although emphasis was no longer placed on class size reduction, states were allowed to use these funds to help reduce class size upon their discretion.

The U.S. Department of Education (2002) found class size reduction to have a positive impact on local communities. One such positive aspect resulted in decreasing the problem of teacher attrition through the rewards of smaller class sizes, as well as increasing the hiring and training of new teachers (Eberhard, Reinhardt-Mondragon, & Stottlemyer , 2000). Pritchard (1999) indicated reducing class size relates to increased student learning; a reduction in discipline difficulties; individualized instruction; and increased time for instructional approaches and assignments. Pritchard (1999) implies that class reduction is especially beneficial to the early grades as well as disadvantaged and minority students; however, evidence shows that the reduction needs to be of substantial size. Pritchard reports significant effects of class size reduction on student achievement appear when class size is reduced to a point somewhere between 15 and 20 students. Research also indicates that if class size was reduced from 35 to 20 students per class or below 20 students, student achievement moves the average student from the $50^{th}$ percentile up to somewhere above the $60^{th}$ percentile. This number is somewhat more substantial for disadvantaged and minority students. Pritchard (1999) indicates that there is a positive impact on the quality of classroom activity in class size reduction. On the other hand, Pritchard also reports that researchers are more cautious about the question of the positive effects of class size reduction in fourth through 12th grades.

In support of classroom reduction, *Project STAR* (Supporting Teachers As Researchers), a four-year longitudinal research study in the state of Tennessee, which began in 1985, also concluded that classroom reduction must be below twenty students to produce positive results. This study was based upon the variations among students and teachers (e.g. both white and minority students in smaller classes, and smaller class students from inner city, urban, suburban, and rural schools) and their interactions (U.S. Department of Education, 2002). *Project STAR* also predicted the contention of teacher shortages due to class reduction. Classroom reduction coupled with teacher shortages could extend the possibility of hiring less qualified teachers, which many states are already experiencing. In conjunction with reducing class size, the need to strengthen teacher quality by providing professional development, which focuses on teaching smaller classes, is unavoidable. The results of *Project Star* indicated that classroom reduction is

positive for many minority students, in addition to fewer students retained in same grade levels, and earlier identification of students needing special services

In compliance with Project Star and programs in other states participating in class size reduction, Ernest L. Boyer, President of the Carnegie Foundation for the Advancement of Teaching, and The National Association of Elementary School Principals, also support a class size of fifteen in regular programs and even smaller in programs with special needs children. They further state that smaller classes enhance safety, discipline and order in the classroom. Consequently, a reduction in class size has also reduced the number of certified teachers in the substitute pool (Smith, 1999).

*West Virginia Reduction in Class Size*

West Virginia is one of approximately twenty states that have passed or considered legislation to reduce class sizes. Other states include Alabama, California, Florida, Georgia, Illinois, Kentucky, Louisiana, Massachusetts, Michigan, Minnesota, New Hampshire, New Mexico, New York, Nevada, Oklahoma, Tennessee, Texas, Utah, Virginia, and Wisconsin.

Currently, West Virginia class sizes are situated with kindergarten not exceeding 23; first through fourth grades are considered filled at 25; fifth through six grades can be no larger than 27; however, grades 7 through 12 do not have class size maximums (Montgomery, 2002). Subsequently, West Virginia Education Association (WVEA) Legislative Program (2002-2003) recommends that preschool through second grade have no more than 20 students per teacher; and for grades 3 through 12 class size limitations of no more than 25 students per teacher.

The U. S. Department of Education (1998) estimated that West Virginia needed to hire 291 well-prepared public school teachers to reduce class size in the early grades in order to meet the Class Reduction Program (see Appendix I). The estimated cost of class size reduction based on fifteen students per class for West Virginia in the first year would be $191,670,140 total for all teachers in the state. Results showed a steady increase through the seventh year equaling $103,217,565. This reduction would also increase the number of classes from 14,348 classes to 20,088 if class sizes were reduced to fifteen.

Teachers hired for class reduction are funded through a federal Title II program (Montgomery, 2002). Determination of schools that would benefit from classroom reduction would be based on test performance, enrollment, socio-economic factors and other indicators.

Sometimes schools would lose classroom reduction teachers to other schools because of enrollment numbers and other factors. The classroom reduction program is in its third year and every year teachers who are teaching in reduced size classrooms are put on a transfer list until the district can determine which schools will be served by them (Montgomery, 2002).

*U.S. Substitute Income*

Substitute teachers' income varies from $32 to $125 per day according to school district and teacher certification between states (see Appendix J). For example, Arkansas pays substitutes $100 - $125 with teacher certification and $75 - $80 without certification; while Alabama pays a mere $35 for substitutes. Arkansas substitute qualifications are left up to school districts. However, the American Education Association (AEA) introduced a law that recently passed in the state legislature requiring a bachelor's degree from an accredited college or university or an Arkansas teacher's license for substitute teachers who teach the same class for more than thirty consecutive school days must have either. Washington D.C. public schools' substitutes are paid approximately $74 - 80 per day, with the requirement that substitutes must have a bachelor's degree or a minimum of 60 semester hours of course work from an accredited college or university and a valid substitute license.

*West Virginia Substitute Income*

West Virginia has three levels of substitute incomes. The first level is the "basic" salary ($89 - $105, depending on the county), which is paid to teachers with zero years of experience and in accordance with the teacher's classification of certification and training for the first ten days of substituting at not less than 80% of the daily rate. The next level is the "advanced salary" which is the "basic" salary plus the experience increment for the allowable years of experience of the teacher while in the classroom from 11-30 days, also determined by the county. Finally, the "advanced" salary (approximately $130), paid at a daily rate within the teacher's county in excess of 30 days, is interpreted as the county's actual salary schedule for a regular teacher which includes state basic salary, state equity, and the county supplement allotment (West Virginia Code 18A-4-1; West Virginia Code 18A-4-7).

*U.S. Family Medical Leave Act (FMLA)*

The Family and Medical Leave Act of 1993 (FMLA), is another rationale for the need of a greater number of substitutes. Wyld (1995) indicated that the most profound administrative and instructional effects of FMLA would occur in the role of long-term substitute teachers who replace teachers taking intermittent or block leave. Two years later, Jones (1997) reported that the FMLA and mandatory inservice training have led to an increase in teacher absenteeism and a greater need for substitute teachers. School personnel are entitled to receive twelve weeks of job protected, unpaid leave during any twelve months of their employment. Individuals requesting leave under the FMLA act may do so for the following reasons: (a) for the birth and care of the employee's child or placement for adoption or foster care of a child with the employee, care for an immediate family member, or for the employee's own serious health condition; (b) a new child in the family—by birth, by adoption or by placement in foster care; (c) caring for a family member with a serious health condition; or d) the employee's own serious health condition that prevents him or her from performing the job (U.S. Department of Labor, 2003). School employees must give a 30 day advanced notice before taking FMLA leave. During their absence, employees are entitled to maintain their group health plan. Furthermore, upon returning to work, employees must be given the same or an equivalent position with equivalent pay, benefits and working conditions (U.S. Department of Labor, 2003).

*West Virginia FMLA*

West Virginia follows similar guidelines concerning family medical leave (FMLA) for teachers. According to West Virginia Code § 21-5D-4, West Virginia teachers are entitled to twelve weeks of unpaid family leave following the exhaustion of all annual and personal leave during a twelve month period (West Virginia Department of Education, 2003). In compliance with West Virginia Code § 21-5D-7, reasons for granting family leave may include: the birth of a child(ren); adoption of a child(ren); or to care for a seriously ill child, parent or spouse. Substitute teachers are hired for temporary employment during the teacher’s leave; however, the regular teacher will be reinstated in their original position if the leave does not exceed a 12-week period (West Virginia Department of Education, 2003). While on family leave, teachers may maintain their health insurance if they pay the premium cost; however, they will not accrue seniority or employment benefits.

Individuals pursue substitute teacher positions in response to reductions in force, retirement of "baby boomers", an increase in development training for regular classroom teachers, teacher attrition, increased or decreased student enrollment, acquired income, and absenteeism resulting in part due to the Family Medical Leave Act (FMLA). Along with the various reasons for obtaining substitute-teaching positions, substitute teachers may also encounter obstacles on a daily basis.

### *Substituting Difficulties*

Similar to beginning teachers, substitute teachers encounter many difficulties in the classroom on a daily basis. Regular classroom teachers and principals report professionalism, legal issues, emergency procedures, classroom management, and teaching strategies as difficulties they perceive to be associated with substitute teachers (Smith, 1999). Substitute teachers recognize their difficulties to include, but are not limited to: classroom management, the lack of instructional material (i.e. lesson plans, seating charts, and attendance records); the lack of administrative support; and out-of-field assignments (Longhurst, Smith, & Sorenson, 2000; Smith, 1999). The following section will focus on the two most frequent and noticeable difficulties substitute teachers encounter, classroom management and instructional strategies associated with out-of-field assignments.

#### *U. S. Classroom Management Difficulties*

Beginning teachers and substitute teachers report that they are overwhelmed when dealing with behavioral and discipline problems in the classrooms (Longhurst, Smith, & Sorenson, 2000). Classroom management appears to be the greatest challenge faced by these two groups of individuals (Abdal-Haqq, 1997; Longhurst, Smith, & Sorenson, 2000; Smith, 1999). Students tend to "act up" when they encounter substitutes in the classroom. Substitutes have the unfortunate title called "glorified babysitters" (Abdal-Haqq, 1997; Sheppard, 1997).

The National Center for Educational Statistics (1998) concluded violence in the classrooms involving theft, vandalism, fights or assaults with a weapon, in public schools as follows: (a) 45% of elementary schools, (b) 74% in middle school, and (c) 77% in high schools. Results indicate that less discipline problems are reported in elementary schools compared to middle and high schools. Seventy eight percent of the public schools have some type of formal violence-prevention/reduction program. Schools experiencing the most discipline problems

were: (a) larger schools; (b) city schools; and (c) schools with the highest proportion of minority students (National Center for Educational Statistics 1998, p. 8).

The National Education Association (2003) further examines the nature of discipline problems teachers or principals may face in the school setting are as follows: student tardiness, student absenteeism, physical conflicts among students, robbery or theft of items worth over $10, vandalism of school property, student alcohol use, student drug use, sale of drugs on school grounds, student tobacco use, student possession of weapons, trespassing, verbal abuse of teachers, physical abuse of teachers, teacher absenteeism, teacher alcohol or drug use, racial tensions, and gangs. Consequently, substitute teachers, as well as the novice teacher who is well prepared with content pedagogy upon leaving their colleges, report that they are not prepared for the problems within the classroom (National Education Association, 2003).

*West Virginia Classroom Management Difficulties*

In 1994, Southern Regional Education Board required that all states develop a program to enhance school safety. In 1995, West Virginia legislation allowed school districts to refuse admittance of students who were under suspension or expulsion from other districts. In addition, local school-improvement councils were then required to report on school-based plans for teaching and rehabilitating students with disciplinary problems. Furthermore, the legislation made it mandatory that teachers and principals receive inservice training in assertive discipline procedures and conflict resolution (Southern Regional Education Board, 1999).

*U.S. Out-of-Field Assignment of Teachers*

Frequently, regular classroom teachers and more often substitute teachers, teach courses of which they are not qualified (Russo, 2001). High schools and middle schools experience the higher percentage of out-of-field assignments as compared to elementary schools due to the multi-subject certification of elementary teachers (National Center for Education Statistics, 2000). Although the field of education has an intricate way of preparing their teachers to assure competent practioners, there is little directive of how teachers are employed or assigned (Ingersoll, 1999). Ingersoll further elucidated that out-of-field assignments of teachers are acknowledged in most states as an unsound practice, however, it is typically permitted by law allowing administrators to assign teachers to teach subjects for which they are not officially qualified. Nidds and McGerald (1994) suggested that school districts should be committed to

assign substitutes to specific schools as well as placing them in their areas of expertise. Ingersoll (2000) released the results of the Schools and Staffing Survey (SASS) for the 1990's. This survey employed a number of projects sponsored by the National Center of Education Statistics to profile the extent of out-of-field teaching in the U.S. The survey of out-of-field teaching became a major concern in the realm of educational policy. However, penalties for noncompliance of the educational policy by schools are weak or rarely enforced (Robinson, 1985). Weak penalties allowing principals to assign teachers to teach out of their fields more often, was not only legal but more convenient, less expensive, or less time-consuming than the alternatives (Ingersoll, 1999). Ingersoll further explains that administrators will do three things to contribute to out of field teaching if they are faced with shortages: hire less-qualified teachers, assign teachers trained in another field or grade level to teach in an understaffed area, and make extensive use of substitute teachers (see Table 6).

Roth (1986) further explains that out-of-field assignment of teachers' results in low confidence in the value of professional training involving instructional strategies in their field of study, and may be a determinate in decisions to leave the profession. Roth further accentuates that increased numbers of courses required for high school graduation and decreased class size in elementary schools ideally creates pressures for out-of-field assignments.

Table 6

*Schools with Difficulties Filling Teaching Vacancies*

*Percentage Using Various Methods to Cover Their* Vacancies

*(The percentages are approximations, based on the original table.)*

| Methods | Percentage |
|---|---|
| Cancel Courses | 8% |
| Expand Class Sizes | 11% |
| Hire Part-time Teacher | 10% |
| Increase Teaching Load | 10% |
| Reassign Other Teacher | 21% |
| Hire Under-qualified Teacher | 35% |
| Use Substitute Teacher | 48% |

Note. From "The Problem of Underqualified Teachers in American Secondary Schools", *p. 7 of web version, p. 33 of original print version,* by R. Ingersoll, 1999. Vol. 28, No. 2 (March 1999), pp. 26-37 Educational Researcher. Copyright 2004, Used with Permission.

The 1997 Columbia Group Report revealed the biggest dilemma in out-of-field teaching could be attributed to selective shortages of teachers, as well as their lack of knowledge in subject matter. Courses such as mathematics, science, language and technology are integral to out-of-field assignment of teachers. Roth (1986) also concluded that out-of-field assignment of teachers in these specific courses result in lower test scores. The highest percentage of out-of-field assignment of public school teachers without certification in the fields in which they have been assigned include foreign language and mathematics (see Table 7).

Table 7

*Out of Field Teachers*

*Percentage of public school students in middle and high school grades taught by teachers without a major certification in the field they teach, by subject area: 1999-2000*

| | Subject | | | | | | |
|---|---|---|---|---|---|---|---|
| Percent | English | Foreign language | Mathematics | Science | Social studies | Arts and music | Physical education |
| Middle School | 19 | 19 | 23 | 17 | 15 | 5 | 3 |
| High School | 7 | 15 | 10 | 7 | 7 | 5 | 5 |

Note. From the *Qualifications of the Public School Teacher Workforce: Prevalence of Out-of-Field Teaching 1987–88 to 1999–2000* (NCES 2002–603), tables B-8 and B-9, by Seastrom, M. M., Gruber, K. J., Henke, R. R., McGrath, D. J., and Cohen, B. A. (2002). Data from U.S. Department of Education, NCES, Schools and Staffing Survey (SASS), "Public Teacher Questionnaire," 1999–2000 and "Charter Teacher Questionnaire," 1999–2000. Copyright 2004, Used with Permission.

Furthermore, in response to out-of-field assignments, *Doing What Matters Most: Investing in Quality Teaching* (Darling-Hammond, 1997), released Nov. 20, 1997, reported that nearly 25% of all newly hired US teachers failed to meet licensing standards in their field, with 21% having less than a minor in their assigned field. For example, states such as Alabama had only one in four (25%) of the state's math teachers teaching without at least an academic minor in their field; 56% life science; and 68% physical science teachers are teaching without a minor.

A majority of out-of-field assignments occur in high-poverty, urban, and predominantly minority schools, indicating a need for preparing and retaining well-qualified teachers (The National Commission on Teaching and America's Future, 1996).

*West Virginia's Out-of-Field Assignment of Teachers*

West Virginia's Department of Education's Office of Professional Preparation (2001) reported that more than 95% of the 21, 839 K-12 teachers in the state are fully certified in the subject they are teaching, leaving only 4.26% teaching at least one course for which they were not qualified in teaching. A mere 1.28% taught one or more courses without expertise. During the 2000-2001 school year, 652 teachers taught on permit and 279 taught with out-of-field authorizations.

Hough (2001), states, "West Virginia has stringent requirements for teaching professionals. The data collected clearly reflects that the vast majority of educators in this state are working in subject areas in which they have content expertise and are fully certified." However, between the year 1997 and 1999 (see Table 8), there was a 113% increase of total out-of-field authorizations in general education, special education, and vocational education, with special education experiencing the most significant increase of 407% in the three year period between 1997-1999. It is state policy that a teacher who teaches even one class for which he or she is not fully certified must hold a first class permit for out-of-field authorization.
The elementary education level, with less than one percent, appears to show the lowest percentage of West Virginia educators teaching on a permit compared to the secondary level, which reveals over 99% of English, math, and social studies teachers and over 98% of science teachers are fully certified (Hough, 2001). Out-of-field authorizations or permits are mainly issued to those teaching the Japanese language (26%), special education (18%), reading specialist (11.4%), and Spanish (10.57%) (West Virginia Department of Education, 2001). West Virginia reported that in 1998-99 alone, 66.8% of the out-of-field authorizations were issued in the field of special education (Mid-Atlantic Region Teacher Profile, 2000) (see Table 9). A teacher in the state of West Virginia may obtain a first class permit outside his or her subject area provided the following criteria is met: (a) bachelor's degree; (b) 2.5 overall grade point average; (c) 25% of the approved program course work is complete related to employment in the

Table 8

*West Virginia Trend Data for Out-of-Field Authorization*

| | 1996-97 | 1997-98 | 1998-99 |
|---|---|---|---|
| General Education | 103 | 88 | 103 |
| Special Education | 43 | 150 | 218 |
| Vocational Education | 7 | 5 | 5 |
| TOTAL | 153 | 243 | 326 |

Note. From the West Virginia 1999 Data Report Education Personnel, Table D7. Copyright 2004, Used with Permission.

endorsement area; (d) recommendation of a county superintendent verifying the applicant is the most qualified, and (e) a commitment to complete the required course work for full certification (West Virginia Department of Education, 2003). In order to remain in the current positions, a teacher must take six semester hours each year and complete the endorsement in five years or less (West Virginia Department of Education, 2003). Out-of-field endorsements require teachers to have full certification in another endorsement area instead of only 25% of the content course work, in addition to completing six semester hours per year to remain in the assignment (West Virginia Department of Education, 2003).

### *Summary of Substitutes*

Research has indicated that substitute teachers come from various backgrounds with a variety of reasons for choosing teaching as their vocation. Research also showed that the regular teacher, as well as the substitute teacher constantly encounters difficulties on a daily basis. Even with the educational background and pedagogy regular classroom teachers have endured,

Table 9

*WV Out-of-Field Authorizations (1998-99)*

| Special education | Number of Authorizations |
|---|---|
| Behavioral disorders (Exclude Autism) | 54 |
| Behavioral disorders (Include Autism) | 11 |
| Gifted | 9 |
| Hearing Impaired | 4 |
| Mentally Impaired/Mild Moderate | 52 |
| Preschool Handicapped | 11 |
| Severely and Profoundly Handicapped | 13 |
| Specific Learning Disabilities | 55 |
| Visually Impaired | 9 |
| SUBTOTAL | 218 |
| General and Vocational Education | |
| Total of 23 Subject Classifications | 108 |
| TOTAL | 326 |

Note. From the West Virginia 1999 Data Report Education Personnel, Table D6. Copyright 2004, Used with Permission.

classroom management and misassignments were the greatest challenges. Therein lays the perplexity of why substitute teachers consider the teaching field. Substitute teachers, in most states, are only required to undergo a minimal amount of training and yet face the same difficulties as individuals with the knowledge and expertise many researchers deem necessary to be *highly qualified* teachers. Research is limited on topics concerning substitutes beyond their

profiles, the substitute shortage pool, reasons individuals want to substitute teach, and the difficulties they encounter in the classroom. There is little evidence found with reference to the justification as to why substitute teachers believe they are capable of teaching, also defined as their self-efficacy. The next section of this document will address the various constructs of self-efficacy and present a rationale for substitute teaching without an educational background or pedagogy.

### *Self-Efficacy: A Brief History*

Self-efficacy is part of the theoretical framework of the social learning theory developed by Julian Rotter in 1954. Rotter believed that a psychological theory should have a psychological motivational principle. The social learning theory expanded further in 1963 when Bandura and Walters presented *Social Learning and Personality Development* involving observational learning and vicarious reinforcement. Based upon the works of Rotter, Bandura (1977) published "Self-efficacy: Toward a Unifying Theory of Behavioral Change," proposing that self-belief is a key factor in the social cognitive theory. Finally, in the mid-1970s, Bandura became aware that a key element was omitted from the previous learning theories, as well as his own. As a result, Bandura, (1986) in *Social Foundations of Thought and Action: A Social Cognitive Theory*, proposed that individuals have beliefs that they can implement a measure of control over their thoughts, feelings and actions, that "what people think, believe, and feel affects how they behave" (p. 25).

Bandura (1986) stated that these beliefs are composed of a self-system involving symbolizing, vicarious, forethought, self-regulatory and self-reflective capabilities. Symbolizing capabilities are formations of symbols, which serve as the mechanism for thought. Vicarious capabilities result from the observation of others. Forethought capabilities consist of outcome expectations, which symbolize previous outcomes of behaviors, in addition to observational outcomes of others' behavior, also referred to as vicarious reinforcement. Self-regulatory capabilities involve personal control over individuals' own thoughts and actions. Finally, the self-reflective capability involves the analysis of an individual's experiences leading to the change of knowledge or thinking. Additionally, he postulated that human behavior is the outcome of the interaction between this personal system and outside sources of influence. Bandura (1986) further argued that through reflection and self-evaluation, individuals can modify their own thinking and behavior and that these beliefs will influence the ways in which they will behave. The self-efficacy construct evolved through Bandura's research.

Bandura (1986) defines individuals' perceived self-efficacy as the belief in their capabilities to organize and implement the courses of action required to produce a positive outcome or attain designated goals. Bandura further suggests that these beliefs strongly influence an individual's choices, effort expended, perseverance in challenging situations, and degree of anxiety or confidence. Individuals' behaviors are indicative of their beliefs about their capabilities; however, these beliefs do not mean that they can accomplish tasks beyond their capabilities. According to Bandura (1986), knowledge, skills, or prior performances are often poor predictors of subsequent performances. However, self-efficacy coupled with knowledge and skills help determine the different behaviors of individuals. Bandura's studies of phobic individuals and their perceived capabilities indicate that outcomes are dependent upon decisions involving successful accomplishments in given situations. This process leads to the labeling of individuals' self-efficacy (see Zimmerman, 2000).

### *Self-Efficacy and Related Beliefs*

Bandura (1997) referred to related views of self-efficacy such as motivation, outcome expectancies, self-concept, and perceived control, as a "self-system." The self-system, as defined by Pajares (1996), is one that "houses one's cognitive and affective structures and includes the ability to symbolize, learn from others, plan alternative strategies, regulate one's own behavior, and engage in self-reflection" (p. 1). The self-system controls the thoughts, feelings and actions of individuals cognitively as well as affectively. Individuals' perception of past experiences, accomplishments, and failures stimulate the self-system which in turn processes, stores, and uses this information to activate experiences, thoughts, behaviors, and environment. Self-efficacy maintains a triadic relationship between the environment, personal characteristics and behavior. This triad influences a person's will to complete a task, perform an action, or engage in an activity. Other related views of self-efficacy include: motivation, outcome expectancies, self-concept, and perceived control.

#### *Motivation*

Self-efficacy does exhibit some relationship to motivation. Pajares (1996) states that "self-efficacy influences motivation by the individual's perception of their ability" (p. 7). Individuals perceived to have a high level of motivation and self-efficacy on a learning task may change their beliefs based upon the experiences they encounter during the task. The learning

process, as referred to by Pajares (1996) "is then mediated by self-efficacy, which motivates and affects the effectiveness of self-directed behavior" (p.7)

Two types of motivation: mastery motivation and intrinsic motivation, are related to self-efficacy through effort and persistence (Santrock, 2001; Zimmerman, 2000). Mastery motivation involves the inherent drive which leads individuals to explore the environment and master tasks that are somewhat challenging for them. According to Hauser-Cram (1998), mastery motivation "is the foundation upon which learning occurs" (p. 67), which involves the urge to learn, also referred to as effectance motivation. On the other hand, intrinsic motivation is behavior that is spontaneously initiated by an individual in pursuit of no other goal than the activity itself through self-determination, curiosity, challenge and effort (Deci & Ryan, 1987; Dichter-Blancher, Busch-Rossnagel, & Knauf-Jensen, 1997; Santrock, 2001). Individuals intrinsically motivated engage in activities without requiring extraneous incentives. Intrinsic motivation is frequently discussed collectively with extrinsic motivation.

Deci and Ryan (1985) proposed The Self-Determination Theory (SDT), involving extrinsic and intrinsic motivation. Deci and Ryan (2000) describe extrinsic motivation as individuals completing tasks based on the outcome of the task, while intrinsic motivation is performing an activity for the natural self-pleasure of the activity itself. Extrinsic motivation is usually short-term and may send a message that something unpleasant may be attached to the task in order to reach a goal, whereas intrinsic motivation is tied to personal goals that benefit the individual. Deci and Ryan (2000) also believe that extrinsic motivation is representative of an individual's "attitude of willingness that reflects an inner acceptance of the value or utility of a task…involving self-endorsement and thus adoption of choice" (pg. 149). For example, an individual may set a goal for himself and complete an assignment of choice in view of the fact he believes it to be valuable in his future life. In other words, he develops a construct of himself from external sources by internalizing selected aspects around him. Deci and Ryan (2000) concluded, "research has shown that the quality of experience and performance can be very different when one is behaving for intrinsic versus extrinsic reasons" (p. 148). Concurrently, the individual is also accumulating perceptions about his performances that influence his self-belief (Irizarry, 2002).

Individuals engaged in activities or setting specific performance goals in which they are more likely to be successful, result in higher self-efficacy beliefs through motivation and

resilience (Irizarry, 2002). Self-efficacy not only affects the levels of motivation, but also learning and achievement levels (Pajares 2001; Schunk & Pajares, 2001). Schunk's, et al. (1984) and Zimmerman's, et al. (1990) study of achievement levels and gender differences in the area of math, revealed that girls viewed their self-efficacy lower than boys; however, through instruction and motivational techniques, girls' self-efficacy raised to the level of boys. Conversely, individuals' self-efficacy differs conceptually and psychometrically from other constructs such as in outcome expectancies, self-concept and perceived control.

*Outcome Expectancies*

Outcome expectancies, referred to as expected positive or negative consequences, result from performing or not performing in a given situation (Zimmerman, 2000). According to Bandura (1989), "the effects of outcome expectancies on performance motivation are partly governed by self-beliefs of efficacy" (p. 1180). Individuals who anticipate success in certain situations think successful outcomes are likely. For example, individuals competent in math skills expect to receive high scores in math related tasks; however, those who lack math confidence may visualize themselves failing before taking on the task. Furthermore, when measuring perceived capabilities in performing various reading and writing activities, self-efficacy beliefs accounted for practically all of the inconsistencies, resulting in perceived self-efficacy as a significant predictor of writing achievement (Zimmerman, 2000). Bandura (1989) states "expected outcomes contribute to motivation independently of self-efficacy beliefs when outcomes are not completely controlled by quality of performance" (p. 1180).

If an individual possesses high self-efficacy, even with consistent behavior, results may not be the expected outcome; however, an individual with low self-efficacy may experience positive outcomes. Schunk and Pajares (2002) further explains how a student who possesses high self-efficacy in his academic capabilities may decide not to apply to a particular university whose entrance requirements are very high or possibly unattainable for many. In contrast, students who possess low confidence in math abilities, but realize that strong mathematics skills are essential for an acceptable GRE score and entrance into graduate school, are more than likely to be discouraged from taking certain courses, may not even attempt the Graduate Record Exam (GRE) or consider attending graduate school regardless of a positive outcome. Bandura (1977) states that "the outcomes one expects derive largely from judgments as to how well one can execute the requisite behavior" (p. 241). Bandura (1986) concludes that self-efficacy appears to

be a good predictor of behavior, however, outcome expectancies, prior knowledge, other forms of self-knowledge such as self-concept and skill is needed when it comes to individuals' decision-making and functioning.

*Self-Concepts*

Marsh (1990) defines self-concept as a "person's perceptions regarding himself; these perceptions are formed through experience with and interpretations of one's environment. They are especially influenced by evaluations from significant others, reinforcements, and attributions for one's own behavior" (p. 27). Self-concept is associated with other desirable academic behaviors such as persistence on academic tasks, academic striving behaviors, self-worth, self-efficacy, self-attributions of success and failure and academic achievement (Bandura, 1995; Pajares, 1995; Schunk, 1991). Individuals who maintain a self-evaluative judgment of self-worth cognitively integrate self-concept across various dimensions; unlike self-efficacy, which is judged by a context-specific assessment of competence (Bandura, 1986). Increased self-concept has been associated with enhanced performance; thus, the true relationship between self-efficacy, self-attribution, self-concept, and achievement outcomes, may be an association of shared relationships, whereby change in one variable may result in changes of performance in the other variables (Bandura, 1986).

Pajares and Miller (1994) conducted a study concerning mathematical problem solving of college student by means of the two constructs, self-efficacy and self-concept. Results indicated that self-efficacy was more effective during problem solving than self-concept due to prior experience with math problem solving. Pajares (1996) also concluded that self-efficacy is a stronger predictor of academic performances than self-concept in measurements of specificity and correspondence to varying performance tasks and contexts.

Individuals' self-concepts are formed when perceptions are created through experience with and interpretations of their environment. These experiences may be positive or negative depending on the internal or external factors controlling the outcome, known as perceived or locus of control.

*Perceived Control*

Perceived control, which emerged from research on locus of control, is another construct closely related to self-efficacy (Rotter, 1966). Bandura (1998) clarifies this relationship further,

efficacy expectation also defined as "the conviction that one can successfully execute the behavior required to produce (certain outcomes)" and, consistent with this definition, perceived self-efficacy is said to refer to "beliefs in one's capabilities to organize and execute the courses of action required to produce given levels of attainments"(p. 624).

Perceived control refers to general expectancies about whether outcomes are controlled by one's behavior or by external forces. It is theorized that an internal locus of control should support self-directed courses of action (i.e. learning, motivation and behavior), whereas an external locus of control should discourage them (Zimmerman, 2000). For example, individuals with an external locus of control attribute task success to luck, task difficulty, or other people's actions; whereas individuals with an internal locus of control believe that their success or failure is due to their own efforts or abilities (Pintrich & Schunk, 1996). Researchers reported that individuals with high internal locus of control earned better grades, had higher test scores, and were likely to be more successful than individuals with an external locus of control (Pajares & Miller, 1994; Schunk, 1991; Zimmerman & Bandura, 1994; Zimmerman, Bandura, & Martinez-Pons, 1992).

Motivation, outcome expectancies, self-concept, and perceived control are closely related to self-efficacy. The next section involves how self-efficacy is learned and how self-efficacy expectations are acquired.

## *Foundations of Self-Efficacy*

Bandura (1977, 1997) proposes four principal sources of self-efficacy beliefs. Four principles for which self-efficacy is obtained include enactive mastery or performance experiences (the manner in which accomplishments are received), vicarious learning (knowledge or skill acquired through observation and interpretation), social persuasion (attitudes or behaviors influenced by the messages conveyed by others), and affective states (the conditions that cause conflict) (Brown, 1999).

### *Enactive Mastery Experiences*

Bandura (1997) considers mastery experiences the most influential source of efficacy information. According to Bandura, if an individual perceives his performance as being successful, self-efficacy will be elevated and contribute to the expectation of success on that particular performance in the future. On the other hand, if the perception of an individual's

performance is viewed as a failure, self-efficacy is lowered, hence contributing to the expectation that future performances will also be inept. Emotional factors such as anxiety or excitement may contribute to the feeling of mastery or incompetence. Recognition of failure due to high emotional distress will not affect self-efficacy as much as failure under normal stress related conditions. Consequently, if one puts forth his best effort and fails, self-efficacy can also be lowered. (Bandura, 1993; Pintrich & Schunk, 1996).

An example of self-efficacy in relation to performance experience would involve students who receive good grades or other positive assessments over a period of time. With continued and repetitive success, a strong sense of self-efficacy will develop even if occasional failures are experienced, whereas, if students continuously receive poor grades or negative assessments, their self-efficacy beliefs are lowered (Bandura, 1986).

On the other hand, Bandura (1986) conveyed two other self-efficacy perceptions individuals may encounter. The first perception includes individuals who are confident of their capabilities are more likely to look to situational factors, insufficient effort, or poor strategies as the cause for failure, rather than blame themselves. The second perception reveals that failures overcome by determined effort can encourage strong perceptions of self-efficacy through experience that can eventually result in mastering even the most difficult obstacles (Bandura, 1986). An individual's experience, whether positive or negative, has an impact on his self-efficacy beliefs; however, deciding whether or not to engage in certain situations or performances may also be determined through the observation of others' success or failure

*Vicarious Experiences*

Vicarious experiences involve observational learning through social modeling by others and the consequences of their behavior (Bandura, 1986). These experiences develop individual beliefs through observation and interpretation (Brown, 1999). Through the observation of others, the degree of self-efficacy is determined by whether or not the model is more closely related to the observer's expectations of success. If the model performs poorly, the efficacy expectation of the observer decreases. Vicarious experiences are generally weaker than direct ones but may have effects that are more enduring when failure is modeled than when success is replicated. If individuals observe others failure despite continuous effort, it may undermine their efforts, therefore lowering their own judgments (Bandura, 1986). Bandura also explains that the reasons vicarious experiences may be more judgment sensitive is due to the ambiguity of our own

capability, limited prior experiences, and the criteria that measures ability (most are measured by social criteria). Brown (1999) further explains "when the modeling reflects economic, gender, cultural, or social class limitations such as lack of nontraditional occupational choices, students' career interests (and perceived options) are limited" (p.1).

To clarify the process by which vicarious experiences governs self-efficacy, the following processes will be considered: *attentional, retention, motor reproduction,* and *motivational processes* (Bandura, 1969; 1977; 1986; 1989).

*Attentional Processes.* Attentional processing is the primary process of observational learning that is defined as a person's ability to observe selective actions and behaviors in her environment (Bandura, 1986). Bandura's (1977, 1986) characteristics of this process include: perceptual capabilities, when the observer attends to her surroundings and may repeat the action(s) if so desired; perceptual set, what the observer may be looking for; cognitive abilities, the ability of the learner to process information at a certain level to be used at a later time; arousal level, when the action seen arouses the interest of the observer to repeat or ignore the performance; and acquired preference, the observer's decision to attend to a performance or not to attend. It is noted that the observer selectively attends to individuals who exhibit behaviors most like themselves. This attention selection process allows specific information to be extracted from each observation relevant to the observer. The relevancy of the information is important for memory storage in order for the behavior to occur (Bandura, 1986).

*Retention Processes*. Retention processes involve remembering what the model has demonstrated (Bandura 1986). Once strategies such as symbolic coding, cognitive organization, symbolic or cognitive rehearsal, and inactive or motor rehearsal are formed and stored in one's memory, they must be transformed into appropriate action for modeling to occur. Symbolic coding is a process where by the observer codes essential or key behavior(s) they are attending to in order to retrieve and possibly replicate the behavior (Bandura, 1986). Bandura further explains that symbolic or cognitive organization occurs when new information becomes embedded in the existing cognitive structure. Cognitive rehearsal involves the repetitive steps necessary to store the new information into memory. During this process, the learner needs time to practice in between times of what they observe in order to determine if they should or should not repeat the actions and what further observations need to be attended to reach the targeted behavior (Bandura, 1977). This inactive or motor rehearsal consists of physical practice in the presence of

the model performing the action in order to reassure the observer of his capabilities to repeat the performance successfully (Bandura, 1986, 1977). The retention process cannot occur without cognitive skills to determine if the learner has stored information into memory in order to repeat the performances they have seen, in addition to cognitive structures that involve the learner implementing essential and key features as they occur (Bandura, 1986).

*Motor Reproduction Processes*. The motor reproduction process involved in observational learning includes cognitive representation or remembering what the model has performed (Bandura, 1977). Through observation of enactments (e.g., attending to what you see that is being performed); feedback information (e.g., relating to an observer or observers relating to you if your performance was recreated correctly); and conception matching (e.g., deciding and being satisfied that your performance was what you expected it to be), individuals can focus on their desired outcomes. During this process, the observer translates all cues and observed behaviors into actual behavior (Bandura, 1997). Bandura (1997) concluded that skills needed to perform these behaviors can not be perfected through observation alone, but in conjunction with self-observation, knowing if you have what it takes to successfully complete the desired performance; and corrective feedback from others to determine if individuals have the necessary skills in order to create a desired performance. Individuals choose to focus on desirable outcomes rather than undesirable one. Bandura (1977) states:

> In any given instance, then, the failure of an observer to match the behavior of a model may result from any of the following: not observing the relevant activities, inadequately coding modeled events for memory representation, failing to retain what was learned, physical inability to perform or experiencing insufficient incentives (p. 29).

*Motivational Processes.* Rosenthal and Zimmerman (1978) explain that the last degree to which a behavior is seen results in a valued outcome, *expectancies,* which in turn influences the likelihood that one will adopt a modeled behavior, the *motivational* process. Bandura (1986) contends that motivational processes are controlled by external, vicarious, and internal incentives. External incentives involve positive or negative rewards, tangible or self-evaluative, based upon results of one's own actions. Vicarious incentives include the motivation that results from observing the consequences of another's actions such as what is culturally or socially accepted, allowing the observer to modify their own behaviors. Internal or intrinsic incentives

are the rewards or punishments individuals place upon themselves based upon which may be morally or ethically accepted within their own internal value system(s) (Deci & Ryan, 1985).

Thus far, the enactive mastery and vicarious experiences involved with the foundations of self-efficacy have been discussed. Further information will involve social persuasion and the physiological and affective states of the foundations of self-efficacy.

*Social Persuasion*

Social persuasion, another source of self-efficacy beliefs, also referred to as verbal persuasion, are beliefs about one's self after listening to information conveyed by others that one can or cannot not competently perform a particular behavior (Bandura, 1997). This type of persuasion can lead to increases or decreases in self-efficacy. Bandura (1986) conveys that persuasion, through encouragement, can boost self-efficacy by which a person will initiate a task, attempt new strategies, or try hard enough to succeed. Social persuasion, including verbal persuasions, as noted by Bandura (1986), "can contribute to successful performance if the heightened appraisal is within realistic bounds" (p. 400). He further concludes that occasional setbacks such as criticism, might instill enough self-doubt to interrupt persistence of a task and that family, friends, and teachers may inadvertently or overtly limit the educational and vocational progression by discouraging certain occupational interests, choices, and engagement. Authenticity and appropriate feedback determines the potency of persuasion as indicated by Bandura, (1986 ) " the raising of unrealistic beliefs of personal competence only invites failures that will discredit the persuaders and will further undermine the recipient's perceived self-efficacy" (p. 400). He further states, "it is probably more difficult to produce enduring increases in perceived efficacy by persuasory means than to undermine it" (p. 400).

Pajares (1996) considers social persuasion as a weak source of efficacy information; however, he also indicates that persuasion may play an important part in the successful performances of an individual's self-beliefs. Social persuasion, although considered a weak source of self-efficacy, may influence or be influenced by an individual's emotional state at any given time.

*Physiological and Affective States*

Bandura (1997) explains that affective states, "the nature and intensity of emotional experiences" (p. 137), have a great deal to do with a person's performance. Individuals'

emotions are dependent upon the task they undertake and perceive as being difficult or simple and repetitive. For example, if a person perceives a task as being difficult, such as maintaining constant discipline in a kindergarten classroom, performance is lowered; consequently, if the task seems simple, performance increases.

Physiological states, such as stress, fatigue, and anxiety, also affect people's judgments of self-efficacy in addition to their learning (Brown, 1999). Caine and Caine (1990) contend that "the brain learns optimally when appropriately challenged, but downshifts under perceived threat" (p. 68). For example, if a person teaches in a classroom and has difficulty maintaining control of the students, he may feel stressed or anxious when asked to teach in that particular classroom, or for that matter, any classroom again. An individual may have difficulty realizing his learning potential when coupled with one or all of these physiological states thus altering beliefs about his own capabilities.

### *Summary of Self-Efficacy and Related Beliefs*

Individuals view their abilities through optimistic or pessimistic scenarios, dependent upon their level of high or low self-efficacy (Bandura 1977). Individuals possessing high self-efficacy appear to put forth more effort towards more challenging tasks, set higher goals with greater persistence and possess lower stress levels than those with low self-efficacy (Bandura 1997, 1995, & 1982). When confronted with obstacles, individuals with high self-efficacy tend to recover more rapidly and continue to pursue their goals more than those with low self-efficacy. High self-efficacy is consistent with people's abilities to select challenging settings, explore their environments, or create new environments. Individuals displaying low self efficacy limit their scope of participation in an endeavor, are more apt to give up at the first sign of difficulty, demonstrate lower performance outcomes and possess higher stress levels (Brown, 1999; Gordon, Lim, McKinnon & Nkala, 1998).

Individuals' self-efficacy is founded by the interaction of personal factors, behavior and the environment, which include individuals' positive or negative performances; whether these performances are controlled internally or externally; whether or not they attend to others' feedback concerning their own performances; and emotional states at the time of these performances. The next section of this document will involve the processes of human functioning upon these personal factors, behavior, and the environment.

## *Psychological Influences of Self-Efficacy*

The self-efficacy construct as representative of one central element of the social-cognitive theory, involves the interaction of personal factors, behavior, and the environment (Bandura, 1995a). Bandura (1993, 1994) also proposes that self-efficacy influences psychological behavior through (a) cognitive processes (e.g., goal setting), (b) motivational processes (e.g., attributions for success and failure), (c) affective processes (e.g., control of negative feelings), and (d) selection processes (e.g., career choices). These processes usually operate mutually in human functioning, the interplay of the triadic reciprocal causation -personal, behavioral, and environmental influences, rather than in isolation (Bandura, 1977).

### *Cognitive Processes*

Cognitive processes involve the formation of beliefs that are organized in thought (Bandura, 1986). Cognitive constructions are guides for people to set goals for themselves influenced by their perceived capabilities (Bandura, 1995). The processing of information involves two components: the type of information obtained and considered by the individual, in addition to how individuals combine the received information into final judgments (Bandura, 1986). Bandura further explains that although many ambiguities and uncertainties develop during this information process, individuals must draw upon their knowledge to remember which factors they tested and which were successful or unsuccessful. Individuals perform this interpretation through prior experience, other self-beliefs, emotional reactions, knowledge skills, and tasks related to the criteria. A combination of these criteria, results in individuals setting goals for themselves in which they will be successful.

Dweck (1986) and Dweck and Leggett (1988) identified two types of goals individuals set for themselves, performance goals and learning goals. Performance goals, also referred to as "ego incentive" or "ego involvement", are oriented toward positive evaluations of an individual's abilities in comparison to others. Individuals are concerned about how others judge them (i.e., peers, teachers, or parents). These individuals strive for the perception of perfection, avoiding tasks that may be challenging to them in order to prevent embarrassment (Dweck & Leggett, 1988). Individuals may also process information on a superficial level with no retention, exhibiting little effort to pursue learning beyond positive recognition or evaluation from others.

They may display an "I don't care" attitude, a "not really trying" performance, or give up completely if they cannot succeed (Pintrich & Schunk, 1996).

Learning goals, also referred to as "mastery goals" are associated more with higher self-efficacy than performance goals (Ames & Archer, 1988). Individuals engaged in learning goals strive to improve themselves regardless of how many mistakes they make. They process information more deeply in order to obtain knowledge and improve their skills. These individuals also seek challenging tasks, engage themselves in self-regulatory activities such as planning, cognitive strategies, achieve more on higher tasks, and are more persistent on difficult tasks (Diener & Dweck, 1978; Dweck & Leggett, 1988).

Bandura (1986) also describes another component of the cognitive process as inferential thinking which "enables people to predict the likely outcomes of different courses of action and create the means for exercising control over those that affect their lives" (p. 117). Bandrua (1994) further explains that high self-efficacy results in higher goal challenges people set for themselves and a firmer commitment to them, resulting in positive outcomes, whereas low self-efficacy may result in failed attempts or negative outcomes.

*Motivational Processes*

People formulate, anticipate, and set goals for themselves through self-motivation based on cognitively generated forethought of what they believe they can do (Bandura 1977). Bandura (1994) described three forms of cognitive motivators, causal attributions, outcome expectancies, and cognitive goals, which contributed to the attribution, expectancy-value, and goal theories respectively.

Casual attributions such as ability, effort, task difficulty and luck, are related to attribution theory (Dweck & Leggett, 1988). These attributions affect motivation, performance and affective reactions through self-efficacy beliefs. People with high self-efficacy may attribute their failures to poor attempts. For example, striking out while at bat during a baseball game would be attributed to not swinging hard enough or their timing was off. However, low efficacious individuals may attribute their failures to low ability. For example, these individuals do not perceive themselves as having the skills to hit the baseball, regardless of the times they are at bat or the number of times they try.

The expectancy-value theory, influenced by outcome expectancies, suggest that when given a course of behavior, certain expected outcomes and the significance of those outcomes

will result in whether an individual will choose to continue to perform a task (Pintrich & Schunk, 1996). Pintrich and Schunk (1996) further elucidate, "The concept of expectancy represents the key idea that most individuals will not choose to do a task or continue to engage in a task when they expect to fail" (p.69).

Cognitive goals reveal that explicit, challenging goals enhance and sustain motivation based on goal setting (Bandura 1997). Underlying efforts to fulfill these goals are revealed through persistence of anticipated successful performance. These efforts are governed by three types of self-influences: self-satisfying and self-dissatisfying reactions to one's performance, perceived self-efficacy for goal attainment, and readjustment of personal goals based on one's progress. Bandura (1994) further explained that self-efficacy beliefs contribute to motivation through the goals people set for themselves; how much effort they expend; how long they persevere in the face of difficulties; and their resilience to failures.

*Affective Processes*

Affective processes, in addition to motivation, are of central importance to self-efficacy beliefs (Bandura, 1997). The definition for affective processes, according to Bandura (1994), involves processes, which regulate emotional states in addition to the clarification of emotional reactions. Bandura (1997) describes three ways self-efficacy beliefs affect the nature and intensity of emotional experiences. These include *thought*, what we pay attention to in order to determine whether the events are seen in a positive sense or emotionally disturbing; *action*, behavior which supports effective courses of action; and *affect*, the self-efficacy component that organizes or reorganizes emotional states once they are aroused (Bandura, 1977). These affective processes have a tendency to give rise to stress and anxiety arousal. Individuals possess coping abilities that enable them to determine how much stress and depression they may experience in threatening or difficult situations, as well as their level of motivation. Perceived coping efficacy, as well as perceived self-efficacy, influences anxiety arousal by controlling the disturbing thoughts of individuals. Individuals with highly perceived coping self-efficacy have the ability to control disturbing thoughts by avoiding them; whereas if they believe they cannot control these thoughts, they may experience high anxiety arousal by dwelling on their coping deficiencies. In combination, perceived coping self-efficacy and thought controlled efficacy can reduce anxiety and avoidant behavior (Bandura, 1997).

*Selection Processes*

Selection processes involve self-efficacy beliefs that influence the types of activities and environments individuals choose to engage (Bandura 1995). Individuals tend to avoid activities and environments they believe exceed their coping capabilities. Those with a strong sense of self-efficacy approach difficult tasks as challenges to be mastered sequentially fostering personal accomplishment. Whereas, people with a sense of low self-efficacy avoid difficult tasks which they perceive as personal threats (Bandura 1997).

It is during the selection process that people make career choices determined by their perceived self-efficacy involving the range of career options; their interest in the options, and how they prepare themselves educationally for the occupational pursuits they choose (Bandura 1997). The choices people make result in the development of various competencies, interests and social networks throughout their life. Their choices will inevitably affect their personal development involving competencies, values, and interests. An individual with high self-efficacy may consider a wider range of career options and prepare educationally for greater success (Bandura, 1997).

Self-efficacy develops through experiences coupled with tasks or activities of similar association. (Bandura, 1997; Schwarzer & Scholz, 2000). Self-efficacy modified by other sources of information is based upon personal observations, which influence how people feel, think and act. (Bandura, 1997; Schwarzer & Scholz, 2000).

Bandura (1997) further concludes that self-efficacy is more situational specific, which is, more or less containing firm self-beliefs in different domains or particular situations and not a generalized expectation. However, debate continues with researchers who believe there is some sense of generalized self-efficacy, which involves the individual's confidence to cope with a wide range of challenging or novel situations (Henson, Kogan, & Vacha-Haase, 2000; Schwarzer & Scholz, 2000). This generalized belief allows researchers to focus on the academic setting and teacher efficacy. The next section of this paper will focus on teacher efficacy and the effects of high and low teaching efficacy in the academic setting.

## *Teacher Efficacy*

Self-efficacy studies have focused on various concepts such as attributions, goal setting, memory, modeling, problem solving, reward contingencies, self-regulation, social comparisons,

strategy training, teaching and teacher education, anxiety and self-concept, and academic performances in various subject areas (Bandura, 1982, 1986, 1993, 1996, 1997; Deci & Ryan, 1985, 2000; Pajares, 1994, 1995, 1996, 1997; Pintrich & Schunk, 1996; Schunk, 1991; Zimmerman et al., 1995). Self-efficacy beliefs, which affect our behavior and motivation in success or failure, are not only present in our everyday lives, but also in the field of education. Evidence reveals that educational self-efficacy beliefs, whether positive or negative, are based on an individual's academic performance and self-regulated learning (Bandura, 1982, 1986, 1993, 1996, 1997; Pajares, 1996; Pintrich & Schunk, 1996; Schunk, 1991; Zimmerman et al., 1995). According to Bandura (1986), "people regulate their level and distribution of effort in accordance with the effects they expect their actions to have. As a result, their behavior is better predicted from their beliefs than from the actual consequences of their actions" (p.129). Studies based on self-regulated learning are also associated with gender differences in academic settings. Zimmerman and Martinez-Pons (1990) studies with middle school and high school students revealed that self-regulated learning strategies favored girls over boys. Pajares et al. (1999) states that "girls express greater self-efficacy for self-regulation during elementary school and middle school" (Pajares et al., 2000; Pajares & Valiante, 2001).

Pajares (1997) concludes self-efficacy beliefs to be predictive of our choices, efforts, and persistence when faced with adversity or emotions on any task. In reference to these beliefs, *teacher efficacy* evolved and has been defined as judgment of a teacher's capabilities to produce the desired outcomes of student engagement and learning regardless if the student is difficult or unmotivated (Tschannen-Moran & Woolfolk Hoy, 2001).

Teachers' beliefs concerning their personal teaching abilities appear to be key factors of teacher behavior, decisions, and classroom organization. According to Huitt (1999), there are also four variables which may influence teacher efficacy in the classroom: context involving factors outside of the classroom which set the stage for teaching and learning; input of qualities and characteristics brought into the classroom by teachers and students; classroom processes dealing with the behaviors and relationships of teachers and students in the classroom; and output of student learning other than inside the classroom. Teacher efficacy, once referred to as teacher expectations, is also represented by two components involving teachers' beliefs that students can learn the material, and students can learn under her direction (Ashton, 1984).

Teacher efficacy originated approximately two decades ago by the Rand foundation involving teachers' beliefs that they could control the reinforcement of their actions (Armor, et. al., 1976). The RAND study and other measurements of teacher efficacy will be discussed later in further detail. Teacher efficacy studies were influenced by the social cognitive and self-efficacy theories of Bandura (1977) and Rotter's (1966) locus of control theory in which student learning and motivation were relevant reinforcers in the RAND study (see Appendix K). Ashton (1984) and other researchers such as Gibson and Dembo (1984) contributed to the studies of self-efficacy based upon the findings of Bandura to help in the understanding of its role in teaching (see Appendix L). Woolfolk and Hoy (1990) reported that there were few "consistent relationships between characteristics of teachers and the behavior or learning of students. Teachers' sense of efficacy . . . is an exception to this general rule" (p. 81).

Gibson and Dembo (1984) and Bandura (1977) suggested that the Rand researchers' theory of self-efficacy be separated and labeled into two dimensions, which reflected a unique type of expectation: *outcome expectancies* and *efficacy expectations*. Bandura (1977) defined outcome expectancy as one's behavior that will lead to a certain outcome, whereas efficacy expectation is "dependent upon the execution of a behavior to produce the desired outcome" (p. 79). Results of individuals believing certain behaviors produce certain outcomes, but not having the confidence to perform these behaviors led to the differentiation of these two dimensions. Relative to this theory, Ashton (1984) constructed eight dimensions of teacher efficacy towards the development of teacher expectations (see Appendix M)

Gibson and Dembo (1984) further clarify teachers' outcome expectations involving their potential influence in a child's learning. These expectancies are based upon the child's home background, ability or other externally controlled factors. Gibson and Dembo's (1984) inquiry of the Rand study concerning teacher efficacy expectancies revealed an important distinction between two concepts, *general teaching efficacy* (GTE) and *personal teaching efficacy* (PTE) (Ashton & Webb, 1986; Bandura, 1997; Gordon, et al., 1998).

*General teaching efficacy* (GTE) is defined as "one's capabilities to bring about desired outcomes of student engagement and learning" (Gibson & Dembo, 1984; Moran & Hoy, 1998; Pajares, 1996). Teachers' beliefs that they can teach and an efficacy expectation that reflects doubtfulness or confidence of the student(s) ability to learn, are similar to Bandura's definition of outcome expectancies. Bandura (1997) and others (Anderson, Green, & Lowen, 1988; Ashton

& Webb, 1986; Cancro, 1992; Moore & Esselman, 1994; Ross, 1992; Ross & Cousins, 1993; Watson, 1991) agree that teachers with high expectations about their ability to teach produce higher student achievement in core academic subjects and on affective goals like self-esteem (Borton, 1991), self-direction (Rose & Medway, 1981), motivation (Roeser, Arbreton, & Anderman, 1993) and attitudes toward school (Miskel, McDonald, & Bloom, 1983). Furthermore, Henson, Kogan, and Vacha-Haase (2001) and Tschannen-Moran, et al. (2001) cite other researchers signifying that general teaching efficacy is also related to such significant variables as student achievement, student motivation, teachers' adoption of innovations, superintendents' ratings of teachers' competence, and teachers' classroom management strategies.

Gibson and Dembo (1984) considered a second Rand item involving a teacher's belief in their internal ability to reach students and created the concept referred to as *personal teaching efficacy* (PTE). Personal teaching efficacy is defined as a teacher's judgment of his own ability to motivate students along with a sense of his own effectiveness in the classroom (Ashton & Webb, 1986; Gibson & Dembo, 1984). Teachers with high personal teaching efficacy are confident they can make learning easier for students based upon their own successful past experiences with children's achievements. Personal teaching efficacy is closely related to Bandura's self-efficacy theory (Bandura 1977, 1986, 1993, 1997). Teachers who are considered to have highly personal teaching efficacy tend to exhibit better health, higher achievement and more social integration (Bandura, 1995a, 1995b; Schwarzer & Scholz, 2000). This perceived personal teaching efficacy involves family, peers, school, and transitional experiences (i.e., adolescence) which contribute to individuals successful past experiences (Bandura 1994; Schunk, et al., 2002).

Tschannen-Moran et al., (1998), through self-efficacy measures, determined that the two constructs Gibson and Dembo labeled as *general teaching efficacy* (GTE) and *personal teaching efficacy* (PTE) have been found to be "only slightly related or not at all correlated" (p. 213). The two factors, GTE and PTE when coupled with the RAND items, lacked clarity concerning their meaning, and were only moderately related, with correlations ranging from 0.15 to 0.20. Based on this interpretation, many refer to *teacher efficacy* as the combination of general and personal teaching efficacy. In reference to the Tschannen-Moran et al. (1998) study, this document will refer to the combination of general and personal teaching efficacy as *teacher efficacy*.

Research concerning teacher efficacy and academics has become a major focus in the areas of student achievement, student motivation, teacher assessment of educational innovations, classroom management skills and teacher stress (Fives, 2003). This research also revealed teachers with high, positive teacher efficacy appear to be more committed to the teaching profession, thus creating a more positive outcome for students and an enriched learning environment (Ashton & Webb, 1984).

*High Teaching Efficacy*

Teachers exhibiting highly positive efficacy have been linked to successful classrooms and schools (Tschannen-Moran et al., 1998).Relationships between children and teachers have an impact on their social and cognitive development from preschool through adolescence, influencing students' social-emotional adjustment, patterns of achievement motivation and academic success (Davis, Davis, & Murphy 2000; Woolfolk-Hoy & Spero, 2000). Humphrey, Wechsler, Bosetti, Wayne, and Adelman (2002) concluded that teachers' efficacy and confidence are important to foster early in their careers due to the fact that high, positive self-efficacy views form early, are relatively difficult to change, and "have been found to be related to student achievement, motivation, and students' own sense of efficacy" as well as to the teachers' "feelings about teaching and their plans to stay in the profession" (p. 20).

Teachers with high levels of teacher efficacy appear to be more satisfied with their job positions as well as more committed to their profession and exhibit greater levels of planning, organization, and enthusiasm (Schunk, 1995; Woolfolk & Hoy, 1990). Darling-Hammond et al., (2002b) contend that teachers with high efficacy spend more time teaching in subject areas where their sense of efficacy is higher and tend to teach by the use of inquiry approaches with more student-centered activities. Teachers with high efficacy are more open to new ideas; are more willing to experiment with new methods to meet the needs of their students; and are more persistent when things do not go smoothly (Gibson & Dembo, 1984).

Highly efficacious teachers also appear to be more knowledgeable of their students' developmental levels, therefore offering more assistance to students with learning problems to become more successful in their endeavors and are less likely to refer them for special services (Bandura, 1997; Gibson & Dembo, 1984; Podell & Soodak, 1993; Soodak & Podell, 1997). They exhibit resilience in the face of setbacks and tend to be less critical of students who make errors as well as those who are struggling, by working with them longer. High efficacious teachers

agree that low socioeconomic status (SES) students should be placed in a regular classroom setting (Bandura 1986, 1993, 1997; Henson, 2001; Podell & Soodak, 1993; Soodak & Podell, 1997, 1998).

Teachers with high teaching efficacy tend to set higher goals for their students and expect significantly greater academic growth in their students (Ashton & Webb, 1984). Henson (2001) agrees that students of highly efficacious teachers generally have outperformed students in other classes. High teacher efficacy has been demonstrated to be predictive of success for students on the Iowa Test of Basic Skills (Moore & Esselman, 1992), the Canadian Achievement Tests (Anderson, Greene, & Loewen, 1988), and the Ontario Assessment Instrument Pool (Ross, 1992).

Conclusive of high teaching efficacy, Fives (2003) maintains, "teacher efficacy has been related to many positive outcomes" (p.26). High teaching efficacy enhances student outcomes (i.e. achievement and motivation), in addition to teacher outcomes (i.e., motivation, actions, decisions, and response to innovation and change).

*Low Teaching Efficacy*

Teachers exhibiting low efficacy tend to be pessimistic of students' motivation and control their classroom through strict regulations (Bandura, 1997). Bandura (1997) elucidates that low efficacious teachers create classroom problems through negative comments (criticism of students); lack confidence in classroom management; and become stressed and are angered by student misbehavior. These teachers give up on students if they do not get quick results, spend more time on non-academic pastimes, and would not explore the teaching field if they had it to do over again. According to Schunk (1996) and Schunk and Pajares (2002), "unless people believe that their actions will have the desired consequences, they have little incentive to engage in those actions" (p. 6). Unfortunately, teachers with low efficacy also tend to be authoritative and exhibit more teacher-centered roles with a reduced amount of understanding of the various developmental levels of their students.

Teachers exhibiting low teaching efficacy resist innovations and new pedagogical practices due to possible implementation difficulties (Guskey, 1988). Rubeck and Enochs (1991) also concluded that teachers who were weak in content background tended to have significantly lower teaching efficacy than did teachers with strong content backgrounds. (see Appendix N).

Unquestionably, teacher efficacy has been the focus of many research studies (i.e. mathematics and writing). However, the topic of teacher efficacy is still the subject of current debate concerning its meaning and measure (Tschannen-Moran et al., 1998). There have been many measurements developed by various researchers to help define teacher efficacy. Rotter (1966), Bandura (1977), Gibson and Dembo (1984) and Tschannen-Moran, Woolfolk-Hoy (1998, 2001) were the leaders of establishing teacher efficacy instruments.

## *Measurements of Teacher Efficacy*

For many years, the measures of teacher efficacy have experienced validity and reliability uncertainties, such as lack of clarity in the measuring construct and the appropriate level of specificity (Tschannen-Moran, et al., 2001). In 1976, the Federal Elementary and Secondary Education Act provided the Rand Corporation funding to establish an innovative way to measure teacher efficacy (Armor, et al., 1976).

### *The Rand Teacher Efficacy Study*

Two Rand Corporation's educational programs became the most persuasive assessment of the self-efficacy construct, which grounded the first teacher efficacy measurement (Woolfolk-Hoy & Spero, 2000). Rotter's social learning theory, the theoretical base for Rand researchers, was instrumental in providing the most pervasive concept illustrating the belief that "teachers control the reinforcement of their actions" (Tschannen-Moran, et al., 2001, p. 784). This concept evolved from a Rand study that measured teachers' characteristics and students' learning (Armor et al., 1976). The Rand study suggested that teachers believe in internal or external control of students. Internal control involves a teacher's confidence in their ability to teach students regardless of a student's motivational level, while external control involves the environment's influence over students outside of the control of the teacher (Tschannen-Moran, et al., 2001).

The Rand study consisted of a 5-point Likert scale, with only two questions of an extensive questionnaire pertaining to teachers' perceptions of their own capabilities (Tschannen-Moran et al., 2001). The results of the first question, "When it comes right down to it, a teacher really can't do much because most of a student's motivation and performance depends on his environment", was indicative of environmental influences. These influences consisted of "the value of education in the home; the conflict, violence, or substance abuse in the home or community; the social and economic realities concerning class, race and gender; and the

physiological, emotional, and cognitive needs" which had an impact on students' motivational level at school (Tschannen-Moran et al., 2001, p. 785). Rand researchers labeled the teachers' beliefs of the influence of external factors *general teaching efficacy* (GTE). The second question, "If I try really hard, I can get through to even the most difficult or unmotivated students", focused on teachers' efficacy concerning their teaching ability to overcome obstacles that may interfere with students' learning (Tschannen-Moran et al., 2001, p. 785). Rand researchers labeled this teacher belief as *personal teaching efficacy* (PTE). The Rand studies ascertained teacher efficacy as a significant predictor of student performance (Armor et al., 1976; Tschannen-Moran et al., 2001).

The Rotter theory laid the foundation for further studies of measuring teaching efficacy based on the conceptualization that teacher beliefs have a more significant impact on teaching than factors in the environment or in the student (Tschannen-Moran et al., 2001). Other measurements of teacher efficacy evolved following the Rand studies, such as Bandura's Teacher Efficacy Scale (1977), Gibson and Dembo's Teacher Efficacy Scale (TES) (1984), and Tschannen-Moran, Woolfolk-Hoy's Ohio State's Teacher Efficacy Scale or preferably Teachers' Sense of Efficacy Scale (TSES) (2001).

*Bandura's Teacher Efficacy Study*

Another conceptual strand of teacher efficacy was grounded from Bandura's social cognitive theory and his construct of self-efficacy (Tschannen-Moran, et al., 2001). Bandura developed a 30 item instrument with 7 subscales, measured on a 9 point scale (see Figure 4). This instrument was based on his conclusion that teacher efficacy is different in the areas of tasks that teachers perform as well as the different subject matter in which they teach (Bandura, 1977). Bandura (1986, 1997) proposed a multi-faceted scale that measured "efficacy to influence decision making, efficacy to influence school resources, instructional efficacy, disciplinary efficacy, efficacy to enlist parental involvement, efficacy to enlist community involvement and efficacy to create a positive school climate" (Tschannen-Moran, et al., 2001, p. 791).

| Format: | Sample Items: |
|---|---|
| 30 items on a 9-point scale anchored at nothing, very little, some influence, quite a bit, a great deal.<br>7 subscales:<br>Influence on decision making, influence on school resources, instructional efficacy, disciplinary efficacy, enlisting parental involvement, enlisting community involvement, and creating a positive school climate. | How much can you influence the decisions that are made in your school?<br>How much can you do to overcome the influence of adverse community conditions on student learning?<br>How much can you do to get children to follow classroom rules?<br>How much can you assist parents in helping their children do well in school?<br>How much can you do to get local colleges and universities involved in working with your school?<br>How much can you do to make students enjoy coming to school?<br>How much can you do to get students to believe they can do well in schoolwork? |

*Figure 4*. Bandura's Teacher Efficacy Scale

Data retrieved from M. Tschannen-Moran, A.W. Hoy / Teaching and Teacher Education 17 (2001) 783–805. Copyright 2004, Used with Permission.

Schunk and Pajares (2002) state that through Bandura's self-efficacy component of social cognitive theory, measures have been used to determine clinical problems such as phobias, addiction, depression, social skills, assertiveness; to stress in a variety of contexts; to smoking behavior; to pain control; to health; and to athletic performance. Pajares further states that self-efficacy measures have become increasingly popular in determining decisions for college majors, determining career choices, the instructional decisions of teachers, and students' academic achievements.

Very little data concerning validity and reliability on Bandura's teacher efficacy instrument has been recorded (Tschannen-Moran, et al., 2001). However, it has been noted that Bandura believes that teacher efficacy measurements should not be too narrow or too specific for danger of losing their predicative power (Bandura, 1977).

### *The Gibson and Dembo Teacher Efficacy Study*

Gibson and Dembo (1984) developed the Teacher Efficacy Scales that refer to items related to teaching a new mathematics concept and reflected beliefs about education in a general sense. Gibson and Dembo (1984) conceptualized the formulations of the Rand studies and Bandura's social cognitive theory of self-efficacy and developed their own 30-item teaching efficacy scale (see Figure 5).

Their focus was to try to improve the validity and reliability of the Rand study. Gibson and Dembo considered Bandura's efficacy expectations, (e.g., people's judgments of their capabilities to perform actions), as personal teaching efficacy (PTE); and outcome expectations, (e.g., people's beliefs of the possible consequences of their actions), as teaching efficacy (GTE) (Gibson & Dembo, 1984; Bandura, 1986; Tschannen-Moran, et al., 2001). There has been controversy concerning the second dimension of Gibson and Dembo's teaching efficacy based on Bandura's outcome expectancy. Many researchers contend that this dimension is a better indicator of teacher's beliefs of their ability to reach difficult children and related more to personal teaching efficacy (PTE) (Woolfolk & Hoy, 1990; Hoy & Woolfolk, 1993; Tschannen-Moran et al., 1998).

| Format: | Sample Items: |
|---|---|
| 30 items on a 6-point Likert scale from strongly disagree to strongly agree.<br>Scoring:<br>A global measure of teacher efficacy derived from the sum of all items. Two subscales emerge from factor analysis: personal teaching efficacy and general teaching efficacy. | When a student gets a better grade than he usually gets, it is usually because I found better ways of teaching.<br>The hours in my class have little influence on students compared to the influence of their home environment.<br>If a student masters a new math concept quickly, this might be because I knew the necessary steps in teaching that concept. |

*Figure 5.* Teacher Efficacy Scale (Gibson & Dembo, 1984)

Data retrieved from M. Tschannen-Moran, A.W. Hoy / Teaching and Teacher Education 17 (2001) 783–805. Copyright 2004, Used with Permission.

Studies on preservice and inservice teachers (Tschannen-Moran et al., 2001) have been measured by the Gibson and Dembo scale, as well as in courses such as math and science (Enoch & Riggs, 1990); classroom management (Emmer, 1990); and special education (Coladarci & Breton, 1997). A recent study conducted with beginning teachers in New York City consisted of teachers who entered the teaching realm through alternative certification programs and those with no prior training. These teachers were compared with other teachers who completed the traditional certification program (Darling-Hammond et al., 2002a). Results indicated that individuals with alternative certification felt less prepared to teach, unlike graduates of a traditional program. However, Wilson et al. (2001) revealed that results using the Gibson and Dembo Teacher Efficacy Scale were similar between alternatively and traditionally certified teachers' sense of efficacy and confidence (Miller, McKenna, & McKenna, 1998), while two

other studies showed teachers from traditional programs were more confident (Jelmberg, 1996; Lutz & Hutton, 1989).

There are other inconsistencies, both conceptually and statistically, concerning the Gibson and Dembo measure; however, it has and is still a popular teacher efficacy instrument (Tschannen-Moran et al., 2001).

### *Tschannen-Moran, Woolfolk Hoy's Teacher Efficacy Study*

Tschannen-Moran and Woolfolk-Hoy (1998) recommended that a new model of teaching efficacy needs to be constructed in order to address personal competencies as well as an analysis of constraints found in most teaching contexts. They contend that previous measures of teacher efficacy do not include both dimensions of teacher efficacy, thus a need for a new more valid and reliable measure. Tschannen-Moran et al., (1998) thoroughly studied the Bandura Scale, the Rand Items, and the Hoy and Woolfolk 10-item adaptation of Gibson and Dembo's Teacher Efficacy Scale, and produced their own prototype. Tschannen-Moran et al. (1998), 2 researchers and 8 graduate students, began a study in the College of Education at The Ohio State University, which they named the Ohio State Teacher Efficacy Scale (OSTES). The Ohio State Teacher Efficacy Scale (OSTES), eventually referred to as the Teachers' Sense of Efficacy Scale (TSES), was designed to validate the teacher efficacy scale. Three separate studies were presented to preservice and inservice teachers randomly selected to try to improve the teacher efficacy scale. Finally, an instrument was developed that included either 24 (long form) or 12 (short form) items (see Appendix M). This instrument focused on the areas of student engagement, instructional strategies, and classroom management, representing "the richness of teachers' work lives and the requirements of good teaching" (Tschannen-Moran et al., 2001 p. 801). The instrument was demonstrated to be superior to previous measures of teacher efficacy by assessing a broad range of capabilities considered important by teachers, yet not so specific to deny comparisons of teachers in context, levels, and subjects (Tschannen-Moran et al., 2001).

## *Summary of Literature Review*

The extant research indicates various reasons for teacher shortages in the classroom, specifically, low paying salaries, retirements, absenteeism, and attrition, which have been the rationale for the escalating need to increase the substitute teacher pool. These teacher shortages led to an increased shortage of certified substitute teachers, initiating the recruitment of

individuals without the educational background or teaching licensure once deemed necessary in many school districts. Unlike Iowa, where substitutes are required to maintain teacher certification, many states hire individuals with only a high school diploma, while others hire substitutes based on higher educational backgrounds, (i.e., two-year or four-year baccalaureate degrees often not limited to the field of education). Consequently, the No Child Left Behind Act of 2001 that necessitates highly qualified teachers in every classroom by 2005-2006, brought into focus a need to train prospective non-certified substitutes in such areas as school policies, classroom management, and instructional strategies to meet these requirements. Unfortunately, a large percentage of states do not require training for these prospective substitute teachers due to the lack of available funding (Smith, 2002). Subsequently, a report on the shortage of substitutes in the state of West Virginia, in 1999, created mandatory substitute training for prospective non-certified individuals interested in substitute teaching.

The major focus of West Virginia's substitute training program is to prepare individuals with at least a four-year baccalaureate degree, but not certified, to teach in the public schools. There are eight Regional Educational Service Agencies (RESAs), which organize substitute training for their regions in West Virginia. Individuals with at least a four-year baccalaureate degree in any area may apply for substitute status after undergoing a background check and 18 hours of training. Literature revealed that topics during the training of substitute teachers (e.g., classroom management, instructional strategies, and school policies and procedures) provide only an overall view of information and skills needed to be successful in the classroom (Smith, 2002). Smith (2002) concluded an overall view of education was not enough for sufficient substitute training. Taking into consideration the difficulty substitutes encounter in the classroom, training is imperative to obtaining the high quality status required by the No Child Left Behind Act of 2001. Furthermore, research indicates that if conducted effectively, substitute training when associated with classroom management, instructional strategies and student engagement, should enhance the teaching efficacy of prospective non-certified substitutes (Smith, 1999). Subsequently, research assumed a path to determine the definition and origin of the term *teaching efficacy*.

Pajares (1997) concluded self-efficacy *beliefs* to be predictive of our choices, efforts, and persistence when faced with adversity or emotions on any task. In reference to these beliefs, *teacher efficacy* evolved and has been defined as judgment of a teacher's capabilities to produce

the desired outcomes of student engagement and learning regardless if the student is difficult or unmotivated (Tschannen-Moran & Woolfolk Hoy, 2001). Teachers' beliefs concerning their personal teaching abilities appear to be key factors of teacher behavior, decisions, and classroom organization. Research also reveals that teachers with high teacher efficacy are more effective in the classroom and with their students than those with low teacher efficacy (Fives, 2003; Gibson & Dembo, 1984).

According to extant research, various researchers (e.g., RAND, Bandura, Gibson & Dembo, and Tschannen-Moran & Woolfolk Hoy) have developed instruments to measure the teaching efficacy of preservice and inservice teachers. Presently, the most recent and most efficient instrument to measure teacher efficacy is the Ohio State Teacher Efficacy Scale (OSTES), constructed by Tschannen-Moran and Woolfolk Hoy (2001). Tschannen-Moran and Woolfolk Hoy (2001) refer to the OSTES as the Teachers' Sense of Efficacy Scale (TSES). Therefore, the instrument used for this study was referred to as the TSES.

## Significance of the Study

The purpose of this study was to determine if there is a difference between the teaching efficacy of prospective non-certified substitute teachers before and after mandatory instructional substitute teacher training and after substitute teaching experience in the classroom (post-teaching). Research has shown substitute profiles and the reasons individuals decide to substitute teach, with greater emphasis on substituting difficulties (Longhurst, Smith, & Sorenson, 2000; National Center for Educational Statistics, 1998; Smith, 1999). Subsequently, research also indicated that high teaching efficacy of preservice and inservice teachers has been related to positive outcomes relating with both student outcomes (i.e., achievement and motivation) and teachers outcomes (i.e., motivation, actions, decisions, and response to innovation and change) (Fives, 2003). In addition, information measuring the teaching efficacy of prospective substitute teachers without teacher certification or licensure has been limited. Therefore, research interests relating to this document focused on the effects involving the teaching efficacy of prospective non-certified substitute teachers in West Virginia based upon training and classroom substitution duties, specifically focusing on student engagement, instructional strategies, and classroom management. The age, gender, ethnicity, level of education, degree major, and RESA location of these individuals was also considered.

## Research Questions

The proposed study explored (a) the impact of substitute teacher training on the teaching efficacy of prospective non-certified substitute teachers; and (b) the impact of the age, gender, ethnicity, level of education, degree major, and RESA location of these individuals on the effects of teacher training on the teaching efficacy of prospective non-certified substitute teachers. Specifically, this study answered the following questions:

1. What is the effect of substitute teacher training on the teaching efficacy of prospective non-certified substitute teachers?
2. What individual difference variables (i.e., age, gender, ethnicity, level of education, degree major, RESA location ) may mitigate the effects of teacher training on teaching efficacy for prospective non-certified substitute teachers?
3. What is the effect of substitute teacher training on the teaching efficacy of prospective non-certified substitute teachers after substitute teaching experience?
4. What individual difference variables (i.e., age, gender, ethnicity, level of education, degree major, and RESA location) may mitigate the effects of substitute teaching on teaching efficacy for prospective non-certified substitute teachers?

## Hypotheses

The research questions presented were investigated through a quasi-experimental design. The study was designed to collect data and conduct analyses to test the following hypotheses:

$H_1$: The teaching efficacy of substitute teacher trainees will decrease as a result of substitute teacher training as measured by pre and post surveys.

$H_0$: There will be no significant difference in teaching efficacy of substitute teacher trainees as measured by pre and post substitute teacher training surveys.

$H_2$: There will be a significant difference in teaching efficacy of substitute teacher trainees based on age, gender, ethnicity, level of education, degree major, and RESA location as measured by pre and post substitute teacher training surveys.

$H_0$: There will be no significant difference in teaching efficacy of substitute teacher trainees based on age, gender, ethnicity, level of education, degree major, and RESA location as measured by pre and post substitute teacher training surveys.

$H_3$: The teaching efficacy of substitute teacher trainees will decrease as a result of classroom experience following substitute teacher training as measured by post-training and follow-up surveys.

$H_0$: There will be no significant difference in teaching efficacy of substitute teacher trainees as measured by post-training and follow-up substitute teacher surveys.

$H_4$: There will be a significant difference in teaching efficacy of substitute teacher trainees based on age, gender, ethnicity, level of education, degree major, and RESA location as measured by post-training and follow-up substitute teacher surveys.

$H_0$: There will be no significant difference in teaching efficacy of substitute teacher trainees based on age, gender, ethnicity, level of education, degree major, and RESA location as measured by post-training and follow-up substitute teaching surveys.

# CHAPTER III
# METHODOLOGY

The purpose of this study was to determine if the teaching efficacy of non-certified substitute teachers changed after mandatory substitute teacher training and regular classroom substitution duties. To address this purpose, teaching efficacy of prospective non-certified substitute teachers was measured (a) pre-mandatory 12-hour instructional training (pre-training), (b) post-mandatory 12-hour instructional training (post-training), and (c) after beginning regular classroom substitution duties (post-teaching). The pre and post-training was conducted at the various substitute teacher-training locations at seven of the eight Regional Education Service Agency (RESA) areas throughout West Virginia, with a follow-up online survey. RESA VII conducts online substitute teacher training, therefore were not included in this study. The study employed the Teacher's Sense of Efficacy Scale (TSES) to measure participants' levels of self-efficacy during pre-training, post-training and post-teaching. In addition, three open-ended questions were added to the post-teaching survey to allow the participants' voices to be heard relevant to the training. The study measured changes in the self-efficacy of non-certified substitute teachers from pre-training through post-teaching. This chapter outlines the approach that was used to answer the research questions within the study, detailing the research design, participants, materials, procedures and analysis.

## Research Design

Overall, the current study employed a 6-between/2-within repeated measures design. This omnibus design was divided into two smaller designs for analysis purposes. The first analysis was a 0-between/2-within, 3 (self-efficacy) X 3 (experience) repeated measures design (see Table 10). The second analysis involved a subset of the 6-between factors (i.e., age, gender, ethnicity, level of education, degree major, and RESA location). The study assessed the effects of training and teaching experience on substitute teachers teaching self-efficacy. The three levels of the Self-Efficacy variable included *Efficacy for Student Engagement*, *Efficacy for Instructional Strategies*, and *Efficacy for Classroom Management*, while the three levels of the Experience variable included *Pre-Training Assessment*, *Post-Training Assessment*, and *Post-Teaching Assessment* (see Table 10).

Table 10

*Schematic Representation of the Proposed Study's Design*

| | | Experience | | |
|---|---|---|---|---|
| | | Pre-Training | Post-Training | Post-Teaching |
| Self-Efficacy | Student Engagement | | | |
| | Instructional Strategies | | | |
| | Classroom Management | | | |

Prior to the 12 hours of instructional training at the scheduled RESA locations, a letter of information was presented to the participants indicating the purpose of the study. A numeric value was assigned to each participant and positioned at the top of each survey to assure anonymity. Each participant was requested to complete a demographic questionnaire to determine age, gender, ethnicity, level of education, degree major, and RESA location. Participants were requested to include their e-mail address for completion of a follow-up post-teaching survey. The 24-item Teacher's Sense of Self-Efficacy Scale (TSES) was administered three times to the participants (see Appendix O). These non-certified participants from various disciplines aspiring to become substitute teachers were administered the TSES pre-training, post-training and post-teaching.

Participants involved in substitute teaching experience were requested to state their beliefs relative to substitute teacher training through three open-ended questions, which were included at the end of the online post-teaching TSES. Question one further investigated whether there was a change of participants' teaching efficacy before and after substitute training. Question two highlighted the areas of training that were most beneficial for participants upon entrance into the classroom. Question three determined if participants need further information presented during the training to enhance their abilities in the classroom as a substitute teacher.

## Participants

Participants in this study were comprised of those individuals that engaged in and completed substitute teacher training at seven RESA training sites within West Virginia. Exact demographics for the sample depended upon those that completed the training. Approximately 340 individuals engaged in the two-day substitute training during the summer sessions, which comprised the data collection period for this study. Of the 340 initial participants, only 319

completed the required two days of training (see Table 11). All participants had various academic degrees with at least a four-year baccalaureate degree, however, no participant had been issued West Virginia teacher certification.

Participants in the *follow-up survey* involved all trained individuals from seven of the eight participating RESAs. Participation during this follow-up online survey was based upon accessible e-mail addresses retrieved from the demographic questionnaire. Consequently, only 249 participants received an e-mail message containing a link to the third survey (i.e., post-teaching), with a request to respond within a three-week timeframe. Messages sent were based upon the participants' willingness to provide their e-mail address on the demographic page during pre-training; however, penmanship was a detriment in determining e-mail addresses. Numbers diminished during the third survey when 22 e-mails bounced back; only 79 out of 130 responses were viable; and 87 participants did not respond. (see Table 11). Finally, participation in all aspects of this study was voluntary, anonymity in reporting was assured, and the investigator maintained confidentiality of the data.

The original distribution of participants included 57% females (n=194) and 43% males (n=146), with 65% (n=130) of the participants between the ages of 20-29, 27% (n=93) between 30 and 39, and 34% (n=117) above the age of 40 (see Table 12). Additionally, participants also included 94% White/Caucasians (n=320) and 3% (n=11) Black/African Americans, with 81% (n=274) possessing a Bachelor's degree and 19% (n=66) beyond a Bachelor's degree (see Table 13). Finally, the top three degree majors indicated by participants were 22% (n=75) with social studies, 19% (n=65) with a business degree, and 13% (n=44) with a degree in education but without teaching certification. Interestingly, 24% (n=82) of the participants' indicated a major other than those listed in the demographics (e.g., religion), (see Table 14). The distribution of participants for each variable remained consistent throughout pre-training, post-training and post-teaching experiences.

Table 11

*Non-certified Participants Attending RESA Trainings*

| | Experience | | |
|---|---|---|---|
| Regional Service Education Agency | Pre-Training | Post-Training | Post-Teaching |
| RESA I | 63 | 60 | 12 |
| RESA II | 62 | 55 | 21 |
| RESA III | 49 | 43 | 8 |
| RESA IV | 33 | 32 | 7 |
| RESA V | 13 | 13 | 2 |
| RESA VI | 22 | 22 | 4 |
| RESA VII | N/A | N/A | N/A |
| RESA VIII | 98 | 94 | 25 |
| Totals | 340 | 319 | 79 |

Table 12

*Gender and Age Variables*

| | Experience | | |
|---|---|---|---|
| Demographics | Pre-Training (N=340) | Post-Training (N=319) | Post-Teaching (N=79) |
| **Gender** | | | |
| Male | 146 | 131 | 23 |
| Female | 194 | 188 | 56 |
| **Age** | | | |
| 20-29 | 130 | 119 | 28 |
| 30-39 | 93 | 88 | 23 |
| 40-49 | 58 | 56 | 14 |
| 50 & over | 59 | 56 | 14 |

Table 13

*Ethnicity and Education Variables*

| | Experience | | |
|---|---|---|---|
| Variables | Pre-Training (N=340) | Post-Training (N=319) | Post-Teaching (N=79) |
| **Ethnicity** | | | |
| White/Caucasian | 320 | 303 | 75 |
| Black/African American | 11 | 10 | 1 |
| American Indian/ Alaskan Native | 4 | 4 | 1 |
| Asian | 0 | 0 | 0 |
| Hispanic/Latino | 3 | 1 | 1 |
| Multiracial | 2 | 1 | 1 |
| **Education** | | | |
| Associate Degree | 0 | 0 | 0 |
| Bachelor's Degree | 274 | 258 | 68 |
| Bachelor's Plus 30 | 25 | 22 | 6 |
| Master's Degree | 38 | 36 | 3 |
| Doctoral Degree | 3 | 3 | 2 |
| Other | 0 | 0 | 0 |

Table 14

*Degree Major Variables*

| | Experience | | |
|---|---|---|---|
| Variables | Pre-Training (N=340) | Post-Training (N=319) | Post-Teaching (N=79) |
| **Degree Major** | | | |
| Business | 65 | 59 | 14 |
| Education | 44 | 41 | 14 |
| English/Lang. Arts | 20 | 20 | 3 |
| Fine Arts | 5 | 3 | 2 |
| Math | 4 | 3 | 0 |
| Military | 2 | 2 | 1 |
| Physical Education | 14 | 14 | 3 |
| Science | 29 | 28 | 6 |
| Social Studies | 75 | 69 | 16 |
| Other | 82 | 80 | 20 |

## Instruments

The instrument used for this study was the Teachers' Sense of Efficacy Scale (TSES). The TSES was developed by Megan Tschannen-Moran, from the College of William and Mary, and Anita Woolfolk-Hoy, from Ohio State University (2001). The TSES, a 24-item instrument, with a 12-item short form, was based upon Bandura's 30-item instrument of seven subscales, including efficacy to influence decision-making, efficacy to influence school resources, instructional efficacy, disciplinary efficacy, efficacy to enlist parental involvement, efficacy to

enlist community involvement and efficacy to create a positive school climate (see Bandura, 1987).

Tschannen-Moran and Woolfolk-Hoy (2001) conducted three separate psychometric studies of the TSES in order to examine the factor structure, reliability, validity, and appropriateness of the TSES scale for preservice and inservice teacher populations. Of special interest to the study of West Virginia non-certified substitute teachers, was Study 3 within Tschannen-Moran and Woolfolk-Hoy (2001), which addresses items such as assessment of teaching in support of student thinking, effectiveness with capable students, creativity in teaching and flexible application of alternative assessment and teaching strategies that other instruments failed to measure. Results of two-factor analyses of preservice and inservice teachers indicated that both the 24-item long form and 12-item short form subscales and total scores could be used to assess teacher efficacy. Subsequently, Tschannen-Moran and Woolfolk Hoy (2001) stated that "for preservice teachers, the total score seems to be the most appropriate gauge of efficacy; subscale scores may have little meaning for prospective teachers who have yet to assume real reaching responsibilities" (p. 801). However, for the purpose of this study, the three subscales were used in the analysis to provide question sensitivity in detecting the effects of substitute training on teaching experience (i.e., the post-teaching data).

*Reliability*

The TSES has been subjected to extensive psychometric testing (Roberts & Henson, 2001; Tschannen-Moran & Woolfolk Hoy, 2001). An exploratory factor analysis (EFA) involving 410 participants, consisting of pre-service and in-service teachers, based on the 24-item TSES, suggested three factors/subscales, *Efficacy for Student Engagement, Efficacy for Instructional Strategies*, and *Efficacy for Classroom Management* (Tschannen-Moran & Woolfolk Hoy, 2001; Study 3). Each of these factors/subscales was comprised of 8 questions from the full 24 questions of the TSES. Reliability testing based on calculating the mean of each of the three factors/subscales yielded reliability coefficients (alpha) of 0.87 for *Efficacy for Student Engagement*, 0.91 for *Efficacy for Instructional Strategies*, and 0.90 for *Efficacy for Classroom Management*.

*Validity*

Construct validity of the TSES was established by Tschannen-Moran and Woolfolk-Hoy (2001) through the use of correlations with existing measures of teacher efficacy, specifically, the two Rand assessment items (Armor et al., 1976) and Hoy and Woolfolk's (1993) adaptation of Gibson and Dembo's (1984) teacher efficacy scale, both the General Teacher Efficacy (GTE) scale and the Personal Teaching Efficacy (PTE) scale. Tschannen-Moran & Woolfolk Hoy (2001) found significant correlations between the full TSES and Rand 1 ($r = 0.18$), Rand 2 ($r = 0.53$), GTE ($r = 0.16$), and PTE ($r = 0.64$). According to Tschannen-Moran & Woolfolk Hoy (2001), "the results of these analyses indicate that the TSES could be considered reasonably valid and reliable" (p. 801).

Ultimately, the TSES is considered to be superior to previous measures of teaching efficacy based on the unified and stable factor structure and ability to assess a broad range of teaching capabilities considered important to good teaching (Tschannen-Moran & Woolfolk-Hoy, 2001). Notably, the TSES may be administered for comparison of teachers across various contexts, levels, and subjects (Tschannen-Moran & Woolfolk-Hoy, 2001).

Additionally, three exploratory questions were administered with the post-teaching survey. The exploratory questions consisted of three open-ended questions related to substitute training as follows: (a) Describe any changes in your beliefs toward teaching that occurred as a result of the RESA training; (b) In what ways did the RESA training prepare you for substitute teaching?; and (c) What, if any, information was missing from the RESA training that might have been helpful to you?

## Procedure

The substitute teacher training, as administered by the seven different RESAs, ranged in content, form, and delivery. In general, the content of the RESA training sessions include topics such as classroom management, state and local policies, the West Virginia Content Standards, and instructional strategies. The form and delivery of this content, however, varied widely and included the role of a substitute teacher, student or teacher code of conduct, sexual harassment, confidentiality, bullying, safe schools, fire drills, lock downs, special education issues, 504 plans, lesson plans, appearance of substitutes, positive attitudes, substitute evaluations, multiple intelligences, cooperative learning activities, various methods to call on students, preventive

discipline, handling disruptive students, higher level questioning, legal aspects, communication strategies, how to handle absences, homework, and the utilization of a resource kit or substitute Sub-Pack obtained from the Substitute Teaching Institute, Utah State University (RESA, 2003). For example, one RESA training session included characteristics of active learning (i.e., classroom structures which encourage student participation), various instructional strategies, teachers' expectations, classroom management, public laws for teachers, health care procedures for public schools, and exceptionalities, characteristics and behavioral strategies.

The TSES 24-item form (see Appendix O) and demographic questionnaire (see Appendix P) was administered to the non-certified participants. The TSES involved three categories (i.e., classroom management, student engagement and instructional strategies) which contain items similar to the topic items covered by the RESA training.

The TSES was administered to a total of 340 participants attending substitute teacher training at seven RESA substitute teacher training sites. RESA VII conducts online substitute teacher training, thus was not considered for the study. The TSES was administered a second time to the remaining 319 participants at the conclusion of the training. The dates and sites were determined by the RESA staff or county board offices. Individuals conducting the training were either RESA employees or contracted individuals from the public school system. The number of trainers varied throughout the RESA training locations based upon topics covered in the training.

The TSES survey was also administered online to 79 non-certified participants of the remaining 319 participants, after completing substitute-teaching experience within the classroom. Additionally, three open-ended questions were added to the online survey. The pre and post-surveys were administered during two separate training days scheduled by each RESA. The investigator used the same procedure for each training session. The following section details the process for each day of the intervention.

*Pre-Training: Day One*

The investigator attended scheduled RESA non-certified substitute teacher training sessions throughout West Virginia. After introduction by the session trainer, an explanation concerning the study was presented orally by the investigator, as well as in the form of a letter explaining the purpose of the study and participants' confidentiality. A demographic questionnaire requiring participants' name, age, gender, ethnicity, level of education, degree major, RESA location, and e-mail was attached to the pre-training survey. Prior to each training

session, the investigator numbered each demographic questionnaire and pre-training survey, consecutively. Each participant was assigned the same number for the demographic questionnaire and pre-training survey, allowing an anonymous gathering of information. Participants were then asked to complete the demographic questionnaire and pre-training survey. Participants were thanked and reminded of the administration of the post-training survey after completion of the 12-hour instructional training.

*Post-Training: Day Two*

The investigator conducted a post-training survey for the same participants from *Pre-Training: Day One*, using the TSES 24-item survey. Prior to administration of the post-training survey, the investigator wrote the participants' assigned numbers from the pre-training survey onto the post-training survey. In addition, the investigator wrote the name of each participant on a small Post-It note for identification purposes and attached it to the post-training survey so that the correct participant received the post-training survey. Participants then removed the Post-It note prior to completing the survey. Participants were thanked for their participation and informed of the online follow-up post-teaching survey through e-mail within the next three to six months.

*Post-Teaching: Day Three*

Three to six months after training, the investigator sent an e-mail including a link to the TSES 24-item teaching efficacy survey along with the three open-ended questions related to the training to the participants from the seven RESAs. Participants' e-mail addresses were obtained from the demographic questionnaire completed on Day One. The post-teaching survey form provided space for participants to indicate the number of classroom substitution days completed. Participants were allowed three weeks to complete and submit the online survey. The investigator sent a reminder e-mail the first and second week after the initial administration of the online survey. Post-teaching surveys were printed and retained for future reference.

In addition to the quantitative procedures, three open-ended questions were included in the post-teaching survey to determine if participants' self-efficacy changed after substitute teacher training, after teaching, or if other topics need to be included in the training. In order to allow respondents the opportunity to provide lengthier and more detailed responses concerning the effects of substitute training on teaching efficacy, participants were asked: (a) Describe any

changes in your beliefs toward teaching that occurred as a result of the RESA training; (b) In what ways did the RESA training prepare you for substitute teaching?; and (c) What, if any, information was missing from the RESA training that might have been helpful to you?

The investigator determined the various categories that emerged through examination and re-examination of the data. A pre-determined framework of possible responses was not used to summarize the data; therefore, initial reading and re-reading of responses was necessary to refine the number and definition of categories considered most representative of the participants' responses.

# CHAPTER IV

# RESULTS

The next section addresses the findings and results of the study. Hypotheses 1 & 3 and Hypotheses 2& 4 were analyzed respectively. Additionally, the three open-ended questions added to the TSES online survey were addressed and summarized.

## *Hypotheses 1 and 3*

Hypotheses 1 and 3 addressed the effects of substitute teacher training on the self-efficacy of participants in the areas of student engagement, instructional strategies, and classroom management during pre-training, post-training, and post-teaching. The data collected involved the 24-item TSES presented to non-certified individuals in substitute teacher training prior to training, after training, and after teaching. The TSES contained eight questions on student engagement (1, 2, 4, 6, 9, 12, 14, 22), eight questions on instructional strategies (7, 10, 11, 17 18, 20, 23, 24), and eight questions on classroom management (3, 5, 8, 13, 15, 16, 19, 21). These questions were combined to create composite scores involving self-efficacy for student engagement, self-efficacy for instructional strategies, and self-efficacy for classroom management. All items were scores from 1 (low self-efficacy) to 9 (high self-efficacy), depicting the self-efficacy levels of the participants beliefs.

All data collected was stored in a database until the conclusion of the study at which time it was extracted, downloaded, imported into SPSS for analysis, and reported. Among the type of analyses that were performed was a general descriptive analysis that reported the means and standard deviations for each group condition was reported. The descriptive statistics of this analyses is located in Table 15.

*Hypotheses 1 and 3.* In the following section, Hypotheses 1 and 3 were combined for analysis purposes. To assess the effects of substitute teacher training and substitute teacher experience on teaching efficacy a 0-betweeen/2-within, 3 (student engagement, instructional strategies, classroom management) X 3 (pre-training, post-training, post-teaching), repeated measures analysis of variance (ANOVA), using the Greenhouse-Geisser adjustment for sphericity was conducted. The ANOVA indicated significant main effects for both self-efficacy, $F(2, 156) = 19.80$, $p = .00$, partial $\eta^2 = .20$, and experience, $F(2, 156) = 18.22$, $p = .00$, partial

$\eta^2$= .18 (see Table 16). Given the significance of the self-efficacy and experience main effects subsequent contrast analyses were conducted.

The contrast analyses for self-efficacy indicated that the mean self-efficacy for student engagement was significantly less than the mean for both instructional strategies, F(1, 78) = 36.10, p = .00, partial $\eta^2$ = .31, and classroom management, F(1,78) = 27.07, p = .00, partial $\eta^2$ = .25; however, there was no mean difference between instructional strategies and classroom management, F(1,78) = .002, p = .96, partial $\eta^2$ = .00 (see Figure 6).

The contrast analyses for experience indicated that post-training self-efficacy was greater than pre-training self-efficacy, F(1, 78) = 14.82, p = .00, partial $\eta^2$ = .16, and that post-teaching self-efficacy was significantly less than both pre-training, F(1,78) = 6.30, p = .01, partial $\eta^2$ = .07, and post-training self-efficacy, F(1,78) = 25.45, p = .00, partial $\eta^2$ = .31 (see Figure 6).

The above mean contrast analyses were conducted using the marginal means (see Table 11). Given the three types of self-efficacy within the TSES instrument, and Tschannen-Moran and Woolfolk-Hoy's (2001) recommendation to analyze the three types of self-efficacy separately, additional simple effects analyses were conducted. These simple effects analyses clarify the effects of substitute teacher training and substitute teacher experience on each of the three self-efficacy measures (see Figure 6). Three separate one-way repeated measures ANOVAs, using the Greenhouse-Giesser adjustment for sphericity, were conducted.

The first ANOVA examined the change in self-efficacy for student engagement across pre-training, post-training, and post-teaching, revealing a significant increase in self-efficacy for student engagement from pre-training to post-training, F(1, 78) = 6.69, p = .01, partial $\eta^2$ = .07, and a significant decrease from post-training to post-teaching, F(1,78) = 46.57, p = .00, partial $\eta^2$ = .37. In addition, prospective substitute teachers' self-efficacy for student engagement was significantly lower following teaching experience than it was prior to training, F(1, 78) = 19.86, p = .00, partial $\eta^2$ = .20.

The second ANOVA examined the change in self-efficacy for instructional strategies across pre-training, post-training, and post-teaching, revealing a significant increase in self-efficacy for instructional strategies from pre-training to post-training, F(1,78) = 13.11, p = .00, partial $\eta^2$ =.14, and a significant decrease from post-training to post-teaching, F(1, 78) = 23.58, p = .00, partial $\eta^2$ = .23. In addition, prospective substitute teachers' self-efficacy for

Table 15: *General Descriptive Statistics Reported by Self-Efficacy and Experience*

| | Experience | | | |
|---|---|---|---|---|
| Self-Efficacy | Pre-Training (N=340) | Post-Training (N=319) | Post-Teaching (N=79) | Totals |
| Student Engagement | | | | |
| M | 6.64 | 6.87 | 6.08 | 6.53 |
| SD | 1.07 | 1.10 | 1.13 | 1.10 |
| Instructional Strategies | | | | |
| M | 6.88 | 7.21 | 6.66 | 6.92 |
| SD | 1.05 | 0.96 | 1.00 | 1.01 |
| Classroom Management | | | | |
| M | 6.82 | 7.17 | 6.77 | 6.92 |
| SD | 1.02 | 0.98 | 1.14 | 1.06 |
| Totals | | | | |
| M | 6.78 | 7.09 | 6.51 | |
| SD | 1.04 | 1.01 | 1.09 | |

Table 16

*Analysis of Variance for Self-Efficacy by Experience*

| Source | *df* | F | p | $\eta^2$ | *power* |
|---|---|---|---|---|---|
| | | Between Subjects | | | |
| Subjects | 1 | 5563.40 | .00 | .98 | 1.00 |
| error | 78 | (5.90) | | | |
| | | Within Subjects | | | |
| Self-Efficacy | 2 | 19.80 | .00 | .20 | 1.00 |
| Self-Efficacy (error) | 156 | (0.63) | | | |
| Experience | 2 | 18.22 | .00 | .18 | 1.00 |
| Experience (error) | 156 | (1.24) | | | |
| S-E x Exp | 4 | 7.86 | .00 | .09 | .99 |
| S-E x Exp (error) | 312 | (0.18) | | | |

Note: Values in parentheses represent mean square errors.

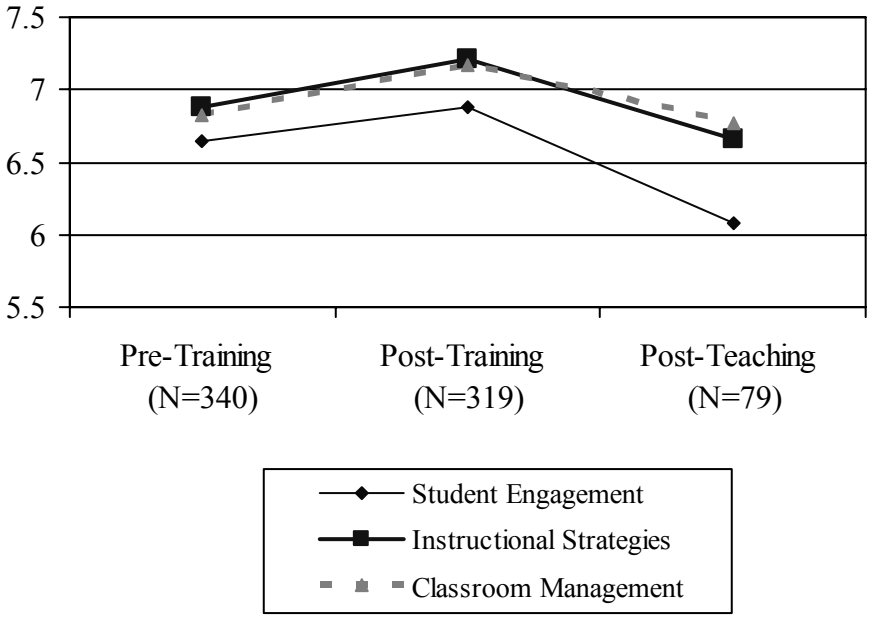


*Figure 6.* Plot of mean self-efficacy scores by experience

instructional strategies was not statistically different following teaching experience and prior to training, $F(1,78) = 3.01$, $p = .08$, partial $\eta^2 = .03$.

The third ANOVA examined the change in self-efficacy for classroom management across pre-training, post-training, and post-teaching, revealing a significant increase in self-efficacy for classroom management from pre-training to post-training, $F(1, 78) = 14.76$, $p = .00$, partial $\eta^2 = .15$, and a significant decrease from post-training to post-teaching, $F(1, 78) = 13.13$, $p = .00$, partial $\eta^2 = .14$. In addition, prospective substitute teachers' self-efficacy for classroom management was not statistically different following teaching experience and prior to training, $F(1, 78) = 0.14$, $p = .70$, partial $\eta^2 = .00$.

These results led to the rejection of both Hypotheses 1 and 3; specifically, self-efficacy was positively affected by substitute teacher training, but negatively affected by substitute teaching.

*Hypotheses 2 and 4.* To assess the affects of individual difference variables on the effects of teaching training on teaching efficacy, six different individual difference variables were examined (i.e., age, gender, ethnicity, level of education, degree major, RESA location). An observational analysis of the six individual difference variables revealed a lack of variability in four of the variables, specifically ethnicity, level of education, degree major, and RESA location.

This lack of variability within these variables made any further analyses involving these variables inappropriate.

Given the exclusion of four of the six individual difference variables, subsequent analyses were only conducted on the variables of age and gender. To assess the affect of age or gender on the effects of substitute training on teaching efficacy two repeated measures, analysis of variances were conducted. To assess the affect of age a 1-betweeen/2-within, 3 (20-29, 30-39, ≥ 40 years of age) X 3 (student engagement, instructional strategies, classroom management) X 3 (pre-training, post-training and post -teaching) repeated measures ANOVAs, using the Greenhouse-Giesser adjustment for sphericity, was conducted. The ANOVA indicated no significant main effects for age, $F(1, 2) = 2.43$, $p = .09$, partial $\eta^2 = .06$, and no significant age x self-efficacy interaction, $F(4, 152) = 0.76$, $p = .53$, partial $\eta^2 = .02$ or age x experience, $F(4, 152) = 1.40$, $p = .23$, partial $\eta^2 = .03$ interactions (see Table 13). To assess the affect of gender a 1-betweeen/2-within, 2 (male, female) X 3 (student engagement, instructional strategies, classroom management) X 3 (pre-training, post-training and post -teaching) repeated measures ANOVAs, using the Greenhouse-Giesser adjustment for sphericity, was conducted. The ANOVA indicated no significant main effects for gender, $F(1, 1) = .24$, $p = .62$, partial $\eta^2 = .00$, and no significant gender x self-efficacy interaction, $F(2, 154) = 2.17$, $p = .11$, partial $\eta^2 = .02$ or gender x experience interaction, $F(2, 154) = 0.40$, $p = .64$, partial $\eta^2 = .00$ interactions (see Table 17 and 18). Given the lack of significance of age and gender on substitute teacher self-efficacy Hypotheses 2 and 4 are accepted (see Table 17); specifically, self-efficacy was not affected by either gender or age.

*The TSES Internal Consistency*

In a previous large scale analysis (N = 410) Tschennan-Moran and Woolfolk-Hoy (2001) calculated the Cronbach's alpha for the entire TSES as .94, with the alpha for Student Engagement as .87, Instructional Strategies as .91, and the Classroom Management as .90. For the current study, two sets of Cronbach's alpha were calculated (see Table 19). Since the sample size was 319 for the Pre-Training and Post-Training self-efficacy surveys and only 79 for the Post-Teaching survey, a first alpha was calculated based on only the Pre-Training and Post-Training survey data, and a second alpha was calculated based on all three surveys (i.e., Pre-Training, Post-Training, and Post-Teaching). This dual alpha calculation was based on the

positive effect that sample size has on alpha (Gall, Borg, & Gall, 1996). As can be seen from Table 15, the alphas for the full TSES ranged .93 to .91, and the alphas for the three components of the TSES ranged from .76 to .85. In all cases, the alpha values indicated that internal consistency was high.

Table 17

*Analysis of Variance for Age by Self-Efficacy by Experience*

| Source | *df* | F | p | $\eta^2$ | *power* |
|---|---|---|---|---|---|
| | | Between Subjects | | | |
| Subjects (age) | 2 | 2.43 | .09 | .06 | 0.47 |
| error | 76 | (0.63) | | | |
| | | Within Subjects | | | |
| Self-Efficacy | 2 | 17.42 | .00 | .18 | .99 |
| S-E x Age | 4 | 0.76 | .53 | .02 | .22 |
| Self-Efficacy (error) | 152 | (1.11) | | | |
| Experience | 2 | 19.37 | .00 | .20 | 1.00 |
| Exp x Age | 4 | 1.40 | .23 | .03 | .41 |
| Experience (error) | 152 | (0.63) | | | |
| S-E x Exp | 4 | 7.75 | .00 | .09 | .99 |
| S-E x Exp x Age | 8 | 0.79 | .59 | .02 | .33 |
| S-E x Exp (error) | 304 | (0.21) | | | |

Note: Values in parentheses represent mean square errors.

Table 18

*Analysis of Variance for Gender by Self-Efficacy by Experience*

| Source | *df* | F | p | $\eta^2$ | *power* |
|---|---|---|---|---|---|
| | | Between Subjects | | | |
| Subjects (gender) | 1 | 0.24 | .62 | .00 | .07 |
| error | 77 | (5.96) | | | |
| | | Within Subjects | | | |
| Self-Efficacy | 2 | 21.83 | .00 | .22 | 1.00 |
| S-E x Gender | 2 | 2.17 | .11 | .02 | .43 |
| Self-Efficacy (error) | 154 | (.60) | | | |
| Experience | 2 | 16.05 | .00 | .17 | .99 |
| Exp x Gender | 2 | .40 | .64 | .00 | .11 |
| Experience (error) | 154 | (1.24) | | | |
| S-E x Exp | 4 | 5.76 | .00 | .07 | .96 |
| S-E x Exp x Gender | 4 | 1.39 | .24 | .08 | .40 |
| S-E x Exp (error) | 308 | (.21) | | | |

Note: Values in parentheses represent mean square errors.

Table 19

*Cronbach's Alpha*

| | Cronbach's Alpha | | |
|---|---|---|---|
| | Tschannen-Moran & Woolfolk-Hoy, 2001 (N = 410) | Pre-Training & Post-Training (N = 319) | Pre/Post-Training & Post-Teaching (N = 79) |
| TSES | .94 | .93 | .91 |
| Student Engagement | .87 | .85 | .81 |
| Instructional Strategies | .91 | .82 | .76 |
| Classroom Management | .90 | .82 | .79 |

## Summary of Results

The results of the current study indicate that teacher self-efficacy, generally, and self-efficacy for student engagement, instructional strategies, and classroom management, specifically, slightly increased as the result of substitute teacher training. Results also indicate that age and gender had no effect on teacher self-efficacy as a result of substitute teacher training. Subsequently, the results of the current study indicate that teacher self-efficacy, generally, and self-efficacy for student engagement, instructional strategies, and classroom management, specifically, decreased as the result of substitute teaching experience. Results also indicate that age and gender had no effect on teacher self-efficacy as a result of substitute teaching experience.

*Results of Open-Ended Questions*

Three open-ended questions were added to the third TSES's survey, conducted online: (a) Describe any changes in your beliefs toward teaching that occurred as a result of the RESA training; (b) In what ways did the RESA training prepare you for substitute teaching?; and (c) What, if any, information was missing from the RESA training that might have been helpful to you?

The results of the first open-ended question involving changes in participants' beliefs after substitute teacher training revealed that over half of the respondents felt as though they experienced some kind of change (see Table 20).

Table 20

*Changes in Beliefs after Substitute Training*

| Responses | Number |
|---|---|
| Changed beliefs | 34 |
| Beliefs somewhat changed | 4 |
| No change in beliefs | 19 |
| No response | 5 |
| Total | 62 |

After substitute teacher training, respondents perceived "how important the role of teachers and substitutes are to children." Since attending to the topics presented by the RESA trainers, substitutes indicated that they had gained "a greater respect for what teachers have to deal with on a daily basis." Throughout the training, various activities were presented to the respondents leading many to the conclusion that "teaching is fun." Several non-certified substitute teachers whose beliefs changed, left the training with "more confidence to enter the class and know that there is support from the school system." Respondents came to realize that

"substitutes are not babysitters," alluding to Abdal-Hagg's (1997) acknowledged perception that "substitute teachers are more than warm bodies sitting in the classroom."

The training presented many respondents with thoughts that "teaching is an extremely challenging profession." This concept evolved when respondents revealed that "training was much more difficult than I thought" and "I didn't know that teachers take such a significant personal risk when in the classroom." Many respondents came to realize that substitute teaching may be more challenging than first anticipated. Respondents alluded to "the challenges teachers face day to day and how stressful they are," representing the realization that teaching is not an effortless profession. Although many respondents' beliefs were perceived positively, a few respondents concluded that "teaching is not for everyone."

Several respondents also indicated that they did not have a change in beliefs. This lack of a change of beliefs, however, seemed to result from a couple of different sources, specifically, that the training simply "reaffirmed what I already knew" or that the "changes were a result of direct experiences in the classroom and not training." While these ideas do not negate the impact of the training, per se, it does indicate that the training may have had a limited effect on certain participants.

The results of the second open-ended question involving preparation for the classroom by substitute teacher training indicated that respondents agreed that information concerning classroom management was the most beneficial topic covered by RESA presenters (see Table 21). Many of the respondents tend to agree that "a great deal of information was given on how to have good classroom management"; however, it was recognized by respondents that "most of the discipline procedures were geared toward middle and high school students and very little for the elementary level."

The second most referenced topic that was presented to non-certified substitute teachers during the training was school policies and procedures. Several respondents recognized this topic as essential and emphasized that "information presented was very informative about policy and procedures", that "without knowing the Content Standard Objectives (CSOs), substitutes wouldn't be able to continue as a regular teacher."

Several respondents alluded to how the activities presentations during the training helped them "deal with unruly children" when they "didn't have lesson plans to follow." Many respondents indicated they received "quite a bit of teaching ideas from the training." They felt as

though they were "very prepared to go into the classroom with strategies" when it was "not possible to find or follow lesson plans" left by the teacher. Respondents briefly mentioned other topics, which prepared them for the classroom, as being "teachers' expectations of a substitute", "handling parents" and the "differences in schools" (see Table 21). Although the majority of respondents appeared to be satisfied with topic presentations, there were a few respondents who indicated that they needed "more suggestions concerning discipline", "more ideas on how to handle situations when lesson plans weren't available", and that "no amount of training prepares you for substituting in the classroom."

The results of the third open-ended question concerning topics during substitute teacher training that needed to be addressed in future trainings indicated that the majority of respondents felt as though the training "efficiently prepared" them for the classroom. Accordingly, a number of individuals' responses were simply stated as "none" or failed to respond to suggestions for further topics. These responses led to the supposition that the respondents felt as though the substitute teacher training covered the topics efficiently or they just simply could not think of other topics due to lack of interest or had not gained enough experience in the classroom to suggest other topics.

The most notable response concerning needed topics indicated that respondents felt a need for "more information on classroom management," even though the majority indicated in question two that classroom management was discussed foremost in topic presentations during the training and they felt well prepared in classroom management upon entering into the classroom. This does not take away from the extent of the topic of classroom management during substitute teacher training, but clearly reinforces classroom management as one of the difficulties teachers or substitute teachers encounter on a daily basis in the classroom.

Another topic of interest that became apparent during the training, although exhibiting a low number of responses (see Table 22), was teaching strategies and activities. Respondents indicated that this topic needs further exploration during training, especially when dealing with "how to write lesson plans" and "how to follow lesson plans following another substitute's previous position in the classroom." Additional topics considered as a need for further

Table 21

*Results of Open-ended Question Two*

In what ways did the RESA training prepare you for substitute teaching?

| Responses | Number |
|---|---|
| Classroom policies and procedures | 14 |
| Resources/activities (handbook) | 4 |
| Preparation for paperwork | 1 |
| Handling parents | 1 |
| Teaching strategies | 6 |
| Classroom management | 17 |
| Differences in schools | 1 |
| New standards in WV | 2 |
| Teachers' expectations of a substitute | 5 |
| Little or no preparation for substituting | 5 |
| No response | 6 |
| Total | 62 |

information during the training by respondents included filling out forms, time management, and obtaining informational packets from various schools (see Table 22). It should also be noted that a few respondents did not emphasize the need for additional topics, but they did have recommendations to improve substitute teacher training. Training suggestions included: (a) "an increase in the amount of observation performed in the classroom"; (b) "instead of having substitutes monitor teachers in the classroom, substitutes need to observe experienced substitutes and how they run the classroom"; (c) "explanation of substitute teacher interviewing

procedures"; (d) "more examples of lesson plans"; (e) more training in "crowd control"; (f) "explain the difference in long term and short term substitutes; and (g) a more positive approach to substitute teaching.

Table 22

*Results of Open-ended Question Three*

What, if any, information was missing from the RESA training that might have been helpful to you?

| Responses | Number |
|---|---|
| What to do when lesson plans aren't left to follow | 3 |
| Writing lesson plans | 2 |
| Teaching techniques/ideas/activities | 4 |
| Classroom management | 10 |
| Filling out disciplinary forms | 1 |
| Time management | 1 |
| How to use an automated system | 1 |
| Procedures for certification | 1 |
| Interviewing procedures | 2 |
| Packet from various schools concerning policies and procedures | 3 |
| Differences between long-term and short-term substitutes | 1 |
| More positive approach to substitute teaching | 1 |
| Longer classroom observation | 1 |
| Follow-up training after being in the classroom | 2 |
| Nothing, training appeared to be thorough | 17 |
| No response | 12 |
| Total | 62 |

Responses were added into as many categories as necessary to represent participants' thoughts or opinions. Responses perceived as incomprehensible were not considered. It should also be noted that these responses are very limited in the number of substitutes included in the data survey (79) compared to those who responded (62) and those who did not pursue substitute teaching after training (17). The open-ended questions were presented only once to the non-certified substitutes and were not followed-up with additional questions for clarification.

## Summary of Qualitative Results

The findings indicate that a majority of participants experienced a change in their beliefs about teaching after substitute teacher training. It is difficult to determine if the changes are positive or negative based on reading their responses; however, responses indicated the change participants experienced are individual to their knowledge involved in teaching (i.e., personal risks, challenges in teaching, and the roles of teachers in the classroom).

The findings also revealed that substitute teacher training prepared participants more in the areas of classroom management and classroom policies and procedures than other school related topics. The findings suggest that individuals conducting the training throughout the state of West Virginia are aware of and emphasize the importance of policies and procedures occurring in the schools before non-certified substitute teachers enter into the classroom. Findings also imply that RESA trainers realize that participants entering into the classroom needed to be able to handle discipline problems above other needs or wants in the classroom.

Finally, the majority of non-certified substitute teachers responding to the survey were satisfied with the training they received or had nothing to add to the training. Results showed that even though participants received information on classroom management and teaching strategies during the training, more information is needed.

Although the breadth and depth of all three-question conclusions is limited and conclusions are tentative, the information received is an indication of what substitute teachers perceive to be important to them. Results also present information to changes RESAs may consider for future trainings.

# CHAPTER V

# DISCUSSION

## Background

The overall goal of this study was to add to the research regarding substitute teachers and the effect substitute teacher training has on non-certified substitute teachers' self-efficacy by utilizing the Teacher's Sense of Efficacy Scale (TSES) instrument set forth by Tschannen-Moran and Woolfolk-Hoy (2001). The study utilized the construct of *teaching efficacy*, which presented teacher's levels of self-efficacy in the areas of student engagement, instructional strategies, and classroom management (Tschannen-Moran & Woolfolk-Hoy, 2001). The study took as its foundation John Rotter's social learning theory, which states that individuals' beliefs in their capabilities to pursue tasks will produce positive outcomes; Albert Bandura's (1986) self-efficacy theory states that the more positive the self-efficacy an individual possesses, the more positive the outcome; the RAND study's (1976) first measurement of self-efficacy pertaining to teachers' perceptions of their own teaching capabilities; Gibson and Dembo's (1984) Teacher Efficacy Scale, which reflected teachers' beliefs about education; and finally, the study by Tschannen-Moran and Woolfolk-Hoy (2001), who categorized self-efficacy questions in areas of student engagement, instructional strategies, and classroom management into the TSES and addressed the instrument as a measure of preservice and inservice teachers' teaching efficacy.

The study included participants from seven of the eight West Virginia Regional Education Service Agencies (RESAs). The participants were presented the TSES three different times during the substitute teacher training (i.e., pre-training, post-training, post-teaching). Trainers at each RESA location presented various topics, specifically in the areas of student engagement, instructional strategies, and classroom management, during the substitute teacher training. The factors of student engagement, instructional strategies, and classroom management, were used to measure the effect training had on the teaching efficacy of non-certified substitute teachers during pre-training, post-training, and post-teaching.

The discussions of the findings were primarily based on the results of the statistical analyses, with the results of the three open-ended questions allowing participants' voices to be heard throughout. The results of this study, limitations of the study, and implications for future research will be discussed in the context of the aforementioned concerns.

## Discussion of Results

All four hypotheses posed by the researcher were analyzed statistically to attempt to isolate the possible significance of the levels of training (i.e., pre-training, post-training, and post-teaching) on the levels of self-efficacy (i.e., self-efficacy for student engagement, self-efficacy for instructional strategies, and self-efficacy for classroom management), together with six different individual difference variables (i.e., age, gender, ethnicity, level of education, degree major, RESA location). Hypotheses 1 and 3, which focused on the effect substitute teacher training had on non-certified substitute teachers before and after two days of substitute training and after some teaching experience, was determined by measuring participants' levels of self-efficacy across the three levels of the independent variable, experience (i.e., pre-training, post-training, and post-experience). *Findings revealed that non-certified substitute teachers' general teaching self-efficacy increased after the two days of substitute teacher training; however, general teaching self-efficacy decreased after teaching experience*. Hypotheses 2 and 4, which focused on the effects of different individual difference variables (i.e., age, gender, ethnicity, level of education, degree major, RESA location) was determined on the three levels of self-efficacy during the three levels of experience. However, only the age and gender variables were pursued, based on a restriction of range concern for the remaining variables. *Findings revealed that age and gender had no significant effect on the teaching efficacy of non-certified substitute teachers during their training or classroom experience; therefore, presenting no further need for investigation at the experience or self-efficacy levels*. The next two sections will explore the general findings in more depth.

### *Effects of Training and Experience on Self-Efficacy*

Tschannen-Moran and Woolfolk-Hoy's (2001) TSES findings of the three subscales (i.e., student engagement, instructional strategies, and classroom management) indicated the strengths and weaknesses of the self-efficacy of preservice and inservice teachers. Tschannen-Moran and Woolfolk-Hoy's (2001) study indicates that preservice and inservice teachers, who have the educational pedagogy and experience background, have a higher-level of teacher self-efficacy in the areas of classroom management and student engagement than instructional strategies. Tschannen-Moran and Woolfolk-Hoy (2001) define a teacher's efficacy belief as being a "judgment of his or her capabilities to bring about desired outcomes of student engagement and

learning, even among those students who may be difficult or unmotivated" (p.283). The resultsof this current study helps to support further the construct of teaching efficacy.

Comparatively, overall results from the three subscales of the TSES across all levels of experience (i.e., pre-training, post-training, and post-teaching) were similar to the findings of Tschannen-Moran and Woolfolk-Hoy (2001); however, non-certified substitute teachers' self-efficacy after training and experience was higher on instructional strategies and classroom management than student engagement. Although research strongly supports that classroom management appears to be the greatest challenge faced by teachers and substitute teachers (Abdal-Haqq, 1997; Longhurst, Smith, & Sorenson, 2000; Smith, 1999), this study specifically supports student engagement as another challenge for substitute teachers.

The results of this study also revealed an increase in non-certified substitutes teachers' self-efficacy from pre-training to post-training and a decrease in non-certified substitutes teachers' self-efficacy from pre-training to post-teaching. This finding indicates that non-certified substitutes perceived substitute teacher training as helpful and revealed an increase in the beliefs of their capabilities to teach and be effective in the classroom. However, once these non-certified substitute teachers engaged in classroom experience, the perception of their capabilities of performance was lowered significantly. Irizarry (2002) indicated that when performing a task, an individual accumulates perceptions about his or her performance, which influences his or her self-efficacy belief. Thus, self-efficacy results suggest that non-certified substitute teachers perceive themselves less effective once they begin teaching than prior to or during substitute teacher training. This finding supports Tschannen-Moran & Woolfolk-Hoy's (2001) suggestion for preservice and inservice teachers' support to be gradually withdrawn through scaffolding, rather than the "sink-or-swim experiences," to include substitute teachers.

There also appears to be a relationship between the statistical analyses results of the data involving self-efficacy and experience and the qualitative content analysis of the three open-ended questions. For example, non-certified substitute teachers indicated that substitute training provided them with topics in classroom management and instructional strategies, without reference to ways to engage students in the classroom. These results were congruent to the statistical findings that non-certified substitutes teachers' self-efficacy was higher in the areas of instructional strategies and classroom management and lower in the area of student engagement.

Findings suggest that topics involving student engagement need further consideration, as well as depth and breadth during substitute teacher training.

When asked what topics were missing from substitute training, non-certified substitutes emphasized a need for more information regarding classroom management. Interestingly, numerous non-certified substitute teachers indicated in their responses that classroom management was a topic in which they received the most information during substitute teacher training. This supports other research findings that individuals who enter teaching with little professional education have greater difficulties in the classroom and classroom management being the most difficult problem (Darling-Hammond, 1992; Smith 1999; Tschannen-Moran & Woolfolk-Hoy, 2001).

Consequently, although statistical analyses indicated that non-certified teachers' self-efficacy in the area of student engagement decreased from pre-training to post-teaching, non-certified substitute teachers did not specify a need for further topics dealing with student engagement. Instead, the responses indicated a need for further information on classroom management. This finding suggests that non-certified substitute teachers believed it was more important to have control of the classroom than involving the students during instruction, or perhaps participants did not know how to articulate their need for information involving student engagement. This finding also supports reports from the National Education Association (2003) and Smith (1999) that non-certified substitute teachers enter the classroom with content pedagogy in their field of study, but report that they are unprepared for the problems within the classroom.

*Effects of Age and Gender on Self-Efficacy X Experience*

Hypotheses 2 and 4 posed by the researcher attempted to determine the relationship between the independent and dependent variables in the study. Therefore, age, gender, ethnicity, level of education, degree major, RESA location were first compared by descriptive analysis to determine if a reason for further investigation emerged. Two variables, age and gender appeared to be diverse enough to consider for further analysis; however, further analyses indicated that teaching-efficacy, in addition to experience, were not affected by either age or gender. This finding was similar to Darling-Hammond's (2002) study on beginning teachers in New York City, that "teachers' sense of teaching efficacy is not influenced by age or gender" (p. 294). Additionally, this finding suggests that teaching self-efficacy is individualistic and that self-

efficacy is not affected by training or experience based on how old the individual is or whether the individual is male or female.

## Theoretical Implications

Based upon the number of non-certified substitute teachers attending mandatory substitute training, it is evident that non-certified substitute teachers have at least some self-efficacy beliefs relative to teaching ability; otherwise, they never would have considered the substitute teacher training. Research indicates that individuals choose the activities they want to be involved in based upon their perceived capabilities to obtain their designated goals (Bandura, 1986; Irizarry, 2002). Further research implications' suggest that non-certified substitutes may have chosen this career based on enactive mastery experiences involving previous positive experiences when working with children outside the school setting; through vicarious experiences involving observations of other teachers or individuals, leading the non-certified substitute with the conclusion that they can teach; or verbal persuasion from others implying that they would make a good teacher (Bandura, 1986, 1997, 1999).

The number of participants decreased significantly from pre-training to post-teaching. One reason for this decrease was evident when a few responses from participants indicated a belief in their inability to be successful in a classroom (i.e. enactive mastery experiences); therefore, they decided not to pursue substitute teaching (Bandura, 1997). Participants, who continued and completed the training, maintained their perceived capabilities of being successful in the classroom (Bandura, 1986). These perceived capabilities may have been increased during training activities when participants' attention focused on the actions and behaviors of the trainers relative to their own perceptions (i.e., attentional processes) of what is expected in the classroom (Bandura, 1977, 1986).

The number of individuals responding to the online survey decreased significantly from pre-training to post-teaching, indicated by individuals' responses such "my present employment has not ended, thus I cannot substitute at the present time," or "I am waiting on my background check to be completed" or "I am not substituting. I never completed my class time to allow me to sub. I am a stay at home mom with a toddler and simply don't have the time".

Not only did the number of participants decrease, the results of the teaching-efficacy scores also showed a significant decrease from pre-training to post-teaching; therefore, indicating a lower perception of non-certified substitute teachers' teaching capabilities. This decrease in

teaching-efficacy may be indicative of individuals' extrinsic incentives based upon the negative reactions from others (e.g., not being called back to substitute teach in a particular school system); or intrinsic incentives based upon how successful they perceive themselves in the classroom (e.g., substitutes inability to handle classroom disruptions) (Deci & Ryan, 1985; Rosenthal & Zimmerman, 1978).

Additionally, when individuals are confronted with obstacles on the level of their teaching-efficacy (i.e., high or low), may determine their decision to continue to pursue their goals. For example, if a substitute teacher's teaching efficacy is high, he tends to believe that he can teach in a classroom regardless of the subject or grade-level assigned and accepts any substitute teaching position he is offered. On the other hand, substitutes with lower teaching-efficacy may encounter teaching situations they are unable to handle (e.g., special education students in the regular classroom), and decide they are not interested in substitute teaching.

Tschannen-Moran and Woolfolk-Hoy (2001) contend "such a decrease in self-efficacy could result in decreased effort and enthusiasm for teaching" (p.803), which leads to teacher attrition. Implications suggest a need for further professional development or training for non-certified substitute teachers to help increase their self-efficacy level after training in order to maintain their interest in substitute teaching. Further training or professional development supports researchers' contention that substitute teacher training needs to go beyond the basic orientation of topics of district policies to include the following: (a) professionalism - the role of a substitute, (b) health and safety issues, (c) overall classroom management, (d) maintaining discipline, (e) age-appropriate teaching strategies, (f) lesson plans, (g) practical ideas and resources, (h) communicating with staff, (i) special education students and instruction, (j) bag of tricks in the classroom, and (k) policies and procedures addressing accidents, legal issues, first aid and ethics. (Griswold & Hughes, 1999; Jones, 1999; Longhurst, Smith, & Sorenson, 2000; San Diego Office of Education, 1998; Sheppard, 1997; Smith, 1999).

## Limitations

The first limitation of this study was that out of the 340 participants beginning the mandatory substitute teacher training only 79 responses were fully analyzed. Reasons for this decrease in number included participants deciding not to substitute teach; county board offices not calling participants to substitute teach; and in a few cases, the investigators' inability to read e-mail addresses in order to remind participants to complete the online survey.

In addition, this study was originally constructed using only a quantitative design; however discussions led to include qualitative data in order to hear the voices of the non-certified substitute teachers. The data was useful in determining the needs of the non-certified substitute teachers, but very limited in the conclusions. Another limitation of the study involves the open-ended questions. Open-ended questions were added only during the third TSES, which may have limited the responses of non-certified substitute teachers. Open-ended questions should have been added at the end of post-training to increase voices of the participants' feelings towards the training.

Finally, this study was conducted only in the state of West Virginia; therefore, the results do not give a true representation of substitutes throughout the nation.

## Future Directions

Based on the findings of the study, the limited information involving substitute teachers, and the already existing body of research on self-efficacy, there exists much potential for the continued development and deployment of similar interventions and strategies. The significant results of the analyses substantiate previous findings in the research (Tschannen-Moran & Woolfolk-Hoy, 2001), indicating that substitute teacher training needs to proceed beyond two days of training and a few classroom experiences to maintain the non-certified substitute teacher's high level of self-efficacy in the areas of student engagement, instructional strategies, and classroom management after training.

The requirements of the "No Child Left Behind Act of 2001," that substitute teachers should be qualified as *highly-qualified teachers* through mandatory substitute teacher training, and Smith's (2001) contention that substitutes need additional training to be successful in the classroom, suggests a need for further research regarding the effects of non-certified substitute teachers' training. Results of this study, compared to Tschannen-Moran and Woolfolk-Hoy's (2001) research, using the TSES, indicate that quantitative research measures, as well as qualitative research conducted during training would be useful to measure the levels of self-efficacy pre-training, post-training, and post-teaching in other states. These results could benefit substitute teacher trainers, as well as non-certified substitute teachers in determining the strengths and weaknesses of the training. Furthermore, other needed topics based on the changes in levels of self-efficacy during pre-training, post-training, and post-teaching could be decided among these two groups.

Additionally, the open-ended questions revealed non-certified substitute teachers indicated a need for more information concerning classroom management; whereas, the quantitative results indicated a need to increase self-efficacy of student engagement. Therefore, proposing topics concentrating on classroom management and student engagement need to receive greater emphasis during substitute teacher training in the state of West Virginia. Further research would assist in determining if this is specific to West Virginia or if other states are encountering similar disconnects between training and need.

Finally, the open-ended question responses received from non-certified substitute teachers, expressed a need for extended training or some type of communication medium availability for support and feedback once substitute teachers have entered into the classroom. Longitudinal studies following non-certified substitute teachers and their training and first years in the field would be instructive.

## Recommendations

Based upon the statistical results and responses made by the participants within this study, future recommendations to assist non-certified substitute teachers in the classroom became apparent. Research indicates that substitute teacher-training needs to extend beyond two days and a few short hours of observation in the classroom for the non-certified substitute teacher (Smith, 1999). Therefore, conducting substitute training in the summer for one week would allow more information and topics to be addressed comprehensively. Non-certified substitute teachers should be reassembled two to three times after the beginning of the school year to discuss problems or concerns in the classroom, or to share experiences. A support system needs to be established for non-certified substitute teachers or substitute teachers in general, to access when questions arise in such areas as handling classroom management, instructional strategies, and student engagement. This system may be in the form of telecommunication, a website, or an assigned mentor at each school. Non-certified substitutes may also benefit from attending professional development meetings held at the public schools throughout the school year.

It is also recommended that the research be extended to explore the self-efficacy of non-certified substitute teachers before renewing their training certificates after three years in the classroom. The TSES should be conducted each year to determine the level of self-efficacy these non-certified substitute teachers possess after increased classroom experience or if they have

continued to pursue substitute teaching. This may also enhance the nature of topics that need to be addressed in future substitute teacher trainings.

## Summary

The current research indicates that mandatory substitute teacher training raises the self-efficacy of non-certified substitute teachers; therefore, substitute teacher training is a positive factor in the lives of non-certified substitute teachers. Research also shows a decrease from pre-training to post-teaching experiences across all levels of self-efficacy (i.e., student management, instructional strategies, and classroom management), suggesting that non certified substitute teachers need additional training or professional development beyond mandatory substitute teacher training. The current research also indicates that neither age nor gender has an effect on the self-efficacy of non-certified substitute teachers.

In conclusion, the current study supports the existing research while adding credibility to mandatory substitute teacher training based on the increase of the self-efficacy of non-certified substitute teachers. The study also supports further research on topics for substitute training in addition to additional support after training based on the decrease of self-efficacy after substitute teacher training and some experience in the classroom; therefore, the implications of the findings of the research do provide practical areas for future research.

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# APPENDIX A

## Special Programs for Teacher Certification

| | Transitioning military personnel | Recent liberal arts graduates | Re-entering teachers who need to upgrade credentials | Mid-career changers | Returning Peace Corps members | Other |
|---|---|---|---|---|---|---|
| Alabama | yes | yes | yes | yes | yes | |
| Alaska | no | no | no | no | no | |
| Arizona | | | | | | |
| Arkansas | yes | yes | | yes | yes | |
| California | yes | yes | | yes | yes | yes |
| Colorado | yes | yes | | yes | yes | |
| Connecticut | no | yes | no | yes | no | |
| Delaware | yes | yes | | yes | | |
| D.C. | | yes | | yes | yes | |
| Florida | no | no | no | no | no | no |
| Georgia | yes | yes | yes | yes | yes | |
| Hawaii | no | no | no | no | no | no |
| Idaho | yes | no | yes | yes | yes | |
| Illinois | no | yes | yes | yes | yes | |
| Indiana | no | no | no | no | no | |
| Iowa | no | no | no | no | no | |
| Kansas | no | no | no | no | no | |
| Kentucky | yes | no | yes | yes | yes | yes |
| Louisiana | no | no | no | no | no | no |
| Maine | no | no | no | no | no | no |
| Maryland | yes (TTT) | yes | no | yes | no | no |
| Massachusetts | | yes | | yes | | |
| Michigan | yes | yes | | yes | yes | |
| Minnesota | no | yes | yes | yes | no | |
| Mississippi | yes | yes | | | yes | |
| Missouri | no | no | no | no | no | |
| Montana | no | no | no | no | no | |
| Nebraska | yes | yes | yes | yes | yes | |
| Nevada | no | no | no | no | no | yes |
| New | yes | yes | yes | yes | yes | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Hampshire | | | | | | |
| New Jersey | yes | yes | | yes | | |
| New Mexico | no | no | no | no | no | |
| New York | yes | yes | yes | yes | yes | yes |
| North Carolina | | | | | | |
| North Dakota | | | | | | |
| Ohio | yes | yes | | | | |
| Oklahoma | yes | yes | yes | yes | | yes |
| Oregon | yes | | | | yes | |
| Pennsylvania | | | all, except reentering teachers, go through Intern or Alternative Certification Program | | | |
| Rhode Island | no | no | yes | no | no | |
| South Carolina | yes | yes | | yes | | |
| South Dakota | yes | yes | no | yes | yes | |
| Tennessee | yes | yes | yes | yes | | |
| Texas | yes | no | no | yes | yes | |
| Utah | yes | | | | | |
| Vermont | no | no | no | no | no | |
| Virginia | yes | yes | | yes | | |
| Washington | yes | MIT | yes | no | no | no |
| West Virginia | no | MAT at Marshall | | | | |
| Wisconsin | yes | yes | | | | |
| Wyoming | no | yes | yes | no | no | |

Feistritzer, C. Emily & David T. Chester (2000). Alternative Teacher Certification. A State-by-State Analysis. Washington, DC: National Center for Education Information. Copyright 2004, Used with Permission.

APPENDIX B

Demographic Profile of Troops-to-Teachers and Public School Teachers in the U.S.

| | Troops-to-Teachers 1998 | Public School Teachers 1996 |
|---|---|---|
| Base: | 1,171 | 1,018 |
| | % | % |
| Gender | | |
| Male | 90 | 26 |
| Female | 10 | 74 |
| Race | | |
| Amer. Indian/Alaskan | 1 | 1 |
| Asian/Pacific Islander | 1 | 1 |
| Black | 16 | 7 |
| White | 71 | 89 |
| Hispanic | 8 | 2 |
| Other | 3 | |
| Age | | |
| Average (in years) | 41 | 41 |
| -24 | * | 3 |
| 25-29 | 1 | 8 |
| 30-34 | 4 | 10 |
| 35-39 | 9 | 11 |
| 40-44 | 27 | 20 |
| 45-49 | 39 | 24 |
| 50-54 | 16 | 15 |
| 55-59 | 4 | 8 |
| 60-64 | 1 | 1 |
| 65+ | 0 | 0 |
| Type Community Teach In | | |
| Inner-city | 24 | 16 |
| Small town, non-rural | 24 | 30 |
| Suburban | 27 | 31 |
| Rural | 24 | 23 |

| | | |
|---|---|---|
| Type Community Willing to Teach In | | |
| Inner-city | 39 | N/A |
| Small town, non-rural | 72 | N/A |
| Suburban | 74 | N/A |
| Rural | 68 | N/A |
| Grade Level Taught | | |
| Elementary | 20 | 47 |
| Middle/junior High | 35 | 26 |
| Senior High | 45 | 27 |
| Years of Teaching Experience | | |
| Less than one year | 5 | N/A |
| One year | 6 | N/A |
| Two years | 14 | N/A |
| Three years | 19 | N/A |
| Four years | 12 | N/A |
| Five years | 7 | N/A |
| 1 - 5 years | N/A | 12 |
| 6 - 10 | 18 | 18 |
| 11 - 15 | 5 | 13 |
| 16 - 20 | 3 | 17 |
| More than 20 years | 5 | 40 |
| Marital Status | | |
| Married | 85 | 69 |
| Divorced/Separated | 11 | 13 |
| Widowed | 1 | 5 |
| Single/Never Married | 3 | 13 |

less than 0.5 percent

National Center for Education Information survey of 1,018 public school K-12 teachers conducted Mar 11 - Apr. 19, 1996. 

# APPENDIX C

Troop to Teachers: Program Status Report
Date: 11 March 2003
Participant Placements as Teachers
State Number

| | | | |
|---|---|---|---|
| Alabama 110 | Illinois 110 | New Hampshire 30 | Tennessee 125 |
| Alaska 20 | Indiana 21 | New Jersey 58 | Texas 743 |
| Arizona 161 | Iowa 2 | New Mexico 51 | Utah 20 |
| Arkansas 35 | Kansas 24 | New York 56 | Vermont 4 |
| California 337 | Kentucky 115 | North Carolina 288 | Virginia 425 |
| Colorado 236 | Louisiana 112 | North Dakota 4 | Washington 126 |
| Connecticut 13 | Maine 31 | Ohio 150 | West Virginia 5 |
| Delaware 7 | Maryland 81 | Oklahoma 103 | Wisconsin 52 |
| District of Columbia 14 | Massachusetts 35 | Oregon 23 | Wyoming 1 |
| Florida 387 | Michigan 44 | Pennsylvania 52 | Puerto Rico 2 |
| Georgia 245 | Minnesota 12 | Rhode Island 10 | Overseas 23 |
| Hawaii 4 | Mississippi 70 | South Carolina 236 | TOTAL 4991 |
| Idaho 21 | Missouri 71 | South Dakota 8 | |
| | Montana 16 | | |
| | Nebraska 10 | | |
| | Nevada 52 | | |

22,795 - Applications Received to Date
4,991 - Participants Hired
5,578 - Currently Seeking Employment
317 - Still on Active Duty / Applications Pending
11,909 - Did not Enter Teaching
4,992 -School Districts Employing Participants

Available online: http://www.dantes.doded.mil/dantes_web/library/docs/ttt/statusreport.pdf. Copyright 2004, Used with Permission.

APPENDIX D

Southern Regional Education Board

States Requiring or Authorizing Criminal Background Checks

| State | Required or Authorized | Level of Check | Required or Authorized For | Fees Paid By |
|---|---|---|---|---|
| Alabama | Required | State Only | Certification | Individual |
| Arkansas | Required | State and National | Certification: Initial Renewal | Individual State |
| | | | Employment | Individual or District |
| Florida | Required | State and National | Certification and Employment | Individual or District and the State |
| Georgia | Required | State and National | Employment | Individual or District |
| Kentucky | Required | State Only | Employment | Individual or District |
| Louisiana | Required | State Only | Employment | District |
| Maryland | Required | State and National | Employment | Individual or District |
| Misssissippi | | | | |
| North Carolina | Authorized | State and National | Employment | District |
| Oklahoma | Authorized | State and National | Employment | Individual or District |
| South Carolina | Required | State and National | Certification | Individual |
| | | State Only | Employment | District |
| Tennessee | Authorized | State Only | Employment | Individual or District |
| Texas | Required | State Only | Certification | Individual |
| Virginia | Required in Specified Districts | State and National | Employment | Individual or District |
| West Virginia | Required | State Only | Employment | Individual or District |

# APPENDIX E

## Southern Regional Education Board (1998)

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Offenses Restricting the Certification of Teacher Candidates:

---

| | |
|---|---|
| Criminal Offenses | Manslaughter |
| Aggravated assault | Manufacture, deliver or possess with intent to deliver a controlled substance |
| Assault in the first degree | |
| Battery in the first degree and second degree | Murder in the first degree and second degree |
| Capital murder | Negligent homicide |
| Carnal abuse in the third degree | Pandering/possessing visual print |
| Coercion | Permanent detention or restraint |
| Criminal attempt, solicitation or conspiracy | Permitting child abuse |
| | Public sexual indecency |
| Distribution to minors | Rape and carnal abuse in the first degree and second degree |
| Endangering the welfare of a minor in the first degree and second degree | |
| | Sexual abuse in the first degree and second degree |
| False imprisonment in the first degree | Sexual misconduct |
| | Sexual solicitation of a child |
| Incest | Terrorist threatening in the first degree |
| Indecent exposure | Violation of a minor in the first and second degree |
| Kidnapping | |

# APPENDIX F

## Alternative Classifications

Class A: Programs that meet the following criteria: (a) attract talented individuals who already have at least a bachelor's degree in a field other than education into elementary and secondary school teaching, (b) not restricted to shortages, secondary grade levels, or subject areas, (c) involve teaching with a trained mentor, and formal instruction that deals with the theory and practice of teaching during the school year--and sometimes in the summer before and/or after.

Class B: Designed specifically to bring talented individuals who already have at least a bachelor's degree into teaching. Programs involve specially designed mentoring and formal instruction. States may either restrict the program to shortages and/or secondary grade levels and/or subject areas.

Class C: Review of academic and professional background and transcript analysis. Specially (individually) designed inservice and course-taking necessary to reach competencies required for certification, if applicable. State and/or local school districts have major responsibility for program design.

Class D: Review of academic and professional background and transcript analysis. Specially (individually) designed inservice and course-taking necessary to reach competencies required for certification, if applicable. Institutions of higher education have major responsibility for program design.

Class E: Post-baccalaureate programs based at an institution of higher education.

| | |
|---|---|
| Class F: | Emergency routes. Prospective teachers are issued some type of emergency certificate or waiver allowing them to teach, usually without any on-site support or supervision, while taking the traditional teacher education courses requisite for full certification. |
| Class G: | Persons who have very few requirements left to fulfill before becoming certified through the traditionally approved college teacher education program route, e.g., persons certified in one state moving to another; persons certified in one endorsement area seeking to become certified in another. |
| Class H: | Enables a person who has some "special" qualifications, such as a well-known author or Nobel Prize winner, to teach certain subjects. |
| Class I: | In 1999, states reported that they were not implementing alternatives to the approved college teacher education program route for licensing teachers. |
| Class J: | Designed to eliminate emergency routes by preparing individuals who do not meet basic requirements to become qualified to enter an alternate route or a traditional route for teacher licensing. |

*Source: Feistritzer, C. Emily & David T. Chester (2003). Alternative Teacher Certification. A State-by-State Analysis. Washington, DC: National Center for Education Information.* Copyright 2004, Used with Permission.

# APPENDIX G

## Alternative Routes to Certification

| STATE | State has alternative routes to teacher certification | | |
|---|---|---|---|
| | State has alternative route | Name of route(s) | Number of graduates in 1998-99 |
| Alabama | ✔ | Alternative Fifth-Year Program | 900 |
| Alaska | | | |
| Arizona | ✔ | Alternative Secondary Certificate | ? |
| Arkansas | ✔ | Alternative Certification Program, Probationary Provisional Certificate | 400 |
| California | ✔ | District Intern Certificate, University Intern Credential | 4574 |
| Colorado | ✔ | Alternative Teacher Program | 194 |
| Connecticut | ✔ | Alternate Route to Teacher Certification, Post Baccalaureate Certification | 159 |
| Delaware | ✔ | Alternative Route, Alternative Program, Special Institute for Teacher Certification | 45 |
| Florida | ✔ | New Class C Alternative | 428 |
| Georgia | ✔ | Post-Baccalaureate Non-Degree Preparation Programs | ? |
| Hawaii | ✔ | Alternative Program for Shortage Areas | 158 |
| Idaho | ✔ | Secondary Field Centered Teacher Training Program | 8 |
| Illinois | ✔ | Teachers for Chicago, DePaul/Glenview Clinical Program, Teacher Corps | 24 |
| Indiana | | | |
| Iowa | | | |

| | | | |
|---|---|---|---|
| Kansas | ✔ | Post-Baccalaureate Program to Alternative Certification | ? |
| Kentucky | ✔ | Local Certification, Post-Baccalaureate Program, Exceptional Work Experience | 148 |
| Louisiana | ✔ | Certification Alternative Post-Baccalaureate Program | 478 |
| Maine | | | |
| Maryland | ✔ | Resident Teacher Certificate | 55 |
| Massachusetts | ✔ | Certification Review Panel -- Alternative Route to Certification | 336 |
| Michigan | ✔ | Michigan's Alternative Routes to Teacher Certification | ? |
| Minnesota | ✔ | Alternative Preparation to Licensure Program | 29 |
| Mississippi | ✔ | Alternate Route License | 554 |
| Missouri | ✔ | Alternative Certification Program | 12 |
| Montana | | | |
| Nebraska | | | |
| Nevada | | | |
| New Hampshire | ✔ | Alternative 5: Provisional Certification Plan, Conversion Program | 140 |
| New Jersey | ✔ | Provisional Teacher Program | 1223 |
| New Mexico | ✔ | Alternative Licensure | 73 |
| New York | ✔ | Internship Certificate | 490 |
| North Carolina | ✔ | Modified Licensure Plan | ? |
| North Dakota | | | |
| Ohio | ✔ | Internship Certification Program | 0 |

| | | | |
|---|---|---|---|
| Oklahoma | ✔ | Alternative Placement Program, Teacher Competency Review Panel | 363 |
| Oregon | ✔ | Interim Teacher Certificates, License of Accomplishment | 0 |
| Pennsylvania | ✔ | Teacher Intern Program | 308 |
| Rhode Island | | | |
| South Carolina | ✔ | Critical Need Certificate | 191 |
| South Dakota | ✔ | Alternative Certification | 45 |
| Tennessee | ✔ | Interim Probationary License C and D Alternative Preparation for Licensure | ? |
| Texas | ✔ | Alternative Teacher Certification | 2728 |
| Utah | ✔ | Alternative Preparation for Teaching Program | ? |
| Vermont | ✔ | License by Evaluation | 50 |
| Virginia | ✔ | Alternative Route to Licensure | ? |
| Washington | | | |
| West Virginia | ✔ | Alternative Program for the Education of Teachers | 0 |
| Wisconsin | ✔ | Experimental and Innovative Teacher Education Programs | 19 |
| Wyoming | ✔ | Portfolio Certification | 11 |

SOURCES: Data on alternative routes from National Center for Education Information, "Alternative Teacher Certification: A State-by-State Analysis, 2000." *Feistritzer, C. Emily & David T. Chester (2000). Alternative Teacher Certification. A State-by-State Analysis. Washington, DC: National Center for Education Information.* Retrieved on 6/28/03 from http://www.edweek.org/sreports/qc00/tables/incentives-t1d.htm. Copyright 2004, Used with Permission.

# APPENDIX H

## Regional Education Service Agency (RESA)

| Regional Education Service Agencies | Counties Within the Regions | Location of RESA Offices |
|---|---|---|
| RESA I | Mercer, McDowell, Monroe, Raleigh, Summers and Wyoming. | Beckley, WV |
| RESA II | Cabell, Lincoln, Logan, Mingo, Mason and Wayne | Huntington, WV |
| RESA III | Boone, Clay, Kanawha, and Putnam | Dunbar, WV |
| RESA IV | Braxton, Fayette, Greenbrier, Nicholas, and Pocahontas | Summersville, WV |
| RESA V | Calhoun, Jackson, Pleasants, Ritchie, Roane, Tyler, Wirt, and Wood | Parkersburg, WV |
| RESA VI | Hancock, Brooke, Ohio, Marshall and Wetzel | Wheeling, WV |
| RESA VII | Barbour, Doddridge, Gilmer, Harrison, Lewis, Marion, Monongalia, Preston, Randolph, Taylor, Tucker, and Upshur | Fairmont, WV |
| RESA VIII | West Virginia Schools for the Deaf and the Blind and the counties of Berkeley, Grant, Hampshire, Hardy, Jefferson, Mineral, Morgan, and Pendleton | Martinsburg, WV |

APPENDIX I

Estimates of Teachers Hired Through
Class Size Reduction Funds

| State | Class Size Allocation | Estimated Teachers To Be Hired |
|---|---|---|
| Alabama | $19,413,279 | 499 |
| Alaska | 5,623,097 | 145 |
| Arizona | 17,508,087 | 450 |
| Arkansas | 11,623,964 | 299 |
| Colorado | 13,164,489 | 339 |
| Connecticut | 11,353,179 | 292 |
| Delaware | 5,623,097 | 145 |
| D.C. | 5,623,097 | 145 |
| Florida | 51,848,131 | 1,333 |
| Georgia | 29,909,345 | 769 |
| Hawaii | 5,623,097 | 145 |
| Idaho | 5,623,097 | 145 |
| Illinois | 50,137,659 | 1,289 |
| Indiana | 20,096,000 | 517 |
| Iowa | 9,449,330 | 243 |
| Kansas | 9,582,885 | 246 |
| Kentucky | 19,641,601 | 505 |
| Louisiana | 29,471,026 | 758 |
| Maine | 5,623,097 | 145 |
| Maryland | 17,485,082 | 450 |
| Massachusetts | 22,447,648 | 577 |
| Michigan | 50,275,610 | 1,293 |
| Minnesota | 16,662,118 | 428 |
| Mississippi | 19,208,820 | 494 |
| Missouri | 20,568,788 | 529 |
| Montana | 5,623,097 | 145 |
| Nebraska | 5,827,594 | 150 |
| Nevada | 5,623,097 | 145 |
| New Hampshire | 5,623,097 | 145 |
| New Jersey | 27,414,745 | 705 |
| New Mexico | 9,619,782 | 247 |
| New York | 104,517,491 | 2,688 |
| North Carolina | 24,678,787 | 635 |
| North Dakota | 5,623,097 | 145 |
| Ohio | 46,139,496 | 1,186 |
| Oklahoma | 13,529,819 | 348 |
| Oregon | 11,564,476 | 297 |
| Pennsylvania | 50,982,529 | 1,311 |
| Puerto Rico | 40,440,447 | 1,040 |

| | | |
|---|---|---|
| Rhode Island | 5,623,097 | 145 |
| South Carolina | 14,495,110 | 373 |
| South Dakota | 5,623,097 | 145 |
| Tennessee | 20,066,133 | 516 |
| Texas | 97,206,460 | 2,500 |
| Utah | 7,691,587 | 198 |
| Vermont | 5,623,097 | 145 |
| Virginia | 21,038,247 | 541 |
| Washington | 19,619,284 | 504 |
| West Virginia | 11,301,032 | 291 |
| Wisconsin | 20,118,645 | 517 |
| Wyoming | 5,623,097 | 145 |

Estimates assume that 10 percent of program funds will support teacher testing and professional development, with the remainder funding class-size reduction. Estimates further assume that 75 percent of teachers hired will be beginning teachers and 25 percent will be reentry teachers. Estimated average cost of teachers hired (including salary and benefits) under these assumptions is $35,000.
Source: 1993-94 Schools and Staffing Survey
http://www.ed.gov/PressReleases/10-1998/class.html**.** 

# APPENDIX J

## State by State Analysis of Substitute Teacher Pay

The following states pay substitutes on a daily basis as indicated:

| State | Substitute pay |
|---|---|
| Alabama | $35 daily |
| Arkansas | $100 - $125 with certification; $75 – $80 without certification. |
| Delaware | $67 - $75 daily |
| Iowa | $55 - $95 daily |
| Minnesota | $70 - $130 daily |
| Nebraska | $120 daily |
| Oregon | $120.40 and $141.64 daily |
| Pennsylvania | $60 daily for the first 30 days; $75 beyond that |
| South Carolina | most substitutes work 7.5 hrs for $35 to $70 |
| South Dakota | $45 to $75 daily |
| Utah | $45 to $75 daily |

| | |
|---|---|
| Vermont | $40-$70 daily |
| Wisconsin | $55 to $65 daily |
| Ohio. | Begins with $40 and builds in other incentives; after 10-15 days, substitutes are paid $60, and after 10 consecutive days, the rate rises to $75. Regular substitutes in Ohio receive $95 and $125 for retirees |
| Oklahoma. | Usually pays substitutes $40-$55, however, one of the largest districts in the state, Tulsa Public Schools, raised the substitute pay to $90 |
| Montana | Pays between $65-$85, with non-certified substitutes generally paid $50 to $75 daily. |
| North Carolina | Pays $71 daily to licensed/or degreed substitutes and $55 daily to those who are unlicensed or hold no degree. |
| Washington | Substitutes' pay averages about $100 per day in the region or $12.50 per hour and increases with longer-term assignments. |
| West Virginia | Substitutes with or without certification and no teaching experience pay averages $89-$105 per day; pay increases on the eleventh day based upon experience; after 30 days, substitutes with certification but without experience pay increases to approximately $130. |

APPENDIX K

The Development of Teacher Efficacy

| Rotter | | Bandura |
|---|---|---|
| *Locus of control*: the degree an individual believes that the perceived cause(s) of an intended outcome are within his or her control (Rotter, 1966) | Theoretical Framework | *Self-efficacy:* the conviction that one can successfully execute the behavior required to produce outcomes (Bandura, 1977, p. 193) |
| Teachers' beliefs in their ability to control factors in order to achieve desired outcomes. | Teacher Efficacy Conceptualization | Teachers' beliefs in their ability to organize and execute courses of action in order to achieve desired outcomes (Tschannen-Moran, et al., 1998) |

Research Trends

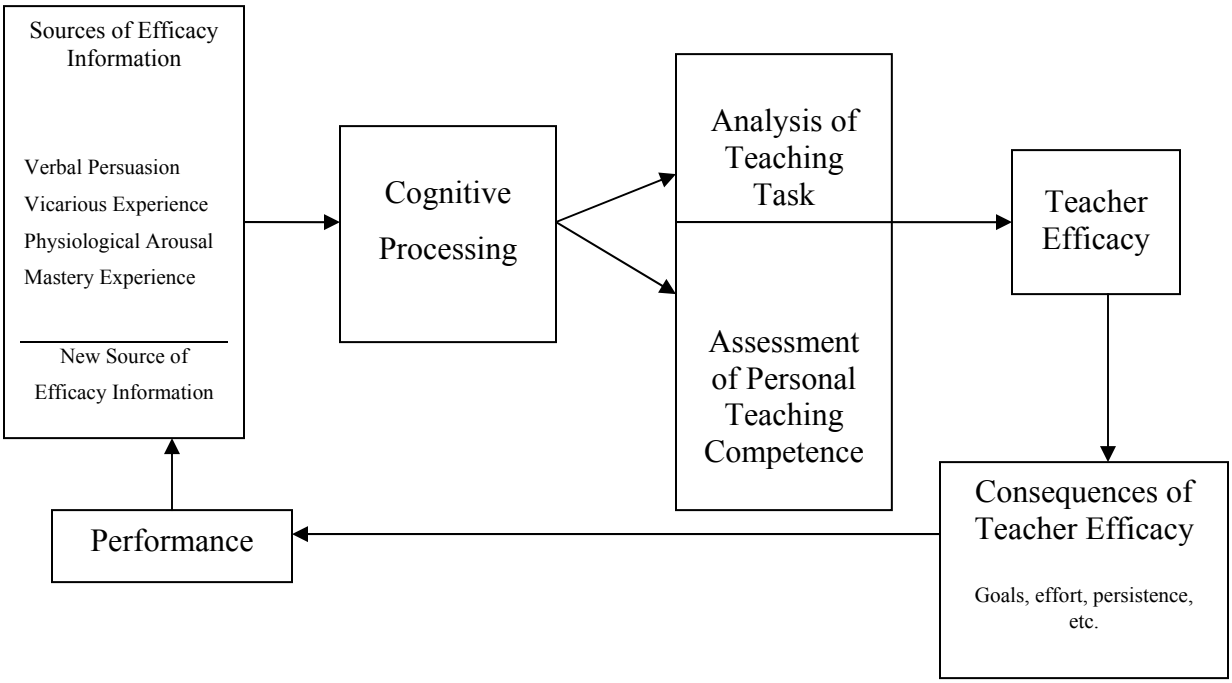
| Researcher(s) | Definition | Measurement | Researcher(s) | Definition | Measurement |
|---|---|---|---|---|---|
| RAND Researchers McLaughlin & Marsh, (1978); Berman & McLaughlin (1977) | "the extent to which the teacher believed he or she had the capacity to affect student performance" (McLaughlin & Marsh, 1978, p. 84) | RAND Items: Two item measure reflecting internals and external control, described as personal and general teaching efficacy | Ashton, Buhr, & Crocker (1984) | A teacher's belief in his or her ability to have a positive effect on student learning | Ashton Vignettes: Assessed outcome and efficacy expectations. |
| Rose & Medway (1981) | The extent to which a teacher believes that he or she can control student outcomes. | Teacher Locus of Control (TLC) Scale: Assessed teachers feelings of an internal or external locus of control for student | Gibson & Dembo (1984) | "a belief that teachers can help even the most difficult or unmotivated students" (p. 569). | Teacher Efficacy Scale (TES): Two factor model of general and personal teaching efficacy. |

| | | | | | |
|---|---|---|---|---|---|
| | | outcomes | | | |
| Guskey (1981) | A teacher's belief or conviction that he or she can influence how well students learn, even those who are difficult or unmotivated. | Responsibility for Student Achievement (RSA) Scale: assessed general responsibility, responsibility for student success and for student failure. | Tschannen-Moran & Woolfolk-Hoy (2001) | "…a judgment of his or her capabilities to bring about desired outcome of student engagement and learning…" (p. 783) | Teachers Sense of Efficacy Scale: Assesses efficacy for student engagement, instructional practices and classroom management. |

Note. Fives, H. (2003). What is Teacher Efficacy and How Does it Relate to Teachers' Knowledge? A Theoretical Review. Paper presented at the American Educational Research Association Annual Conference, Chicago.

APPENDIX L

The Cyclical Nature of Teacher Efficacy




The cyclical nature of teacher efficacy
Tschannen-Moran, Woolfolk-Hoy, & Hoy (1998, p. 228).

APPENDIX M

Dimensions of teacher efficacy

| Efficacy Expectations | Outcome Expectations |
|---|---|
| 1. A sense of personal accomplishment | The teacher must view the work as meaningful and important. |
| 2. Positive expectations for student behavior and achievement | The teacher must expect students to progress. |
| 3. Personal responsibility for student learning | The teacher accepts accountability and shows a willingness to examine performance. |
| 4. Strategies for achieving objectives | The teacher must plan for student learning, set goals for themselves, and identify strategies to achieve them. |
| 5. Positive affect | The teacher feels good about teaching, about self, and about students. |
| 6. Sense of control | The teacher believes (s)he can influence student learning. |
| 7. Sense of common teacher/student goals | The teacher develops a joint venture with students to accomplish goals. |
| 8. Democratic decision making | The teacher involves students in making decisions regarding goals and strategies. |

Note: Chart developed by: Dr. W. Huitt. Last Modified: August 2000
http://chiron.valdosta.edu/whuitt/col/teacher/tcheff.html

# APPENDIX N

A Comparison of High and Low Teacher Efficacy

## High Teacher Efficacy

| | |
|---|---|
| Satisfied with job | Meet students' needs |
| Committed to profession | More persistent |
| Teach in areas of interest | More knowledgeable of students' developmental levels |
| Use inquiry approaches | |
| Open to new ideas | Resilient |
| Exhibit greater levels of planning, organization and enthusiasm | Less critical of students |
| Set higher goals for students | |

## Low Teacher Efficacy

| | |
|---|---|
| Would never pursue teaching again | Weak in content background |
| Have strict control of classroom | Exhibit teacher-centered roles |
| Create classroom problems with negative comments | Resist change |
| Lack confidence in classroom management | Pessimistic of students |
| Become stressed and angered by student misbehavior | Give up on students easily |
| Authoritative | Have difficulty implementing new pedagogical practices |

# APPENDIX O

## 24-item TSES Long Form

*Teacher Beliefs-TSES 24-item long form*

This questionnaire is designed to help us gain a better understanding of the kinds of things that create challenges for teachers in their school activities.

Directions: Please indicate your opinion about each of the questions below by marking one of the nine responses in the columns on the right side. The scale of responses ranges from "None at all" (1) to "A Great Deal" (9), with "Some Degree" (5) representing the mid-point between these low and high extremes. You may choose any of the nine possible responses, since each represents a degree on the continuum. Your answers are confidential.

Please respond to each of the questions by considering the combination of your *current* ability, resources, and opportunity to do each of the following in your present position.

| | | How much can you do? | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Nothing | | Very Little | | Some Degree | | Quite A Bit | | A Great Deal |
| 1. | How much can you do to get through to the most difficult students? | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 2. | How much can you do to help your students think critically? | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 3. | How much can you do to control disruptive behavior in the classroom? | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 4. | How much can you do to motivate students who show low interest in school work? | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 5. | To what extent can you make your expectations clear about student behavior? | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 6. | How much can you do to get students to believe they can do well in school work? | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 7. | How well can you respond to difficult questions from your students ? | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 8. | How well can you establish routines to keep activities running smoothly? | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 9. | How much can you do to help your students value learning? | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 10. | How much can you gauge student comprehension of what you have taught? | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 11. | To what extent can you craft good questions for your students? | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 12. | How much can you do to foster student creativity? | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 13. | How much can you do to get children to follow classroom rules? | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 14. | How much can you do to improve the understanding of a student who is failing? | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 15. | How much can you do to calm a student who is disruptive or noisy? | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 16. | How well can you establish a classroom management system with each group of students? | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 17. | How much can you do to adjust your lessons to the proper level for individual students? | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 18. | How much can you use a variety of assessment strategies? | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 19. | How well can you keep a few problem students form ruining an entire lesson? | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 20. | To what extent can you provide an alternative explanation or example when students are confused? | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 21. | How well can you respond to defiant students? | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 22. | How much can you assist families in helping their children do well in school? | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 23. | How well can you implement alternative strategies in your classroom? | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 24. | How well can you provide appropriate challenges for very capable students? | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |

Data retrieved from http://www.coe.ohio-state.edu/ahoy/researchinstruments.htm#Sense. Copyright 2004, Used with Permission.

APPENDIX P

# _____ Teacher Beliefs-TSES

Training conducted through: RESA I____ RESA II____ RESA III____ RESA IV____
(check one) RESA V____ RESA VI____ RESA VII____ RESAVIII____

DATE: _____ LOCATION: _____

This questionnaire is designed to help us gain a better understanding of the kinds of things that create challenges for teachers in their school activities. The name, e-mail address, and personal address cited below will remain confidential. The number (#) at the top of the page will be used for valid identification for pre and post-survey responses. You will be assigned the same number for both pre and post-training, and post-teaching surveys. Other information on this page may serve as vital information to the survey.

NAME: _____ Gender: M ____F ____

E-mail: _____

Educational Background: Associate Degree____ Bachelor's Degree____ Bachelor's plus 30____

Master's Degree____ Doctoral Degree____ Other _____

Major: _____(example: K-8; Pre-K – 12, Business, etc.)

Training: ____First Training Experience

____Retraining

Age: 20-24 ____ 25-29____ 30-34 ____ 35-39____ 40-44____

45-49____ 50-54 ____ 55-59 ____ 60& over ____

Ethnicity (please check one):

___White/Caucasian
___Black/African American
___American Indian/Alaskan Native
___Asian
___Hispanic/Latino
___Multiracial
___Other

# VITA

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## Education

| | |
|---|---|
| Virginia Polytechnic Institute and State University<br>Blacksburg, VA | Doctorate of Philosophy (Ph.D.)<br>Curriculum and Instruction<br>Fall 1998 – Spring 2004 (GPA 3.94) |
| Marshall University<br>Huntington, WV | M.A. in Ed. Ad.<br>May 1992 |
| 1994 Certification in K-12 Principalship/Vocational/ Superintendent | |
| Marshall University<br>Huntington, WV | M.A. in Elementary Education<br>January 1978-August 1984 |
| Concord College<br>Athens, WV | B.S. in Elementary Education<br>August 1975-May 1978<br>Elementary Education<br>Specialization in Early Childhood Education (NK-8) |

## Experience

Concord College
Athens, WV

Assistant Professor
August 1998-present

Full Time Probationary Position Fall 1999
Full Time Temporary Position Fall 1998– present

- Educ. 251 Human Development and Learning
- Educ. 210 Foundations of Education
- E. Ed. 265 Child Development
- Educ. 301 Educational Technology
- E. Ed. 304 Early Childhood Education - Curriculum, Methods & Materials
- E. Ed. 305 Early Childhood Methods and Materials

- Educ. 305 Psychology of Teaching and Learning
- Educ. 307 Teaching Language Arts
- Educ. 310 Assessment and Evaluation of Instruction
- Educ. 456 Supervised Directed Teaching

Concord College — Adjunct Professor
Athens, WV — August 1991-May 1998

- E. Ed. 304 Early Childhood Education - Curriculum, Methods & Materials
- Educ. 307 Teaching Language Arts

Wyoming County Board of Education — Teacher/Assistant to the Principal
Berlin McKinney Elementary — August 1978-August 1998
Oceana, WV

- Kindergarten Teacher (3 yrs.)
- 2nd Grade Teacher (17 yrs.)
- Assistant to the Principal (3 yrs. during 2nd grade teaching position)
- WVEIS contact person (5 yrs.) - attendance, scheduling & grades (K-4)

West Virginia Regional Educational Service Agency (RESA I) — Instructor - Whole Language
Beckley, WV — Fall 1992 - Spring 1993

## Qualifications

- Twenty years teaching experience in the Public School System. Wyoming County. Berlin McKinney Elementary School.
- Assistant to the Principal for three years at Berlin McKinney Elementary School.
- Supervised student teachers for Concord College while employed as Elementary Teacher in Wyoming Co.
- Assistant Associate Professor of Education. Concord College. Fall 1998 - present.
- College supervisor of pre-service teachers. Concord College. Fall 1998 - present.
- Co-facilitator of the IMPACT Grant. Concord College. August 2000.
- IMPACT Grant Facilitator. Concord College. September 2000 - present.
- Straley Elementary Liason for Professional Development Schools. Concord College - present.
- McDowell County "No Child Left Behind" *Reading First* Grant Liason. August 2002- present
- Evaluator of McDowell Co. Preschools. Spring 2004.

## Professional Committees

- Wyoming county Staff Development Committee. Fall 1988 - Spring 1992; Fall 1992 - Spring 1998; Fall 1997 - Spring 1998.

- RESA I Mentorship Committee. January 1992.
- RESA I Prep Committee - wrote scripts for Language Arts Educational Videos. Summer 1992.
- Wyoming County Promotion/Retention Policy Committee. Summer 1996.
- Concord College Evaluation Committee. August 1998 - May 1999.
- Concord College Technology Committee (Ed. Dept.) Nov. 1998 - May 1999.
- Early Childhood Education Refiling Committee. Concord College. Spring 1999.
- Federal Grant Writing Committee. Department of Education. Concord College. Professional Development School. Spring 1999.
- Concord College Early Childhood Advisory Council. February 2000.
- IMPACT Grant committee. Concord College. August 2000-2002.
- Academic Policy Committee. Concord College. August 2000-2002.
- Professional Development Committee. Concord College. August 2001-2002
- TEAC Committee - Middle School Representative. Concord College. Fall 1999-Present.
- Clinical Committee for Pre-service teachers. Concord College. Fall 1999-Present.
- Concord College Supervisors Committee. August 1998 - present.
- Campus-wide Technology Committee. Concord College. Fall 1999-Present.
- Concord College Division Technology Committee Chairperson. Fall 2001 – Present.

## Professional Activities

- School supervisor of student teachers for Concord College. Beginning 1981-1994.
- Faculty Senate Co-Chairperson. Berlin McKinney Elementary. Fall 1995- 1998.
- K-4 Curriculum Team. RESA I Representative. Fall 1995- Spring 1998.
- Completed the West Virginia Center for Professional Development Evaluation Leadership Institute. Charleston, WV. December 1995.
- WV Governor's Summer Academy. Pikeview High School. Mercer Co. Summer 1996.
- AIMS Workshop. Wyoming Co. Summer 1996.
- WVEIS Seminar. Canaan Valley. June 1998.
- Co-Chaired Seniorfest. Concord College. Athens, WV. October 1998.
- Brain Development Seminar. Concord College. Athens, WV. October 1998.
- Microsoft Workshop. RESA I. Beckley, WV. October 1998.
- WV Reading Association Convention. White Sulphur Springs, WV. November 1998.
- Mt. Lion Festival. Concord College. Athens, WV. April 1999.
- McNair Scholar Advisor for Jason Gardner. Concord College. Spring 1999-Present.
- Sigma Sigma Sigma Faculty Advisor. Concord College. Fall 1999-Present.
- IMPACT meeting. Flatwoods, WV. August 2000.
- IMPACT meeting. Concord College. August 2000.
- IMPACT Conference. Winthrope University. Rock Hill, SC. September 29, 2000.
- Emotional Intelligence (EQ) Presentation for Twin Towers girl's dormitory. October 2000.
- IMPACT Conference. Embassy Suites. Charleston, WV. October 22-24, 2000.
- Presented Christiansburg Institute Oral History paper at the Philadelphia Ethnography Conference. Philadelphia, PA. March 2, 2000
- Presented Christiansburg Institute Oral History paper for Virginia Tech.

- Christiansburg, VA March 30, 2001.
- Awarded Phase III monies for IMPACT grant. March 2001.
- IMPACT meeting facilitator. Phase II. Concord College. March 30, 2001.
- Presented at the workshop for McDowell County Pre-school teachers and aides. July 10 - 11, 2003 (Bluefield Holiday Inn).
- Presenter at McDowell County "No Child Left Behind" *Reading First* Grant conference. July 28-August 1, 2003.
- Presented dissertation topic involving substitute teachers for Concord College teacher candidates. Fall 2003 and Spring 2004.
- McNair Scholar Advisor for Wendi Smith. Spring 2004

## Computer Skills

- Josten's Basic Skills Program. IBM Computers.
- WVEIS computer program - attendance, scheduling and grading (K-4).
- West Virginia Rural-Net Project 1997 - Internet Training. June 1997
- Microsoft Workshop Training. RESA I. October 1998.
- Web-based Instruction - FrontPage Editor. July 1999.
- Introduction to HTML (Independent Study). Spring 2001.
- Dreamweaver Editor. Spring 2001.
- WebCT Training. June 1 & 2, 2001. Morgantown, WV
- PowerPoint, Word Processing, Excel, CPS (Classroom Performance System), Dazzle Linear Editing. (2001-2002)
- Digital Still Cameras, Digital Camcorders, Video-conferencing systems (Vtel, Polycom, Tanberg), Document cameras, Smartboards, Smartpads, Plazma screens, LCD projectors, Laptops, Handheld computers ((Palms and Casio), DVDs, mini-DVs, VCRs, Scanners (strobe, flatbed, self-contained) (2001-2002)
- ADA computer workstations (2001-2002):
    - Hardware: Motorized computer station, ADA approved chairs, handsfree multi-sheet scanner, head tracker, Braille keyboard, speech synthesizer cards, voice activated mic
    - Software: Zoom-text, Jaws for Windows, Naturally Speaking, Wynn-text Reader, Arkansas Book Reader (computerized books)

## Other Information

- Tri Sigma Sorority. Concord College.
- Democratic Executive Committee Representative in Wyoming Co. May 1990-1998.
- Beta Sigma Phi Sorority member.
- Delta Kappa Gamma Society International; Alpha Theta Chapter.
- Berlin McKinney Teacher of the Year. 1993-94; 1995-96. Wyoming Co.
- Planning and Zoning Committee for Oceana, WV. Wyoming Co. 1994 1996.
- Member of First Baptist Church. Princeton, WV.
- Member of WV Reading Council.

- Participant in Princeton Middle School PTO. 1998-99.
- Thorn Elementary School PTO. 1999-2000.
- Member of Kappa Omicron Nu. VA Tech Honor Sorority. Fall 2001.
- Nominated for Who's Who of American Women. November 2001.
- Member of AECT Association for Educational Communications and Technology. November 2001- present.

Grant writing

- Wrote and was awarded a school-wide grant by Eastern Associated Coal Corporation (EACC) for Berlin McKinney Elementary. Spring 1996 & 1997.
- Wrote and was awarded Year II and III grants for IMPACT. 2000-2001
- Collaborated with Tim Barnes in writing an Eisenhower Grant for RESA I's Math/Science Consortium. Fall 2001.
- FIE/FIPSE Grants-Improvement of New Teachers Educational Technology skills (2000-2002)
- Assisted in writing the assessment section of McDowell County "No Child Left Behind" *Reading First* Grant (2002-2003).
- Assisted in writing the assessment section of McDowell County "No Child Left Behind" Math Grant (2003-2004).
-

References

Dr. Peter Doolittle
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Athens, WV 24712 (304) 384-5365

Dr. April Puzzuoli
Professor of Early Childhood Education and
Associate Vice President for Academic Affairs
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*Updated: April 17, 2004*