

The Pennsylvania State University  
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GATEKEEPING FOR CHILDREN: HOW THE USE OF AN  
ELECTRONIC SCREENING PROCESS BY A HUMAN RESOURCES  
COOPERATIVE AFFECTS TEACHER SELECTION  
IN A REGION EDUCATION SERVICE CENTER  
IN TEXAS

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## ABSTRACT

This study examines how electronic prescreening affects hiring of teachers. Specifically, this study seeks to examine and understand the electronic screening system. Both traditional and electronic screening methods utilize the resume as the main criterion for deciding whether or not to grant an applicant an interview. It is the personality profile used in the electronic process which separates these two otherwise similar approaches to employment screening. Despite empirical evidence which clearly defines the one-to-one interview as the least effective selection tool for predicting future success as a classroom teacher, public school districts continue to rely heavily upon this form of applicant screening (Ponessa, 1997; Bowslaugh, 1993; Darling-Hammond, 1987). The resume is noted among the most valid selection instruments because it focuses on the relevance of past performance to the currently sought job (Knouse, 1989). Biases as they relate to gender, age, and ethnicity have been found to affect the decision to accept or reject an applicant (Knouse, 1989; Herriot, 1981; Dipboye, Fromkin & Wiback, 1975). Although research indicates that traditional interviewers are affected by non-job related factors, little is currently known about how an electronic screening device might affect or eliminate the otherwise subjective biases which can occur. The use of an electronic screening system was expected to affect positively the selection process. Biases which might affect the traditional selection process were expected to be removed. A mixed method case study was used, combining in-depth interviews and

archival document analysis of EEO hiring data from 26 member districts of a human resources cooperative. Findings show that the technology used by the electronic screening system in this study appears to be effective in eliminating bias because EEO data is not requested of an applicant and because the electronic database itself is a logical, neutral process which is not gender-specific. Results also showed that low minority teacher numbers within the region education service center studied herein are representative of state, region and district ethnicity statistics; are reflective of similar trends in the business community at large; and are a result of factors outside the Pre-interview Phase of the electronic selection process.

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## DEDICATION

This paper is dedicated to the memory of my grandparents, A. E. and Mattie Melvina Terry, whose love and constant support provided me with the necessary foundation upon which to build my life; for their wisdom, earned by experience as opposed to formal education; for their belief in Christian principles, remaining steadfast in prayer and faith regardless of circumstances; for their positive reinforcement of my development with soft answers, quiet understanding and patient guidance; and for their ever-abiding influence, felt daily without physical presence, I dedicate this paper to them. I love and miss you, Mammaw and Pappaw, and only wish you could be here with me now.

## CHAPTER 1

### INTRODUCTION

There is a general understanding amongst many interested parties that America needs help with the public education system (the National Education Goals Panel, 1998; the National Governor's Association Summit on Education, 1987, 1996 and 1999; A Nation At Risk, 1983), yet specific remedies have not been uniformly agreed upon. Educators, parents, teachers, community leaders, legislators and government officials comprise a large percentage of the informed public who collectively represent the pressing sentiment that public education needs quality improvement, although the strategies and methods by which such idealized improvement might be achieved vary greatly between individuals (Haertel, 1999).

The ideas for educational change pose an array of divergent issues. According to Kappan's April 1999 survey of teacher's attitudes toward the public schools and education in America, the five most frequently cited concerns include teacher quality, student achievement, academic standards, accountability and school choice (Langdon, 1999). At face value these may appear to be straightforward issues but stemming from these topics a growing number of counter topics arise. While one advocate group may emphasize school choice via vouchers, another group may vehemently disagree with the idea of competition for the educational market (Darling-Hammond, 1995).

State academic standards may pose a well-supported form of challenging the status quo, yet making those standards applicable and significant for the 49 states who have now adopted them is another aspect of the movement which broadens the reform format considerably (Raths, 1999). Accountability may be greatly enhanced by monetary incentives for teachers and administrators, yet policymakers think it is too early to determine the extent to which incentives result in improved student achievement (Boyd & Hartman, 1998). Attracting and recruiting quality educators is



understood as integral to the improvement of education (Sarason, 1989; Shaw, 1952), yet the selection process used by human resource groups within public school districts has overlooked alternative assessment tools for determining more qualified applicants to the teaching profession (Swinehart & Kay, 1998; Troisi, 1996; Schalock, 1979; Shaw, 1952).

Since the first Governor's Summit in 1987, where national academic standards were seriously discussed by our nation's highest state officials, educators have been increasingly aware of our need to attract and retain quality teachers. Although the pursuit of ways to distinguish competent teachers from incompetent teachers has been an abject failure in the opinion of some researchers (Raths, 1999), human resource administration continues to strive for a key element in achieving a quality educational program, the recruitment and selection of only the most capable applicants to fill all positions in public schools (Bredeson & Caldwell, 1987).

Effective, quality teachers as defined by personality [personality profile rank score(s)], qualifications [resume biodata or 'soft skills'] and performance criteria [teaching standards and 'hard skills'] are further described in greater detail throughout the entirety of this

document. In short, quality teachers are persons whose personality attributes are homogeneous with the demands of teaching, whose experience and certifications are commensurate with the area or subject matter to be taught and whose verbal interview responses match closely with the electronic system's ideal applicant performance profile.

In order to improve the recruitment and selection of teacher applicants, several school districts have replaced the traditional selection process with a computer-assisted process. The computer-assisted process is similar to the traditional process in that there are three specific stages: 1) the Pre-interview Phase, 2) the Interview Phase and 3) the Post-Interview or Hiring Phase. The difference is that, during the Pre-interview Phase, the electronic process administers an automated personality profile. The results of this profile and an applicant's resume biodata are both electronically scored by the system's mathematical-logical database and are then forwarded to school principals for the second stage, the Interview Phase, of the selection process.

How this system contributes to the elimination of bias and the subjective decision-making that has been widely recognized as a

fault of the traditional selection process (Arvey & Faley, 1994) provides the focus for this study. Specifically, the focus is on Stage One, the Pre-interview Phase of an electronic screening system, and whether or not this system affects and ultimately improves the quality of applicants for the teaching profession.

### The Problem

Despite empirical evidence which clearly defines the one-to-one interview as the least effective selection tool for predicting future success as a classroom teacher, public school districts continue to rely heavily upon this form of applicant screening (Ponessa, 1997; Bowslaugh, 1993; Darling-Hammond, 1987). Whereas the interview is reported as the least reliable selection device, the resume is noted among the most valid selection instruments because it focuses on the relevance of past performance to the currently sought job (Knouse, 1989).

Both traditional and electronic screening methods utilize the resume as a main criterion for deciding whether or not to grant an applicant an interview. It is the personality profile used in the

electronic process, however, which distinctly separates these two otherwise similar approaches to employment screening. These processes are discussed in greater detail in the following paragraphs.

During a traditional selection process, an interviewer (most often an educational administrator) would be assigned to peruse the resume and other paper credentials and use this information to make an initial screening decision (Young & Joseph, 1989; Young & Schmidt, 1987; Young & McMurray, 1986). Electronic screening systems use the resume only as the initial paper credential submitted by an applicant. No other credentials are scanned into the database (B. Prokop, personal communication, September, 1999). An additional screening tool, the pre-interview personality profile, is then administered to the applicant. Score results are rank ordered and those who do well on this profile are given an opportunity to fill the vacant position. These applicants are granted interviews (A. Maxie, personal communication, September 17, 1999).

To date, most selection process research addressing performance criterion for predicting job effectiveness, as it relates to teachers,

has done so from the traditional perspective, assessing the effect of the job interview as a predictor of job performance (Wright, 1969; Ulrich & Trumbo, 1965; Mayfield, 1964; Wagner, 1949). Existing educational research has focused primarily on the decision-making processes of the interviewer, and not just on the results of the interview (Wright, 1969). Results of this research indicate, without exception, that many independent variables influence the evaluations of applicants (Bolton, 1969). Biases and other non-job related factors as they relate to age, gender, and ethnicity have been found to greatly affect the decision to accept or reject an applicant (Little, 1998; Knouse, 1989; Herriot, 1981; Dipboye, Fromkin & Wiback, 1975).

Although research indicates that traditional pre-interview impressions of interviewers affect the decision to allow an applicant to continue to the next level of the screening process, little is known currently about how an electronic screening device might affect or eliminate the otherwise subjective biases which can occur. The particular electronic process outlined in this study appears to be effective in eliminating these biases because Equal Employment Opportunity (EEO) information such as gender, age and race are not

mandatorily requested of an applicant and because the electronic database itself is a logical, neutral process which is not gender-specific. The elimination of bias during the Pre-interview Phase would improve the overall quality of the applicant pool. Only pre-screened applicants, regardless of human bias in the decision-making process, would be selected to continue with the employment process. However, more specifically, the topic of the quality of the teachers who are granted an interview following an electronic screening process is not currently assessed in the prevailing literature.

#### Purpose of the Study

In an attempt to bridge this oversight between traditional and electronic screening and both methods' effects on the subsequent group of qualified applicants, this study examines how electronic prescreening affects the hiring of teachers. Specifically, this study seeks to examine and understand the electronic screening system. The use of an electronic screening system is expected to affect positively the selection process. That is, biases which might

influence the traditional selection process are expected to be removed.

Bias is removed by an electronic screening process because the electronic process uses two objective measures to evaluate a teacher applicant. Two sources of evaluation for teacher selection are studied, the personality profile and electronic resume, both of which categorize biodata into qualifications and performance criteria (Ponessa, 1997). Variables such as district size, district demographics, available minority applicants from job fairs or alternative certification programs and the shorter response time of an electronic system may also affect the quantity and quality of the applicants who are granted an interview. In addition, it has been proposed that use of an electronic screening process will increase the number of minority applicants who “get past” the pre-interview screening, increase the diversity of the teachers who are granted an interview and, ultimately, increase the quantity of minority teachers hired.

## Definition of Terms

1. New Hire - any teacher who is hired for the first time by a public school district.
2. Contract Renewal - any teacher who has worked for the district for at least one year previously and is being renewed for another year of employment with the public school district.
3. Applicant - any teacher who has submitted a written resume into the electronic database and completed a scored personality profile (IVR).
4. IVR - Interactive Voice Response/Recognition. IVR refers to the electronic screening system's personality assessment instrument.
5. Minority teacher - Any person from an ethnic or racial class of ancestry not classified as White/Euro American, e.g. African-American, Asian, Hispanic, and Native American.
6. Applicant Requisition - An electronic summary file containing IVR score, biodata and resume for a teacher applicant within the electronic screening database. [Example 1](#) and [Example 2](#)



## CHAPTER 2

### REVIEW OF THE LITERATURE

Since the first Governor's Summit in 1987, where national academic standards were seriously discussed by our nation's highest state officials, educators have been increasingly aware of our need to attract and retain quality teachers. However, according to Rath (1999) quoting Arvil Barr in a 1949 review of the literature, he found that "no reports of the differential predictions of teaching efficiency have appeared in the [research] literature." Put more succinctly, the studies from 50 years ago were more complex, employed better controls, and used better statistical procedures but did not yield any new predictions about how to distinguish excellent teachers. In Rath's estimation, the same situation applies to the current research in teacher selection.

Although the pursuit of ways to distinguish competent teachers from incompetent teachers has been an abject failure in the opinion of some researchers (Raths, 1999), human resource administration continues to strive for a key element in achieving a quality educational program, the recruitment and selection of only the most capable applicants to fill all positions in public schools (Bredeson & Caldwell, 1987).

#### Human Resource Administration

In every school district people must be recruited, selected, placed, appraised, and compensated, whether this is performed by a central personnel office or assigned to various administrators within the district. The goals of the personnel function are basically the same in all school systems--to hire, retain, develop, and motivate personnel in order to achieve the objectives of the school district, to assist individual members of the staff to reach the highest possible levels of achievement, and to maximize the career development of personnel.

Although different sources cite different and varying functions of a school district human resources department, the following is a representative listing of the industry-standard activities most often implemented through this administrative group:

1. Human Resource Planning
2. Recruitment of Personnel
3. Selection of Personnel
4. Placement and Induction of Personnel
5. Staff Development
6. Appraisal of Personnel
7. Compensation of Personnel
8. Collective Negotiations (Webb & Norton 1999, p. 159)

For the purposes of this study, the focus is on the Selection of Personnel. Also, for the purposes of this study, three phases in both the traditional and electronic selection processes are recognized: the gathering of information (Pre-interview Phase), face-to-face interaction (Interview Phase), and the final evaluation of qualifications of an applicant (Post-interview or Hiring Phase).

## Steps in the Traditional Selection Process

The objective of the hiring process is to hire individuals who will be successful on the job. The traditional selection process is most often implemented through a series of steps or stages that will minimize the chances of hiring individuals who are inadequate performers. Traditionally, and with variations depending upon size of district and its human resources department, these steps are as follows:

**Writing the Job Description.** The job description is the end product of another process known as the “job analysis”. This process gathers information about each job through observations, interviews, questionnaires, consulting, and the diary method. The job description outlines specific details of a position and establishes the minimum qualifications needed to perform the job successfully.

**Establishing the Selection Criteria.** Criteria instruments delineate those ideal characteristics that, if possessed by an individual to the fullest extent possible, will ensure the successful performance of the job. The selection criteria instrument can be used also to quantify the expert opinion of those who will be interviewing applicants (United States Government, 1978).

Writing the Job Vacancy Announcement and Advertising the Position. The advertisement is based on the job description and provides interested individuals with sufficient information to decide if they wish to apply for the position. The advertisement must clearly identify the job title, major responsibilities, name and location of the school district, application procedure, and the minimum job qualifications.

Receiving Applications. A central-office staff member is usually assigned to receive all applications for a given vacancy. As the applications are received, they are dated and filed in a designated folder. This provides integrity to the process and establishes a method of monitoring the progress toward fulfilling the vacancy.

Selecting the Applicants to be Interviewed. The application form usually contains a statement requesting the applicants to have their placement papers, transcripts, and letters of reference sent to the personnel department. The application most often provides sufficient information to evaluate each person against the selection criteria and against the minimum requirements for the job. A selected group of applicants are then interviewed for the position.

Interviewing the Applicants. Interviewing applicants is a responsibility shared by the personnel department and other school district employees. It is important to include not only those who will supervise the new employee but also others who have expert knowledge about the duties which will be performed by the successful applicant. An interview is essentially a conversation between two or more individuals conducted to generate information about the applicant. Interviewing is a learned skill; it also has profound legal implications (Campion & Palmer 1997).

Checking References and Credentials. “Credentials” refers to such items as a college or university transcript, teaching certification, and a physician’s verification of health. Using a traditional selection process, these credentials along with letters of reference, whenever possible, are customarily sent directly to the personnel department.

Selecting the Best Applicant. The personnel administrator who is responsible for implementing the selection process for a particular vacancy must organize all relevant data in such a manner that a choice may be made by the superintendent of schools.

Implementing the Job Offer and Acceptance. For professional positions, a contract must be approved by the board of education and signed by the finalist before this step is completed. For classified positions, once the applicant affirms that he or she will accept the offer, employment may commence at a mutually acceptable time.

Notifying the Unsuccessful Applicants. This step is initiated only after the offer of employment has been accepted by the applicant because there may be a need to offer the position to another individual if the first selected applicant refuses the offer (Rebore, 1998).

#### How Electronic Screening Works

Applicants begin the process by providing the district with a resume. This can be done manually, or electronically via the Internet or fax transmittal. Once there the resume is read by the electronic screening system and the information is stored in a database. The applicant is notified by postcard within 48 hours of the receipt of the resume, given a personal identification number,

and provided a telephone number to call to begin the next step of the process (Ponessa, 1997).

When the applicant calls, a recording system leads the caller through an automated interview which contains general questions about teaching. For example, the applicant might be asked to respond on a scale of 1 to 10 how strongly he or she agrees or disagrees with a statement such as, "Teaching is the most important profession." An electronic system then categorizes the applicants by score.

The second step in the process occurs in some districts after a pool of applicants has been chosen from the personality screening testing which occurred in the initial phase. At this time, applicants again call into the automated telephone system and answer interview questions while being recorded. A teacher from the prospective campus most often asks the questions while the automated system records an applicant's answers to the questions. This process usually takes one-half hour to complete. Although the live interview questions are kept confidential, human resource administrators explain that the questions pertain to the personal attributes that will help the district predict with good success



whether a person has the potential to be an effective teacher. After the interview is completed, the system's "smart" software scans the vocabulary in the audio file, then categorizes and scores the applicant responses.

Depending on the applicant's qualifications and the district's needs, an interviewer would then call the applicant to schedule an in-person interview, most often held on the prospective campus with the principal and/or academic team leaders.

### Legal Implications

The Society for Human Resource Management defines discrimination as "illegal treatment of a person or group of persons based on race, sex [gender], or other prohibited factor" (Sinclair, 1999, p. 4). For the purposes of this study, discrimination occurs when teachers with equal qualifications do not have equal probability of being hired because factors such as race or gender have influenced illegally the evaluation of a teacher applicant.

Three pieces of federal legislation form the foundation for how and why it is illegal to discriminate on the basis of race, color,

religion, sex, national origin or physical disability. These are the Civil Rights Act of 1964 (amended in 1972 and 1991), The Age Discrimination in Employment Act of 1967 (amended in 1987), and Section 504 of the Rehabilitation Act of 1973 (amended in 1994). Collectively, these legislative acts provide applicants specific rights within the selection process and, therefore, place certain restrictions on employment institutions, including public schools. Challenges to these rules are handled by the Equal Employment Opportunity Commission (EEOC) prior to being handled by any state or federal court system (Quirk, 1999).

Federal mandates are clear in the use of specific language which forbid certain employment institutions from discriminating against applicants with protected characteristics (Arvey & Faley, 1994). These protected characteristics are those “resulting from forces beyond a person’s control such as race, sex [gender], or age” (Arvey & Faley, 1994, p. 56).

Title VII of the Civil Rights Act of 1964 as amended in 1972 became applicable to public school districts in March of that same year. According to this regulation, it is an unlawful employment practice for an employer to fail or refuse to hire any individual, or

otherwise discriminate against any individual based on the individual's race, color, religion, sex [gender] or national origin. Protected class persons must demonstrate only "prima facie" evidence of discrimination in the selection process.

Prima facie evidence can be established either by the doctrine of "disparate treatment" or the doctrine of "disparate impact." (Arvey & Faley, 1992). The claim of disparate treatment focuses on intentional discrimination as a result of differential treatment, usually involving the treatment of an employee or prospective employee. A claim of disparate impact typically arises when an employer uses an employment practice or selection criterion that excludes from employment a disproportionately high number of members from any one protected class (Sinclair, 1999, p.4).

The Age Discrimination in Employment Act, as passed in 1967 and subsequently amended, is a federal law prohibiting discrimination based on age against anyone forty (40) years of age or over. It covers all employment practices, including hiring, discharge, pay, promotions, benefits and other terms of employment. It is designed to promote employment of older persons on the basis of ability rather than age. Although the law

originally had an upper limit of age 65 on the prohibition against discrimination, this was amended to age 70 and then was totally removed in 1987. Thus, there is no upper limit and anyone age 40 and over is protected.

Section 504 of the Rehabilitation Act of 1974 protects persons with disabilities from discrimination. A disability is a physical or mental impairment which substantially limits one or more major life activities, a record of having such an impairment, or being perceived as having such an impairment (Sinclair, 1999). With regard to public school human resource administration, this regulation makes clear that a handicapping condition does not exclude a teacher from participation, advancement or benefits.

All phases of the selection process are distinctly within the jurisdiction of federal legislation (Burstein, 1994). As noted by the EEOC guidelines, predictors used as the basis for preliminary employment decisions (e.g. the resume) are subject to scrutiny under these relevant governmental laws. Therefore, any part of both the traditional and electronic screening processes (Pre-interview Phase) and any subsequent variables or predictors used as the basis for employment decisions which are made prior to the

face-to-face interview may provide the basis for a claim of illegal discrimination. This is particularly applicable to screening decisions, which may be based on information that is unrelated to the needs of the position (Glover & Schwinger, 1996).

Federal legislation also exists which addresses the issue of preferential treatment of job applicants. The Veterans' Preference Act of 1944 discusses the rights of veterans to preferential treatment when seeking employment. This federal law outlines the principle of hiring veterans for public school teaching positions [non-civil service positions].

Section 7104 of the Veterans Preference Act of 1944 states:

(a) Non-civil service. Whenever any soldier possesses the requisite qualifications and is eligible to appointment to or to promotion in a public position, where no such civil service examination is required, the appointing power in making an appointment or promotion to a public position shall give preference to such soldier.

A Pennsylvania case, *Brickhouse v. Spring-Ford Area School District* (1995) set the precedent for school districts to have a "hiring process that is reasonably related to the position(s)". A

veteran claimed that his rights under the Veterans Preference Act were overlooked by the hiring district. The Pennsylvania Supreme Court ruled that a school district only needs to establish job-related, objective qualifications prior to an appointment or promotion decision and rely on the same, which may in some instances disqualify a veteran who does not possess these qualifications.

In another Pennsylvania case, *Basile v. Elizabethtown Area School District* (1999), again, the court found that the plaintiff was not a “qualified” applicant. A U. S. military veteran applied for an elementary teaching position in the local school district on two occasions, received interviews, but was not hired for the position. The veteran claimed he was denied his right to veteran’s preference in appointment to a non-civil service position. The court determined that the school district had a hiring process that was “reasonably related to the position” and the school district relied upon this process, which revealed that the veteran was not qualified for the position. Therefore, the school district did not violate the Veteran’s Preference Act when it failed to hire the veteran applicant.

Both of these cases support the idea that simply because a veteran is certified to teach in a particular subject area does not mean that the veteran has the “requisite qualifications” to teach in that subject area. “Requisite qualifications” may be interpreted to mean more than holding a valid teaching certificate, e.g. taking into consideration other factors such as grade point average, academic awards, performance evaluations and relevant experience.

During the pre-interview screening process, this legislation imposes a burden on school districts’ hiring practices. Specifically, the district must recognize that veterans have preferential rights to employment. Thus, a school district has an obligation to hire veterans when they possess the established job qualifications. Finally, school districts using an electronic screening system also have a legal obligation to include veterans in all aspects of the Pre-interview Phase of the electronic screening process.

Although numerous federal statutes impose restrictions and obligations on employer actions during the selection process, the employer does have a degree of autonomy and flexibility in the final hiring decision. The courts have stated that as long as no form of discrimination as to age, race, gender, handicapping condition or

veteran status occurs, the school district may hire whomever is most qualified according to reasonable criterion related to the position.

### The Pre-interview Phase

Researchers have identified numerous biases which affect the perceptions formed by evaluators during the Pre-interview Phase of the selection process (Reis, Young & Jury, 1999; Oliphant & Alexander, 1982; Arvey, 1979; Muchinsky & Harris, 1977). Some of these biases include stereotyping by gender, race, age, physical appearance, professional status, marital status and academic achievement. Biases may be formed based upon the reading of a resume or reference letter and may result in the stereotyping of an applicant. Preview of resumes or reference letters is indicated by several researchers to add additional biases which influence the interviewer (Knouse, 1983; Dipboye, Fromkin & Wiback, 1975; Springbett, 1958).

Little attention has been directed toward the impact of the pre-interview review of paper credentials on the final outcome, which herein is termed as the Post-interview or Hiring Phase. Although



interviewers in the private sector have reported that they review paper credentials (e.g. resumes, applications, reference letters), personnel or human resources managers view the paper qualifications as less important than the interview itself (Dipboye, 1992; Macan & Dipboye, 1990). Gorman, Clover and Doherty (1978) reported a study in which 73% of the respondents considered the interviewer's opinion to be more influential than the applicant's resume. Another study reported that of all sources of information, personnel employees have the most confidence in the interview as a predictor of future job success. These views remain despite numerous reports from reviewers which find the interview to be the least reliable of all selection devices (Wright, 1969; Ulrich & Trumbo, 1965; Mayfield, 1964; Wagner, 1949).

Judgments made about an applicant during the Pre-interview Phase of the traditional selection process contribute ultimately to the decision to accept or reject an applicant (Springbett, 1958). Knouse (1989) suggested that resume readers are biased toward male applicants, attributing more favorable traits to them. Dipboye, Fromkin and Wiback (1975) implied that biases formed during the Pre-interview Phase are likely to carry over into the Interview Phase.

Likewise, Reis et al. (1999) suggested that principals were significantly more likely to extend interviews to female candidates than to male candidates.

An electronic screening process, on the other hand, because it does not include a traditional paper-reading format in the pre-interview screening process seems likely to remove these subjective biases. Thus, the electronic screening process is designed to provide all applicants with equal opportunities to compete for a teaching position during the Interview Phase.

#### The Interview Phase

Although it is not within the scope of this study to examine specifics of the Interview Phase, it is noteworthy to mention that impressions made by an applicant upon the interviewer greatly affect the decision to hire or not to hire an applicant (Dipboye, 1992). Young and Allison (1982) found that, although teaching performance is unrelated to interview format, the interview itself contributed to 16% of the difference associated with employment decisions. In other words, information gathered during the

interview phase pertaining to personal characteristics, such as age, gender and race, influenced final hiring decisions.

Ideally, selection decisions would be based solely on factors which are related to personality, qualifications and teaching performance. Numerous reviews of selection research reveal, however, that factors such as race, gender, age and handicap status affect screening and interview decisions (Arvey, 1979).

Additionally, there is little evidence demonstrating that any of these factors contribute to or influence teaching performance (Young & Place, 1988). Although research does not indicate that characteristics such as race are related to teaching performance, there may be other reasons to consider the issue of race.

### Training and Recruiting Minority Teachers

A 1991 U. S. Department of Education report stated that school districts needed to “attract and keep able teachers who reflect the cultural diversity of our nation.” However, since 1980 the number of minority students enrolled in public schools has risen while the number of minority teachers has fallen. Minority students now

make up approximately 30 percent of the elementary and secondary school-age population, while the number of minority teachers has fallen to 13.3 percent in 1991 (Snyder & Hoffman, 1994).

The decline in the number of minority teachers appears to result from several factors: increased career opportunities in other fields, a decline in higher education enrollment rates by minorities (Rodman, 1988), the growing use of teacher competency testing (failure rates for blacks and other minorities are higher than for whites), increased white enrollment at historically black colleges (Grossman, 2000) and a dissatisfaction with the teaching profession (Donnelly, 1999).

The following ten programs were recommended by the American Association of Colleges for Teacher Education for developing minority teachers: (1) A national scholarship program for minority students who enter teaching, (2) state scholarship programs, (3) targeted high school work-study programs, (4) targeted college work-study programs, (5) a program stressing the need for greater articulation between two-year and four-year institutions, (6) assistantships and grants programs, (7) loan repayment incentive programs, (8) support programs for reentry and career

changes, (9) special support programs for minorities accepting teaching jobs in ethnically diverse communities, and (10) an institutional grant program to research teacher evaluation models for minority teachers (Donnelly, 1999).

In order to improve the representation of minorities in the teaching ranks, innovative ways of recruiting minorities are being implemented in school districts all across America. In Wake County Public School District (Raleigh, North Carolina) officials realized that the best way to solve the long-term problem of minority teacher shortage was to convince their own minority students to pursue teaching as a career through a program providing college scholarships to minority students (Rodman, 1988).

The state of Illinois has recently initiated a Minority Teacher Identification and Enrichment Program. The program consists of tutorial workshops, mentoring, and financial resources that are available to students. The overall goal, however, is to identify potential teachers among minority students at cooperating community colleges and their feeder schools. These students are provided with opportunities to enhance their mastery of the many skills prerequisite to their success as teachers (<http://www.parkland>).

cc.il.us/collegedev/enrichment/enrichment.html,2000).

Other attraction-based programs also exist. In Dallas, Texas, a city which has the eighth largest school district in the country, there first year minority teachers are provided recruitment incentives in the form of \$2000 up to \$4000 annual stipends for speaking Spanish, learning Spanish or teaching bilingual courses. In 1987 the State of Oregon initiated a tuition waiver program for minority students attending state colleges and universities. And, in Maryland, teaching opportunities for those about to retire at military bases are advertised throughout the state (Donnelly, 1999).

According to the U. S. Department of Education (Snyder & Hoffman, 1994), even though high school graduation rates of minority students increased between 1975 and 1983, they were not matched with an increase in college attendance. Since 1978 the number of new teachers produced by 45 predominantly black colleges has declined by 47 percent. These enrollment declines reflect the budget cuts in federal financial aid programs such as the loan program, inadequate high school counseling and the absence of systematic college recruitment programs for minority students.

Another factor which may affect minority training and recruiting is that white enrollment is growing at historically black colleges (Drummond, 2000). Once revered as the black Harvard of the Middle West, Lincoln University in Jefferson City, Missouri is now nearly 70% white. At Bluefield State College in West Virginia, more than 90% of the students are white. West Virginia State is now 85% white and Kentucky State University is now 50% white. According to a March 20, 2000 Time magazine article, white enrollment at historically black colleges across the U.S. climbed 16% between 1990 and 1998.

Most of the 104 historically black colleges in America were founded before 1965, when African-Americans were shut out of most predominantly white institutions. Today, however, courts have ordered many of them to desegregate by admitting more whites. Given the tide of opposition to affirmative action at mainstream institutions and with African-American enrollment dropping, these schools now have no choice but to recruit people of all races.

Each of the factors discussed in the preceding paragraphs has contributed to the decrease of minority teachers. Although it is not

clear that a student's academic achievement is affected by the presence of a minority teacher, it has been suggested that race does matter. Two primary reasons have been identified which support the hiring of minorities. First, teachers of color bring with them an inherent understanding of the backgrounds, attitudes, and experiences of students from certain groups and therefore can help inform majority teachers on effective ways and means to communicate with students of color (Dilworth, 1990). Second, to remedy past discriminatory practices in southern districts, school districts have been mandated to make racial preference clauses in hiring practices.

Recent research supporting the former includes the point that diversity is not just an issue of color but a concept that encourages diversity of thought--the exchange of different ideas and ways to approach problems (Michael-Bandele, 1993). Although school culture still seems driven by majority standards, public school districts, nevertheless, recognize that it is the shared culture which provides the necessary cohesion to sustain instructional excellence at the individual classroom level (Cunningham, 1993).



Research supporting the latter reason for hiring minorities centers around “affirmative action” lawsuits such as *Adarand Constructors, Inc. v. Peña* and *Richmond v. J. A. Croson*, two cases wherein The Supreme Court made it clear that any government program, federal, state or local, [including public school districts] that creates a racial preference is unconstitutional, unless the particular preference "serves a compelling governmental interest, and is narrowly tailored to further that interest". This test is known as "strict scrutiny" and is notoriously difficult to meet, however, in the area of public employment, affirmative action plans have been found constitutional in seventeen of the thirty-one litigated cases (Jung & Wadia, 1996).

Anyone who has ever read the text of the Civil Rights Act of 1964, however, might be baffled at this prospect of “strict scrutiny”, since it says, in rather plain language, much the same thing as that of the aforementioned court opinions. For example, Titles VI and VII of the Act tell school officials and employers that they "shall not discriminate" against any individual on account of race or gender; and Title VII further tells school officials and employers that in order to meet their legal duty under the Civil Rights Act, they are

not required to give "preferential treatment" to anyone in order to achieve a racial or gender balance. Indeed, the original supporters of the Act insisted that Title VII actually prohibited preferential treatment.

Nevertheless, minorities have not been given the same or equal opportunities as the white majority and the Supreme Court has continuously upheld leading state decisions (i.e. California's 1978 *Regents of the University of California v. Bakke* and Texas' 1992 *Cheryl Hopwood v. University of Texas School of Law*) and recent disparate impact claims against American Telephone and Telegraph, Texaco Oil Company, Denny's Restaurants and Amtrak which enforce "stricter" scrutiny of EEOC [Equal Employment Opportunity Commission] laws. Because the unfortunate persistence of both the practice and the lingering effects of racial discrimination against minority groups in this country is a well-documented reality, there must exist federal legislation which mandates that a certain percentage of a school district workforce be composed of a percentage of minorities.

Additionally, there exists a growing number of educational experts who say that skill is the most important criterion in a

classroom, regardless of the age, race, gender or handicapping condition of the individual teacher. The proponents of role modeling have long argued that hiring teachers of the same color as the majority of the student body somehow increases the identification with one's cultural roots (Klauke, 1988). The fact that a teacher is of Hispanic origin or African-American origin is supposed to provide a stronger role modeling effect upon the students of those minority teachers. According to Daniel Fallon, Professor of Public Affairs at the University of Maryland, data from Kentucky's educational reform movement, however, shows evidence to the contrary. A lengthy report cites that reading and math scores at the elementary level of participating Kentucky schools increased over a five-year period not by teacher race or teacher age but by teacher competency, following repeated year-after-year exposure to competent teachers in those subjects (U. S. Department of Education's Presidents' Summit on Teacher Quality, 1999).

Only a small number of public school districts have achieved adequate racial diversity with respect to teachers. However, these relatively unchanged, low minority numbers within public school

district teaching forces are, in general, similarly reflective of the business workplace.

According to a March 2000 article in HR Magazine, advancement for black employees in professions has moved slowly. Between 1983 (when statistics first became available) and 1999, blacks consistently made up about 11 percent of the total U. S. workforce. Yet in 1983, only 3 percent of engineers and 3 percent of attorneys were black. In 1999, this figure shows little gain: blacks make up only 5 percent of engineers and 5 percent of attorneys. During the sixteen years of available data (from 1983 to 1999), the fields of medicine, marketing, advertising and public relations showed essentially the same, small percentage increases, from around 3 percent in 1983 to around 5-6 percent in 1999. Only the human resources field is slightly better, with an increase of black representation in the personnel and labor relations workforce from 4.9 percent to 7.5 percent in 1997 (Grossman, 2000).

A part of the racial inequity in public school districts may be due to the still wide variations in the quality of hiring systems. Darling-Hammond (1987) of Columbia Teachers College suggested in a now 13-year-old study that schools are often at the mercy of inadequate

budget cycles and that, although district leaders are aware of the many enumerated problems with their hiring processes, overhaul is a costly and sometimes impossible option. Finding the best teachers, Darling-Hammond suggests, will require systematic recruitment earlier in the hiring season, delegating more of the one-to-one Interview Phase to the principals at the school level and investing in mentoring programs to prevent attrition of new teachers.

It seems clear then that, in so far as electronic screening is concerned, without effective recruitment practices and informed recruitment policies, most public school districts will continue to fail in altering the complexion of existing teacher workforces (Young, Place, Rinehart, Jury & Baits, 1997). However, the electronic screening system removes gender and race from the pre-interview information which is gathered, making objective criterion such as a personality profile and actual certifications the bases for hiring skilled classroom teachers.

## Biodata in the Selection Process

Numerous reviews have concluded that biographical data (biodata) are among the most effective predictors of job performance (Hunter & Hunter, 1984), yet biodata research has long been criticized for lack of insight into the meaning of biodata (Mumford & Stokes, 1992). Similarly, biodata in the form of resumes and applications are probably the most commonly used information in personnel selection, yet fairly little is known about the meaning they hold for interviewers (Ash, Johnson, Levine & McDaniel, 1989).

Recruiters' use of biodata for making applicant screening decisions can be more specifically addressed by examining recruiters' description of biodata as they perceive biodata. Biodata may be referred to as any information regarding an applicant, but in this case, biodata refers to work experience, education, activities, and other historical information contained in resumes and applications.

Studying biodata is pertinent to this study of an electronic screening system and its possible effects on the influence of bias and subjective decision-making during the teacher selection process

for three reasons. First, a resume is the sole paper credential submitted by a teaching applicant for entry into the electronic screening database. No other paper credentials are submitted. Second, there is widespread use of resumes for screening job applicants. According to the Society for Human Resource Management, there are approximately two billion resumes and applications screened each year in America. Finally, there are some interesting inferences being drawn about how employers use this information (Brown & Campion, 1994).

Assessment of educational attainment, grades, some work experience, some honors, and some hobbies and interests appear related to ability, although indirectly. In several studies, interviewers were asked what they look for when screening applicants. The interviewers reported that they focused on ability-related criteria such as communication skills, grades and intelligence (Gardner, Kozlowski & Hults, 1991; Posner, 1981).

Subjectivity as evidenced by biases is likely to influence the Pre-interview Phase and the resume previewing process. Therefore, an overview of predictors of basic abilities and other factors which contribute to potential interpretations of biodata contained in the

resume seem germane to this study. A further discussion of these specific quality-related aspects of teacher competence (personality, qualifications and performance criteria) follows.

## Resume

Variables found to influence decision making during the traditional selection process include chronological age of applicant, skill obsolescence of applicant (Young & Joseph, 1989), scholastic standing (Muchinsky & Harris, 1977), sex [gender] of applicant (Reis, Young & Jury, 1999; Arvey, 1979) and sex [gender] of evaluator (Perry, Davis-Blake, & Kulik, 1994; Muchinsky & Harris, 1977). While some of these are legitimate influences, others are irrelevant and possibly illegal influences on the decision-making process.

These influences may be altogether removed by use of an electronic screening system because the resume is the only credential submitted. Examination of the types of information on which the system relies when selecting applicants during the Pre-interview Phase reveal that age, gender and race are not



mandatorily included. Additionally, the electronic system itself cannot be classified by gender as an evaluator might be classified during the traditional selection process.

### Electronic Biodata

Stereotyping may have a significant influence on the traditional selection process which is generally subjective and susceptible to the biases of an evaluator. Individuals are often evaluated on the basis of their membership in a particular group (e.g., age, gender, race, etc.) (Arvey & Faley, 1994). Thus, stereotyping can be detrimental to individuals who belong to a minority group which typically has negative trait descriptions associated with the membership.

Electronic biodata is not subjective nor susceptible to the biases of an evaluator. The system scans information from an anonymous resume into the database and then mails a postcard to the applicant to schedule an automated telephone personality profile. Biodata in this case is neutral and, therefore, non-gender specific, as well as non-race and non-age specific.

## Personality Assessment in the Selection Process

Although cognitive ability tests continue to be the most commonly used form of psychological testing in the workplace, the use of personality assessment in personnel selection has increased dramatically in the last ten years and continues to rise (Rudder and Truelson, 1999). In a recent survey, 40 percent of Fortune 100 companies indicated that their employment selection systems included some form of psychological testing. A similar survey by the American Management Association shows that 44 percent of its responding members used psychological testing to select employees (Shaffer & Schmidt, 1999).

The first electronic screening system to be used in private industry in America occurred during the mid-80's at IBM Corporation. Public school districts have only recently (during 1993-94 school year) begun to utilize the same electronic processes. The primary component of the electronic screening system is the use of a personality profile to determine abilities and attitudes of prospective teacher applicants (B. Prokop, personal communication, September, 1999).

## What is a Personality Profile?

Personality tests are self-report measures of what might be called traits, temperaments, or dispositions. There are numerous personality measures available. For instance, an instrument called the Minnesota Multiphasic Personality Inventory produces measures of a substantial number of personality characteristics, such as extroversion-introversion, reliability, honesty, conscientiousness, adjustment, trustworthiness and sociability. Other tests such as the London House PSI and the Employee Attitude Inventory use a more narrow focus and measure specific indicators of counter-productive job behaviors such as on-the-job theft (Rudder & Truelson, 1999).

The instrument used by an electronic screening system is called an IVR, or Interactive Voice Response. It is a personality test used to measure a limited number of teacher attitudes and beliefs about the importance of various teaching responsibilities. Specifically, the instrument used by the districts studied herein is comprised of 21 questions divided into three sections of seven questions each. Attitudes, beliefs and responsibilities of teachers are scored to form a comprehensive profile of job-related performance criterion for the profession.

The appendices include documents that outline the otherwise proprietary and unpublished IVR format of the cooperating electronic screening database company described in this study. For example, Appendix C, Attachment A describes instructions for using the voice-activated system. Appendix C, Attachment B is a transcript of the 21 personality profile questions asked during the pre-interview screening. Appendix C, Attachment C explains the scoring or measurement parameters. Appendix D offers two Flow Diagrams which separately detail the traditional and electronic screening processes.

### Personality Theory

According to Maddi (1989), personality can be defined as a stable set of tendencies and characteristics that determine those commonalities and differences in people's psychological behavior (thoughts, feelings and actions) that have continuity in time and that may not be easily understood as the sole result of the social and biological pressures of the moment. (p. 8)

This rather opaque definition may be somewhat clarified by including what Maddi defines as “tendencies and characteristics”. He says that tendencies are the processes that determine directionality in thoughts, feelings and actions. He asserts that characteristics are static personality structures which explain not the movement toward goals or the achievement of functions but the fact and content of goals or requirements. Additionally, he says that core personality tendencies and characteristics remain the same over a lifetime and they exert an extensive, pervasive influence on behavior.

Generally, these aforementioned definitions are based upon centuries of work in the field of personality theory development. The theories of such noted scholars as Freud, Jung, Erikson, Fromm and Maslow have contributed to Maddi’s understanding of personality and character types. An in-depth analysis of these varying psychologists and their specific personality theories is not within the scope of this study, however, it is understood that the aforementioned theorists view personality development as a process extending throughout life and one which remains at the core of social behavior.

Equipped with a definition of the subject of personality, let us now look at what research psychologists call the three main sources of personality data: (1) the person's self-report, (2) the report about the person by those who know him or her, and (3) the judgment made about the person by an expert.

The first report is integral to a human resources system utilizing a personality profile, an automated process whereby prospective teachers choose statements about themselves by ruling out possible alternatives. A prospective teacher responding to an automated personality profile might be asked to choose a measure such as, "I think it is important for teachers to stick to a routine so their students know what to expect", as opposed to, "I think it is not important for teachers to stick to a routine." Notice, this self-report is an interpretation of what a person believes to be true about himself or herself.

The second type of personality data depends upon asking others what they think of a person. In human resource terms, this type of data gathering most often occurs during the first phase of the traditional screening process, the Pre-interview Phase, with biodata in the form of written reference letters. A Personnel or Human

Resources Department interviewer might ask an applicant's colleague or former employer regarding his or her thoughts of the prospective teacher. Again, this is an interpretation of the person, this time made by others.

The third source of personality data is experts. If a school district wants to know whether a person shows particular, concrete tendencies or characteristics generally associated with successful teaching, one might want a specialist in that field to render a judgment. The raw material or observations for the judgment might be the very same ones used by the person or references, i.e. personality profiles or resume biodata, but one might expect that the interpretation reached by the expert would presumably be more sophisticated with regard to the underlying educational theories surrounding successful teaching. Again, this type of personality data is most often gathered during the Pre-interview Phase of the traditional screening process.

What personality theory enables a school district to acquire is a "best guess" profile of factors indicating whether a prospective teacher might perform effectively in a teaching position. How effective and useful this new process is comprises much of the focus

of this dissertation. Moreover, the difficulty in determining the legality of personality measurement operations is also a factor for further consideration.

### Legal Issues Regarding Testing

There are three areas of legal concern regarding the use of personality assessment in the selection process. An applicant could claim that the assessment 1) creates an adverse impact for his/her race or ethnic origin 2) violates his/her rights to privacy, or 3) is unfair.

One way test writers attempt to remove cultural bias is by performing a norming procedure, i. e. administering the test to many different minority groups and getting feedback from them as to the test's validity. If a personality test being used requires use of separate racial norms, this means there are significant differences in the way individuals of different races respond to the questions.

In regard to privacy, if the raw scores (assessment responses) are not kept confidential, privacy issues may arise. A federal district court in New Jersey upheld the personality testing of firefighter



applicants in *McKenna v. Fargo*. The ruling stated that indeed the personality tests burdened the applicant's right to privacy, but that the city's interest in screening out applicants who could not withstand the pressures of the job was sufficient to justify the intrusion. In an opposing ruling, however, the California Court of Appeals found in favor of the plaintiff against Target Stores because their psychological testing included information about an applicant's religious beliefs and sexual orientation.

The federal Freedom of Information Act of 1993 gives access to outside entities previously denied the right to view applicant test scores. Many states now have open record laws which give public access to school district documents. The Texas Open Meetings Act (Government Code 551), the Texas Open Records Act (Code 552) and the Texas Public Disclosure Act (Code 554) of 1993 and similar state level sunshine laws have changed the amount and kinds of information which are now open to public perusal.

Additionally, if a personality test has not been validated using data-based, empirical, scientific research methodology, hiring decisions may be challenged as unfair. Within public school districts, the desired characteristics to be measured by the

personality test may be determined by evaluating top teachers already in the position, either rationally or empirically. A rational evaluation includes the third source of personality data, having an expert or group of experts, subjectively, through round table discussions or intuition, identify which characteristics they feel are most important for success to teaching. An empirical approach involves collecting data from top teachers in a more systematic manner, usually through specific interviews or performance examinations which are graded and rated and then used to develop a model profile (Rudder & Truelson, 1999).

Both methods present potential legal concerns for school districts utilizing an electronic screening process because both methods of validation have inherent weaknesses. The rational approach requires the greatest amount of input from school officials and also requires that individuals separate from their own individual biases. For example, a Director of Human Resources or a principal who is particularly meticulous may feel that careful attention to detail is critical to the teaching jobs they evaluate whether or not there is clear evidence to support this or not.

Likewise, with an empirical, strictly data-driven approach, the process may be plagued with problems because the interview instrument, performance criteria or evaluator may possess biases, lack of structure or lack of quality interviewing or evaluation skills. Failure to properly validate the instruments used by the electronic screening system via use of either a rational or empirical method might create an undesirable effect in hiring practices because the instruments could violate Section 106 of the Civil Rights Act of 1991 which states [no employer shall]

in connection with the selection or referral of applicants or candidates for employment or promotion adjust the scores of, use different cutoffs for, or otherwise alter the results of employment related tests on the basis of race, color, religion, sex [gender], or national origin.

An electronic screening system, therefore, must avoid gender-specific or race-specific norms and, instead, use only integrity tests with unitary norms (Nail & Scharinger, 1999; Shaffer & Schmidt, 1999).

The legal issues outlined in the preceding paragraphs concerning testing and test validation present school districts utilizing an electronic screening system with additional areas for discussion. Furthermore, a discussion of another factor outside the Pre-interview Phase which may influence the electronic screening system also seems pertinent.

#### Alternative Certification Program

Although the recruitment phase is not being examined in detail within this study, there is evidence to suggest that factors outside the Pre-interview and Interview Phases of the selection process contribute to the applicant pool (Association of Teacher Educators, 1989). Specifically, recruitment in the form of alternative certification programs is a factor that may have some influence on the use of an electronic screening system.

According to the Fordham Foundation's recent report on teacher quality, alternative certification programs streamline access into the classroom for applicants while also increasing the number of available prospective teachers. Such programs normally require a

bachelor's degree, passage of a competency test, and an intensive, accelerated regimen of specialized preparation. This training usually is undertaken while on the job.

Alternative Certification programs attract talented and enthusiastic individuals into teaching who might otherwise be overlooked for this calling. Teachers with alternative certification are more likely to have bachelor's degrees in math and science, two fields with chronic shortages of qualified teachers. They are also more likely to be members of minority groups (Shen, 1997).

States are using many devices by which to attract outstanding college graduates to the teaching profession (Riley, 1999). Many states have expanded the pool of talented teaching applicants by allowing individuals who have not attended schools of education to teach, provided that they meet minimum standards. They often encourage programs that provide accelerated basic training for prospective teachers. Some states also attract outstanding college graduates to the profession by using financial incentives such as scholarships, loan forgiveness programs and signing bonuses.

Specifically, this study suggests that use of an alternative certification program as a recruitment strategy has a direct effect

upon the electronic screening system because it increases the minority applicant pool (formed during the recruitment stage). It also suggests that existence of an alternative certification program within a school district influences the overall number of resumes submitted, and subsequently, increases the number of minorities who are later selected to enter the Pre-interview Phase (Association of Teacher Educators, 1989). Alternative certification programs directly affect electronic applicant screening, in particular, with regard to overall diversity.

Screening for talented, high-quality prospective teachers, then, is an integral aspect of the electronic selection process. Thus, during the selection process, particularly at the Pre-interview Phase, specific information is gathered from a prospective teacher. The specific information to be gathered has, in part, been determined based upon an examination of what leading educational experts regard as the necessary skills of highly qualified classroom teachers.

## Performance Criteria and Standards for Teachers

The President's National Commission on Excellence in Education in 1983 starkly defined this country's need to improve "mediocre educational performance" in A Nation At Risk (1983). Since then, many organizations, national commissions, and accrediting agencies seem interested in articulating standards for excellence in teaching. One group, Carnegie Corporation's Task Force on Teaching as a Profession, released a 1987 report entitled, "A Nation Prepared" which recommended the establishment of a National Board for Professional Teaching Standards. NCATE (The National Council for Accreditation of Teacher Education), one of the nation's most influential accrediting bodies for colleges and universities of teacher education programs in America, also promulgates teaching standards to be used in accreditation decisions (Raths, 1999). At least three other institutions, INTASC (Interstate New Teacher Assessment and Support Consortium), CAL (California Commission on Teacher Credentialing) and NBPTS (National Board for Professional Teaching Standards) have identified specific performance standards regarding teacher qualifications.

Currently there exists no research validating whether or not teacher standards are conclusive predictors of teacher success. Likewise, there is no personality test which can predict with significant accuracy the resulting performance of candidates hired using the electronic screening profile. There is, however, an overall consensus that standards work in the evaluation process of teachers, as well as in the selection and retention of competent teachers (Lashway, 1999).

In the field of selection research for educational personnel, standards are differentiated from criteria in the following way. “Criteria are names of variables that are relevant to making decisions; standards specify the amount of each variable that is needed to decide whether or not a criterion has been met.” (Glass, 1978, p. 279.)

Based on this definition, the National Education Goals Panel suggests that two subdivisions of teacher standards exist: content standards and performance standards. In a sense, content standards serve as criteria variables, indicating that teachers know the subjects they teach and how to teach those subjects to students (McLaughlin, Shepard & O’Day, 1995) and performance standards



serve as quantity-related measurements of those criteria (Haertel, 1999). Thus, teacher standards are generally accepted as equivalent to teacher competencies. These are used to determine quality-related aspects of teaching performance.

For the purposes of examining an electronic screening system's possible effect on hiring practices within a human resources cooperative in a region education service center in Texas, content standards and performance standards are combined and used to rationally validate instruments (IVR Personality Profiles) that are used in the Pre-interview Phase of the selection process. Additionally, aspects of applicant biodata as part of applicant resumes are described and analyzed.

The focus of this study does not include an intensive study of teacher standards, however, an understanding of what school districts are looking for in teacher applicants does apply to an electronic screening process. Listed below are some guidelines published by the National Board of Professional Teaching Standards which synthesize all three boards' (NCATE, CAL and NBPTS) attempts to identify and recognize categories for the assessment of teacher competence.

It is understood that teacher standards necessarily and without exception also include performance indicators, without which they are meaningless (National Education Goals Panel, 1998). It is also important to mention here that an electronic screening system does not measure actual performance indicators because the IVR Personality Profile is a Pre-interview Phase selection tool. The system measures only the value of personality indicators regarding personal reactions to hypothetical educational situations. These are scored as probable indicators signifying potential future success as a teacher should the applicant be hired. Conversely, as offered by the National Board of Professional Teaching Standards, Figure 2.1 highlights five actual, central standards for the teaching profession.

<b>Figure 2. 1 National Board of Professional Teaching Standards</b>
1. Teachers are committed to students and their learning.
2. Teachers know the subjects they teach and how to teach those subjects to students.
3. Teachers are responsible for managing and monitoring student learning.
4. Teachers think systematically about their practice and learn from experience.
5. Teachers are members of learning communities.

At present, the most widely recognized certification and accreditation boards do not make public their specific performance indicators for the teaching profession (Raths, 1999). These are made available only on a compensated basis for those persons paying for accreditation through these said organizations. An independent testing group, however, the Educational Testing Service (ETS) in Princeton, New Jersey offers published frameworks for both public school and higher education standards, as influenced by NBPTS, INTASC, NCATE and NASDTEC (National Association of State Directors of Teacher Education and Certification) (Danielson, 1996). Listed below is an example of a representative framework for teacher performance criteria.

This framework is based upon INTASC guidelines as published by both the Educational Testing Service and the Association of School Curriculum and Development and is divided into 44 components clustered into ten areas or principles. Figure 2.2 summarizes these performance criteria.

**Figure 2.2**

#	Description of Teacher Performance	#	Specific Teacher Performance
	Understands the central concepts, tools of inquiry, and structure of the disciplines taught; creates learning experiences to make them meaningful to students.	1a 1e 3c	Demonstrates knowledge of content and pedagogy. Designs coherent instruction. Engages students in learning.
P 2	Understands how children learn and develop; provides learning opportunities that support their development.	1b 1c 1f 3b 3c	Demonstrates knowledge of students. Selects instructional goals. Assesses student learning. Uses questioning and discussion techniques. Engages students in learning.
P 3	Understands how students differ in their approaches to learning; creates instructional opportunities adapted to diverse learners.	1b 1e 2a 2b 3b to 3e	Demonstrates knowledge of students. Designs coherent instruction. Creates an environment of respect and rapport. Establishes a culture for learning. to Instruction Domain.
P 4	Understands and uses variety of instructional strategies.	1d 1e 3b to 3e	Demonstrates knowledge of resources. Designs coherent instruction. Instruction Domain.
P 5	Creates a learning environment that encourages positive social interaction, active engagement in learning, and self-motivation.	1e 2a 2b 2c 2d 2e 3c	Designs coherent instruction. Creates an environment of respect and rapport. Establishes a culture for learning. Manages classroom procedures. Manages student behavior. Organizes physical space. Engages students in learning.
P 6	Uses knowledge of communication techniques to foster active inquiry, collaboration, and supportive interaction.	2a 3a 3b 3c	Creates an environment of respect and rapport. Communicates clearly and accurately. Uses questioning and discussion techniques. Engages students in learning.

P 7	Plans instruction based on knowledge of subject matter, students, the community, and curriculum goals.	1a 1e 3c 3e	Planning and Preparation Domain. Engages students in learning. Demonstrates flexibility and responsiveness.
P 8	Understands and uses formal and informal assessment strategies.	1b 1f 3d 3e 4a 4b 4c	Demonstrates knowledge of students. Assesses student learning. Provides feedback to students. Demonstrates flexibility and responsiveness. Reflects on teaching. Maintains accurate records. Communicates with families.
P 9	Reflects on teaching.	4a 4d 4e	Reflects on teaching. Contributes to the school and district. Grows and develops professionally.
P 10	Fosters relationships with colleagues, parents, and agencies in the larger community.	1d 4c 4d 4f	Demonstrates knowledge of resources. Communicates with families. Contributes to the school and district. Shows professionalism.

## IVR Scores and Teacher Standards

Finding a system of scoring which would select those persons who would clearly succeed in teaching, as distinguished from those unfitted for teaching or noticeably weak in professional prerequisites, was, in general, the idea behind implementation of the electronic screening system utilized by the districts studied herein. And certain desired results were expected to serve definitely to contribute toward answering the questions, "Is there a group of personality traits which seem to be significant factors of successful teaching?" and "Can those personality traits be measured?" In so far as empathy, enthusiasm, organization, commitment and fairness are essential in successful teaching, and in so far as they are measured by the IVR Profile, high scores on the test [ranging from 165 to 214 - See Appendix C, Attachment C for details on the IVR scoring design] imply good personality for teaching and low scores [ranging from below 150] imply poor personality for teaching.

Identifying potentially good and poor teachers, however, presents a crucial problem because standards of quality differ so markedly in different places, and personal qualifications of a teacher applicant are differently evaluated by different school

officials. One of the greatest needs in solving present problems of teacher evaluation is to establish definite, satisfactory criteria for success in teaching.

Pupil's improvement in achievement in standardized tests is but a limited part of the general proof of the quality of their teachers and of procedures they employ (Linn & Baker, 1994). Hence, other judgments in terms of quality teaching are necessary for understanding and interpreting teacher success. The measurement score of the IVR Personality Profile utilized by the electronic screening system studied herein is but one more way in which educators can narrow and identify standards of future success of teacher applicants.

## CHAPTER 3

### RESEARCH DESIGN AND METHODOLOGY

A qualitative methodology is selected to investigate the electronic screening process and its effects on the hiring of teachers. The structures and routines of the study are explained in four sections of this chapter. The first section discusses general aspects of research methodology, specifically, a mixed method case study. The second section describes the design and development of the interview questionnaire including the pilot studies. The third section explains the procedures used for participant selection, data collection and the methods of data analysis used. The fourth and final section of this chapter addresses the nexus between methodology, anticipated outcomes and data collected.



## Mixed Method Case Study

Specifically, a case study analysis is used. However, a mixture of research methods, in-depth interviews and audit-type archival documents are used to report the data within a classic, qualitative case study format. The rationale for the use of qualitative methodology is directly related to the purposes and questions of this study. The focus of qualitative research is on process, meaning, understanding and interpretation (LeCompte & Preissle, 1993). The subject matter of the study, however, calls for both subjective data [beliefs and attitudes of participants] and objective [numerical and statistical figures] to be combined into a mixture of thematic content analysis (Miles & Huberman, 1994).

A mixed method case study design was chosen for this study for reasons applicable to credibility, cost and time constraints. Decision-makers at the school district level tend to favor quantitative information because these policymakers are accustomed to basing funding decisions on numbers and statistical indicators. On the other hand, many stakeholders in the educational community are often skeptical about statistics and "number crunching" and consider the richer data obtained through

qualitative research to be more trustworthy and informative.

Therefore, the researcher gave careful consideration to the needs of the anticipated audience for this study.

A qualitative case study is often a very costly and time-consuming endeavor which requires intensive fieldwork. The time frame outlined for this study was six months, including data gathering and analysis. Because the process was inductive, the researcher did not truly know in advance what possible theories or postulates would emerge and what kinds of research would be discovered. Planning and preparation for inquiry were necessary, yet preset, inflexible modes such as those found in strictly quantitative studies were not feasible (LeCompte & Preissle, 1993).

Additionally, some researchers and scholars differ about the respective merits of mixing methods, using two approaches in one study. This is due largely because of different views about the nature of knowledge and how knowledge is best acquired. Many qualitative researchers argue that there is no objective social reality, that all knowledge is "constructed" by observers who are the product of traditions, beliefs, and the social and political environment within which they operate. And while quantitative

researchers no longer believe that their research methods yield absolute and objective truth, they continue to adhere to the scientific model and seek to develop increasingly sophisticated techniques and statistical tools to improve the measurement of social phenomena.

The qualitative approach emphasizes the importance of understanding the context in which events and outcomes occur, whereas quantitative researchers seek to control the context by using random assignment and multivariate analyses. Similarly, qualitative researchers believe that the study of deviant cases provides important insights for the interpretation of findings; quantitative researchers tend to ignore the small number of deviant and extreme cases (Greene, 1994). The researcher, therefore, endeavored to present both convergent and divergent themes as they emerged from the subjective and objective data sources.

Another consideration in the choice of methodology pertained to the realization that quantitative and qualitative techniques provide a trade-off between breadth and depth and between generalizability and targeting to context-dependent populations. Although the

objective data reported in this study is not classic quantitative research results, using statistical documentation aided the researcher in providing more accurate and valid employment information than simple subjective data might have otherwise offered. Furthermore, it is increasingly recognized that all data collection, quantitative and qualitative, operates within a cultural context and is affected to some extent by the perceptions and beliefs of investigators and data collectors (Miles & Huberman, 1994). With these preceding paragraphs as an explanatory rationale, the mixed method case study framework was chosen for this study.

#### Design and Development of the Interview Instrument

As various qualitative methods were considered for the subjective portion of this study, the strengths of the structured interview emerged. Spradley (1979) defines [ethnographic] interviews as a “series of friendly conversations” (p. 8). He suggests that the three most important elements in the interview are explicit purpose, explanations and questions. The content of interview questions in a structured interview is critical to the collection of

rich, meaningful information that can be used for insightful pattern finding and hypothesis building (Cohen and Manion, 1985).

Therefore, the researcher elected to use structured questionnaires.

Additionally, the questionnaire/interviews were preset, yet the exploration of participant answers remained open-ended.

Participants were instructed to speak truthfully and accurately about thoughts, feelings, attitudes and beliefs regarding the electronic screening system utilized within one's district. They were also informed that the questions asked were designed to assist them while speaking about the electronic screening process and were not meant to limit one's speech (Lareau & Shultz, 1996).

#### Participant Selection

Literature reviewed on research methodology indicated the most appropriate sample size for interview studies to be 15-25 participants (Lareau & Shultz, 1996; Creswell, 1994; Fetterman, 1988), indicating that redundancy of gathered information signals the end of data collection (Lincoln & Guba, 1985). Sample case studies examined showed various sample sizes, ranging from no less

than fifteen to no more than thirty participants as most often used in qualitative educational studies (Creswell, 1994).

On the other hand, Lincoln and Guba (1985) also assert that the sample size of a qualitative study cannot be predetermined. Some researchers maintain that the sample size is not as important as the information density and richness of the cases which are selected, observed and analyzed (LeCompte & Preissle, 1993; Lincoln & Guba, 1990).

There are twenty-six (26) cases [school districts] studied with each case adding to the collection of studies, bearing in mind each relation to the entire body of cases [school districts] studied. For instance, studying responses from several Directors of Personnel within a region education service center necessitated relating each of the cases together, attempting to cover the range of variables judged to be the most valuable in relation to the overall theme of study (Bartky, 1956), the electronic screening process.

The Region Education Service Center (ESC) chosen for this study has formed a Personnel Services Cooperative (PSC) with 26 out of 64 districts being served by the ESC. The Cooperative is a joint effort of all members involved with the objective of expediting the hiring

process in the most efficient and appropriate manner for each of the member districts. Of primary importance is ensuring that the teachers hired at each of the participating districts are the highest quality candidates identified by IVR scores and resume scans by the PSC electronic screening database.

As suggested by the title, this study uses qualitative measures to describe how an electronic personnel process affects the hiring of teachers within the human resources cooperative of a region education service center in Texas. Achievement of this purpose required reporting the meanings, interpretations, outcomes and attitudes surrounding the electronic employment process. These findings are outlined in detail in Chapter IV of this study.

#### Design of the Interview Schedule

Patton (1990), Spradley (1979), Schatzman and Strauss (1973) and LeCompte and Preissle (1993) advise investigators to consider carefully the content and scripting of interview construction. It is suggested that the questions be phrased and sequenced in such a way as to elicit specifically from the participants their knowledge of

factors in a situation, usually preceded by interrogatives such as who, what, when, where and how.

Eight questions were devised to elicit respondent's thoughts, feelings, attitudes and beliefs about four aspects of the implementation of the electronic screening system, i.e. the history and development of the system [chronological background experience and knowledge] and the advantages and disadvantages [opinions and values] of the system. These are included in the documents entitled, "Interview One" and "Interview Two", outlined in Appendix B. Two questions pertain to each of the four sections, i.e. history, development, advantages and disadvantages of the system. All eight questions are open-ended (Pelto & Pelto, 1978).

Twenty-six (26) prospective participants were electronically mailed two Consent Form(s), explaining the purpose of the study. Upon either manually or electronically signing and returning the researcher's form, participants were contacted to set an appointment for Interview One and Interview Two (See Appendix B - Actual Interview Documents).

The focus of the first interview included personal observations and memories of the history and development of the electronic



screening system. During the second interview, conducted at the same time, the researcher solicited personal attitudes and beliefs regarding the shortcomings and contributions of the electronic screening system. Participants were audio/visually photographed during both sessions. Coding of data was achieved by numerical/chronological order of interview as it was held for each session, e.g. 1-23.

It was requested from the participating districts that a total of three years of EEOC employment figures be made available for perusal. The Texas Education Agency web site provided ample documentation for these pertinent employment statistics. Additionally, Region Education Service Center Year-End Reports for each school district were also inspected and analyzed. Coding of data is by numerical/chronological order of report as it is inspected, e.g., 1-16.

Specifically, the purpose for looking at these documents was to present quantitative statistics in order to more validly determine the overall hiring changes which have occurred as a result of the electronic screening system. Additionally, information found within those documents is considered for inclusion in a comparison

analysis between traditional human resource practices prior to implementation of the electronic screening system and present technology-based human resource practices, both as they relate to the selection process of teachers.

### Demographics

The region education service center included in this study has 26 member districts and is located in central Texas. The smallest district has only one school, a student enrollment of 410 students and a faculty enrollment of 31 teachers. The largest district consists of more than 200 schools, has a student enrollment of more than 125,000 students and a faculty enrollment of more than 4,500 teachers. The average district student enrollment size within the region service center is 5800 students.

Ideal-typical case selection is a procedure in which the researcher develops a profile or model for the best, most efficient, most effective, or most desirable example of some population and then finds a real-world case that most closely matches the profile (LeCompte and Preissle, 1993). The education service center used

in this mixed method case study was chosen based upon favorable access and entry issues (Cozby, 1997), favorable mapping (Schatzman & Strauss, 1973) issues which revealed a cooperative picture of the social and physical environment of the group and favorable conditions for key informant interviewing due to the relative recency of the ESC's implementation of the electronic screening system.

#### Pilot Interviews

Five pilot studies were conducted with members of three other districts which presently use an electronic screening system. One respondent is presently a Director of Testing and Evaluation. One is a Recruitment Specialist. One respondent is a national sales consultant for an electronic screening system. Two respondents are employees of the Human Resources division within a public school district.

Four of the five respondents understood clearly and without confusion the intent and content of seven of the eight questions. One respondent did not understand Question Three of Interview

Two. The confusion of this question was confirmed in subsequent pilot interviews and, consequently, reworded for better comprehension and clarity. The pilot study allowed for practice of interviewing techniques and opportunities for clarification of the wording of questions before formal research began. Consistency was achieved by the primary researcher conducting all pilot interviews and actual interviews.

Timing of the pilot interviews resulted in a change from the originally planned format of two disparate interview sessions to a single interview session using both questionnaires during one session. Using this format during the actual interviews made in-person, one-hour videotaping easier to facilitate for inclusion of all the districts.

The pilot study also helped facilitate a planned, single interview schedule. All but one of the interviews was held on school district grounds, specifically the work offices of the participants. One interview was held in a hotel reception room. One of 24 scheduled interviews was canceled after the researcher made formal arrangements to meet. The geographic territory encompassed by the participating region equals an approximate 400 square-mile

area. Therefore, travel to each of the school districts for a second interview would have been both time-consuming and excessive.

#### Data Collection /Analysis

Data for this study was gathered in two ways: via videotaped interviews and via anecdotal information from inspection of documents which pertain to the hiring practices of each district. The Office for Regulatory Compliance approved the Human Subjects Proposal Submission for this study.

Although individual interpretation of the data is highly subjective, coding of data centers on whatever emerging themes and patterns were found by the primary researcher within the data. Specifically, in order to achieve equivalence in meaning and interpretation, Boolean search criteria sorting lexical [words, phrases] constructs into like, unlike and related categories was used. Developing typologies or categories then became apparent after transcribing one-quarter of the total interviews and involved locating recurring regularities in the data determining convergent and divergent data, and then establishing categories based upon the

data obtained. A secondary qualitative researcher was asked to check the coding categories and classifications of the primary researcher in order to achieve a greater degree of consistency (Creswell, 1994). Ordering methods as suggested by LeCompte and Preissle (1993) and Lincoln and Guba (1985) were employed. Emergent relationships, connections, linkages and nexi form the bases for further theory development.

Two software packages were used to develop the mechanical part of the analysis process, a decision which facilitated a much more flexible electronic procedure than traditional segmentation measures allow. The researcher used AppleWorks 5.0 to build a custom database for storing textual, numerical and scanned data, then performed preliminary coding of data segments in preparation for development of a classificatory scheme. The researcher then used NUD\*IST NVivo 4.0 to sort and collate data segments from imported and scanned textual documents into preliminary categories to facilitate their comparison and consequently the refinement of the classificatory scheme. Finally, the researcher used both databases for final segmenting and coding of the data, sorting and assembling the data segments into eight established categories

[topics by structured survey question] for summarizing and comparing category content in preparation for the discovery of linkages between and among categories.

## Methodology and Data

This study proposed to gather survey-style personal interviews of Directors of Personnel, Assistant Superintendents and Superintendents in decision-making positions regarding hiring of teachers. These participants would have experience in using an electronic screening system as a primary source for their district's employment process. It was suggested that these persons would share an in-depth description of the historical and developmental aspects of using this system, as well as more individualized opinions about the advantages and disadvantages of the electronic screening system versus a traditional screening system. It was anticipated that these human resource personnel members would share positive and negative, favorable and unfavorable attitudes, beliefs and thoughts about the system. It was also anticipated that these persons would report interviewing more minority applicants, report hiring more

minority applicants as a result of interviewing more minority persons and subsequently report a belief that the electronic screening system allows a higher quality teacher to be hired than when using a traditional employment screening process.

This study also proposed to analyze pertinent archival documents from the state, regional and district levels. It was anticipated that these audit-type, statistical reports would provide a corroborating source for determining general patterns of employment within the education region service center studied herein.

Subsequent data collected was organized by interviewee, by question and by document number. Participant responses were analyzed and classified into eight descriptive headings. Archival documents were analyzed and classified by year. Data results as outlined by subjective and objective sub-section are discussed in Chapter IV. The same data results are then related to the findings in the literature written in Chapter II and discussed in depth in Chapter V. Theoretical and practical implications for future research are also included in Chapter V.



## CHAPTER 4

### ANALYSIS OF DATA

This chapter focuses on analysis and interpretation of the data collected from the interviews, as well as pertinent employment summaries from both the Region Education Service Center (ESC) and the Texas Education Agency (TEA). All participants in the study were public school employees, specifically, either a Director or employee of Human Resources or a Superintendent with responsibility for hiring decisions within one of the 26 member school districts within the region service center in Texas.

Distance between Pennsylvania State University and Texas was a slight deterrent in carrying out the methodological framework for the study. Electronic communication, however, facilitated much of the footwork associated with completion of the Consent Form and setting actual interview appointments. Other concerns of the

participants focused upon issues relating to electronic communications, such as opening certain documents on the participants' computers and instructions for electronically signing consent forms. Those participants who were uncomfortable with the electronic document process were later asked to complete the necessary hardcopy paperwork in person just prior to the interview session.

The participants gladly accommodated the researcher's two-week trip and data-gathering time frame. Due to the expansive geographic area of the approximate 400 square-mile area served by the education service center, formal appointment times to conduct the interviews were made well in advance.

Without exception, participants seemed pleased with the electronic screening system and eager to share their thoughts, feelings, attitudes and beliefs about the system. Those unable to participate expressed not an unwillingness to assist, but a belief that their membership in the cooperative was so recent that they had nothing of significance to add to the study. Three districts had just joined the cooperative and four other district representatives indicated that they had either not yet hired a teacher using the

system or not used the system regularly, and therefore, preferred not to participate in subjective interviews for the study.

### Demographic Information

Texas's 1042 public school districts [an actual count of 1103 including 61 charter schools counted as individual districts] are divided into 20 geographic regions, each served by an Education Service Center (ESC). Within the ESC presented by this study there exist a total of 64 school districts. Only 26 school districts, however, are currently members of the Personnel Services Cooperative of the Education Service Center (ESC).

Descriptive data for participating school districts are pooled and are contained in Table 4.1. There is one (1) district represented with a student enrollment of 50,000 and over; one (1) with a student enrollment of 25,000 to 49,999; three (3) districts represented with a student enrollment of 10,000 to 24,999; seven (7) with a student enrollment of 5,000 to 9,999; one (1) with a student enrollment of 3,000 to 4,999; seven (7) with a student enrollment of 1,600 to 2,999; two (2) with a student enrollment of

1,000 to 1,599; an four (4) districts with a student enrollment of 500 to 999.

**TABLE 4.1**

**1999-2000 District Size Based Upon Student Enrollment on October 31 of Calender Year**

	50000 and Over	25,000 to 49999	10,000 to 24999	5,000 to 9,999	3,000 to 4,999
Districts in Texas*	10	23	47	68	88
Districts in Region+	1	1	4	9	4
Districts in Study#	1	1	3	7	1

	1,600 to 2,999	1,000 to 1,599	500 to 999	Under 500	<b>Total</b>
Districts in Texas*	124	123	222	400	1103
Districts in Region+	10	6	12	17	64
Districts in Study #	7	2	4	0	26

\* These figures include 1042 districts and 61 charter schools.  
+ These figures include 57 districts and 7 charter schools.  
# These figures include 26 districts and 0 charter schools.

R. S. Lewis, Educational Administration, Pennsylvania State University, May 2000; Gatekeeping for Children: How the Use of an Electronic Screening Process by a Human Resources Cooperative Affects Teacher Selection in a Region Education Service Center in Texas.

During the 1997-98 school year, which was the first year of implementation of the electronic screening database for the ESC, only 15 districts were a part of the ESC cooperative. This

membership count increased to 23 districts for the second year of implementation, 1998-99, and increased to 26 member districts for the current year, 1999-2000. All 26-member districts of the human resources cooperative of the ESC are represented in the current three-year employment data documents analyzed for this study. A total of 23 participants representing 16 school districts and the ESC Personnel Services Cooperative (PSC) itself volunteered to be part of the interview portion of this study. Table 4.2 outlines the gender, race, total years experience in public education, number of years experience in human resources and prior experience with an electronic screening system for each participant. Table 4.3 outlines the job description of each participant by title and gender.

**TABLE 4.2****CHARACTERISTICS OF PARTICIPATING PUBLIC SCHOOL  
EMPLOYEES**

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Variable		N = 23
Gender		
Female	-	12
Male	-	11
Ethnicity		
White/Euro American	-	21
African/American	-	1
Hispanic	-	1
Other	-	0
Public School		
Experience (Average Years)	-	23.65
Human Resources		
Experience (Average Years)	-	7.33
Prior Experience With		
Electronic Screening		
Yes	-	6
No	-	17

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NOTE: These figures represent the individuals who completed the interview portion of the study.

**TABLE 4.3****JOB DESCRIPTION OF PARTICIPATING PUBLIC SCHOOL EMPLOYEES**


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Variable	N = 23
<b>Job Description</b>	
Superintendent	- 2
Associate/Assistant Superintendent	- 5
Director of Human Resources	- 10
Employee of Human Resources	- 3
Employee of Education Service Center	- 3
<b>Gender by Job Description</b>	
Female Superintendent	- 0
Male Superintendent	- 2
Female Associate/Assistant Superintendent	- 0
Male Associate/Assistant Superintendent	- 5
Female Director of Human Resources	- 7
Male Director of Human Resources	- 3
Female Employee of Human Resources	- 3
Male Employee of Human Resources	- 0
Female Employee of Education Service Center	- 2
Male Employee of Education Service Center	- 1

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NOTE: These figures represent the individuals who completed the interview portion of the study.

## Content Questions

### Personal Descriptions of One's Individual Level of Involvement with the Electronic Screening Process

**Question # 1. Please describe your job responsibility (ies) and involvement with human resources during the implementation phase of the electronic screening system.**

Two separate tables are necessary to report the data generated from Question # 1 about job description and level of involvement with the electronic screening process. Twenty-three participants represent 17 school systems. The job description portion of Question # 1 is reflected in the demographics data reported in Table 4.3. Answers from the involvement portion of Question # 1 emerged into five categories as listed in Table 4.4.

Fifty-three (53) percent of the participants were members of districts who were originally involved with the 1997-98 first year implementation of the electronic screening system. Thirty (30) percent of the participants were either hired after the implementation had occurred or were transferred from a campus



**TABLE 4.4**

**LEVEL OF INVOLVEMENT WITH THE ELECTRONIC SCREENING  
SYSTEM**

<u>Categories</u>	<u>Interviewee Number</u>	<u>n</u>	<u>Total</u>
Part of Decision-Making Team to Bring the System to the Region	1, 2, 4, 5, 7, 12, 13, 16, 18, 21	10	
Part of Support Staff Whose Supervisors Helped Bring the System to the Region	6, 9	2	
Became Involved During the Second Year of Implementation, 1998-99	11, 14, 15, 19, 22	5	
Former Campus-Level Employee Now Working for Human Resources	17, 20	2	
Experience Somewhat Limited and Very Recent	3, 8, 10, 23	4	
Total Number of Responses			23

NOTE: These figures represent the individuals who completed the interview portion of the study.

position into the Human Resources department or administration after the implementation had occurred. Seventeen (17) percent were hired after the initial 1997-98 implementation had occurred and, therefore, not involved with any aspect of the implementation of the electronic screening process.

A variety of answers reflecting personal involvement with the electronic screening system were given for Question #1. One rather involved participant had this to say:

I am Asst. Superintendent for Human Resources Administration, one of three divisions for the district. I am basically responsible for hiring and placement of all personnel, paraprofessional, auxiliary and professional. I was originally contacted by \*\*\* \*\*\*\*\* of Region \*\* and was one of the original school districts that was involved in piloting this program, developing the IVR and I was involved in developing the coop, the entire concept that we are using now.

Comments regarding the round table discussions that occurred in the early phases of the PSC in an attempt to validate the IVR

scores (Interactive Voice Response) were also made. One participant disclosed having experienced doubt during the standardization process of the IVR, specifically, doubt regarding the reliability and validity of that scoring system, saying to oneself, "We are just a bunch of Personnel Directors. Are these questions really answered in the best way, or is this just our view?" This person also stated that, although the beginning phases of the system brought doubt, she has "since gone from being skeptical to being elated and I'm now very happy with the system". Another participant commented on how much he enjoyed the development meetings wherein the IVR scoring system was decided upon, while another participant agreed that the original group of Human Resource Directors worked cooperatively as a team on "the same agenda--hiring quality teachers".

Support staff members (8%) reported having no involvement in the implementation process. Each outlined their responsibilities as utilizing data entry skills for performing search requests after the decision to purchase the electronic screening system had been made.

Participants representing districts who signed onto the system during the 1998-99 school year (21%) generally commented about being contacted by one or more marketing representatives of the PSC to present the product to their district. Three of the five persons referred to their present or former Superintendent as the person responsible for convincing the board to make the decision to use the electronic screening system. One person referred to her immediate predecessor as the person who made this decision.

Two participants (8%) reported changing job responsibilities coincidental with implementing the electronic screening system. One person moved from a campus position into an administrative position with the Human Resources Department while another moved from a high school principal position into the district's Director of Human Resources position. Both reported doing much of the same work at the campus, i.e. selecting people to come for teacher interviews, as what each does now in their new position.

Participants new to their district (17%) expressed little or no involvement with the implementation phase of the electronic screening system because these persons were not employed within their respective district during the 1997-98 school year. Experience

was reported as having occurred after the decision had been made to purchase the electronic screening system for the district. Three of the four participants mentioned their immediate predecessor as the person responsible for bringing the electronic screening system to the district.

Personal Perspectives on the History of the Electronic Screening  
Process

**Question # 2. Think about the implementation process. What do you recall? Please give a brief history of the electronic screening process.**

Table 4.5 outlines the most frequently cited answers in rank order for Question # 2. People involved in the decision-making process did not enter into the field of electronic hiring without first conducting extensive research. Ten persons (44%) mentioned taking time to travel to visit other school districts, both in Texas and in the northeastern United States, to learn firsthand about the electronic screening system. One participant had this to say,

Well, what I recall is in October and November, we did a lot of visiting a couple of places that had electronic application systems, mostly down in Austin, talking to school districts that were using it ...and then, just pretty much trying to sell it to our school board, and to our principals, and the folks who were the decision makers here in the district. Once we did that, the implementation was actually, I thought, pretty painless.

Prospective teachers were very surprised when they learned that they did not have to complete a long, formal application process, only submit a resume. Eight participants (34%) mentioned this teacher surprise as occurring during job fair and university fair recruitment activities or during conversations held with prospective teachers in actual on-the-road interviews.

Seven participants (30%) described the history of the electronic screening system in their district with reference to gaining support from district principals, board members and community members. Two persons mentioned having the ESC make presentations to their school board to show them exactly what a prospective teacher would

do to access the system. Two others mentioned going to the ESC for training and learning how to access the system themselves.

Six participants (25%) spoke at length about their involvement with the original round table of human resources directors who collectively brought the system to the region. These comments included descriptions of how a group of representatives from both the ESC and the company that produces the electronic screening database came to their meeting and “walked us through the development process for the screening questions”.

One participant explained how the round table implementation team demonstrated the system to his staff using an example of a principal who wanted to hire a journalism teacher with two years of yearbook experience. “The system brought up 120 applicants who were English certified; but we wanted the person to have a journalism degree. That narrowed the search down to only 10 candidates. Then we wanted the person to have two years of yearbook experience, so that dropped it down to only 3. Then we gave a score ranking on the IVR and presented the top three candidates to the principal at that very moment.”

**TABLE 4.5****BRIEF HISTORY OF THE ELECTRONIC SCREENING SYSTEM**

<u>Categories</u>	<u>Interviewee Number</u>	<u>n</u>	<u>Total</u>
Spent Time Looking At Other Systems	1, 2, 3, 4, 5, 6, 7, 12, 18, 21	10	
Teachers Were Surprised About The New System	1, 6, 8, 9, 11, 12, 14, 16, 18	9	
Needed to Sell the Idea to Boards, Principals, and other Decision-Makers	2, 12, 13, 16, 18, 21, 22	7	
Mentioned Being Part of Original Round table	5, 6, 9, 10, 18, 21	6	
Abruptly Stopped Taking Applications	1, 2, 8, 9, 13, 18	6	
Changed Many Persons' Roles and Responsibilities	4, 15, 17, 18, 19	5	
Total Number of Responses			43*

NOTE: These figures represent the most frequently cited answers in rank order.

\*Participants gave more than one answer.



Six other participants (25%) discussed the quickness of the system's official district use. This was described as an abrupt halt to taking applications on one proscribed day and beginning to tell applicants that they had to now go through the ESC resume submittal process to be considered for employment within their district. One participant said, "Now that we don't collect applications, our staff is ready to deal with interviewees only. We don't spend time dealing with superfluous issues. There was an immediate change, no plan B. We just went with it. We just went cold turkey and now we aren't collecting paper anymore."

There were additional comments made by five participants (21%) regarding the changes made within the human resources department. One participant said the department consisted of fifteen people prior to the system and that now they have only four persons in the department. Two other participants of this group of five discussed the reduction in their interviewing, explaining that this function is now being done by campus principals. One participant said that his department might not have voted to go with the system if they had realized in advance that it would change many person's roles and responsibilities. This person commented

on how difficult it is to ask a person who has been performing customary work one way for many years to change and ask them to begin doing something else. After the fact, however, after the system was implemented and they got online, then he reported that his staff “began to see all kinds of advantages to using the system.”

Additionally, two participants described the initial startup implementation as “hectic”. One of these same persons mentioned intense personal frustration due to the fact that all extracting and verifying of candidates was done exclusively by the ESC, but also admitted that there was “probably a very good reason for doing it that way.”

Personal Thoughts on the Development of the  
Electronic Screening Process

**Question # 3. Think about the development of the electronic screening process, that is, how it has changed from year to year. Please give a brief account of how your responsibility (ties) and involvement have evolved, grown or changed during this time.**

Table 4.6 outlines the most frequently cited answers in rank order for Question # 3. Ten participants (44%) of twenty-three total participants spoke of not having to conduct as many one-on-one interviews using the system as they conducted prior to using the electronic screening system. This was mentioned by two participants as being true due to the system as well as being due to site-based management techniques aimed toward giving the individual campus greater local control over hiring decisions. One participant explained her response in this way:

I do a lot less interviewing now... Before I screened most of the candidates that went out to the campuses. That has turned around completely now... Because of the fact that principals are able to access the resumes now, that has changed my responsibilities for interviewing... It has saved a tremendous amount of time for me... We were getting too big and the turnover was too great... and it was getting to where I couldn't do that much pre-screening.

Nine participants (40%) discussed that the system has changed how they get the information and how they request information. Two participants of these nine stated that the telephone interview (IVR) has not changed, but that access to results has expanded. Before the system came online with the ability for principals to access the resumes directly from their personal computers, the secretaries in human resources were duplicating the hard copies faxed to them by PSC data entry personnel.

Seven participants (30%) frankly stated that their responsibilities have not changed. They reported that the paper management process, however, is more streamlined now. One participant said that he still does all the same things he did before the system, but that the system simply removes the paperwork aspect of “shuffling files and digging for information”.

**TABLE 4.6****DEVELOPMENT OF THE ELECTRONIC SCREENING SYSTEM**

<u>Categories</u>	<u>Interviewee Number</u>	<u>n</u>	<u>Total</u>
Conduct Fewer Interviews	2, 4, 5, 11, 15, 16, 17, 18, 20, 21_	10	
Possess Faster Access to Information	3, 6, 9, 10, 11, 13, 14, 15, 16	9	
Electronic Process Is More Refined Today Than Three Years Ago	7, 9, 10, 13, 15, 18 20, 22	8	
Ability to Search Online	1, 3, 4, 11, 12, 14, 15, 21	8	
Role Has Not Changed	1, 9, 10, 16, 18, 20, 22	7	
Ability to Create Paperless Files	3, 7, 9, 11, 21, 22	6	
Former Process Cumbersome	3, 7, 10, 11, 15	5	
Monthly Peer Meetings	7, 11, 12, 13, 14	5	
Total Number of Responses			58*

NOTE: These figures represent the most frequently cited answers in rank order.

\*Participants gave more than one answer.

In direct support of this thought regarding an improved paper management process, six other participants (25%) commented on the ability to create paperless files. Again, this viewpoint was presented as an advantage in “helping tremendously to curtail the paperwork process.” Seven participants (30%) frankly stated that their responsibilities have not changed. They reported that the paper management process, however, is more streamlined now. One participant said that her district does not require applicants to complete any paperwork whatsoever until after they have gone through an interview with the principal. She said, “There’s nothing to keep up with once the resume has gone to the PSC.”

In direct support of this thought regarding an improved paper management process, five other participants (21%) discussed the ESC’s former fax transmittal process as being inconvenient or cumbersome. The system is now updated from three years ago and what was formerly a fax process for communicating between the PSC and districts is now all Internet-based. Several participants openly expressed satisfaction with the present online system.

Five participants (21%) mentioned the peer consultation that occurs at monthly PSC member meetings. These participants felt

that when the member districts get together for meetings, they have an improved “camaraderie which allows us to reach consensus on most issues.” One participant said she looked forward to getting together with her colleagues for feedback on whatever is going on in her office at that time.

One participant outlined the changes she had made to her district listing in the PSC employment brochure, saying that she “fine-tuned” things for a better response, including deleting the district 800 number because this was confusing for applicants, not knowing if they should call the Region ESC or her district. She also added the district’s increased salary schedule to the brochure during the second year, as well as added their newly created web site address. All of these changes to this written recruitment tool, she felt, had brought about positive responses.

Another participant described in detail the changes to the electronic screening system search screens, what actually comes up on the computer screen whenever a principal or human resources employee makes a teacher request. She enumerated changes such as follows: adding certification information, rewording the format, adding teacher preferences as to what grade level a teacher desires

to teach and adding the correct answer to IVR questions directly underneath the information for how individual applicants scored. All these upgrades had improved the system tremendously from her point of view.

Personal Perceptions of Changes to the District As A Result of the  
Electronic Screening Process

**Question # 4. What, in your opinion, has been the most obvious changes to the human resource department and to the district as a result of the electronic screening system?**

Table 4.7 lists the most frequently cited answers in rank order for Question # 4. Twelve participants (53%) mentioned the reduced paperwork as one of the most obvious changes to the Human Resources department. Eight of these twelve mentioned no filing cabinets or reduced paper flow as their number one response to this question. One participant described changes to the human resources department in the following way:



It has made the paper flow non-existent. We don't have paper flow... We don't have to go through file drawers... Everything is more streamlined... We can do a search and pull up a variety of people for a certain position... so if we have 3,000 applicants in the system... then we don't have to go through 22 file drawers... We can search automatically and immediately for the criteria the district needs for a position...

Ten participants (44%) talked about general increases in operational efficiency as a result of the electronic screening process.

Two participants expressed disbelief that they could have successfully handled the volume of new staffing for their district had it not been for the new system. One participant commented that he felt the system was the sole reason that this year they had experienced the lowest number of teacher vacancies on the first day of school than they had experienced for at least four to five years.

Ten participants (44%) mentioned the increased applicant pool and eight participants (34%) said that this increased applicant pool

**TABLE 4.7**

**CHANGES TO THE DISTRICT AS A RESULT OF THE ELECTRONIC  
SCREENING SYSTEM**

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<u>Categories</u>	<u>Interviewee Number</u>	<u>n</u>	<u>Total</u>
Reduced Paper Flow / No File Cabinets	2, 4, 6, 7, 9, 11		
	12, 13, 14, 17, 18, 22	12	
Increased Efficiency of Operation	3, 4, 6, 7, 10, 12, 13		
More Streamlined/Organized	14, 18, 23	10	
Increased Applicant Pool	5, 7, 10, 13, 14, 15		
	6, 20	8	
Easier to Find Applicants for Hard-To-Fill Teaching Areas	2, 3, 4, 5, 7, 12		
	14, 23	8	
Faster Turnaround Time	2, 3, 4, 14, 21, 23	6	
Total Number of Responses			44*

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NOTE: These figures represent the most frequently cited answers in rank order.

\*Participants gave more than one answer.

made it easier to recruit teachers for the hard-to fill areas, such as special education, math and science. Four of these persons

attributed the increased applicant pool, in part, to the fact that everyone in the PSC (Personnel Services Cooperative) actively recruits by handing out the brochure on behalf of all the members.

Six participants (25%) discussed the speed of the electronic screening system, saying that a faster turnaround time made it possible to get so much more accomplished in a shorter time frame. One participant said that the system is able to put a prospective teacher in front of a hiring principal within 5-10 days after completing the IVR (Interactive Voice Response), an “unheard of turnaround time” when compared to the past.

One participant said she wants to do all hiring this way, including paraprofessional and auxiliary hiring. Another participant commented that she “would never consider changing back” [to the way things were before the electronic system]. Two persons mentioned enjoying the improved communication between districts as a result of the monthly PSC meetings. One participant said he felt that he was now getting a true evaluation of everyone, indeed a higher level applicant from the very beginning. One director mentioned feeling as if she is competing with the larger

districts for potential teachers, but also admitted that they would be competing with each other for those same teachers anyway [without the electronic system being used]. One participant simply said, “Each year the system is getting easier and easier to use”.

Personal Beliefs Regarding the Disadvantages of  
The Electronic Screening Process

**Question # 5. Think about the day-to-day use of the electronic screening process. What do you think are the shortcomings of the system? Specifically, give a brief account of these thoughts as they apply to teacher selection.**

Table 4.8 outlines the most frequently cited answers to Question # 5. Quite a surprise to the researcher, the most frequently cited answer to this question was “no shortcoming at all”. Six participants (25%) gave this as their initial response. One participant went on to say, “I wouldn’t be using it if there were significant shortcomings.”

One participant explained his thoughts as follows:

We don’t use it day-to-day. We use it only when we need to post a vacancy, perhaps only once or twice during the school year and four or five times at the end of the

school year... There aren't really any shortcomings... only ...if someone isn't familiar with the electronic process to access it or post vacancies--that might cause a problem. But we have been trained on that... And it has been updated recently... and it is terrific, so we aren't realizing any significant shortcomings.

Five participants (21%) made reference to a complication which occurred most often during the early weeks of the hiring season, a frustration that involved a call to prospective teachers only to discover that they had already been hired by another district. This, in turn, lead to a discussion amongst member districts regarding the definition of what is officially being “hired”. Following that, then a subsequent decision was made to put in place a procedure for notifying the ESC when each district had offered a contract to a teacher and a teacher had verbally accepted that offer.

Five participants (21%) expressed concern over the loss of personal contact with prospective teachers. One Assistant Superintendent said that this continues to be the problem with an electronic snapshot of a candidate, the loss of one-to-one contact with these

**TABLE 4.8**

**DISADVANTAGES OF THE ELECTRONIC SCREENING SYSTEM**

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<u>Categories</u>	<u>Interviewee Number</u>	<u>n</u>	<u>Total</u>
No Shortcomings	1, 3, 13, 14, 15, 18	6	
Lack of Notification Procedure When an Applicant Has Already Been Hired	5, 7, 16, 20, 23	5	
Loss of Personal Contact	2, 10, 17, 21, 23	5	
Extraction of Reports Done Exclusively by Region ESC	3, 5, 6, 9, 11	5	
Principals Not Comfortable Enough With Technology To Operate the System	7, 10, 14, 21, 22	5	
Total Number of Responses			26*

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NOTE: These figures represent the most frequently cited answers in rank order.

\*Participants gave more than one answer.

persons. Another participant said, "The biggest shortcoming is not having a person with that piece of paper. We just have a piece of paper that doesn't have a personality. We are looking at numbers

and written information. Something might be concealed below that. It might be a really great teacher, but we can't see it from the paper, for some reason, say someone who just scored two points below our minimum search criterion. So that's a limitation and a disadvantage."

Five other participants (21%) talked about their feelings of loss of control because the ESC extracts search queries and exclusively finalizes all reports sent back to the member district. One participant said he thought the ESC got bogged down with so many requests coming in from the districts that the ESC often did not respond in the time frame he wanted. At one point, he said, the wait time was as much as five to six days before results for an applicant search were returned to him. Another participant also said that she realized that the ESC could only handle so many requests at one time, but that the system was notoriously slow in the beginning.

Five participants (21%) recognized that principals within their district did not know how to operate the computer equipment well enough to experience positive feelings about using the new electronic screening system. One participant said that the principals

“really had to think about what they wanted in a prospective teacher and make a list of attributes they wanted the teacher to possess. The database might contain 200 names for a given teaching field, but because the principal did not know how to narrow search criteria, how to be specific, they backed away completely from using the system.”

Another participant agreed that the system requires certain knowledge of technology in order to be effective. He said,

We have a great number of people who aren't comfortable with the technology yet. We have a great number of principals who don't use it all. I would venture to say that they have somebody on their staff make the request, download the resumes, print them out for them, and then they go from there with the hardcopy. It's because they are uncomfortable with the technology. And all the technology is pretty simple, as you know.

Two participants revealed that they think it is one's district location that is the shortcoming, not the electronic screening



system. One Superintendent had this to say: “folks don’t want a 65-mile one way commute to a teaching job.” He elaborated with, “If we were located closer to Austin, then I think we would be reaping a greater number of people from this system.”

Other disadvantages were seen as problems with the IVR itself. One participant said that it would be easy for a teacher to get confused and answer the IVR questions in reverse, say, “get confused and think five (5) is most appropriate and one (1) is least appropriate and answer the entire questionnaire in reverse”. Another applicant said that the IVR is “still just a test, just a screen, not a 100% accurate predictor.”

One Assistant Superintendent commented that the entire process is “one huge change”. Another Director of Human Resources stated that are used to the way they’ve always done things, “you know, the TTWWADI approach, meaning, “That’s The Way We’ve Always Done It”. They both concluded that they feel that change, in general, is difficult for school administrators.

One participant said that a disadvantage may be that it is possible that her district receives more applicants who apply on a whim but aren’t truly interested in moving to her district, simply

because it is so easy to apply now. Two participants complimented the ESC for changing and remedying the format and access problems they experienced early on. One participant said, “It is confusing because it is so simple.” Another applicant said, “It’s only as good as the people using it”.

Personal Feelings Regarding the Advantages of  
The Electronic Screening Process

**Question # 6. Think about the contributions of the electronic screening process, that is, what advantages it offers to you personally and what advantages you feel it offers the district. Specifically, give a brief account of these thoughts as they apply to teacher selection.**

Results for Question # 6 are reported in Table 4.9. Eleven of 23 participants (48%) mentioned feeling as if the entire hiring process had benefited from the larger pool of applicants now available to them through the electronic screening system database.

Specifically, seven persons mentioned that principals have a greater number of individuals from which to choose and this provides a

higher quality applicant than before. One participant reported with the following words:

...Sitting here at my desk I have a world of applicants ...  
The advantage to the principals is that they can screen  
directly at their desk with a greater amount of  
information than they would otherwise find on an  
application, especially with the IVR... It also opens up an  
opportunity for us to screen teachers in hard-to-find  
areas, like math or minority teachers... So we think we  
are able to find better teachers that would better serve  
our students.

Additionally, five participants discussed the system's ability to specify exactly the type of teacher qualifications necessary for a position. Three of these mentioned that, because the system can be searched by subject area, it is easier to find teachers for hard-to-fill teaching positions, such as special education, math, science and technology-related fields. Two other participants mentioned that electronics allows principals to better plan for personnel units. One

participant said that it allows principals to be more involved in the hiring process and facilitates a stronger embrace of technology.

Five participants (21%) mentioned cooperative coverage of in-state and out-of-state job fairs as a distinct advantage. The PSC brochure, which lists all 26 member/districts, is used as a recruitment tool and, as one participant explained, “gives all the member districts an equal chance of being chosen by an applicant.”

Similarly, an applicant can apply to more than one district with only one resume. Four participants (17%) commented on this feature of the system as a decided advantage for prospective teachers.

Three directors mentioned that the system allows them the advantage of seeing a preliminary sketch of a candidate’s strengths and weaknesses without having to delve into anything concrete or confirming directly with that person. One Director of Human Resources said he likes the system because it raises his personal esteem with his principals, offering them a technology package that represents cutting-edge recruitment practices.

Other mentioned advantages included a sense of heightened collegiality in Human Resources, saving money on postage and

**TABLE 4.9**

**ADVANTAGES OF THE ELECTRONIC SCREENING SYSTEM**

<u>Categories</u>	<u>Interviewee Number</u>	<u>n</u>	<u>Total</u>
Provides a Larger Base of Applicants for Principals	5, 9, 10, 13, 15, 16, 17, 19, 21, 22, 23	11	
Quick Turnaround Time	1, 4, 9, 10, 11, 12, 13, 21	8	
Allows For Narrow Search Criteria	2, 7, 14, 15, 23	5	
Cooperative Coverage of Job Fairs	7, 18, 20, 21, 23	5	
Applicants Can Apply to Several Districts With One Resume	10, 13, 17, 22	4	
Total Number of Responses			33*

NOTE: These figures represent the most frequently cited answers in rank order.

\*Participants gave more than one answer.

a reduced paperwork flow, as well as the fact that now principals don't have to physically go down to the HR office to look at files.

Personal Viewpoints Regarding Other Factors Which Influence  
The Electronic Screening Process

**Question # 7. What other things does your district do in order to increase the number of people in the applicant pool and how do you think those other factors affect the subsequent pool?**

Eleven participants (48%) discussed their district's continued attendance at local job fairs as affecting the number of people in the electronic screening system database, the most frequently cited answer to Question # 7, as reported in Table 4.10. Three of these participants mentioned attending out-of-state job fairs in addition to attending local and in-state job fairs.

Seven interviewees (30%) clearly viewed active recruitment activities as increasing the applicant pool, however, without exception, these same persons did not want the researcher to share details about these innovative techniques within the contents of this study. The general feeling seemed to be that the combination of their creative recruitment strategies and the electronic screening system is what equals a successful, aggressive campaign toward

enlisting a larger number of applicants into the system. One participant gave the following opinion:

We have not stopped doing all of our recruitment efforts. We go to job fairs. We go to universities where they may have an onsite job fair there. Or we may just go there because they have good graduates coming out of the education program...and we go there and specifically we'll interview at the university...We do go where we advertise in the newspaper..... We try to still stay as active and involved as possible to give us a wide variety of avenues to search for applicants.

Six participants (25%) mentioned the PSC Brochure as a positive factor. One member said that being able to offer full-time day care facilities and a child development program from infancy through kindergarten convinced some applicants to submit a resume and join the database. Another person mentioned that her district offers a signing bonus. Yet another person mentioned tuition reimbursement as a perk. Some of these benefits, such as 100% paid medical insurance, are listed in the brochure and are viewed

**TABLE 4.10**

**OTHER FACTORS WHICH INFLUENCE THE ELECTRONIC  
SCREENING SYSTEM**

<u>Categories</u>	<u>Interviewee Number</u>	<u>n</u>	<u>Total</u>
Attend Job Fairs	1, 2, 3, 6, 9, 14, 16, 18 20, 21, 22	11	
Use Creative and Active Recruitment Efforts	1, 2, 3, 4, 5, 10, 11	7	
Hand Out the Region Brochure During Various Functions	3, 9, 11, 16, 22, 23	6	
Post Job Vacancies on the Internet	11, 15, 18, 20, 21	5	
Maintain Alternative Teacher Certification Programs	1, 2, 4, 14, 22	5	
Maintain Internship Programs with Area Universities	13, 14, 15, 21	4	
Advertise Acute Shortages in Newspapers	11, 18, 21	3	
Total Number of Responses			38*

NOTE: These figures represent the most frequently cited answers in rank order.

\*Participants gave more than one answer.



by some participants as ultimately affecting persons' decisions to submit a resume.

Five participants (21%) discussed using the Internet to advertise job vacancies. Whenever a potential teacher responds to the advertisement, they are directed to the ESC for processing into the database. Organizational web sites cited included the Texas Association of School Boards, the Texas Association of School Administrators, Tools for Teachers, Job Track and various coaches and professional organization's web sites.

Five other participants (21%) mentioned having either an in-district Alternative Teacher Certification Program or using the ATCP of the Region ESC as a means whereby additional applicants were included in the electronic screening system. One recruiter said, "We do a very aggressive recruiting program with the Alternative Certification Program, one in our district and also one with the Region \*\*\* folks. We are actively recruiting people into our ACP program. So we are looking for people in all sorts of places, both inside the box and outside the box." Another person said, "We get so many minorities through our Alternative Certification Program." Additionally, it may be of interest to the reader that the

aforementioned comments were made by representatives of districts with enrollments of greater than 10,000 students.

Four participants (17%) mentioned their ongoing relationships with area university teacher preparation programs as a positive factor which brings student teachers, block program cohorts [college course credit for on-site work at a campus] and interns to their districts. These students are encouraged to submit a resume through the ESC when nearing graduation.

Three participants (13%) mentioned advertising acute shortages in urban-area newspapers, feeling that this method brought additional applicants into the system. Three participants (13%) discussed their location as a “blessing” in bringing in applicants. Two persons (8%) mentioned the use of web technology, specifically, the ESC web site’s new resume builder, as a possible factor affecting the applicant pool.

Moreover, three districts said they don’t have any problem getting enough teachers or applicants for their district. They offered such insights as holding one’s own district job fair, absorbing some of the “runoffs of Chamber of Commerce relocation

advertising” and encouraging their employees to tell others about their district as methods which they feel increase the applicant pool.

Personal Thoughts Regarding Minority Teacher Selection via  
the use of the Electronic Screening Process

**Question # 8. Do you think an electronic screening system affects minority teacher selection in your district? Why or why not?**

Three tables are required for reporting the data from Question # 8, Tables 4.11, 4.12 and 4.13. Table 4.11 is a listing of the number of “Yes” and “No” responses elicited by Question # 8. Tables 4.12 and 4.13 report the “Why” and “Why not” responses to Question # 8.

Eleven participants of twenty-three (48%) thought that the electronic screening system does affect minority teacher selection in their district. One participant answered in the following way:

[I think it increases it... I don't think we have search  
criterion by ethnicity. I've never even approached](#)

that... But I think we have a greater access to minorities  
now.....

**TABLE 4.11**

**IS MINORITY TEACHER SELECTION AFFECTED BY THE USE OF AN  
ELECTRONIC SCREENING SYSTEM?**

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<u>Categories</u>	<u>Interviewee Number</u>	<u>n</u>	<u>Total</u>
Yes	2, 4, 7, 10, 12, 13, 14 15, 17, 18, 22	11	
No	1, 3, 5, 6, 11, 16, 19, 20, 23	9	
Don't Know	9, 21	2	
Didn't Answer	8	1	
Total Number of Responses			23

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NOTE: These figures represent the individuals who completed the interview portion of the study.

Nine participants of twenty-three (40%) thought that minority teacher selection is not affected by the system. One participant explained her reasoning with the following words:

No, not negatively or positively. [Why?] Because there are so few minority teachers in education and the personnel departments are looking for them.

Two persons (8%) said they really did not know if the system affected minority teacher selection or not. One person (3%) did not answer.

Of the eleven who said they thought the system affected minority teacher selection, six of those participants said that the system increases the total number of applicants in the pool. Theoretically, they said, this would automatically increase the number of minority applicants in that same pool of candidates as well as their chances of hiring more minority teachers. One participant had this to say:

I have not seen it affect it [minority hiring] at this point. We are a small district and we don't have massive numbers...we might hire three or four minorities per year... I have noticed that we get a lot more qualified

minorities by being a part of that [the cooperative] because... that makes our pool much larger...which would help us in minority recruitment.

Five participants of the eleven explained that they feel minorities have an equal chance as white persons of being hired as a teacher within the PSC. Four participants of the eleven said that they think minorities are very impressed with the electronic screening system's ability to send them a follow-up postcard and to handle an over-the-telephone personality test. They think this encourages minority teachers to want to be a part of the cutting-edge system. Three participants of the eleven said that the system helps them get recognized by minorities who might otherwise not even know about their district. One Director of Human Resources said, "Some people have never even heard of \*\*\* [his district's name]. Minority candidates will at least be given a chance to know who we are."

**TABLE 4.12**

**WHY PARTICIPANTS FEEL THAT MINORITY TEACHER  
SELECTION  
IS AFFECTED BY THE ELECTRONIC SCREENING SYSTEM**

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<u>Categories</u>	<u>Interviewee Number</u>	<u>n</u>	<u>Total</u>
Increases the Number of Minority Applicants In the System	6, 7, 13, 16, 18, 20	6	
Feel That Minorities Have An Equal Chance of Being Hired	1, 3, 6, 11, 23	5	
Minorities Are Impressed With System's Technology	2, 12, 14, 17	4	
Helps Get District Recognized With Minorities	14, 15, 18	3	
Gets Minority Applicants Into The System Immediately	4, 12	2	
Total Number of Responses			15

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NOTE: These figures represent the individuals who completed the interview portion of the study.

Two participants of the eleven said they feel that minority teacher selection is affected by the system because it gets minorities into the system immediately. One participant explained, “The only thing that it [the system] does is that it gets people into the system right away. And everyone is after minority teachers right now. And the faster you get into the system, the faster you get hired. That’s the only way that it really helps, but I think that it does help.”

The nine participants who said that minority teacher selection is not affected by the system are listed in Table 4.13. Each person emphasized that they don’t know in advance from perusing the resume, IVR score or fact sheet if a person is a minority or not. One participant said,

I don’t think it really affected selection [because] you don’t know if that person is perhaps representing a minority group or not until that person comes for the interview. In our system that we had before, we didn’t enter that information. So it wasn’t until the applicant showed up [for a face-to-face interview] that we found out the ethnicity.



**TABLE 4.13**

**WHY PARTICIPANTS FEEL THAT  
MINORITY TEACHER SELECTION  
IS NOT AFFECTED BY THE ELECTRONIC SCREENING SYSTEM**

<u>Categories</u>	<u>Interviewee Number</u>	<u>n</u>	<u>Total</u>
Don't Know Candidate Is A Minority	1, 3, 5, 6, 7, 10, 16, 17, 23	9	
Fewer Minorities Entering The Teaching Profession	1, 7, 11, 12, 13, 14, 21	7	
Everyone Having Difficulty Hiring Minority Teachers	7, 10, 18, 21	4	
System Reports Verify the Small Diversity of Pool	1, 7	2	
Don't Receive Minority Applications from Job Fairs	19, 22	2	
Total Number of Responses			24

NOTE: These figures represent the individuals who completed the interview portion of the study.

Another participant said, “We can’t even search by ethnicity in this electronic data base. We have no way of knowing who [whom] is a minority until that person comes for an in-person interview. So how could it really affect anything?” Seven of the nine cited national trends toward a reduction in minorities entering the teaching field as the real reason why there are so few minorities in the system. Four participants of the nine commented that everyone is having difficulty hiring minority teachers, not just in Texas. Two participants said they rarely ever even receive an application from a minority at a job fair, and if they do, the person is already hired by the time they are contacted. Two other participants said that the ESC reports validate for school board members and community members that there really aren’t that many minorities available for hiring through the electronic screening system. This idea was seemingly offered as an explanation for why Human Resources officials have not increased minority numbers in the teaching forces of their districts. Eight of 23 participants (34%) commented that they “actively” try to recruit and hire minority teachers.

## Closing Thoughts Regarding the Electronic Screening System

### **Question # 9. Is there anything else you would like to add?**

There were only positive comments made. Two participants (8%) made no comment. One participant had a pressing time constraint, a scheduled meeting with his Superintendent and the other participant used the time to comment on a book he is trying to publish. Eighteen of 23 participants (79%) used the final moments of the interview to reiterate the advantages of the electronic screening system. Three persons (13%) said that the only disadvantage of the system is having people unfamiliar with technology. One of these said,

...If a person isn't computer literate, then it doesn't work. Fear is the worst part, of course... Most personnel offices have some sort of a computer networking system. This is the year 2000. But for those who may not, you have to be networked and hooked up to make the system work. It cannot work via fax to some third location...

That is too time-consuming. So you have to be somewhat computer literate to make this system work.

Three other participants (13%) commented on their plans to continue using the system “as long as the ESC remains receptive to our concerns” and two persons (8%) said they wanted to give the system more use during the next school year. Only one person (4%) expressed dubious intention toward renewing the district contract with the Region Education Service Center for the next school year. He said, “I don’t know what we’ll do in the future”.

#### Archival Document Analysis

Documents inspected and analyzed for use in this study include pertinent employment summaries from both the Education Service Center (ESC) and the Texas Education Agency (TEA). The reports are categorized by calendar year, indicating the first, second and third years of the existence of the electronic screening system within the region education service center, i.e. 1998, 1999 and 2000.

Table 4.14 lists the document names and the coding types used to report results from therein. Summarized excerpts from these reports are outlined and included in subsequent tables. A brief overview of each of these tables and the results reported therein now follows.

Table 4. 15 entitled, “Counts of Resumes Received and Resumes With Completed IVR Calls By Month” lists the total number of resumes received by the Personnel Services Cooperative by month and year. It also reports the total number of persons who completed the IVR to become an “applicant” (See Definition of Terms on page 8 in Chapter I.).

**TABLE 4.14**

**LIST OF DOCUMENTS INCLUDED IN THE  
ARCHIVAL ANALYSIS OF THIS STUDY**

<u>Year</u>	<u>Document Name</u>	<u>Document Number-Origin</u>
1996-99	Texas Education Agency AEIS Data	1- TEA
1998	All Applicant Count with IVR	2 - ESC
	New Hire Average IVR Score	3 - ESC
	Texas Education Agency Snapshot	4 - TEA
1999	All Applicant Count with IVR	5 - ESC
	New Hire Average IVR Score	6 - ESC
	Number of Resumes Sent to Districts	7 - ESC
	New Hire By District	8 - ESC
	Number of Resumes Sent to Schools	9 - ESC
	Texas Education Agency Snapshot	10 - TEA
2000	All Applicant Count with IVR Score	11 - ESC
	New Hire Average IVR Score	12- ESC
	Number of Resumes Sent to Districts	13 - ESC
	New Hire By District	14 - ESC
	Region *** PSC Fee Structure	15 - ESC
	<a href="#">Sample Applicant Requisition # 1 and # 2</a>	16 - ESC
Total Number of Documents		16

NOTE: These documents represent the district, region and state level Equal Employment Opportunity information available at the time of research publication date, May 31, 2000.

Table 4.16, entitled, “Comparison Report of Total Number of Applicants by Ethnicity”, lists the total number of persons who completed the IVR by ethnicity to become an “applicant” (See Definition of Terms on page 8 in Chapter I.). This report reflects the overall percentage increases in applicants during the three-year existence of the electronic screening system within this region education service center.

Table 4.17, entitled “Comparison Report of Total Number of New Hires by Ethnicity”, reports the total of number of applicants by year and by ethnicity that were hired by one of the member districts.

Table 4.18, entitled “Comparison Report of Average IVR Scores of New Hires by Ethnicity”, reports the average score of the total number of applicants by year and by ethnicity that were hired by one of the member districts.

Table 4.19, entitled “Comparison Report of Texas Education Agency Snapshot Data By Year for the Region \*\*\* Education Service Center”, reports the changes in the ethnicity of the teacher work

force for all 64 school districts located within the region education service center

Table 4.20, entitled, “Comparison Report of Texas Education Agency AEIS Data by Year for the Member Districts of the PSC of Region \*\*\* Education Service Center”, reports the changes in the ethnicity of the teacher workforce within the 26 member districts of the region education service center.

Table 4.21 entitled, “Comparison Report of Texas Education Agency AEIS Data by Year By School District Size”, reports the changes in the ethnicity of the teacher workforce within all 1103 school districts in the state of Texas.

Table 4.22 entitled, “2000 Personnel Service Cooperative Fee Structure Based Upon Average Daily Attendance (ADA) Counts of the Previous School Year” tells about the pricing and fee structure for membership in the personnel services cooperative and for using the electronic screening database.



**Table 4.15 Comparison Report of Counts of Resumes Received and Resumes With Completed IVR Calls By Month for Three Years: 1998, 1999, 2000**

	1998		1999		2000	
	Resumes Recvd.	IVR Completed	Resumes Recvd.	IVR Completed	Resumes Recvd.	IVR Completed
<b>January</b>	0	0	219	191	499	390
<b>February</b>	164	87	443	402	829	703
<b>March</b>	849	717	983	896	1559	1137
<b>April</b>	1190	1026	1389	1108	1626	914
<b>May</b>	1165	986	1859	1436	1056	262
<b>June</b>	975	780	1797	1237		
<b>July</b>	537	408	1024	711		
<b>August</b>	175	142	476	364		
<b>September</b>	81	68	193	123		
<b>October</b>	109	92	199	162		
<b>November</b>	222	158	434	283		
<b>December</b>	114	90	236	174		
<b>Yrly Totals</b>	5581	4554	9292	7087	5569	3406
<b>3-Yr. Totals</b>					<b>3-Yr. totals</b>	<b>3-Yr. Totals</b>
					20402	15047

R. S. Lewis, Educational Administration, Pennsylvania State University, May 2000; Gatekeeping for Children: How the Use of an Electronic Screening System by a Human Resources Cooperative Affects Teacher Selection in a Region Education Service Center in Texas.

**Table 4.16 Comparison Report of Total Number of Applicants by Ethnicity for Three Years: 1998, 1999, 2000**

	1998	1999	2000	% Change
	Region ***	Region ***	Region ***	
<b>Did Not Take IVR</b>	6		1	
<b>African American</b>	54	131	415	+ 768%
<b>American Indian/Alaskan</b>	13	26	47	+ 361%
<b>Asian/Pacific Islander</b>	28	26	72	+ 257%
<b>Declined to State Ethnicity</b>	150	88	260	+ 173%
<b>Hispanic</b>	229	237	625	+ 272%
<b>Multiracial</b>	42	33	95	+ 226%
<b>White</b>	2437	2457	5618	+ 230%
<b>Region ***</b>	2959	2998	5054	+ 170%

**Table 4.17 Comparison Report of Total Number of New Hires by Ethnicity for Three Years: 1998, 1999, 2000**

	<b>1998</b>	<b>1999</b>	<b>Overall Change</b>	<b>2000 YTD</b>
	Region ***	Region ***		Region ***
<b>*Did Not Take IVR</b>	73	75		9
<b>African American</b>	15	153		18
<b>American Indian/Alaskan</b>	6	10		1
<b>Asian/Pacific Islander</b>	6	14		3
<b>Declined to State Ethnicity</b>	37	57		9
<b>Hispanic</b>	54	191		23
<b>Multiracial</b>	8	30		4
<b>White</b>	570	1492		126
<b>Region *** Minority Hires</b>	89	398	<b>+ 8.1</b>	49
<b>Total New Hires</b>	769	2022		193

R. S. Lewis, Educational Administration, Pennsylvania State University, May 2000; Gatekeeping for Children: How the Use of an Electronic Screening Process by a Human Resources Cooperative Affects Teacher Selection in a Region Education Service Center in Texas.

**Table 4.18 Comparison Report of Average IVR Score of New Hires by Ethnicity for Three Years: 1998, 1999, 2000**

	<b>1998</b>	<b>1999</b>	<b>2000</b>
	Region ***	Region ***	Region ***
<b>*Did Not Take IVR</b>	0	0	0
<b>African American</b>	180.53	174.77	168.67
<b>American Indian/Alaskan</b>	177.83	173.8	185
<b>Asian/Pacific Islander</b>	178	178.37	178
<b>Declined to State Ethnicity</b>	173.11	176.34	177.08
<b>Hispanic</b>	173.07	175.11	165.7
<b>Multiracial</b>	179.63	175.82	177.75
<b>White</b>	177.83	176.02	174.97
<b>Region *** Minority IVR Avg.</b>	177.81	175.57	175.02
<b>Total New Hires IVR Avg.</b>	177.14	175.74	175.31

**TABLE 4.19**

**Comparison Report of Texas Education Agency Snapshot Data  
by School Year for the Region \*\*\* Education Service Center**

	1994-95	1995-96	1996-97	1997-98	1998-99	% Change
<b>TEACHERS</b>						
Teacher Turnover Rate	12.5	12	12.6	13.8	15.4	+ 2.9 %
% African-American	4	4	4	4	4	0 %
% Hispanic	10	10	10	10	11	+ 1 %
% White	86	85	85	85	85	- 1 %
% Other	0	1	1	1	1	+ 1 %

R. S. Lewis, Educational Administration, Pennsylvania State University, May 2000; Gatekeeping for Children: How the Use of an Electronic Screening Process by a Human Resources Cooperative Affects Teacher Selection in a Region Education Service Center in Texas.

**TABLE 4.20**  
**Comparison Report of Texas Education Agency AEIS Data by**  
**Year for the Member Districts of the Personnel Services**  
**Cooperative of Region \*\*\* Education Service Center**

District	District Size	Percent of Minority Teachers				% Change
		1996-97	1997-98	1998-99	1999-2000	
District A	5,000 to 9,999	13.5	12.2	12.4	14	+ 0.5
District B	5,000 to 9,999	13.3	15	16.8	20.6	+ 7.3
District C	5,000 to 9,999	4.4	5.1	4.5	4.5	+ 0.1
District D	5,000 to 9,999	9.1	11.4	12.3	13.7	+ 4.6
District E	1,000 to 1,599	4.8	3.1	1.3	3	- 1.8
District F	500 to 999	1.8	1.9	0	0	- 1.8
District G	3,000 to 4,999	6.1	6.5	7.9	7	+ 0.9
District H	500 to 999	5.4	5.6	1.6	1.2	- 4.2
District I	5,000 to 9,999	10.3	12.2	12.7	13	+ 2.7
District J	10,000 to 24999	9	9	11	12	+ 3.0
District K	25,000 to 49999	7.9	7.7	8.2	7	- 0.9
District L	Under 500	0	0	0	0	0
District M	5,000 to 9,999	24.6	25.4	26	27.9	+ 3.3
District N	5,000 to 9,999	12.3	13.8	14	11.7	- 0.6
District O	1,600 to 2,999	13.7	16.7	18.6	16	+ 2.3
District P	1,600 to 2,999	7.6	9	7	13	+ 5.4
District Q	500 to 999	3.6	3.3	4.4	3.8	+ 0.2
District R	1,000 to 1,599	4	2.8	4.4	8.9	+ 4.9
District S	1,600 to 2,999	8	6.9	5.8	5.8	- 2.2
District T	1,600 to 2,999	8.2	9.6	8.5	17.2	+ 9
District U	3,000 to 4,999	12.9	11.2	12.8	12	- 0.9
District V	10,000 to 24999	4.9	5.6	6.5	6.8	+ 1.9
District W	1,600 to 2,999	13.7	13.7	10.3	16.6	+ 2.9
District X	1,600 to 2,999	1.7	1.7	2.4	2	+ 0.3
District Y	10,000 to 24999	26.9	27.3	28.3	25.4	+ 1.4
District Z	50,000 and Over	33.7	33.3	34	34	+ 0.3
Average %		10.2	10.5	10.6	11.5	+ 1.3

**TABLE 4.21**  
**Comparison Report of Texas Education Agency AEIS Data by**  
**Year By District Size for 1103 School Districts in Texas**

	Percentage of Minority Teachers				
	50000 and Over	25,000 to 49999	10,000 to 24999	5,000 to 9,999	3,000 to 4,999
1997	41	20	35	18	15
1998	42	21	35	19	14
1999	42	22	35	19	16
Percentage Change	+ 1	+ 2	0	+ 1	+ 1
	1,600 to 2,999	1,000 to 1,599	500 to 999	Under 500	State Total*
	1997	16	9	7	8
1998	16	10	7	8	25
1999	16	11	8	11	25*
Percentage Change	0	+ 2	+ 1	+ 3	+ 1

\* This figure includes 61 charter schools.  
Charter schools in Texas reported 53 percent minority teachers in 1999.

R. S. Lewis, Educational Administration, Pennsylvania State University, May 2000; Gatekeeping for Children: How the Use of an Electronic Screening Process by a Human Resources Cooperative Affects Teacher Selection in a Region Education Service Center in Texas.

**TABLE 4.22**

**1999-2000 Personnel Service Cooperative Fee Structure Based Upon  
Average Daily Attendance (ADA) Counts  
of the Previous School Year**

	50000 and Over	25,000 to 49999	10,000 to 24999	5,000 to 9,999	3,000 to 4,999
Initial Membership Fee	.40 ADA	\$ .40 ADA	\$ 12,500	\$ 10,000	\$ 7,500
Annual Maintenance Fee	\$ 1.00/ADA	\$ 1.00/ADA	\$ 15,000	\$ 12,500	\$ 10,000
	1,600 to 2,999	1,501 to 2,000	1,001 to 1,500	500 to 999	Under 500
Initial Membership Fee	\$ 5,000	\$ 4,000	\$ 3,000	\$ 2,500	\$ 1,500
Annual Maintenance Fee	\$ 6,500	\$ 5,000	\$ 3,000	\$ 2,500	\$ 1,500
<p>Districts wishing to join the PSC pay a one time membership fee and a recurring annual maintenance fee. The schedule for both fees is based upon the refined Average Daily Attendance Counts of the previous year as determined and reported by the Texas Education Agency.</p> <p>The membership fee is charged to allow the ESC to recapitalize on its one time investment in hardware and software necessary to promote the program.</p> <p>The maintenance fee is annual and involves staff and licensing renewal costs, as well as program additions.</p>					

R. S. Lewis, Educational Administration, Pennsylvania State University, May 2000; Gatekeeping for Children: How the Use of an Electronic Screening Process by a Human Resources Cooperative Affects Teacher Selection in a Region Education Service Center in Texas.

## CHAPTER 5

### FINDINGS, DISCUSSION, IMPLICATIONS

The demand for accountability of public schools in the United States has increased over the past 20 years. In particular, the report entitled A Nation at Risk: The Imperative for Educational Reform (1983) heightened public awareness of schools, student achievement and school systems. Many states have responded to the subsequent criticisms and demands by adopting state academic standards and by revising both appraisal procedures of and professional development requirements for teachers. Some have responded by restructuring governance toward greater flexibility and local control at the building and district levels, by adopting new instructional practices and by improving the teacher selection and dismissal processes.

This study examined how a school system in Texas addresses the area of improvement of the teacher selection process. Specifically, this study focused on how the Texas system has sought to improve the teacher selection process with the use of an electronic screening system.

The data collected during this study was guided by several research questions which were categorized into four distinct areas: (a) the history of the electronic screening system, (b) the development of the electronic screening system, (c) the disadvantages of the electronic screening system and (d) the advantages of the electronic screening system.

This study included an eight-question interview schedule (See Appendix B of Actual Study Documents) answered by 23 participants representing 16 school districts and a region education service center (ESC) in Texas. The Directors of Human Resources, Superintendents and Assistant/Associate Superintendents and employees of Human Resources and the ESC who participated in the interview portion of this study gave responses based upon their individual thoughts, feelings, attitudes and beliefs.



Participant answers and statistical data revealed several corroborating themes as reported from the emergent categories outlined in Tables 4.1 - 4.22 in Chapter IV of this study. Resulting themes as outlined by subjective and objective sub-section are discussed below.

## Findings

Both verbal data [subjective] and numerical data [objective] are reported. Subjective data is based upon participant answers to the interview questionnaire (Appendix B - Actual Research Instruments). Objective data is based upon statistical figures reported in pertinent archival documents (See Table 4.14 on page 110 of Chapter IV).

### **Positive Perception of the New System Among Participants**

Subjective. As evidenced by the fact that there were only four (4) comments made by participants which could be construed or evaluated as negative out of a total of 82 pages of word processed verbal transcripts taken from a total of 12.5 hours of videotape, the researcher concluded that the general attitude is positive and that participants had accepted the electronic screening

system. Occurrences of the words “like”, “advantage” and “use” further support this idea. Additional elaboration such as, “I just don’t think we could do it any other way now” and “This system is the greatest thing that’s ever happened to us [Human Resources Department]” further support the overall acceptance of the electronic screening process.

Two of the four comments which might be interpreted as negative, however, were made in connection with early implementation problems. Two comments were decidedly negative, both participants openly stated that they had not experienced satisfactory results, one comment presumably based upon the “competitiveness” of the shared database and the other comment based upon the result of “hiring only one teacher this past year”.

Objective. Documents # 2, 5 and 11 indicate that every member district (100%) was sent applicant requisitions during the calendar year, specifically 15 districts in 1998 and 23 districts in 1999 and 26 districts in 2000. Document # 3 indicates that 14 out of 15 member districts (93%) hired at least one teacher from the electronic screening system in 1998. Document # 6 indicates that 19 out of 23 member districts (83%) hired at least one teacher from

the electronic screening system in 1999. Document # 12 indicates that 8 out of 26 member districts (31%) have hired at least one teacher from the electronic screening system to date for the calendar year 2000. Collectively, these figures indicate an overall positive response for use of the electronic screening system.

**Increased Operational Efficiency of the Human Resources Department As A Result of the Electronic Screening System**

Subjective. A significant reduction in paper, whether paper applications, resumes, copies of transcripts and certifications or correspondence, has taken place. Paper files have nearly been eliminated by the electronic communication system. According to 53% of participants, reduced paperwork is one of the most obvious changes to the Human Resources Department as a result of the electronic screening process. What was once hardcopy paper files have been transformed into electronic files, including scanned, faxed, emailed and Internet-posted documents.

Metal filing cabinets for teacher files have been nearly eliminated, too, since storage has been delegated to the region education service center. Now every applicant's complete history

file is archived electronically by the electronic screening database, so there is no need for bulky, physical paper backup files.

Human Resources personnel have more time for other duties now that they are not absorbed with one-on-one interviewing sessions. Forty-four percent of participants said they now conduct fewer interviews. A combination of the use of the electronic screening system and the Texas Senate Bill One shift to site-based decision-making has placed the onus of hiring upon each campus principal. Therefore, the Interview Phase of the employment process has been, in most districts, logistically removed from the Human Resources Department to the campuses.

Objective. Research presented in Chapter II indicates that the average time period between when a teacher submits an application using the traditional screening process and when he or she is finally interviewed using the traditional screening approach to be about 62 days (Ponessa, 1997). By comparison, an electronic screening usually requires between 2 days to 10 days, a much shorter cycle for this Pre-interview Phase of the employment process.

## **Effective Staffing Requires Both Creative Recruitment Strategies and the Electronic Screening System**

Subjective. Seven participants (30%) mentioned that their district still maintains the use of creative and active recruitment efforts. The responses indicated that the combination of creative recruitment strategies and the use of the electronic screening system together provide a successful method by which the applicant pool is increased. Seventy-nine percent of participants mentioned using other creative strategies in addition to using the electronic screening system.

Objective. The literature reviewed in Chapter II indicates that use of an Alternative Teacher Certification Program (ATCP) increases the number of available prospective teachers. Teachers with alternative certification are more likely to have bachelor's degrees in math and science. Teachers with alternative certification are also more likely to be members of minority groups. Twenty-one percent of participants mentioned having either an in-district Alternative Teacher Certification Program or using the ATCP of the Region ESC as a means whereby additional applicants are recruited for inclusion in the electronic screening system.

According to Riley (1999), various states are using many devices by which to attract outstanding college graduates to the teaching profession. Seventy-nine percent of participants in this Texas-based study described various creative recruitment approaches as methods for increasing the applicant pool, such as unique forms of advertising and ongoing community liaisons with area universities. Additionally, 48 percent of participants mentioned attending job fairs as the primary method by which their district acquires applicants for inclusion in the electronic screening database.

Research (Haertel, 1999; Raths, 1999; Bowslaugh, 1993; Darling-Hammond & Wise, 1987) has suggested that one way to improve education is to improve the quality of educators, teachers and administrators. Although not conclusive, the electronic screening system may be a method or strategy that can contribute to quality improvement in the educators selected. An electronic screening system makes objective criterion the bases for hiring skilled classroom educators (Ponessa, 1997).

## Electronic Screening Alone Isn't the Answer to Low Minority Numbers

Subjective. Thirty percent of participants reported knowledge of nationwide decreases in the number of minority graduates from teacher colleges, a fact which also decreases the number of minorities available for this electronic screening database. Statements such as, “There just aren't enough minorities [teachers] to go around” and “We have such an extreme shortage of minority teachers” further support this idea.

Additionally, the literature reveals that the decline in the number of minority teachers appears to result from several other factors: increased career opportunities in other fields, the growing use of teacher competency testing and dissatisfaction with the teaching profession. One participant told a lengthy story about how a minority teacher's aide had been lured away from a fellow Texas district by a large computer firm after the young man learned more advanced technology skills. One participant commented on the tendency of the IVR scores to “clump” around a specific mid-range and not give as discerning of a profile on minority or non-minority candidates as he would like. Seventeen percent of participants

reported comments such as “Everybody is having difficulty hiring minority teachers” and “Unfortunately, the pool of minority teachers in Texas is not that large”. One participant went on to say, “Those graduates that are coming out are being jumped on by everyone”.

Additionally, what the system does not address are some of the other possible reasons for the Texas teacher shortage. One participant described the situation as follows: “The shortage of minority candidates is universal, but more so here just because of teacher pay issues, and that’s not just minorities, that’s true especially in math, science, technology, special education, etc. But more so here in Texas due to teacher pay issues, I think.”

Another area not directly addressed by the electronic screening system concerns how to successfully recruit potential teachers into the database. One participant felt that reporting increased salary schedules in the PSC brochure is a positive way to attract teachers, particularly from lower-paying, neighboring, southern states such as Louisiana, Mississippi and Kentucky. Two other participants mentioned active out-of-state job fair attendance as being another potential way to decrease teacher shortages.



Objective. Table 4.16 reports an overall increase of minority teacher applicants within the electronic screening system. During 1998, the first year of implementation, the system contained 366 persons who stated their ethnicity as minority. One hundred and fifty persons declined to state their ethnicity. This figure of 366 represented approximately 12 percent of the total number of applicants in 1998. By the year 2000, the system reported containing a total of 1254 persons who stated their ethnicity as minority. Two hundred and sixty persons declined to state their ethnicity. This figure of 1254 represented approximately 24 percent of the total number of applicants, an increase of 12 percent in three years.

Table 4.17 reports an overall increase of minority teacher new hires from the electronic screening system. During 1998, the first year of implementation, member districts hired 89 persons from the electronic screening system who stated their ethnicity as minority. Thirty-seven new hires declined to state their ethnicity. This figure of 89 represented approximately 11.6 percent of the total number of new hires (769) in 1998. By the year 1999, the system reported a total of 398 minority new hires. Thirty-two persons declined to

state their ethnicity. This figure of 398 represented approximately 19.7 percent of the total number of minority new hires (2022), an increase of 8.1 percent in one calendar year. Year 2000 data is reported, however, it is not included in this comparison since the 2000 data includes only year-to-date (May 31, 2000) minority new hires.

Documents 3, 6 and 12 indicate that the average number of teachers hired per district per year are as follows: 55 teachers per district for 1998; 61 teachers per district for 1999; 13 teachers per district to date for 2000. The average number of minority teachers hired per district per year are also reported as follows: six minority teachers per district in 1998; 21 minority teachers per district in 1999; and 5.2 minority teachers per district year-to-date for 2000.

These aforementioned document analyses clearly indicate that the electronic screening system is bringing more minority applicants to the attention of the district hiring authorities and providing a larger applicant pool, in general, for available teaching positions within the member districts. What the system does not address, except inadvertently, are the overall teacher shortages in Texas.

According to the Texas Education Agency and the National Center for Education Statistics, approximately 18,000 students will graduate from Texas teacher preparation colleges in May of 2000. But the projected demand is for approximately 26,000 positions, highly concentrated in the fields of math, science and special education. This anticipated 8,000-teacher deficit is not directly addressed by the use of an electronic screening system. In so far as the system works with a faster turnaround time which may ultimately impress technologically astute, recent college graduates, and in so far as the system helps smaller, geographically remote school districts get recognized with prospective teachers, the system seems to be helping in these areas.

#### **Human Bias Does Not Influence the Electronic Screening System**

Subjective. Forty percent of participants said they did not feel that minority hiring in their district is affected by the electronic screening system simply because they don't know a candidate is a minority. "You can't tell by the resume, sometimes you can tell over the phone, and then, sometimes we don't know [if

that person is of minority ethnicity] until we see that person face-to-face,” is how one participant responded. Two other participants discussed their inability to search within the database by ethnicity, saying that qualifications and IVR scores are always the criterion upon which they base a hiring decision.

This idea of reduced human bias is supported by the literature which states that, during the electronic screening process, the resume is the sole paper credential submitted. In contrast, during a traditional selection process, a human interviewer would be assigned to peruse the resume and other paper credentials and uses this information to make an initial screening decision. It is this type of subjective decision-making that has been widely recognized as a fault of the traditional selection process (Arvey & Faley, 1994).

Objective. Researchers have identified numerous biases that affect the perceptions formed by evaluators during the Pre-interview Phase of the traditional selection process (Reis, Young & Jury, 1999; Oliphant & Alexander, 1982; Arvey, 1979; Muchinsky & Harris, 1977). As reported in Chapter II, some of these biases include stereotyping by gender, race and age. Inspection of Document # 16 (samples of [Applicant Requisition](#) documents)

provided by the ESC indicate that Human Resource personnel with hiring authority do not have access to Equal Employment Opportunity (EEO) data about prospective teachers during the Pre-interview Phase of the employment process.

An Applicant Requisition lists required and desired fields for a particular teaching position within a school district. An Applicant Requisition does not list gender, race or age of the matching candidates. Because an Applicant Requisition does not provide specific EEO data, possible biases cannot be formed based upon this information and cannot, therefore, result in stereotyping of an applicant.

## Discussion

As evidenced by strong supporting documentation listed in Table 4.19, Table 4.20 and Table 4.21, teacher ethnicity percentages have changed very little during the past three to five years on either the state, region or district levels in Texas. On the state level, small districts (less than 500-student enrollment) have predictably shown the largest percentage increases at an average of three percent

statewide. School districts with 10,000 to 24,999 and 25,000 to 49,999 student enrollments have shown an average of two percent increases in minority hiring. Remaining districts of varying sizes have experienced either no change or a one percent overall increase in minority hiring over a three-year time frame.

On the region level for the region education service center studied herein, again, very small percentage increases have occurred during the past five years. African-American teacher percentages remain static at a flat four percent. Hispanic teacher percentages have increased one percent, from 10 to 11. The “Other” category, which comprises Asian, Native American and Multiracial ethnicity, has also remained relatively static at a flat one percent.

At the district level for the region education service center studied herein, again, a somewhat small overall percentage increase is reported for the four-year time frame from the 1996-97 school year through the 1999-2000 school year. An average 1.3 percent increase took place, increasing from reported 10.2 percent minority teachers in 1996-97 to 11.5 percent minority teachers in 1999-2000.

Looking at individual districts, dissimilar to state figures, the district showing the largest percentage increase in minority hiring during the past four years is an average-sized district, District B with a student enrollment of 5,000 to 9,999, increasing from 13.3 percent to 20.6 percent, an overall increase of + 7.3 percent. (The average district size for the PSC is 5800 students.) Similar to the state figures, the next two ranked districts showing the greatest percentage changes in teacher ethnicity during the past four years are small districts: District P with a student enrollment of 1,600 to 2,999, increasing from 7.6 percent to 13 percent, an overall increase of + 5.4 percent; and District R with a student enrollment of 1,000 to 1,599, increasing from 4 percent to 8.9 percent, an overall increase of + 4.9 percent. All three districts (B, P and R) joined the PSC in the first year of the Cooperative, during the 1997-98 school year.

Put more succinctly, teacher ethnicity increased by 1.3% at the district level, by 1% at the region level and by 1% at the state level for the three to five years outlined. Statistical data such as this indicates minor change and is mirrored in similar small percentage increases in the at large business community.

A final topic for consideration is the obvious absence of divergent themes as reported herein. The researcher specifically categorized classificatory themes by job description, as outlined in Table 4.3, for a possible comparison between the responses given by Superintendents or Assistant Superintendents and Directors of Human Resources. The researcher found no significant differences in the historical, developmental, advantageous or disadvantageous information shared amongst participants. As evidenced by high percentage participant responses as outlined within the eight classificatory themes, participant answers were more reflective of convergent theme analysis than divergent. For this reason, no divergent themes between participants were explored.

#### Implications for Future Research

Proceeding on the basis of importance of teaching standards in both the selection and retention of quality teachers, an inexorably overlooked nexus between an applicant's Pre-interview Phase IVR score and a subsequent PDAS appraisal score becomes apparent. [The PDAS appraisal score is ascribed when a Texas principal



conducts an annual or biannual classroom evaluation with a teacher and is based upon Texas' Learner-Centered Proficiencies, state adopted teacher standards as outlined by Senate Bill One in 1995.] The electronic screening system studied herein does not presently link pre-employment and post-employment evaluation scores. Therefore, it seems apparent that future validation of how well the system is working and is actually contributing to the improvement of teacher selection would need to be established using this sort of longitudinal framing.

At present, another large district located in the northeastern United States which uses a similar electronic screening system, reports having an ongoing evaluation system which does connect pre-employment and post-employment data with national teaching standards. Their system has been in place since the 1993-94 school year, rendering them several years of teacher applicant data. Aligned with a very structured evaluation system and national teaching standards, the longitudinal data generated allows the district to conceptualize a valid baseline-to-date history of each teacher's potential [pre-employment] success and actual [post-employment] success in the job.

Scientific validation of how well the electronic screening system is actually working within the Texas school system would necessitate combining both pre-employment scores and post-employment evaluation scores into a continuous matrix. In other words, in order to empirically validate the IVR Profile, the PSC of the region education service center studied herein would need to retroactively connect original IVR scores to how those teachers are being rated from year to year by their principals in their job as a teacher. This would also necessitate that the original IVR scores are connected to measurements made by the Texas' Professional Development Appraisal System (PDAS).

Another consideration for future research involves the wide appeal of an electronic screening system and the almost unlimited potential for market penetration in the public school domain. As of May 31, 2000, according to marketing representatives of the two largest and most widely recognized electronic database companies in America, Resumix and Restrac, only seven large school systems in America have presently adopted this system. The implementation history includes unnamed school districts in Virginia, Washington, Arizona, Texas, Michigan and, most recently, a district in California.

Considering the fact that government budget surpluses formed as a result of the Taxpayer Relief Act of 1997 make education America's single largest outlay of non-defense, discretionary spending (\$86 billion in 2000), it seems that there is much growth potential within the education sector for electronic screening systems. Likewise, there is tremendous potential for future research studies about how this electronic version of resume scanning combined with personality testing is affecting hiring on all levels of education, not simply teacher selection in the K-12 domain.

The benefits of using a resume-scanning database with research-backed interviews provide a segue into another aspect of electronic media: online recruitment via the Internet. In the "old days", prior to public access to the World Wide Web and such computerized conveniences as electronic mail and online search engines, the best way to advertise an open position or to find gainful employment was through traditional selection means, i.e. newspapers and word-of-mouth referrals. Employee selection research today, during the first year of the new millennium [2000], is now expanded to include all sorts of online documentation.

The ESC in this study has already included a resume builder, a form-based script located on their web site. This resume builder allows any prospective teacher applicant with Internet access to electronically submit a resume into the database. This, literally, opens the job market to the entirety of the www globe. Or as one participant explained, "I now have a whole world of applicants sitting here at my desk."

Based on the rationale provided, several recommendations are proposed for future research. This study could be conducted as a large-scale randomized controlled experiment. Districts using an electronic screening system and districts not using an electronic screening system could be contrasted for comparable results in speed, efficiency and cost. The investigator could manipulate various explanatory variables so as to assess their effects on one or more dependent or response variables.

This study could be conducted as a Campbell & Stanley (1966) prototype, using a strictly quantitative methodology, such as a 2 x 2 x 2 multi-dimensional Analysis of Variance with an electronic emphasis. The investigator could utilize statistical data compiled by a relational, multi-tasking database to determine the effects of

Internet-based recruitment, Internet-based response times or Internet-based correspondence on multivariate dimensions such as speed, efficiency and cost of the electronic screening system.

Another methodological approach for consideration is an ethnographic field study using one large district, qualitatively tracing all aspects of the cultural phenomenon of implementing, using and maintaining the features of an electronic screening system. The researcher could use a variety of techniques to amass pertinent data.

The same region education service center in Texas could be studied in the future. This study could be conducted after the Personnel Services Cooperative has added the use of an audio-taped telephone interview that uses text-searching or artificial-intelligence software to rank applicants. It could also be conducted after the PSC has added software to track pre-employment IVR scores with post-employment appraisal scores, or after the present IVR profile has been updated for greater differentiation and discernment in scoring. These three updates could be studied for greater depth and further insight into how the use of an electronic screening system improves the quality of teacher selection.

## Limitations

The subjective and objective data as identified, coded and presented by any qualitative methodology may raise issues of credibility and trustworthiness concerning comprehensiveness of information and interpretation of data. Concerning the topic of credibility, truths differ from one individual to the next and, according to Wolcott (1990), each individual included in a qualitative study may hold varying and contradictory notions of truth about any given subject when asked to elaborate with personal opinions and beliefs. Dean and Whyte (1958) also struggled with the issue of truth. They reported that the principle for conducting inquiries is at the heart of all claims about knowledge and the processes for factual reporting, but that absolute certainty of the truth was impossible for a qualitative researcher. In other words, truth seems quite subjective.

Although truth continues to be an appropriate goal for qualitative research, Merriam (1988) states that the qualitative researcher need not be interested in truth per se, but more interested in human perspectives. It is the qualitative researcher's challenge to demonstrate the superiority of the qualitative mixed

method case study over the more traditional, strictly statistical approach in discovering positive effects of educational innovations by presenting richer, more fully detailed interpretations of truth (Creswell, 1994). It is the opinion of the primary researcher that the persons studied herein based their responses upon individual thoughts, feelings, attitudes and beliefs and that each person sincerely responded with what he or she believed to be truthful and honest answers to each of the interview questions. Furthermore, the collective interpretations reported herein are representative only of those specific participants and, as with most qualitative case study designs, not meant for replication.

Aside from the commonplace limitations of a qualitative case study, some study-specific limitations also exist. The most apparent limitation within the scope of this study was an inability to gather conclusive objective data for the third year of the existence of the electronic screening system, year 2000. While it is the opinion of the researcher that presenting both subjective and objective data analysis was an innovative approach, it remains that some of the numerical data was incomplete and did not, therefore, yield as conclusive of results as might have otherwise occurred had this

study been conducted later in the year. Year-to-date data regarding total number of applicant requisitions sent to the districts, total number of new hires and total number of minority new hires, in particular, remains incomplete since only five months of 2000 data is available (January through May, 2000).

Another limitation involves the obvious hesitance to share information on the part of the company representatives who manufacture the electronic screening system. When asked certain questions about validation processes for the IVR, or asked just how the entire electronic process was developed and patented, the standard response was that the requested information was “proprietary” or “unpublished”. In an effort to clarify such issues as validity, reliability and legality, the researcher made extensive attempts to gather specifics regarding these subjects. Requests for further information, however, were declined.

Additionally, in an effort to remain in perspective regarding the analytic process of the mixed method case study, the researcher admits that the findings outlined herein are interpretive, perhaps idiosyncratic and most definitely context dependent. There are many variables; therefore, it cannot be said with complete certainty



that the researcher's findings are explicitly correct. The primary researcher can merely ascertain, with complete confidence, that participant corroboration, theoretical and empirical consistency, rigorous review by several peers and profound, personal reflection were used to write the evaluative and interpretative findings. Additionally, the researcher asserts that these paragraphs were intended to provide an open gateway toward scrutiny, assessment and further discussion.

## Conclusion

It seems clear that, in so far as the use of an electronic screening system is concerned, without effective recruitment practices and informed recruitment policies, most public school districts will continue to fail in significantly altering the complexion of existing teacher workforces (Young, et al, 1997).

Although wide variations in the quality of hiring systems may account for part of the racial inequity in public school districts, it remains evident that minorities are still underrepresented. Minority students now make up approximately 30 percent of the elementary

and secondary school-age population, while the number of minority teachers has fallen to only 13.3 percent in 1991 (Snyder & Hoffman, 1991).

The electronic screening system removes gender, age and race from Pre-interview Phase mandatorily-gathered information. Thus, use of the electronic screening system means making objective criterion such as personality profile scores and actual teaching certifications the bases for determining which candidates are skilled and will be excellent classroom teachers. Latent research (Young & Place, 1988; Posner, 1981) indicates that characteristics such as gender, age and race are unrelated to teaching performance and recent research (U. S. Department of Education, 1999) indicates that it is the year-to-year consistency of quality teaching which significantly contributes to increases of student achievement in math and reading.

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**APPENDIX A**  
**Pilot Research Instruments**

## Appendix A. Pilot Research Instrument - Interview One

This is a taped interview, the first of two such interviews being conducted for this study. During this interview you will be expected to speak truthfully and accurately about your thoughts, feelings, attitudes and beliefs regarding the electronic screening system utilized by this district. Interview One focuses on the history and development of the electronic screening process.

The following is a set of four open-ended questions designed to assist you when speaking about the electronic screening process. These are only guidelines and are not meant to limit your speech. You may speak about any thought, feeling, attitude or belief regarding the electronic screening system utilized by this district.

1. Please describe your job responsibility (ies) and involvement with human resources during the implementation phase of the electronic screening system.
2. Think about the implementation process. What do you recall? Please give a brief history of the electronic screening process.
3. Think about the development of the electronic screening process, that is, how it has changed from year to year. Please give a brief account of how your responsibility (ies) and involvement have evolved, grown or changed during this time.
4. What, in your opinion, has been the most obvious changes to the human resource department and to the district as a result of the electronic screening system?

## Appendix A. Pilot Research Instrument - Interview Two

This is a taped interview, the second and final interview being conducted for this study. During this interview you will be expected to speak truthfully and accurately about your thoughts, feelings, attitudes and beliefs regarding the electronic screening system utilized by this district. Interview Two focuses on the shortcomings and contributions of the electronic screening process.

The following is a set of four open-ended questions designed to assist you when speaking about the electronic screening process. These are only guidelines and are not meant to limit your speech. You may speak about any thought, feeling, attitude or belief regarding the electronic screening system utilized by this district.

5. Think about the day-to-day use of the electronic screening process. What do you think are the shortcomings of the system? Specifically, give a brief account of these thoughts as they apply to teacher selection.
6. Think about the contributions of the electronic screening process, that is, what advantages it offers to you personally and what advantages you feel it offers the district. Specifically, give a brief account of these thoughts as they apply to teacher selection.
7. What other things does your district do in order to increase the number of people in the applicant pool and how do you think those other factors affect the subsequent pool?
8. Do you think an electronic screening system affects minority teacher selection in your district? Why or why not?

R. S. Lewis, How high-tech screening processes affect teacher selection, Interview Two.



**APPENDIX B**  
**Actual Research Instruments**

## Appendix B. Research Instrument - Interview One

This is a taped interview, the first of two such interviews being conducted for this study. During this interview you will be expected to speak truthfully and accurately about your thoughts, feelings, attitudes and beliefs regarding the electronic screening system utilized by this district. Interview One focuses on the history and development of the electronic screening process.

The following is a set of four open-ended questions designed to assist you when speaking about the electronic screening process. These are only guidelines and are not meant to limit your speech. You may speak about any thought, feeling, attitude or belief regarding the electronic screening system utilized by this district.

1. Please describe your job responsibility (ies) and involvement with human resources during the implementation phase of the electronic screening system.
2. Think about the implementation process. What do you recall? Please give a brief history of the electronic screening process.
3. Think about the development of the electronic screening process, that is, how it has changed from year to year. Please give a brief account of how your responsibility (ies) and involvement have evolved, grown or changed during this time.
4. What, in your opinion, has been the most obvious changes to the human resource department and to the district as a result of the electronic screening system?

R. S. Lewis, Educational Administration, Pennsylvania State University, May 2000; Gatekeeping for Children: How the Use of an Electronic Screening Process by a Human Resources Cooperative Affects Teacher Selection in a Region Education Service Center in Texas.

## Appendix B. Research Instrument - Interview Two

This is a taped interview, the second and final interview being conducted for this study. During this interview you will be expected to speak truthfully and accurately about your thoughts, feelings, attitudes and beliefs regarding the electronic screening system utilized by this district. Interview Two focuses on the shortcomings and contributions of the electronic screening process.

The following is a set of four open-ended questions designed to assist you when speaking about the electronic screening process. These are only guidelines and are not meant to limit your speech. You may speak about any thought, feeling, attitude or belief regarding the electronic screening system utilized by this district.

5. Think about the day-to-day use of the electronic screening process. What do you think are the shortcomings of the system? Specifically, give a brief account of these thoughts as they apply to teacher selection.
6. Think about the contributions of the electronic screening process, that is, what advantages it offers to you personally and what advantages you feel it offers the district. Specifically, give a brief account of these thoughts as they apply to teacher selection.
7. What other things does your district do in order to increase the number of people in the applicant pool and how do you think those other factors affect the subsequent pool?
8. Do you think an electronic screening system affects minority teacher selection in your district? Why or why not?

R. S. Lewis, Educational Administration, Pennsylvania State University, May 2000; Gatekeeping for Children: How the Use of an Electronic Screening Process by a Human Resources Cooperative Affects Teacher Selection in a Region Education Service Center in Texas.

INFORMED CONSENT FORM FOR BEHAVIORAL RESEARCH STUDY

The Pennsylvania State University

Title of Dissertation: Gatekeeping For Children: How The Use of an Electronic Screening Process Affects Teacher Selection in a Region Education Service Center in Texas

Primary Researcher: R. S. Lewis  
315 Rackley Building  
University Park, Pa. 16801  
814-863-7029 or 814-865-1487

1. This section provides an explanation of the study in which you will be participating:

A. The study in which you will be participating is part of research intended to assess the effect of an electronic screening process on teacher selection. By conducting this study, I hope to contribute to the body of research on teacher hiring practices and gain a better understanding of the role played by electronic databases in that process.

B. If you agree to take part in this research, you will be asked to complete two questionnaires or interviews. Your answers, together with those of other educators, will be used to draw conclusions about how the electronic screening process is perceived.

C. Your participation in this research will take a total of about three hours, in two sessions held about a month apart. A research assistant will contact you by email or telephone to schedule both sessions.

D. This study will involve the use of audio and visual tape recordings. Only the primary researcher will have access to the original tapes and the tapes will be destroyed within six months after completion of this dissertation. Sections of participant recording(s) may be used in the electronic format of this dissertation.

This section describes your rights as a research participant:

A. You may ask any question about the research procedures, and these questions will be answered. Further questions should be directed to R. S. Lewis.

B. Your participation in this research is confidential. Only the person in charge will have access to information that can be associated with your identity.

In the event of publication of this research, no personally identifying information will be disclosed. To make sure your participation is confidential, only a code number appears on the answer sheet for your questionnaire. Only the researcher can match names with code numbers.

C. Your participation is voluntary. You are free to stop participating in the research at any time, or to decline to answer any specific questions without penalty.

D. This study involves minimal risk; that is, no risks to your physical or mental health beyond those encountered in the normal course of everyday life.

3. This section indicates that you are giving your informed consent to participate in the research:

I agree to participate in a scientific investigation about teacher selection as an authorized part of the education and research program of the Pennsylvania State University.

I understand the information given to me and I have received answers to any questions I may have had about the research procedure. I understand and agree to the conditions of this study as described.

To the best of my knowledge and belief, I have no physical or mental illness or difficulties that would increase the risk to me of participation in this study.

I understand that I will receive no compensation for participating.

I understand that my participation in this research is voluntary, and that I may withdraw from this study at any time by notifying R. S. Lewis.

I am 18 years of age or older.

I understand I will receive a signed copy of this consent form.

Signature\_\_\_\_\_ Date \_\_\_\_\_

Researcher:

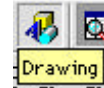
I certify that the informed consent procedure has been followed, and that I have answered any questions from the participant as fully as possible.

Signature\_\_\_\_\_ Date \_\_\_\_\_

## Instructions for Including Your Signature (Electronically) on the Consent Form

1. Instructions for placing your signature in the attached Consent Form for users of MICROSOFT WORD:

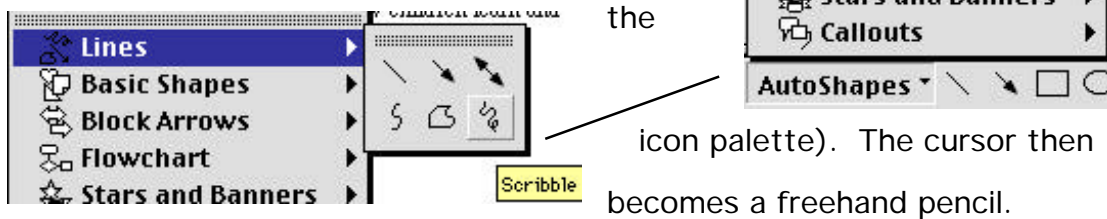
In the AUTOSHAPES



menu there exists a LINES tool.



Go to the AUTOSHAPES pull-up menu, then to the LINES menu and drag to the SCRIBBLE selection (far right hand corner of



the icon palette). The cursor then becomes a freehand pencil.

Click on the mouse and drag while you write your name. It must be done in one movement. When the mouse is released, the writing becomes an object in a word processing document. You can then add/change

■ your Name ■ attributes in any way you need.

2. Instructions for placing your signature in the attached Consent Form for users of ClarisWorks:

Simply double-click on the Tools Palette



Icon in the lower



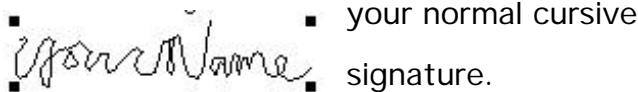
left corner. Double-click on the freehand tool.

Drag the pointer to draw your signature. Be certain to hold down the mouse while you make one continuous motion. Remember, it's a mouse, not a pen or a graphics pad! When you release the mouse, it becomes an object with



handles.

ClarisWorks automatically smooths the shape when you release the mouse, so you need to turn off this feature in the Graphics Preferences [EDIT to PREFERENCES to Topic Pulldown: GRAPHICS] or otherwise the signature may look different than



ClarisWorks also allows you to lock the signature in place. Click on the signature object(s) to select them and then go to ARRANGE to LOCK.

Edit	Format	Arrange
Undo Lock		⌘Z
Cut		⌘X
Copy		⌘C
Paste		⌘V
Clear		
Select All		⌘A
Duplicate		⌘D
Object Info...		
Insert Equation...		
Smooth		⌘(
Unsmooth		⌘)
Writing Tools		▶
Find/Change		▶
Publishing		▶
Preferences...		
Show Clipboard		

## Demographic Questionnaire

Please check the appropriate box and provide responses to the following confidential questions:

1. Gender of Participant:

Female

Male

2. Race of Participant:

Black / African-American

American Indian / Alaskan

Hispanic

White / Euro American

Asian / Pacific Islander

Other\_\_\_\_\_

3. Your total years of experience in public education:\_\_\_\_\_

4. Number of years in Human Resources:\_\_\_\_\_

5. Do you have prior experience with an electronic screening process?\_\_\_\_\_

6. If yes, please describe in detail this experience:\_\_\_\_\_

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R. S. Lewis, Educational Administration, Pennsylvania State University, May 2000; Gatekeeping for Children: How the Use of an Electronic Screening Process by a Human Resources Cooperative Affects Teacher Selection in a Region Education Service Center in Texas.



APPENDIX C  
IVR Forward, Script and Scoring

## ATTACHMENT A

Thank you for your interest in the Region \*\*\*\* Texas Independent School Districts. We now have your resume scanned and on file in our database. If this is your first resume submission to the Region \*\*\*\* Coop, please follow the guidelines in Section I of this letter. If you are updating a resume we already have on file, please follow guidelines in Section II.

### Section I

To complete the application process, we need you to call (888) 555-0000 or toll free (888) 555-0000 and complete an electronic screening questionnaire. This phone call will take approximately 25 – 30 minutes. Try to schedule a time with no interruptions. This call may be accessed at any time, 24 hours a day. If you must hang up before completing, when you call back the system will pick up where you left off. This call will verify information you submitted from your resume, and help us to match you to available openings within the districts.

During this call you will be given the opportunity to select the districts in which you may be interested in working. You may want to refer to the following list to help you decide which choices to make. You may select more than one. You may also select **all** for your initial consideration.

Once successfully completed, and should your skills and qualifications match those of an open position in any of the cooperative's member districts, the resume and screening information is then sent to a requesting district for their consideration. The district will contact you if they wish to pursue your candidacy further. If you are not contacted, this means there are no open positions, another candidate has been selected for an open position, or that a match has not yet been identified. Your resume will not automatically be forwarded to a district. It will be forwarded only when and if significant matches occur between the district requisition and your resume. You must update and resubmit your resume every six months to stay active in the database.

**REMEMBER:** Certification information is required to match teaching vacancies. If you neglected to include certification information on your resume, please update your resume and resubmit.

### Section II

To update your electronic screening questionnaire, we need you to call (888) 555-0000 or toll free (888)555-0000. At this time you will be able to update the information regarding the status of your teaching certification, teaching preference, years of experience, districts selected, etc. (use the list below which includes new districts). Because you are reapplying, you will be given a shortened IVR involving only demographic information.

#### MEMBER DISTRICTS

00 All	06 District F	12 District L	18 District R	24 District X
01 District A	07 District G	13 District M	29 District S	25 District Y
02 District B	08 District H	14 District N	20 District T	26 District Z
03 District C	09 District I	15 District O	21 District U	
04 District D	10 District J	16 District P	22 District V	
05 District E	11 District K	17 District Q	23 District W	

If you cannot complete this call, or need special accommodations to help complete it, please contact \*\*\*\*\*, Region \*\*\*\* Educational Service Center., (888) 555-0000

Sincerely,  
\*\*\*\*\*

Personnel Service Cooperative Technician

## **ATTACHMENT B - IVR Script**

*(Welcome to the Region \*\*\*\* Personnel Services Cooperative of Texas.)*

If you are using a touch tone phone;

Press 1 to continue, otherwise please stay on the line for further assistance.

*(After a brief pause the following information is read.)*

*(For assistance from the Personnel Services Cooperative staff, please call 888-555-0000.)*

### **When the applicants press 1.**

*(Our menus have changed. Please select one of the following options.)*

*If you would like information about possible teaching vacancies with one of our member districts, please press 1.*

*If you just received your receipt acknowledgement letter and would like to complete the application process, please press 2.*

*If you have a resume on file with the Personnel Services Cooperative and have completed the telephone interview, you may check on the status of your resume. If you would like to check on the status of your resume, please press 3*

*If you would like to speak to someone on the Personnel Services Cooperative Staff, please press 4.*

### **If the applicant selects option 1, the following is read.**

*(Each district is responsible for maintaining it's own vacancy listing. But, you may access vacancy information from our web site for those districts that maintain their vacancies on the internet. Please visit the PSC Web Site at [www.\\*\\*\\*\\*.\\*\\*\\*\\*.\\*\\*\\*](http://www.****.****.***) for more information.*

### **After this statement is read applicant gets the following prompts.**

*To return to the main menu, please press 8*

*To exit, please press \*.*

### **If the applicant selects option 2, the following option is read.**

Please enter your resume ID number, followed by the # key, this is the number from the receipt acknowledgement letter you received in the mail.

Your resume was received on (date).

Please enter your social security number

You entered (SSN)

If this is correct, press 1, to re-enter, press 2

Please indicate to which Personnel Services Cooperative member school districts you would like to be considered for employment

To apply to all districts, press 1

To apply to one or more school districts, press 2

You indicated (Instead of reading the number the applicant enter, I would like to respond with the district name associated with that number...)

If this is correct, press 1, to re-enter, press 2

*The member districts primarily use the Personnel Services Cooperative for teaching applicants. But, applicants seeking other educational positions can register with the Personnel Services Cooperative. To serve the districts and applicants better, you will be given the opportunity to select the type of job you are interested. Please indicate all that apply. If:*

Teacher	press 1
Counselor	press 2
OT, PT or Speech Therapist	press 3
Administrative (principal or assistant principal)	press 4
Educational Diagnostician (LSSP)	press 5

You indicated that you are interested in the following jobs...  
If this is correct, press 1, to change, press 2

**NOTE:**

**Applicants that select Teacher , OT, PT or Educational diagnostician in the above question must complete questions 'A', 'B', and 'C' in this section.**

**Only the applicants that select teaching in the above questions complete the pre-screener.**

**1. The following question pertains to your teaching interests and experience.**

You now will be given the opportunity to rank your first and second teaching level preferences.  
Please indicate your first preference.

If:

Early Childhood/ Pre. K.- Kindergarten	Press 1
Primary grades	Press 2
Intermediate grades	Press 3
Middle grades 6 – 8	Press 4
Middle grades 7 - 8	Press 5
High school grades 9 – 12	Press 6
Alternative school	Press 7
No preference	Press 8
Press 9 to repeat the options,	
Press 0 to repeat the questions	

You pressed...

If this is correct, press 1, to change, Press 2

Please indicate your second preference (options above are repeated).

*Using the numeric keypad of your phone please enter your years of teaching experience followed by the # key.*

*You pressed...*

*If correct, press 1, to change, press 2*

A valid teaching certificate is required to teach in Texas. The following questions pertain to the status of your teacher certification. Please listen carefully and respond “Yes” to the first question that most closely reflects the status of your teaching certificate.

*C1. Have you fully completed all requirements and have in your possession or you are awaiting delivery of a Texas Teaching Certificate?)*

If YES,           press 1  
If NO,            press 2  
You pressed...  
If correct, press 1, to change, press 2

**If the applicant selects 'Yes' on this question the following statement is read.** Remember please check to ensure that you included all certifications and endorsements on your resume. The Districts use Certification information listed on the resume to determine which applicants to contact.

C2 Have you fully completed all requirements of the Texas Teacher Certificate except the Excet Exam? (This question is asked if the applicant responds 'NO' to the previous question.)

If YES,           press 1  
If NO,            press 2  
You pressed...  
If correct, press 1, to change, press 2

**If the applicant selects 'Yes' on this question the following state is read.** Please check to ensure that you included all certifications and endorsements on your resume. The Districts use Certification information listed on the resume to determine which applicants to contact.

C3 Are you currently enrolled in an accredited college or university and are within six months of receiving your teacher certification. (This question is asked if the applicant responds 'NO' to the previous question.)

If, YES           press 1  
If, NO,           press 2  
You pressed...  
If correct, press 1, to change, press 2

**If the applicant selects 'Yes' on this question the following state is read.** Please check to ensure that you included all certifications and endorsements on your resume. The Districts use Certification information listed on the resume to determine which applicants to contact.

C4. Do you currently hold a valid teaching certificate from a state other than Texas? (This question is asked if the applicant responds 'NO' to the previous question.)

If, YES           press 1  
If, NO,           press 2  
You pressed...  
If correct, press 1, to change, press 2

**If the applicant selects 'Yes' on this question the following state is read.** Please check to ensure that you included all certifications and endorsements on your resume. The Districts use Certification information listed on the resume to determine which applicants to contact.

C5. Are you seeking teacher employment with a college deficiency plan or are you willing to obtain a college deficiency plan? (This question is asked if the applicant responds 'NO' to the previous question.)

If, YES           press 1  
If, NO,           press 2  
You pressed...  
If correct, press 1, to change, press 2

**If the applicant selects 'Yes' on this question the following state is read.** Please check to ensure that you included all certifications and endorsements on your resume. The Districts use Certification information listed on the resume to determine which applicants to contact.

C6. Are you currently enrolled in an alternative certification program through an accredited education agency or a Texas Education Service Center certification program? (This question is asked if the applicant responds 'NO' to the previous question.)

If, YES                      press 1

If, NO,                        press 2

You pressed...

If correct, press 1, to change, press 2

**If the applicant selects 'Yes' on this question the following state is read. Please check to ensure that you included all certifications and endorsements on your resume. The Districts use Certification information listed on the resume to determine which applicants to call.**

C7. Have you ever been placed on a teaching permit in a Texas School District?

If, YES                      press 1

If, NO,                        press 2

You pressed...

If correct, press 1, to change, press 2

C8. Would you be interested in obtaining alternative certifications through Region \*\*\*'s alternative certification program? (This question is asked if the applicant responds 'NO' to the previous question.)

If yes, Press 1, if no, Press 2

Press 9 to repeat the question. If yes, Press 1, if no, Press 2

Press 9 to repeat the question

## **Employment Eligibility**

You may leave a comment or explanation of your answer to any of the questions in this section at the end of this questionnaire. Please remember to include your name and phone number if you leave a comment.

Are presently legally authorized to work in the U.S. on a full time basis.

1 Yes                      2 No                      9 Repeat

You replied...

If this is correct, press 1                      to change, press 2

Have you ever been convicted of a crime, or received a deferred adjudication?

1 Yes                      2 No                      9 Repeat

You replied...

If this is correct, press 1                      to change, press 2

Have you ever been recommended for discharge, been discharged or fired, or asked to resign from a position?

1 Yes                      2 No                      9 Repeat

You replied...

If this is correct, press 1                      to change, press 2

Have you ever been convicted of any offense involving sexual molestation, physical or sexual abuse of a child, or rape, or received a deferred adjudication?

1 Yes                      2 No                      9 Repeat

You replied...

If this is correct, press 1                      to change, press 2

As part of the application process, we will be conducting a confidential background check to confirm the personal information you have provided. Do you give Region \*\*\*\* districts permission to



You pressed...

If correct, press 1 to change, press 2

It is important for teachers to continually think about the interests of their students.

Press 1 for not at all important up through 6 for extremely important

Press 9 to repeat the question

You pressed...

If correct, press 1 to change, press 2

It is important for teachers to be aware of the research about teaching and learning methods.

Press 1 for not at all important up through 6 for extremely important

Press 9 to repeat the question

You pressed...

If correct, press 1 to change, press 2

It is important for teachers to have complete mastery of their subject matter.

Press 1 for not at all important up through 6 for extremely important

Press 9 to repeat the question

You pressed...

If correct, press 1 to change, press 2

It is important for teachers to stick to a routine so their students know what to expect.

Press 1 for not at all important up through 6 for extremely important

Press 9 to repeat the question

You pressed...

If correct, press 1 to change, press 2

Choose the most important of three teacher characteristics\_.

Of the following three teacher characteristics, which one do you think is most important?

1) determination                      2) fairness                      3) kindness

8) repeat options                      9) repeat question

You pressed...

If correct, press 1 to change press 2

Of the following three teacher characteristics, which one do you think is most important?

1) creativity                              2) consistency                      3) preparation

8) repeat options                      9) repeat question

You pressed...

If correct, press 1 to change press 2

Of the following three teacher characteristics, which one do you think is most important

1) patience                              2) dependability                      3) organization

8) repeat options                      9) repeat question

You pressed...

If correct, press 1 to change press 2

Of the following three teacher characteristics, which one do you think is most important

1) commitment                              2) focus                              3) cooperation

8) repeat options                      9) repeat question



You pressed...

If correct, press 1 to change press 2

Of the following three teacher characteristics, which one do you think is most important

- 1) intelligence                      2) enthusiasm                      3) persuasiveness  
8) repeat options                      9) repeat question

You pressed...

If correct, press 1 to change press 2

Of the following three teacher characteristics, which one do you think is most important

- 1) respectfulness                      2) flexibility                      3) empathy  
8) repeat options                      9) repeat question

You pressed...

If correct, press 1 to change press 2

Of the following three teacher characteristics, which one do you think is most important

- 1) punctuality                      2) nurturing                      3) knowledge  
8) repeat options                      9) repeat question

You pressed...

If correct, press 1 to change press 2

**This portion of the interview will present brief scenarios with four response choices.**

You have just finished a three weeks introductory unit. You have consistently been checking student progress. While nearly all students have mastered the necessary content to move on to future units, a few students have not.

Of the following four choices, which do you think is the appropriate action?

- Move on and hope the students catch up  
Give the students additional catch-up work  
Schedule after school study time for these students  
Work with parents to assist students

- 8) Repeat options                      9) Repeat question

You pressed....

If correct, Press 1 to change, Press 2

Your team leader has distributed last year's unit plan including daily activities and supporting material, and asked you to use them during the next two weeks. You have an idea you believe will meet the needs of more students than the distributed materials.

Of the following four choices, which do you think is the appropriate action?

- Due to time constraint, use the plan as distributed  
Refer to the plan but revise as you see fit  
Replace distributed plan with your own unit  
Discuss changes with team leader

- 8) Repeat options                      9) Repeat question

You pressed....

If correct, Press 1 to change, Press 2

The faculty is involved in a vigorous discussion about the advantages and disadvantages of a new, very strict discipline and attendance policy for the school. Prior to the discussion, the principal gathered a large body of research and made it available to the faculty.

Of the following four choices, which do you think is the appropriate action?

As a new faculty member, listen quietly

Thoroughly read the material and participate fully in the discussion

Prepare an analysis of the written material

Use your knowledge to persuade staff to separate the two issues

8) Repeat options

9) Repeat question

You pressed...

If correct, Press 1

to change, Press 2

On the first day of school, two boys get into a shoving match on their way to lunch. You do not know the boys, the parents, or why the altercation began.

Of the following four choices, which do you think is the appropriate action?

Quickly separate the boys

Call the office for assistance

Recruit students to help stop the scuffle

Get their names and inform the office

8) Repeat options

9) Repeat question

You pressed...

If correct, Press 1

to change, Press 2

You have a dynamite lesson about the issue of over-fishing our oceans. However, one student is adamant that your premise, over-fishing, is fundamentally flawed. The student challenges every statement you make.

Of the following four choices, which do you think is the appropriate action?

Simply ignore the student

Assign the student a research paper on the subject

Engage the student in a factual discussion

Remind the class to raise hand prior to responding

8) Repeat options

9) Repeat question

You pressed...

If correct, Press 1

to change, Press 2

A student is somewhat of a loner. He confides in you that he would like to be more a part of the class. While there are a number of reasons for the student's status, it is clear that inappropriate dress is a major contributing factor.

Of the following four choices, which do you think is the appropriate action?

Talk to the school counselor about the issue

Develop a plan of action with the student

Talk directly with that student's parents

Carefully talk with other students in the class about the loner student

8) Repeat options

9) Repeat question

You pressed...

If correct, Press 1

to change, Press 2

You have a hard and fast rule that any paper turned in late will be marked down 10%. A student who

has never turned in a late paper all year turns in his or her paper late. The mandatory decrease will lower the students grade from an A- to a B+.

Of the following four choices, which do you think is the appropriate action?

Follow the rule and mark down the paper

Follow the rule, but give the student an extra credit assignment

Do nothing, but wait to see if the student approaches you about the problem

Ignore the rule and do not mark down the paper

8) Repeat options

9) Repeat question

You pressed....

If correct, Press 1

to change, Press 2

*After the applicant has completed the IVR, the following options are given.*

*To return to the main menu, please press 8*

*To exit, please press \*.*

**If the applicant selects 3, the following option is read.**

*You must have your resume ID number to check the status of your resume. This is the number from the receipt acknowledgement letter you received in the mail. Please enter your resume ID number, followed by the # key.*

*After the applicant enters his/her resume ID the following information is read.*

*Your resume was received on.....*

*You completed the IVR on.....*

*Your resume was send out on .....*

*Or the following message is read.*

*We don't show a resume on file for you with the PSC. Please call the 888-555-0000 to speak to the Personnel Services Cooperative Staff if you have already sent a resume to the PSC. Otherwise leave you name, and address, and phone number on the comment line. We will send you a copy of the brochure on how to apply.*

*After this statement is read the applicant gets the following prompts.*

*To return to the main menu, please press 8*

*To exit, please press \*.*

**If the applicant selects option 4, the following is read.**

*Please call 888-555-0000 to speak to a member of the Personnel Services Cooperative Staff.*

## ATTACHMENT C

### IVR SCORING DESIGN

#### SECTION III. Statements about teachers...

This section allows the candidate to evaluate the importance of various teaching responsibilities on a scale of 1 through 6. Some questions have a higher value placed on the response, which is indicated by the multiplier.

1 = not at all important; 6 = extremely important

QUESTIONS	MULTIPLIER	POSSIBLE POINTS
A. Seek feedback from students	3	18
B. Empathetic to student needs	2.5	15
C. Teachers seeking new ideas	2	12
D. Think of interests of students	1.5	9
E. Aware of learning methods	1	6
F. Mastery of subject matter	1	6
G. Stick to routine	1	6
	TOTAL =	72

#### SECTION IV. Choose the most important of three...

This section allows the candidate to choose the most important of three characteristics for each question. Each characteristic has a value of 1, 2, or 3, 3 being the best possible response (in bold). As in section III, each question has a different weight, or multiplier.

RESPONSE	VALUE	MULTIPLIER	POSSIBLE POINTS
A. 1. determination	1	5	15
2. fairness	3		
3. kindness	2		
B. 1. creativity	1	2	6
2. consistency	2		
3. preparation	3		
C. 1. patience	2	4	12
2. dependability	1		
3. organization	3		
D. 1. commitment	3	5	15
2. focus	1		
3. cooperation	2		

RESPONSE	VALUE	MULTIPLIER	POSSIBLE POINTS
E. 1. intelligence	2	2	6
2. enthusiasm	3		
3. persuasiveness	1		
F. 1. respectfulness	1	2	6
2. flexibility	2		
3. empathy	3		
G. 1. punctuality	1	2	6
2. nurturing	2		
3. knowledge	3		
TOTAL =			72

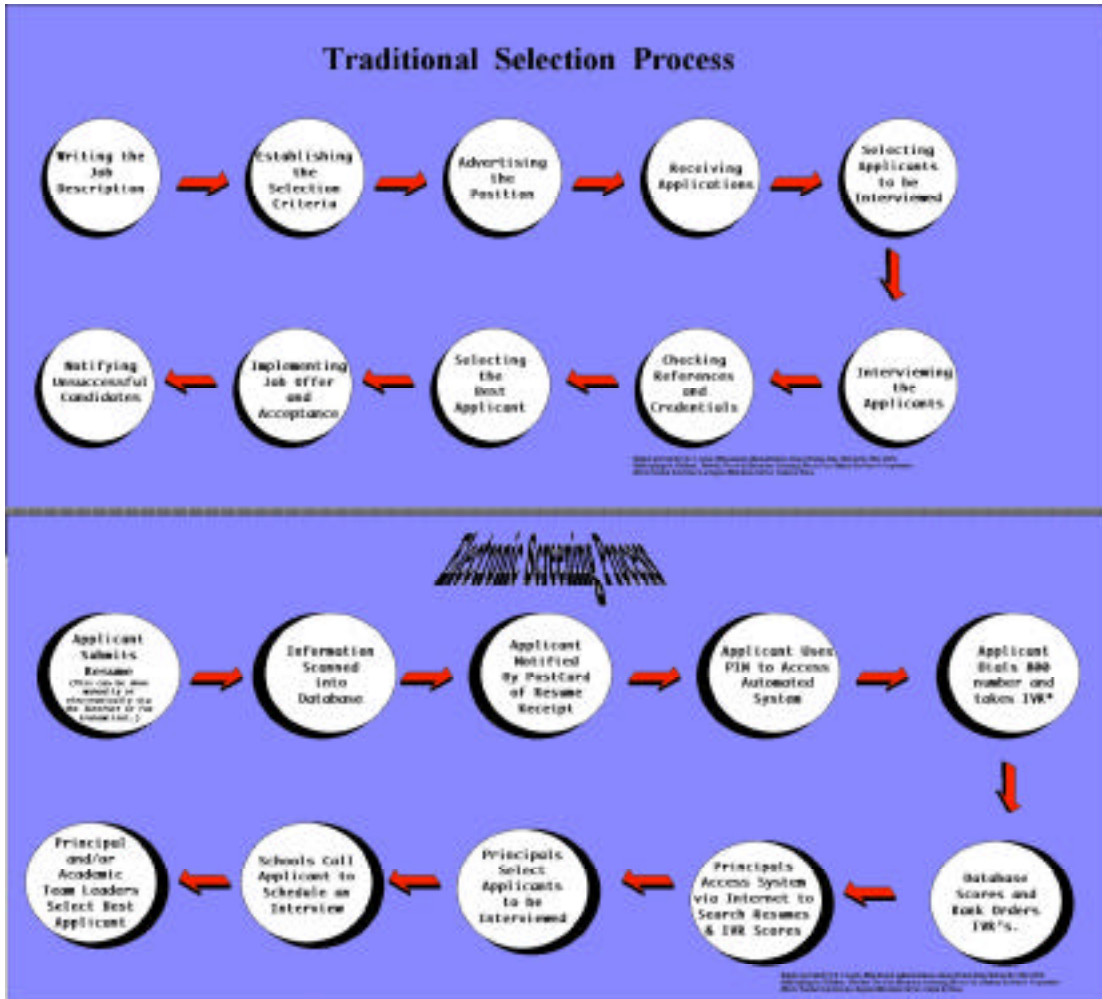
#### SECTION V. Scenarios....

This portion of the interview allows the candidate to choose the best of four responses to a scenario. Each response has a value of 1 through 4, 4 being the best response (in bold). Each question has a different weight indicated by the multiplier.

QUESTION/RESPONSE	VALUE	MULT.	POINTS
A. Introductory Unit			
1. Move on, hope students to catch up	0	6	18
2. Give students additional catch-up work	1		
3. Schedule after school study time	3		
4. Worth with parents to assist students	2		
B. Team leader's plans			
1. Due to time constraints, use plan as distributed	1	6	18
2. Refer to plan but revise as you see fit	2		
3. Replace distributed plan with you own unit	0		
4. Discuss changes with the team leader	3		
C. Attendance policy discussion			
1. As a new faculty member, listen quietly	0	3	9
2. Thoroughly read material, participate fully	3		
3. Prepare an analysis of the written material	1		
4. Persuade staff to separate issues	2		

QUESTION/RESPONSE	VALUE	MULT.	POINTS
D. Shoving Match			
1. Quickly separate the boys	3	3	9
2. Call the office for assistance	2		
3. Recruit students to help stop the scuffle	0		
4. Get their names and inform the office	1		
E. Student challenging lesson			
1. Simply ignore the student	1	2	6
2. Assign student a research paper on the subject	0		
3. Engage students in factual discussion	3		
4. Remind class to raise hand prior to responding	2		
F. Inappropriate dresser			
1. Talk to the student counselor about the issue	2	2	6
2. Develop a plan of action with the student	3		
3. Talk directly with that student's parents	1		
4. Carefully talk to other students about loner student	0		
G. Late paper			
1. Follow the rule and mark down the paper	3	2	6
2. Follow rule, give students extra credit assignment	2		
3. Do nothing, wait for student to approach you	1		
4. Ignore rule, do not mark down paper	0		
		TOTAL =	72

**APPENDIX D**  
**Flow Diagram of Traditional Selection Process and**  
**Electronic Screening Process**



[Traditional Selection Process Flow Diagram](#)

[Electronic Screening Process Flow Diagram](#)

[Compiled Comparison Flow Diagram](#)



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### AREAS OF INTEREST

Technology integration in K-12 public school settings; Additionally, I am the Webmaster for the Pennsylvania Education Policy Center. You may view our site at the following URL: <http://www.ed.psu.edu/pepc>

### HONORS AND AWARDS

Scholarship Recipient from Downtown Kiwanis Club of Dallas, Texas, 1975.  
Scholarship Recipient from Business and Professional Women's Club of McKinney, Texas, 1975. Dallas Public Schools Technology Department Award of Excellence for in-service teacher training, September 1996 and September 1997. Dallas Public Schools "Employee of the Week", May 1997. Featured in weekly news publication, *This Week*. Highlighted for a project whereby we successfully brought in almost \$4,000 in contributions from Oak Lawn community members and business owners to connect the computer lab to the existing ISDN line. Assistantship Recipient from Pennsylvania State University, 1998-99 and 1999-2000.

### PUBLICATIONS

Charter electronic dissertation in Educational Administration from The Pennsylvania State University, University Park, Pa., May 31, 2000. "Gatekeeping for Children: How the Use of an Electronic Screening Process by a Human Resources Cooperative Affects Teacher Selection in a Region Education Service Center in Texas."