EFFECTS OF SEX OF EVALUATOR, APPLICANT, 
AND REFERENCE SOURCE ON SCREENING DECISIONS 
FOR AN ADMINISTRATIVE POSITION

DISSERTATION

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This experimental study investigates the effects of sex of the evaluator, sex of the applicant, and sex of the reference source at the screening stage of the selection process. Specifically, male and female principals were asked to evaluate hypothetical male and female applicants for the focal position of assistant principal. Contained within the information packet for each hypothetical applicant was a letter from either a male or female reference source.

An integrative approach using interpersonal attraction and social distance theories provides the theoretical framework on which this study is based. Interpersonal attraction theory suggests that perceived biographical similarity of evaluator and applicant will result in a higher evaluation of the "similar" applicant. Social distance theory provides a structure for examining whether an evaluator will rate differently a dissimilar-sex applicant from a similar-sex applicant when an immediate superior and subordinate work relationship is involved.

The relationship between principal and assistant principal is immediate because the organization continuity between these two positions is uninterrupted by other line positions. Social distance theory suggests that an individual may fail to allow a dissimilar individual to penetrate an immediate organizational boundary.
Thus, the evaluator is more likely to choose a similar-sex applicant than a dissimilar-sex applicant when the individuals will be working in close proximity, as in a principal and assistant principal relationship.

These models were expected to support an interaction effect between sex of applicant and sex of rater, as strengthened by sex of the reference source. It was anticipated that an interaction effect would be likely to occur in a situation where individuals would be working in close proximity, as in a principal and assistant principal relationship. The findings did not support the anticipated interaction effect, but did reveal a main effect for sex of applicant.

The main effect for sex of applicant indicates that hypothetical female administrator candidates are evaluated significantly higher than hypothetical male administrator candidates. This is contrary to about half of past selection research that suggested female applicants are given lower evaluations than male applicants. Thus, these results may be an indication that the evaluations of female applicants for administrative positions are improving. Finally, there is a need for continued study in the area of selection research in order to explain the varied and conflicting results.
DEDICATION

This dissertation is dedicated to my grandmother,

Ms. Eva L. Beard, M.S.

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I wish to thank my adviser, Dr. I. Phillip Young, for his intellectual stimulation and genuine friendship which contributed greatly to my doctoral experience at The Ohio State University. In particular, I appreciate the steadfast advice which he provided to me regarding intellectual pursuits, future goals, and life, in general.

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CHAPTER 1

INTRODUCTION

Public discontent with the performance of educational organizations is impetus for numerous reform efforts in public education. As observed by Schalock (1979), the public demands for the attraction of higher quality educators to the public schools. These educators include principals, assistant principals, teachers, and other educational leaders, who have a duty to create and maintain an effective and safe learning environment.

Educators are entrusted with the youth of society and are expected to create and maintain an environment in which these youth will learn to become responsible and productive citizens. In light of this responsibility, a primary goal of educational administrators must be to provide a quality educational program. A key element to achieving a quality educational program is the recruitment and selection of only the most capable candidates to fill all positions in public schools (Bredeson & Caldwell, 1987).
Educational organizations rely primarily on school administrators for guidance on recruitment and selection procedures. Thus, utmost care should be utilized when selecting school administrators. Surprisingly, research has focused on teacher selection, but has overlooked administrator selection.

The present study seeks to address the void in administrator selection research. Specifically, this study uses an integration of two social psychological models in an attempt to identify possible influences on decisions made by administrators during the selection process. Past research indicates that sex of evaluator (Graves & Powell, 1995), sex of applicant (Cohen & Bunker, 1975) and sex of reference source (Knouse, 1983) are possible influences on decisions made by administrators during the selection process. Thus, these variables are investigated in the context of administrator selection.

Effects of and interaction between sex of applicant, sex of interviewer, and sex of reference source on the selection process are scrutinized increasingly in the present day litigious society. This study seeks to expand present knowledge about these effects during the preinterview review of applicant materials. That is, the initial phase of the selection process.
Various stages of decision making occur during the selection process. Individuals charged with making selection decisions must solicit a wide range of information about individuals, as applicants. This information must then be weighted and synthesized to make a final decision (hire or reject) at the conclusion of the selection process.

Selection, as an administrative task, can be both daunting and rewarding. On one hand, the decision to hire an applicant can have detrimental effects for an organization if the individual is incapable of performing necessary job duties. On the other hand, the decision to hire an applicant can advance the goals of an organization if the individual is capable of performing necessary job duties.

Because all public school systems fall under the purview of federal and state regulations and guidelines, the decision to hire has legal implications for these organizations. Social scientists have analyzed labor market discrimination and concluded that certain individuals are particularly vulnerable to interviewer's subjectivity and bias during the selection process (Burstein, 1994). Numerous federal, state, and local laws have been enacted over the years to protect the rights of individuals including women, disabled persons, minority persons, and older persons.

In light of numerous legal implications, organizations must strive continuously to improve selection systems.
Although there may not exist a perfect selection procedure, organizations have a vested interest in using valid and reliable selection systems. Furthermore, a valid and reliable selection system will aid an organization as it strives to attract a quality workforce.

Seeking and maintaining a quality workforce should be a primary goal of educational organizations. Personnel such as administrators and teachers are relied on to establish and promote high educational standards. Recognizing the need for quality teachers, recent research has focused on procedures whereby teachers are selected by school systems. However, the literature is almost nonexistent for documenting the selection of school principals or assistant principals (Schmitt & Schechtman, 1990).

A key element in long term school improvement has been identified as the school principal. School effectiveness has been closely linked to the role of the principal. In light of these implications, the decision making role of the school principal during the selection process must be thoroughly examined.

As leader of the school the principal is charged with the task of selection and recruitment. This process involves the selection of virtually all school building personnel, including teachers and assistant principals. Thus it is important to examine the knowledge, skills, and attitudes of school
principals who have great impact on the total quality of the educational program.

This investigation seeks to contribute new knowledge to the selection interview process. Specifically, the present study will contribute to the understanding of how certain variables affect or interact with each other during the preinterview stage of the selection process. These variable may represent legitimate applicant qualifications or they may be illegal considerations of applicant characteristics.

**Problem**

Educational organizations must ensure that the selection system utilized is free from discriminatory motive, however subtle, which may impede the hiring of qualified individuals. This investigation addresses the initial evaluation of an applicant for an assistant principal position. The initial evaluation of an applicant occurs during the preinterview stage of the selection process and has a crucial effect on an applicant.

During this stage, educational administrators review the resume and other paper credentials and use this information to make an initial screening decision (Young & Joseph, 1987; Young & McMurray, 1986). Failure to get beyond the initial screening stage has a great impact on the applicant. Not only
is the applicant eliminated from the applicant pool, but this individual is prevented from obtaining valuable interview experience.

**Hypotheses**

Because previous research has failed to address adequately the selection of assistant principals, specific a priori hypotheses were not proposed. In addition, existing research is inconclusive and it was difficult to craft directional hypotheses. The null hypotheses investigated by the present study were as follows:

H1 - The sex of a hypothetical applicant does not systematically affect the screening decisions made by public school principals.

H2 - The sex of an evaluator does not systematically affect the screening decisions made by public school principals.

H3 - The sex of the reference letter source does not systematically affect the screening decisions made by public school principals.

H4 - There will be no interaction between sex of the applicant and sex of the evaluator as screening decisions are
made by public school principals.

H5 - There will be no interaction between sex of the applicant and sex of the reference letter writer as screening decisions are made by public school principals.

H6 - There will be no interaction between sex of the evaluator and sex of the reference letter writer as screening decisions are made by public school principals.

H7 - There will be no interactions among the factors of sex of the applicant, sex of the evaluator, and sex of the reference letter writer as screening decisions are made by public school principals.

Definition of Terms

The following terms were defined in this study for the purpose of clarity:

1. bona fide occupational qualification (BFOQ) - a statutory defense, that is limited to situations where discrimination against protected class persons is reasonably necessary to the normal operation of the particular business;
2. focal position - the job for which the credentials of a candidate were evaluated;

3. macroanalysis - the study of the complete selection process;

4. microanalysis - the study of specific components of the selection process;

5. preinterview stage - the initial applicant screening stage;

6. public school principal - the chief administrator of a school;

7. "relevant" job market - this is defined geographically as that distance which an individual would be expected to travel to interview for a particular position; the distance will vary according to the type of position;

8. resume - a summary of experiences and qualifications pertaining to a hypothetical candidate;

9. screening decision - the choice following a review of written credentials of an applicant about whether to invite the applicant to participate in subsequent steps of the selection process;

10. selection process - the activities that occur in public school systems including announcing positions; and identifying, recruiting, screening, interviewing, and
choosing teachers or other administrators;

11. smoking gun evidence - evidence which is so blatantly indicative of discrimination that the plaintiff need only introduce specific employer statements which amount to an admission of discrimination.
CHAPTER 2

LITERATURE REVIEW

Selection practices used by a school system have great impact on the education of the youth of society (Young & Allison, 1982). As observed by Schalock (1979), there are many public demands for attracting higher quality educators to the public schools. Educators, including principals, assistant principals, teachers, and other educational leaders, have a duty to create and maintain an effective and safe learning environment.

Creating and maintaining a quality educational program is a crucial goal for individuals charged with making selection decisions. "[I]t seems obvious that this decision should be made with the utmost certainty regarding its utility" (Bolton, 1969, p. 329). The most frequently used technique to select educators is the selection interview. Thus, it is quite surprising that relatively little research has been done on the validity and reliability of the selection interview in education.
Several investigators have suggested that the selection interview is actually a multistage process including a preinterview phase, an interview phase, and a postinterview phase (Dipboye, 1992; Macan & Dipboye, 1990). Because it is somewhat misleading to use the term selection interview, the term selection process will be used to represent the three phases mentioned. Accordingly, the selection process includes the gathering of information (the preinterview phase), the face-to-face interaction (the interview phase), and the evaluation of qualifications of an applicant (the postinterview phase).

During the preinterview phase of the selection process, an evaluator reviews the credentials of an applicant such as the resume, the reference letters and other paper credentials (Macan & Dipboye, 1990). During this first phase, the evaluator will form a preinterview impression of the applicant. If the applicant is successful during the preinterview stage, then a face-to-face interview will be granted in most instances.

A face-to-face interaction occurs during the second phase of the selection process. Numerous researchers have reported that preinterview impressions influence the face-to-face interaction during the second phase of the selection process (Macan & Dipboye, 1990). Following the face-to-face interview, a final selection decision to hire or reject the
applicant is made. The final selection decision is affected by a series of decisions made throughout the three phases of the selection process. "[I]n the last phase of the selection process, an evaluator reviews all the information gathered and makes an assessment of the applicant's job suitability" (p. 749).

Traditionally, researchers have focused only on the second phase of the selection process. That is, the face-to-face interaction or interview. Past research has focused little attention on how the preinterview phase of the selection process may affect the face-to-face interaction.

Evaluators form their first impressions of applicants during the preinterview phase of the selection process. They make vital screening decisions which result in the elimination of numerous applicants from further consideration for a position. Bolton (1969) suggested that preliminary screening decisions are weighted and synthesized into a final selection decision. Yet, researchers have focused little attention on the preinterview phase which involves these important screening decisions (Dipboye, 1992). The decision making process during the first phase of the selection process warrants further exploration.

Much research has suggested that it is important to address the effects of certain attributes of applicants during the pre-interview phase of the selection process. The selection of an educator begins when a student is accepted
into a teacher preparation program (Schalock, 1979) and ends when an applicant is either rejected from further considerations or accepted for a position as an educator.

Throughout the selection process numerous decisions are made which affect both the applicant and the perspective employer. Decisions made during the preinterview phase of the selection process have the most crucial effect on an applicant. During this phase, educational administrators review the resume and other paper credentials and use this information to make an initial screening decision (Young & Joseph, 1987; Young & McMurray, 1986; Young & Schmidt, 1987). Failure to move beyond the initial screening stage has a great impact on the applicant. Not only is the applicant eliminated from the applicant pool, but this individual is prevented from obtaining valuable interview experience.

Decisions made during the preinterview phase impact also applicants who successfully enter the second phase of the selection process. These candidates are granted interviews and are given an opportunity to fill the vacant position. Based on decisions made during the preinterview stage, the interviewer determines both tone and direction of the interview for each candidate.

Typically, the interviewer will have formed either a positive or negative initial impression of the applicant based on review of the resume and other paper credentials during
the preinterview stage (Dipboye, 1992). Conduct of the interview is to be influenced likely by these impressions. These impressions may be legitimate evaluations of qualifications (e.g., references, grades, work experience) or may be irrelevant and possibly illegal evaluations based on physical traits and qualities (e.g., sex, physical disabilities, race, age) (Dipboye, 1992).

Researchers have studied the extent to which certain characteristics, such as race, sex, age, or disability status have influenced evaluations of candidate qualifications. These are protected characteristics which fall under the purview of specific language of federal and state legislation. Thus, it is worthwhile to explore the various legal constraints on the selection process.

**Legal Constraints**

"It has become increasingly evident that employers are legally responsible for showing that their selection process (including interviews) is job related" (Schmitt, 1976, p. 79). An employer must utilize a selection process that is in accord with the numerous legal acts and regulations. An evolution in the legal arena, including the reinterpretation of existing Federal legislation, the enactment of new Federal legislation, and the issuance of related governmental regulations, has had
a great impact on the selection process. The legislative acts and governmental regulations prohibit discriminatory employment practices and require that all persons be given an equal opportunity for employment (Arvey & Faley, 1992).

In certain situations, equal opportunity employment practices may be superseded by preferential treatment practices. Employers may need to implement voluntary or court-imposed employment practices in order to meet "affirmative-action pressures related to eliminating discrimination in employment" (Arvey & Faley, 1992, p. 113). In the past, courts have legitimized the system of limited preferential treatment by organizations, but recent court decisions have indicated that the utility of affirmative action plans is waning.

Federal and state legislation provide applicants with specific rights within the selection process (Young & Ryerson, 1986). Federal legislation relevant to the selection process includes Title VII of the Civil Rights Act of 1964, the Age Discrimination Employment Act of 1967, and Section 504 of the Rehabilitation Act of 1973. Collectively, these legislative acts place certain restrictions on various employment institutions as defined by language specific to each act.

Federal regulations are clear in the use of specific language which forbids certain employment institutions from discriminating against applicants with protected
characteristics (Arvey & Faley, 1992). These protected characteristics "are those resulting from forces beyond a person's control, such as race, sex, or age" (Arvey & Faley, 1992, p. 56). The "regulations" are rules which are based on congressional enactments, presidential executive orders, and the U.S. Constitution (Arvey & Faley, 1992).

Factors such as race, sex, age or disability status are clearly protected characteristics according to the specific language contained in federal regulations. Individuals possessing such characteristics are protected from discrimination in the employment process "unless specific characteristics associated with the protected class status have been proven to be bona fide occupational qualifications (BFOQ) for the position under consideration" (Young & Ryerson, 1986, p. 2).

Title VII of the Civil Rights Act of 1964 as amended in 1972 became applicable to public school districts in March of 1972. According to Title VII, 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, 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 by the doctrine of
The claim of disparate treatment focuses on intentional discrimination as a result of differential treatment. A complainant may demonstrate disparate treatment by establishing a case that appears to involve intentional discrimination. That is, a "prima facie" case that is established using a four factor test as outlined by the U.S. Supreme Court in *McDonnell Douglas Corp. v. Green* (1973). Although in certain instances (existence of "smoking gun" evidence) the four factors may be modified or even disregarded.

After the complainant has presented a prima facie case of discrimination, the employer must provide a reasonable and legitimate explanation for the decision. A sufficient nondiscriminatory explanation may include, for example, misconduct, unreliability, or poor responses in oral interviews. The complainant then has the opportunity to show that the employer offered merely pretextual evidence. Pretextual evidence is that which has been offered by an employer who had hidden a discriminatory motivation, or who had offered an unworthy explanation.

On the other hand, discrimination based on disparate impact may be proven by following the model established by the U.S. Supreme Court in *Griggs v. Duke Power*, (1971). Disparate impact involves the use of an employment practice or selection criterion that excludes from employment a
disproportionately high number of members from a protected class. The presence of discriminatory intent on the part of the employer does not have to be proven by the complainant.

Thus, a disparate impact claim is established if an employment practice has the effect of arbitrarily creating barriers to employment of members of a protected class. When looking at the "actual impact" of employment practices it is necessary to assess the race, sex or ethnic composition of those who apply, those who are hired, and those who are in the general population. The use of statistical evidence in such assessments has been encouraged (see United States v. Ironworkers, Local 86 [1971]).

The Uniform Guidelines (1978), suggest a selection rate for determining disparity under the disparate impact doctrine. "A selection rate for any race, sex, or ethnic group which is less than four-fifths (4/5) (or 80 percent) of the rate for the group with the highest rate will generally be regarded . . . as evidence of adverse impact" (Uniform Guidelines, 1978, p. 38297). As noted by Arvey and Faley (1992), the guidelines caution about strictly adhering to this rule when small sample sizes are used.

To refute such a claim an employer may establish job-relatedness of the employment practice. The complainant may counter, demonstrating that "a less discriminatory alternative practice is available but the employer refuses to
use it" (Gamble, 1992, p. 94).

Later, the Court made it clear that disparate impact analysis applies to subjective selection systems as well as to standardized selection systems (Gamble, 1992). The enforcing authority for Title VII is found in the guidelines issued by the Equal Employment Opportunity Commission (EEOC). These guidelines define broadly the term "test" (e.g. specific educational or work history requirements, scored interviews, biographical information blanks, interviewers' rating scales, scored application forms, etc.).

All stages of the selection process are clearly within the purview of federal legislation and relevant governmental regulations. As noted by the EEOC guidelines, predictors used as the basis for preliminary employment decisions (e.g. the resume or reference letter) are subject to scrutiny under the disparate impact doctrine. Thus, Title VII applies not only to the interview but also to other predictors used as the basis for employment decisions which are made prior to the face-to-face interview.

An administrator's decision making process prior to the face-to-face interview has been largely neglected by researchers. As outlined above, certain legal rights are guaranteed to applicants during the selection process. As evidenced by the dramatic rise in discrimination complaints in the employment sector (see Faley, Kleinman & Hengnick-Hall,
1984, p. 324), an employer must pay heed to legal doctrines, such as the 80 percent rate, during each stage of the selection system. Thus, it is clearly worth investigating the pre-interview decision making process which is a crucial part of the selection system.

A search for employment begins typically when an applicant submits materials such as a resume, letters of reference, and college transcripts to the educational administrator charged with selection. Although there has been limited contact between the applicant and the administrator during the pre-interview stage of the selection process, the administrator has a duty to screen applicant materials and to interview only the most qualified applicants.

The screening process is suspect to potentially illegal discrimination if screening decisions are based on information that is unrelated to the needs of the position. In light of the subjective nature of the screening decision, the decisions of an administrator may be influenced by protected characteristics such as race, sex or age. Yet, it is not clear to what extent these characteristics influence the preliminary and final judgments of the administrator in the selection process.

Past research (Heilman, Martell & Simon, 1988) has suggested the presence of sex discrimination at the screening stage of the selection process. Discrimination at this stage may have contributed to the restricted movement of
protected class persons into positions within public school systems.

Using the 80 percent rate, a comparison must be made between the percentage of protected class applicants interviewed to the percentage of qualified protected class persons found in the "relevant" job market. If these percentages are dissimilar, the school district may be utilizing selection practices which have an adverse impact.

**Historical Aspects of Selection Research**

All organizations should strive to attract a work force composed of quality individuals. A selection process with high reliability and validity can facilitate the achievement of this goal. Thus, past researchers have studied extensively the selection processes used by organizations.

The selection process has evolved over several decades. This evolution has produced procedures and paradigms for assessing reliability and validity of the selection process. To appreciate current knowledge about the selection process and components of the selection process, attention needs to be given to the historical evolution of selection research.

Most organizations use a selection process which relies heavily on the selection interview. This selection tool has been and is likely to remain the most commonly used
predictor in selection research (Dipboye, 1992). Because of the popularity associated with the selection interview, it is of little surprise that past selection research has focused predominantly on the selection interview as a predictor of job performance (Mayfield, 1964; Ulrich & Trumbo, 1965; Wagner, 1949; Wright, 1969).

According to four major reviews of the selection process, this predictor has low reliability and validity (Mayfield, 1964; Ulrich & Trumbo, 1965; Wagner, 1949; Wright, 1969). Wagner (1949) found that only 25 of 106 articles discussed the quantitative value of the interview as a predictor in selection. The emphasis of these empirical articles was on increasing the reliability and validity of the selection system. To improve the prediction of job performance, researchers have investigated the interview as a means of evaluating specific traits and characteristics (Wagner, 1949).

Many of the studies discussed by Wagner (1949) focused on assessing intelligence during an interview. These studies involved computing correlations between assessed interview estimates and actual intelligence test scores. Few of these studies reported any relationship between these two measurement sources. Even though the average of the reported correlations was low, the range exhibited a high degree of variability, from .15 to .94.
Although Wagner did report a 1947 study by the Adjutant General's Office (Rundquist) which concluded that the predictor was both a reasonably reliable and fairly valid measure in the selection process. This study involved the evaluation of officers who were being considered for retention in the Army. A five member interview board was instructed to evaluate each candidate on the specific factor of social interaction. The members were not permitted to preview any records of the candidate. After the interview, board members rated independently each candidate and then held a board discussion of the candidate. According to Wagner, the interview ratings had a reliability of .87 and a validity of .37.

Several other studies reviewed by Wagner (1949) raised questions regarding interviewer's ability to make an over-all judgment of an individual based on careful weighing of the relevance of isolated facts. These experiments were "designed to study the value of the interview as a means of carefully synthesizing all the data into an evaluation or prediction of over-all ability, proficiency, or potential job success" (Wagner, p.23). If valid results were obtained, it could be argued that the predictor could function as a substitute for statistical procedures. For instance, the multiple regression technique performs the function of weighing individual factors for optimizing a selection decision (Wagner, 1949). However, in the studies reviewed by Wagner both the validity and
reliability of the predictor were generally low, with a few exceptions.

One exception, noted by Wagner (1949), is a study of the interview as a method for predicting success in flying. In this study, a board of three interviewers reviewed a Personal History Inventory of each applicant immediately prior to the interview. Each board member then rated independently each applicant on nine different scales after a 25 minute interview. The average interrater reliability ranged from .53 to .70 on all scales.

Interviewer predictions were revealed to be little better than chance and only slight validity was found for the prediction of certain criteria of competence in flying. The findings revealed that the interview becomes too costly and time-consuming as one strives to achieve acceptable levels of reliability and validity. Thus Wagner reported that the interview has little value as a practical selection procedure for pilots.

In Wagner's article, he summarized several studies of the interview with salesmen and reported that in most of these studies there was a wide range of ranks assigned each applicant by the evaluators. One of these studies involved the interviewing and ranking of 57 applicants by 12 sales managers. According to Wagner, a few applicants were ranked consistently high or low; but there was also an
applicant whose rank ranged from first to fifty-seventh. Clearly, Wagner's dismal review (1949) had shaken the confidence placed in the interview as a selection tool.

Mayfield (1964) reiterated past criticisms of the selection process and suggested a research strategy which would lead to more profitable research in the future. He claimed that the division of the selection process into units would lead to successful research. He classified this research approach as "microanalytic". Microanalysis of the selection system provided a new direction and departed from the usual "macroanalytic" approach.

He proposed also the continued studying of the decision-making processes of the interviewer, and not just the results of the interview. He noted that the advantages of this approach may be an increase in the reliability of the selection interview as a predictor. Following this approach, researchers began to investigate the effects of independent variables on the evaluations of interviewers.

The review by Ulrich & Trumbo (1965) emphasized the distinction between data gathered from the face-to-face interview and from the preview of ancillary data. They noted that in the past this obvious distinction between two categories of data has been generally ignored in studies validating the interview. Researchers should "inquire as to the relative contribution of each type of data, first, to the
variance, and, second, to the validity of the interviewer's predictions" (Ulrich & Trumbo, p. 102).

The ultimate selection decision "is the culmination of a series of preliminary decisions" (Bolton, 1969, p. 329) which form the recruitment and selection process. Researchers have used screening decisions based on simulations to identify independent variables that influence the evaluations of applicants. The simulations include the manipulation of resumes and videos in an experimentally controlled setting.

Research results based on simulations rather than on actual interviews are scrutinized increasingly by researchers. The external validity or generalizability of "selection decision data has received increasing attention in recent research into organizational behavior" (Singer & Sewell, 1989, p. 139). Arvey and Campion identified two methodological issues as "[t]he use of college students as interviewers and the use of paper-and-pencil stimulus 'interviews'" (Arvey & Campion, 1982, p. 294). Although these two issues remain unresolved, researchers are engaged in study to determine the validity of results using these methods.

Arvey and Campion discussed simulations in which paper-and-pencil stimulus "interviews" are used. According to their review of several articles, using paper-and-pencil stimulus materials such as transcripts of interviews, applications and resume data, photographs, etc., produced
results which are different from those obtained using an actual interview. Thus, they questioned the external validity of selection decision data obtained through this approach.

Gorman, Clover and Doherty (1978) examine the paper-people paradigm which involves using a profile representing a person and having the subject evaluate the information in each profile. Their study suggested that selection decision data are valid when obtained from a simulation using paper-and-pencil resume information only where these data are acknowledged to be representative of the screening decision stage, where a resume is traditionally used, and not of the face-to-face interview stage. Specifically, they stated that the potential weaknesses of using paper people are especially present under circumstances where an interviewer normally has personal contact with an applicant. They concluded "that there are profound differences between "interviews" of paper people and interviews of real people" (Gorman et al., 1978, p. 191).

Arvey and Campion (1982) reviewed several articles and concluded that the use of students poses a minimal threat to generalizability. These studies revealed "that the only difference between college students and "real" interviewers was that college students were more lenient in their ratings" (Arvey & Campion, p. 294). Yet, Singer and Sewell (1989) suggested that results obtained from student subjects may not
be comparable to those from managerial samples.

Singer and Sewell examined studies which looked specifically at the issue of external validity with regard to the effects of applicant age on selection decisions. These studies revealed considerable inconsistency among findings. Three possible explanations were given for the inconsistent findings.

One explanation is simply that variations in job status may act as a source of age-related stereotyping. The second possibility is that subject sample used varied between studies. Finally, the third explanation is that other factors are responsible for the lack of comparable results.

To explore the second explanation, Singer and Sewell conducted a study using managerial and student groups. The study addressed "the effect of age-related information exposure on selection decisions and the issue of between-sample generalizability with reference to the age bias effect" (Singer & Sewell, 1989, p. 135). In general, the student subjects gave more favorable ratings to the young applicant and preferred hiring the young applicant. This was so in spite of an information exposure condition, which was manipulated by having the managerial and student samples read an age-related versus a neutral information story. The selection decisions made by the student sample were completely different from decisions made by the manager sample.
Singer and Sewell (1989) suggested that the age bias effect may be influenced by an interaction between attitude stereotyping and individual age, position, or other situational variables. They interpreted their data as evidence that student results in selection research lack external validity. Yet, there is a lack of conclusive data that student results are a threat to external validity. Thus, it is likely that students will continue to be used in selection research.

Wagner (1949) reviewed numerous interview studies, but he failed to include in his discussion the issue of a pre-interview review or more generally a preview of applicant materials. According to Wagner's discussion, a few of the studies involved a preview of materials, while other studies clearly failed to allow such a preview. Yet, the effect of permitting or failing to permit such a preview on the conduct or on the outcome of the interview was unaddressed by Wagner. In fact, little attention has been directed towards the impact of the pre-interview review of paper credentials on the final outcome, which is termed as the post-interview decision.

Although interviewers in the private sector have reported that they review paper credentials (e.g. resumes, applications, references), personnel managers view the paper qualifications as less important than the interview itself (Dipboye, 1992; Macan & Dipboye, 1990). Gorman et al.
(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 success on the job. These views remain despite numerous reports from reviewers which find this predictor to be the least reliable of all selection devices.

Other studies, (Knouse, 1983; Muchinsky, 1979) suggested that the applicant's resume and other ancillary data have had an influence on the interviewer. 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). Furthermore, valuable background data can be gleaned more quickly from the resume than from the applicant during the often time constrained interview.

Dipboye, Fromkin, and Wiback (1975) implied that previewing various documents before the employment interview may bias hiring judgments. This opinion has been expressed by Knouse (1989), who suggested that resume readers are biased toward male applicants, attributing more favorable traits to them. Biases which are formed during the pre-interview stage are likely to carry over into the interview stage. Judgments made about an applicant during the pre-
interview stage of the selection process contribute ultimately to the decision to accept or reject an applicant.

According to several researchers, the interviewer seeks to confirm rather than disconfirm initial impressions formed after the preview of resumes or reference letters (see e.g., Dipboye et al., 1975; Herriot, 1981; Tucker & Rowe, 1979). In a study by Springbett (1958), results imply that a pre-interview review of materials has a strong influence on the interviewer. Springbett's findings revealed that the interviewer's final decision (hire-reject) is affected, in 85% of the cases, by the appearance of the applicant and the application form. Furthermore, Springbett stated that the final decision is reached two or three minutes into the face-to-face interview.

The scope and source of influence from a pre-interview review of materials has recently come under scrutiny by numerous researchers. These researchers have been somewhat successful in identifying factors unrelated to job performance that are affecting employer decision-making during various stages of the interview selection process. Factors unrelated to job performance have been identified as race, sex, age, etc.
Methodological Influences

Historically, selection research has adhered to either the macroanalytic or microanalytic school of thought. A macroanalytic perspective guided the early development of employee selection research (Mayfield, 1964). The macroanalytic studies looked at the total selection process and used typically a correlation procedure in the statistical design. Correlational studies were used to access either the concurrent or predictive validity of measurements which indicated the employability of an applicant. These measures would reveal as either valid or invalid the measure of employability of an applicant.

Yet, this technique failed to provide any indication of causation and failed to answer why employability indices were valid or invalid. The failure to assess the validity of employability indices led researchers to suggest that research be discontinued along the macroanalytic line of thought. A change in the direction of selection research resulted, and researchers embarked on a new line of selection research.

The direction of this new line of research was influenced by Mayfield and Carlson (1966), who suggested that factors irrelevant to job performance must be influencing decision-making within the selection process. They stated that these unrelated factors must be attenuating the obtained validity
coefficients. Their recommendation was to use controlled experiments to identify the contaminant variables, to manipulate one or two variables, and to determine the influence of the manipulated variables on decision-making. This process led to the emergence of a microanalytic perspective as the new school of thought which has guided the development of selection research.

The microanalytic approach to selection research has revealed several potentially discriminatory factors which influence decisions made by the administrator charged with the duty of selection. Some of these discriminatory factors have been identified as race, sex, age, and disability status. By dividing the selection system into units, researchers have been able to examine both main effects and interaction effects associated with these variables and other factors.

Segmentation of the selection system has enabled closer scrutiny of decisions made at each stage of the selection process. Throughout the selection process an interviewer makes a complex sequence of causal decisions about past actions and present behaviors of an applicant. Researchers have used attribution theory in an attempt to answer the question of "how" discriminatory factors affect the decisions made by an interviewer when processing applicant information.
Likewise, the administrative perspective in the teacher selection process has been studied from either a macroanalytic or a microanalytic research base (Young, Rinehart & Place, 1989). Teacher selection research has followed closely the pattern set out by general selection research. Early teacher selection research was dominated by the macroanalytic school of thought (Schalock, 1979). The macroanalytic researcher attempted to validate selection interviews by correlating the interview decision with teaching performance (Young, 1987).

Macroanalytic research resulted in consistently low validity coefficients because researchers consistently failed to "maximize the variance in job performance that could be accounted for by the variance in employability indices (Young, 1987). Thus, the direction of selection research soon changed to a microanalytic perspective.

The microanalytic perspective sought to identify variables that influenced employability indices and attenuated validity coefficients (Young, 1987). These goals were pursued through the use of simulation techniques which involved the manipulation of specific variables. The influence of these variables on employability indices was assessed in controlled experiments.
Young (1987) has pioneered a research model with the purpose of synthesizing past research and guiding future teacher selection research. Young's model is labeled as the "shared variance paradigm", and is illustrated in figure 1.

**Figure 2.1**

![Diagram](image)

Young uses the concept of sets to illustrate the different components of the selection process. The component of each set is associated with a total variance as follows: (1) set A - variance associated with job performance; (2) set B - variance associated with interview decisions; (3) set C - variance associated with factor(s) influencing decisions; and (4) set D -
variance associated with screening decisions. "[E]ach intersection represents the amount of variance shared between two or more components of the selection process" (Young, 1987, p. 18).

This model represents the historical development of both the macroanalytic school of thought (set $A \cap B$) and the microanalytic school of thought (set $B \cap C$). Macroanalytic researcher attempted to maximize the variance associated with job performance (set $A$ in figure 1) that could be accounted for by the variance associated with the interview decision (set $B$ in figure 1). The direction of selection research changed from a macroanalytic perspective to a microanalytic perspective.

Microanalytic research focused on extraneous factors (set $C$) which were unrelated to job performance. Although these factors were unrelated to job performance, they were influencing selection decisions. Using results from microanalytic research, investigators were able to identify the percentage of variance in the interview decision that could be accounted for by factors unrelated to job performance.

Set $C$ in the model does not intersect with set $A$ for two specific reasons. The first reason is legal in nature and reflects federal and state rules and regulations that prohibit discriminatory employment practices. Set $C$ includes extraneous variables such as age, sex, and race which are
protected class characteristics and thus are prohibited by law from consideration in employment decisions.

The second reason that set C does not intersect with set A is closely related to the first reason. That is, it is a general societal belief that certain personal characteristics, such as age, sex, and race, do not influence performance ability. In fact, federal and state rules and regulations are reflective of the value which society places on the respect of individual differences.

Set D in this model illustrates screening decisions in the selection process. Screening decisions use a different set of applicant stimuli materials. Thus, screening decisions warrant investigation which recognizes the difference between screening decisions and interview decisions.

The utility of this model can be demonstrated by considering the following example. The influence of extraneous variables (set C) such as age, sex, race, etc. on the screening decision (set D) may be expressed as C∩D. In this illustration the variance associated with screening decisions and other factors can be explored more thoroughly as different combinations of factors are manipulated in set C.

Young uses one of his past studies (Young, 1983), to illustrate how the shared variance paradigm may be used to investigate selection decisions. In this study, Young investigated the effect of an extraneous variable (set C),
interview format, on the interview decision (set B). Although teaching performance is unrelated to interview format (i.e., $A \cap C = \emptyset$), interview format was found to account for 16% of the variance associated with the interview decision. According to Young (1987), the shared variance paradigm enables the removal of variance associated with interview format, thereby increasing the utility of the selection interview for selecting teachers.

Ideally, selection decisions would be based solely on factors which are related to teaching performance. However, numerous reviews of selection research reveal that factors such as race, sex, age and handicap status are affecting screening and interview decisions. Arvey (1979) explored the research literature concerning the effects of applicant race, sex, age and disability status in applicant evaluations. He reported a number of studies that showed female candidates were generally evaluated lower than male candidates even when they had similar or identical qualifications. Furthermore, there is little if any existing evidence demonstrating that any of the aforementioned factors do, in fact, influence teaching performance (see Young & Place, 1988).
Theoretical Aspects of Selection

In reality, selection is a decision making process governed by cognitive principles. Certain theoretical perspectives appear well suited to explain the cognitive principles of decision-making in the selection process. Specifically, both a social psychological model of interpersonal attraction and a social distance model contribute to the formation and expression of person-perceptions.

The first phase of the selection process involves the evaluation of an applicant based on information which is contained in a resume, in letters of reference, and in other portions of paper credentials. Based on these information sources, perceptions of an applicant are formed early during the first phase or pre-interview stage of the selection process. Because of the influence of first perceptions on selection, it is important to look specifically at the pre-interview phase and to examine the formation of perceptions by an evaluator.

Individuals may have biases which contribute to the differential evaluation of paper credentials of applicants. Factors such as applicant race, sex, age, etc. have been identified as variables that may induce bias by an evaluator (Arvey, 1979). Evaluator bias may result, for example, in sex discrimination against female applicants.

Researchers have attempted to answer the question of
"how" discriminatory factors affect the evaluator during the processing of applicant information. An integration of interpersonal attraction and social distancing theories may be helpful to answer the "how" question; as it pertains to sex discrimination. For example, evaluations are likely to be influenced by sex-similarity attraction when the proximity or social distance is narrow, as in a principal and assistant principal relationship.

**Interpersonal Attraction Theory**

A social psychological model of interpersonal attraction was proposed by Byrne (1961) to explain various organizational processes. Byrne's model includes four classes of variables that affect interpersonal attraction and evaluation (Pulakos & Wexley, 1983). These four variables are: (1) propinquity; (2) affiliation need; (3) overt stimulus properties and; (4) reciprocal reward and punishment, often referred to as similarity (see e.g., Rand & Wexley, 1975).

Byrne noted that propinquity is the most obvious and best documented variable. Propinquity addresses the extent to which individuals interact in a particular environmental situation. The second variable, affiliation need, helps to predict "individual differences in interpersonal behavior" (Byrne, 1961, p. 713).
Another variable, overt stimulus properties, includes observable personal attributes such as sex and race. Past studies have suggested that administrators select females for managerial jobs less often than males (Rosen & Jerdee, 1974), rate females for hirability as less acceptable than males with identical qualifications (Rosen & Jerdee, 1974), and evaluate blacks on performance appraisals less favorably than whites (Mobley, 1982). Thus, evidence suggests that evaluations are influenced by specific personal attributes.

The last variable, reciprocal reward and punishment, "is proposed as the crucial determining factor" of interpersonal attraction (Byrne, 1961, p. 713). That is, a rewarding interaction may depend on the existence of consensual validation. "It is primarily through consensual validation that we determine whether we or anyone else is logical or correct in interpreting environmental events" (Byrne, 1961, p. 713).

Byrne reported that attitude similarity influenced interpersonal attraction or liking and altered evaluation on such attributes as intelligence and morality of an individual. Using portions of Byrne's model, researchers have reported consistently "that a favorable evaluation of a job applicant is significantly related to the degree of similarity of that applicant to the rater" (Pulakos & Wexley, 1983, p. 130). Researchers have continued to investigate other potential moderators of the relationship between interpersonal
attraction and attitude similarity.

Rand and Wexley (1975) investigated the effects of biographical similarity of evaluator and applicant. Their review of past research revealed that "high evaluation of a job candidate bears a positive relationship to the degree of perceived similarity" of an applicant to the evaluator (p. 536). The effect of biographically similar information on the dependent measure of desirability as a work partner was statistically significant ($F = 12.48, p = .001$) with a biographically similar individual being preferred as a work partner. These authors concluded that evaluations of an applicant are not distinguished from interpersonal attraction to the applicant.

Baskett (1973) suggested that an applicant would be evaluated favorably by an evaluator when an applicant is perceived to be similar to an evaluator. To test his hypothesis, he manipulated competency of the applicant and similarity of the applicant to the evaluator. Significant main effects were found for similarity; which contributed to the recommendation of a higher starting salary for the applicant. The results revealed also that the similar applicant was perceived by the evaluator as more qualified than the dissimilar applicant.

Applying the similarity-attraction model to the employment interview, "demographic similarity between
the recruiter and applicant on characteristics such as sex leads to perceived similarity in attitudes and values which in turn leads to interpersonal attraction between the recruiter and applicant' (Graves & Powell, 1995, p. 86). Graves and Powell suggested that strong interpersonal attraction between recruiter and applicant will lead to a high evaluation of the applicant. Not only does this occur in the employment interview setting, but it occurs also in the performance evaluation setting.

Performance evaluation research is pertinent to the selection process because "an interview is essentially a performance evaluation of how well the applicant responds to an interviewer's questions" (Lin, Dobbins & Farh, 1992, p. 363). Individuals are attracted to people who they perceive as similar to them, and this attraction or liking affects performance ratings (Cardy & Dobbins, 1986). Thus, it may be surmised that liking affects the selection process in a similar manner.

If sex of applicant affects performance or interview evaluations, then sex may affect also the liking of or interpersonal attraction to an applicant. Yet, research has shown that female employees are rated the same or higher than male employees (Pulakos & Wexley, 1983). In spite of existing data, national surveys have revealed that female managers perceived themselves as discriminated against in
the appraisal of their performance (Dipboye, 1992).

In their investigation of the effect of perceptual similarity and sex on performance appraisals, Pulakos and Wexley (1983) manipulated four independent variables: (1) perceptual similarity of subordinate; (2) perceptual similarity of manager; (3) sex of subordinate and; (4) sex of manager. Manager-subordinate dyads were created; each dyad represented either a similar group (manager and subordinate perceived themselves as similar) or a dissimilar group (manager and subordinate perceived themselves as dissimilar). Examination of the dyads revealed that perceptual similarity of subordinate and of manager had an effect on performance appraisals.

The only significant interaction between perceptual similarity of subordinate and sex of subordinate resulted on the dependability scale. Thus, "when subordinates perceived themselves as similar to their managers, the managers gave significantly higher dependability ratings to female than to male subordinates" (p. 136). This result may indicate that sex is not a salient component of perceptual similarity.

Research has suggested that sex-similarity generates interpersonal attraction which affects decisions made by evaluators during the selection process. For instance, female managers are more willing than male managers to hire and promote women (Perry, Davis-Blake, & Kulik, 1994). Thus,
the sex-similarity attraction theory is a possible explanation for interaction effects between sex of evaluator and sex of applicant on decisions to hire or promote.

Research has revealed conflicting support for the existence of sex discrimination in the selection and/or evaluation process. The sex-similarity attraction paradigm suggests that sex influences interpersonal attraction or attitude similarity. Thus, research should continue to consider sex in conjunction with other possible variables which may be affecting decisions to hire or promote.

Researchers have identified numerous biases which affect the perceptions formed by evaluators during the first phase of the selection process. These biases include, for example, stereotyping by race, sex, age, etc. Biases may be formed based on the reading of the resume or reference letter and may result in the stereotyping of an applicant.

Arvey (1979) offered an explanation of how stereotyping affects the ratings of an evaluator. This explanation suggested that stereotyping is a process which matches stereotypic traits with characteristics thought to be necessary to perform the job. The result of this stereotyping process is the occurrence of sex congruency.

Sex congruency occurs when an occupation is sex-typed as being either male dominated or female dominated. Studies have shown that "females receive more favorable ratings for
jobs that are predominated by females, and males receive more favorable ratings for jobs that are predominated by males" (Muchinsky & Harris, 1977, p. 96). Thus, females and males may be disadvantaged when applying for sex-incongruent jobs.

Sharp and Post (1980) conducted a study to determine whether sex-incongruent job applicants would be rated less favorably than sex-congruent job applicants. They varied systematically applicant sex and position sex-type. Contrary to predicted results, sex-congruency of the job and sex of the applicant did not yield significant interaction effects. One significant main effect was found with respect to applicant sex, male applicants were predicted to be more successful than their female counterparts, regardless of the applied for position.

As noted earlier, a crucial determining factor of the interpersonal attraction theory is the variable that is often referred to as similarity. At the screening stage of the selection process, similarity may have a subtle influence on the rating of an applicant by the potential employer. The extent of influence may depend on a combination of variables.

For instance, at the screening stage similarity between an applicant and potential employer may be on the basis of sex, educational level, or a number of unidentified variables. It is untested whether or not the similarity attraction theory
affects all stages of the selection process. Furthermore, the similarity attraction theory may have limited application depending on the future extent of interaction between an applicant and a potential employer.

The superior-subordinate relationship represents a major limitation of past research into similar-sex attraction. Past research has failed to consider the impact of social distance on the selection process in general. Specifically, research has looked traditionally at positions that failed to involve close daily contact between superior and subordinate.

Social distance theory suggests that an individual may fail to allow a dissimilar individual to penetrate an immediate organizational boundary. Thus, much of the past research may lack generalizability to employment positions which involve close daily contact between superior and subordinate. For instance, the relationship between principal and assistant principal is intimate because the line-staff continuity between these two positions is uninterrupted.

A principal and assistant principal must maintain a close working relationship. In such a situation, similarity attraction and social distance theories will influence decision-making during the selection process. Specifically, a principal, knowing the need for a close working relationship, will prefer a biographically or demographically similar work partner.
Social Distance Theory

The influence of social and personality variables on perception has been discussed at length by psychologists. Early researchers "concluded that all perception is the result of what we have learned to perceive from our culture and subcultural groups" (Forgus, 1966, p. 250). Proceeding with caution, researchers have operated under this basic premise as they investigated the influence of group membership on the discriminatory process.

In general, social perception studies suggested that such experiential factors as conditioning and familiarity affected the discrimination or judgment of an individual, making one sensitive to certain attributes (Forgus, 1966). Thus, the dynamics of an interaction will be influenced by personality factors and attributes of each individual in the given situation. Social distance theory extends social perception studies in an attempt to identify specific norms of behavior which guide interactions between individuals.

Triandis and Triandis (1967) reported that people have norms of avoidance for individuals different from themselves. "The degree to which individuals are willing to accept people who differ from themselves into their own social group may be considered a measure of their "social distance" from these outgroup persons" (p. 199). Researchers have measured social
distance by having people indicate whether they would accept or exclude a particular person as an intimate friend, as a neighbor, as a fellow employee, etc. (Bogardus, 1966).

While an outgroup individual may be accepted as a neighbor, the same individual may not be accepted as an intimate friend. Social distance will be influenced by both characteristics of the evaluatee and characteristics of the evaluator. These characteristics include, for example, race, sex, religion, and personality traits.

Social distance from other people may be determined by societal norms, by demographic characteristics, and by personality of an individual. For instance, "upper class subjects tend to show less social distance than lower class subjects" (Triandis & Triandis, 1967, p. 202). In addition, insecure individuals are likely to feel threatened by those different from themselves and thus will show more social distance than secure individuals.

The "social distance" theory applies to professional as well as to personal relationships. That is, within an organization certain individuals will work collaboratively, while others will work less collaboratively. "Social distance" theory suggests that individuals would prefer to work collaboratively with those who are similar to themselves.

Organizations are structured according to environmental and situational circumstances which determine frequency and
extent of contact among any given individuals (Rand & Wexley, 1975). Social distance theory can be used to explain how individuals within an organization maintain physical and functional distances from outgroup persons. Those considered as outgroup persons will vary according to individual bias and interpersonal attraction. Thus, the desired physical and functional distance between two individuals will vary, at least in part, positively with attraction among these individuals (Rand & Wexley, 1975).

In many superior-subordinate relationships, the physical and functional distances between individuals are relatively large. If the superior will have little intimate contact with the subordinate, focus will be directed to performance and ability of the subordinate. Thus, existing stereotypes fail to be as important when making a decision to hire an individual with whom little contact will occur.

Becker presented a theory of labor market discrimination that presumes a "taste" for distance from individuals who are different from self. According to this theory, employers may evaluate differently male and female applicants. The result of this differential treatment may be organizational and legal barriers to employment of female or male applicants.

Nieva and Gutek (1980) reported that there is a general preference for working with males rather than females. Organizational barriers can be used to maintain a desired
"social distance" from a female applicant or co-worker. These barriers perpetuate sex discrimination and sex-typed occupations.

Rand and Wexley (1975) noted that physical and social distances between individuals will vary positively with attraction among individuals. Although the studies are inconclusive, sex of evaluator and sex of applicant may influence attraction and decision-making during the selection process. However subtle this influence may be, the result is sex discrimination during the evaluation process.

As noted earlier, propinquity, or the extent of interaction, will affect interpersonal attraction and evaluation. Likewise, propinquity will affect the degree of social distance between given individuals. In a close working relationship, such as between a principal and assistant principal, the extent of interaction will be frequent. Social distance theory suggests that the principal will choose a similar rather than a dissimilar applicant as assistant principal due to the frequent interaction between a principal and assistant principal.
Independent Variables

Sex of Evaluator

Muchinsky and Harris (1977) examined the evaluations of male and female applicants. The independent variables of interest were: 1) sex of rater; 2) sex of applicant; 3) scholastic standing; and 4) job type. A 20-point scale served as the dependent variable and was used to measure the strength of the rater's recommendation about hiring the applicant.

The raters were 50 male and 50 female students who received credit for their participation in the study. Sex of the applicant was manipulated using name and designation of male or female on the resume of each applicant. Scholastic standing was manipulated using three levels (high, average, or low). Job type was varied by presenting three job descriptions to the subjects.

The three jobs were: 1) management trainee in the field of mechanical engineering, 2) assistant director of a child day-care center, and 3) assistant copy editor for a city newspaper. The mechanical engineering job was rated as a predominantly male job, the child day-care job was rated as a predominantly female job, and the copy editor job was rated as neither a predominantly male nor female job. According to a manipulation check, the sex-role stereotyping of these three
occupations was perceived as intended in the experimental
design.

The authors observed several significant two-way and
three-way interactions involving sex of the rater. Sex of rater
by sex of applicant by job type produced a significant three-
way interaction, which indicated that the ratings given to
male and female applicants depended on the job type and on
whether the raters were male or female. Specifically, results
revealed that female raters gave significantly higher ratings
than male raters to females applying for the male sex-typed
occupation. Also, male raters gave significantly higher ratings
to female applicants than to male applicants for the female
sex-typed occupation.

These authors suggested that sex of the rater is likely to
interact with other factors and result in a subtle form of
discrimination against both male and female applicants. They
further suggested that future studies should investigate subtle
interactive effects which result in discrimination. For the
purposes of their study, discrimination occurs when people
with equal qualifications do not have an equal probability of
being hired (Guion, 1966).

A noteworthy finding from the Muchinsky and Harris
(1977) study concerns the increased likelihood of rater bias
when male and female applicants possess average
qualifications. That is, when the applicant is considered as
neither highly qualified nor poorly qualified, the judgment of
raters is likely to be influenced by stereotypical impressions.
In light of the significant three-way interaction for sex of
rater by job type by scholastic standing, future studies are
needed to explore other potential interactions with sex of
rater.

Past experiments on social perception have indicated that
personality factors are more likely to affect an individual
under conditions where it is not easy to make a discrimination
between two or more choices (Forgus, 1966). For instance, if
the stimulus is unclear, factors such as value, attitude, and
anxiety can influence the nature of the discrimination. Thus,
stereotyping by sex or by job type may be a function of the
biases of the evaluator in situations where little information
about an applicant is provided.

Stereotyping may have a significant influence on the
selection process which is generally subjective and susceptible
to the biases of an evaluator. Individuals are evaluated often
on the basis of their membership in a particular group (e.g.,
race, sex, age, etc.) (Arvey & Faley, 1992). Thus, stereotyping
can be detrimental to individuals who belong to a minority
group which typically has negative trait descriptions
associated with the membership.

Arvey suggested three possible explanations of how
stereotyping affects the ratings of an evaluator: (1) by
possessing a negative opinion of a particular minority group; 
(2) by matching stereotypic traits with job characteristics; and 
(3) by using a different set of criteria when evaluating an 
applicant (Arvey, 1979). First, he commented on the negative 
tones ascribed to an individual from a minority group. For 
instance, an interviewer with a negative opinion of a 
particular minority group will give low evaluations to an 
individual from this group. Thus, an individual from a 
minority group will have a disadvantage when competing 
with other non-minority individuals.

A second effect of stereotyping may occur during the 
"process of matching the stereotypic traits with the 
characteristics thought to be necessary to perform the job" 
(Arvey, 1979, p. 743). Arvey reviewed two studies which 
suggested that this type of stereotyping is an advantage to 
men, but a strong disadvantage to women. Women were 
perceived as having characteristics which are less similar to 
descriptions of a successful manager than characteristics 
ascribed to men (see Glick, 1991; Steinberg and Shapiro, 
1982).

A third possible effect of stereotyping is on the set of 
criteria used to evaluate each applicant. It has been 
suggested that a different set of criteria is used for evaluating 
a female applicant than a male applicant (Arvey, 1979). It is 
possible that the criteria used by interviewers may vary
depending on whether the interviewer is a male or a female.

Oliphant and Alexander (1982) considered how sex of the evaluator or rater would affect reactions to resumes in which sex, age, marital status, and academic achievement were systematically varied. Their hypothesis was that female raters will evaluate applicants more positively than will male raters. As discussed in an earlier study by Muchinsky and Harris (1977), they had reported previously that female raters were more lenient than males.

However, Oliphant and Alexander failed to accept their hypothesis for female raters and reported no significant main effect for sex of the rater. Yet, sex of rater was involved in two-, three-, and four-way significant interactions. While not conclusive, these results do suggest that further attention should be directed towards sex of rater and the potential for interaction with other variables.

Yet another study examined rater bias in the assessment of applicant performance. This study by Hamner, Kim, Baird and Bigoness, (1974), examined race and sex as determinants of evaluator ratings. In general, female raters gave higher ratings on task performance to female applicants than male raters gave to female applicants. The preference of female raters for female applicants would tend to support the sex-similarity attraction paradigm. Although the preference of male raters was not found to hold for male applicants. Rather,
male raters showed a significant preference for female applicants over male applicants.

Consequently, it seems the results are still out on the extent and even direction of rater bias in the evaluation of applicants. The existence of such varied and mixed results on the influence of sex of rater supports the need for further study of this variable. In particular, it is worth investigating the potential interactive effects among sex of rater and other factors that may result in discriminatory selection decisions.

Sex of Applicant

Several studies have demonstrated that interviewers tend to give lower evaluations to female applicants than to male applicants (see e.g. Arvey, 1979; Cohen & Bunker, 1975; Dipboye, Fromkin & Wiback, 1975). These lower evaluations are given to female applicants even when they have similar or identical qualifications to male applicants (Arvey, 1979). Evaluators were more likely to hire a male applicant than a female applicant when only one candidate was to be hired (Dipboye et al., 1975). Furthermore, attractive male candidates were ranked higher on employability scales than attractive female candidates (Dipboye et al., 1975).

The influence of sex of the applicant on the evaluation of paper credentials has received more attention than any other
independent variables in the selection research literature (Dipboye, 1992). In a meta-analysis of 19 studies by Olian, Schwab, and Haberfeld (1988), a mean effect size for sex of .41 that favored male applicants over female applicants.

Heilman, Martell and Simon (1988) discussed the occurrence of sex discrimination. They noted that sex discrimination is a well documented and compelling phenomenon which has negative effects on the evaluations of women seeking nontraditional jobs. Sex role stereotypes promote sex discrimination because the stereotypes associated with females are "antithetical to those presumed necessary for success at traditionally male jobs" (Heilman et al., 1988, p. 99).

Applicant sex (male or female), job sex-type (extremely male sex-typed or moderately male sextyped), and performance ability of the applicant (high performance ability or unknown performance ability) were manipulated by Heilman et al. (1988). Females with high performance ability were rated favorably for the extremely male sex-typed job ($t(58) = 5.10, p<.001, r^2 = .14$). Thus, it appears sex bias can facilitate a positive evaluation of females under very specific and controlled conditions.

The degree of sex bias against applicants has been shown to vary considerably across studies (Heilman et al., 1988; Olian, Schwab & Haberfeld, 1988). Sex of the applicant has repeatedly demonstrated a significant main effect on
employability ratings. In addition to searching for main effects, "research has focused on several variables that are predicted to interact with sex of the applicant in influencing the evaluations given" (Arvey, 1979, p. 754). These studies have identified variables that moderate the strength of sex biases (Dipboye, 1992; Olian et al., 1988). Of these variables, type of job for which the applicant is being considered has emerged as a moderator of sex bias in evaluations particularly when the interviewer stereotypes the job on the basis of sex (Cohen & Bunker, 1975).

Rater evaluations are assumed to be influenced in a situation where a job is sex-typed as traditionally masculine or traditionally feminine. Research has presented evidence confirming the notion of "sex-congruency" (Arvey, 1979). Zikmund et al. (1978) reported that "access sex discrimination still exists in traditionally male occupations" (p. 253).

Studies of sex-congruency have revealed two theories explaining discrimination against applicants on the basis of sex. The first theory suggests that male and female applicants are matched to jobs on the basis of the ratio of men and women currently holding the job (see Glick, Zion, & Nelson, 1988). The second theory suggests that male and female applicants are matched to jobs for which they are presumed to have the masculine or feminine traits deemed appropriate for the job (see Cash, Gillen, & Burns, 1977; Cohen & Bunker,
Glick (1991) has proposed the "sex-matching" model to describe the first theory and the "gender-typed trait matching" model to describe the second theory.

These two models are useful as one considers the following study by Steinberg and Shapiro (1982). The authors failed to observe sex differences in personality traits of female and male master of business administration students. Their results suggested that both males and females "with managerial aspirations score very high on many of the traits that are perceived as being necessary for management—dominance, responsibility, achievement, and self-assurance" (p. 308).

While sex-matching may occur in occupations dominated by males or by females, the effect of gender-typed trait matching may moderate such an occurrence. Specifically, males with feminine traits or females with masculine traits may be more likely to penetrate the sex-matching barrier. This has implications for enabling interpretation of past conflicting results with respect to discrimination on the basis of applicant sex. Thus, there is much evidence suggesting that interviewers frequently stereotype jobs on the basis of sex (see e.g. Heilman, Martell & Simon, 1988; Olian et al., 1988).

Prior research has examined extensively the effects of sex of the applicant and sex of the evaluator on selection, evaluation and promotion decisions (Graves & Powell, 1995;
Simas & McCarrey, 1979). Much of this research examined a focal position which would involve limited interaction between employer and potential employee. Thus, selection research has failed to consider that a preference for same-sex interactions may influence selection decisions when the employer-employee interaction will be close and frequent.

To strengthen the potential for an interaction between sex of the evaluator and sex of the applicant, a reference letter was included as a third variable. The reference letter is a source of unique variance in the selection decision. Thus, it is useful to look at the contribution of this variable to the selection process.

Sex of Reference Source

During the screening stage of the selection process, paper credentials of an applicant are reviewed by the evaluator. The paper credentials of an applicant include typically a resume and reference letters. Although reference letters are used by most organizations as part of the selection process, less is known about letters of reference than resume materials (Knouse, 1983).

The reference letter is used in personnel selection because it provides judgments and information from individuals familiar with the applicant (Muchinsky, 1979).
Some employers have reported using the reference letter to substantiate information provided by an applicant (Beason & Belt, 1976). Other employers have used the reference letter to obtain additional information about the applicant.

Whether substantiating given information or providing additional information, the reference letter is frequently used in personnel selection. Past research has indicated that 82% to 99% of various companies reported using some form of reference information (Muchinsky, 1979). Yet, there remains a paucity of research on the use of reference information.

Researchers have investigated the content of reference letters and have reported that employers prefer information which relates to personality traits (Sleight & Bell, 1954), adjectives which deal with mental agility (Peres & Garcia, 1962), and specific examples of applicant performance (Knouse, 1983). The favorability of a reference letter has been shown also to affect impressions of an employer (Tucker & Rowe, 1979). In fact, most reference letters contain only positive information about an applicant.

Source of the reference letter has also been investigated. This research indicated that information contained in the reference reveals as much about the letter writer as about the person being recommended (Knouse, 1983). Thus, the source of the reference letter warrants further attention.
Knouse (1987a) suggested that the reference letter reader generalizes attributions from the letter writer to attributions for the applicant. For instance, status of the letter writer may affect the evaluation of an applicant. Source of the reference letter, that is, a male or female writer, may contribute to and even intensify the interpersonal attraction between evaluator and applicant.

The informational content of the reference letter may significantly affect perceptions of the applicant. It has been suggested that the information conveyed in the letter should be in terms of specific performance examples, rather than in terms of generalized adjectives and traits (Knouse, 1983).

In a study by Bredeson (1982) the impact of reference letters on the overall evaluation of candidates was considered. The results revealed no relationship of length or tone of information in reference letters to the overall evaluation of applicants. While this evidence suggests that reference letters do not contribute to the evaluation of applicants, the uniform use of reference letters warrants further investigation into their contribution to applicant selection.

Advancements

Selection research has evolved along the macroanalytic and microanalytic schools of thought. The present study
contributes to the microanalytic school of thought. Specifically, this study focuses on those variables which may influence evaluations of interviewers during the preinterview phase of the selection process.

Variables found to influence decision making during the selection process include chronological age of applicant (Young & Joseph, 1989; Young & Voss, 1986), skill obsolescence of applicant (Young & Joseph, 1989), scholastic standing (Muchinsky & Harris, 1977), sex of applicant (Arvey, 1979; Nieva & Gutek, 1980; Rosen & Jerdee, 1974), and sex of evaluator (Muchinsky & Harris, 1977; Perry, Davis-Blake, & Kulik, 1994). While some of these are legitimate influences, others are irrelevant and possibly illegal influences on the decision making process. School administrators must reexamine the types of information on which they rely when selecting applicants for positions in their schools.

The existence of conflicting past research provides an opportunity to advance existing knowledge. For instance, the degree of sex bias toward applicants has been shown to vary considerably across studies. Knouse (1989) reported that resume readers are biased toward male applicants. On the other hand, Pulakos and Wexley (1983) suggested that females are rated the same or higher than males on employment evaluations.
Another example of conflicting results concerns research about sex congruency. Muchinsky and Harris (1977) reported that sex congruency and sex of the applicant did affect the ratings given to applicants. Yet, Sharp and Post (1980) failed to find a significant interaction between sex congruency of the job and sex of the applicant.

To resolve these conflicts, selection research must continue to examine these and other variables that may influence decision making during the selection process. An integrative approach using social distance and interpersonal attraction theories provides the theoretical framework on which this study is based. Interpersonal attraction theory suggests that perceived biographical similarity of evaluator and applicant will result in higher evaluation of the similar applicant. Social distance theory provides a structure for examining whether an evaluator will rate differently a dissimilar-sex applicant from a similar-sex applicant when a close working relationship is involved between a superior and subordinate.
CHAPTER 3

METHODOLOGY

Subjects

All public high school principals throughout the 48 contiguous United States constituted the population for this investigation. A total list of 272 participant names were generated randomly by Market Data Retrieval (1996). The sample consisted of 136 female and 136 male principals selected by a stratified \((N=272)\) random procedure. A stratified random procedure was used to ensure that the sample consisted of equal numbers of male and female principals.

To determine sample size, a power analysis was performed according to procedures recommended by Cohen (1977, pp. 396-400). The number of subjects \((N=136)\) was specified by the power analysis based on a desired medium effect size (omega squared = .25), a defined level of
significance (alpha = .05), and a specific power level (power = .80). Because numerous studies have reported response rates in the 60% range or lower, the number of subjects (N=136) was increased (N=272) to ensure that I would have enough subjects for each cell.

These participants were sent a packet of information containing an introductory letter describing the research project, a job description for the focal position, a resume for a hypothetical applicant, a reference letter for that applicant, an applicant evaluation form, a demographic questionnaire (see Appendix C), and an addressed return envelope to which a collective postage stamp had been applied. Each participant was asked to review the resume and reference letter of a hypothetical applicant for a position in their building as an assistant principal. The resume and reference letter each varied by sex, resulting in nine different experimental or treatment conditions. An evaluation form was provided to participants so that they could record their reaction to the hypothetical applicant packet. Descriptive data for these participants are contained in Table 1.

A pilot study was conducted to check manipulation of the independent variables. Participants in the pilot study were similar in characteristics to the participants of the actual study. The pilot study is described in the section that follows.
Independent Variables

The following three independent variables were investigated: (1) sex of the evaluator; (2) sex of the applicant; and (3) sex of the reference letter writer. The focal position utilized in the job description, an assistant principal in a High School setting, was held constant across all experimental conditions. The job description used was an abbreviated form of a model job description provided by the National School Boards Association (National School Boards Association, 1993). Each participant was provided the same job description along with the applicant materials.

Sex of the evaluating principal was determined from the list supplied by Market Data Retrieval (1996). The sex of the evaluator was varied by stratified random selection of participants. Principals of a specific sex were selected at random and assigned at random to one of the experimental conditions.

Applicant sex was operationalized by placing a male or female name, or initials on the hypothetical applicant resume and in the reference letter. Applicant sex was varied by the names: Rebecca L. Johnson or Robert L. Johnson. A reference letter for the hypothetical applicant was used to vary the sex of the reference letter writer.
The reference letter purportedly came from the hypothetical applicant's current supervisor, the principal of the high school in which the applicant is employed. Sex of the reference letter writer was indicated by the signature and printed name at the close of each letter. The sex of the letter writer was indicated by the name of the letter writer: Anne Jones or Andrew Jones.

A pilot study was conducted to check manipulation of the treatment conditions involving different combinations for sex of applicant and sex of reference letter writer. An interpretation/demographic information form was used to determine if participants perceived the sex of the hypothetical applicant, if participants perceived the sex of the reference letter writer, and if participants perceived the focal position for which the applicant was applying. This form is shown in Appendix A.

For each experimental condition, subjects were presented with a job description, a hypothetical applicant resume, a reference letter for the hypothetical applicant, an applicant evaluation form, and an interpretation/demographic information form (as described in the previous paragraph). Sex of applicant and sex of reference letter writer was varied for each experimental condition to determine if participants perceived the operationalization of these variables within a specific applicant packet of information. The focal position,
that of an assistant principal, was held constant for each experimental condition.

Three resumes representing hypothetical male, female, and neutral applicants are shown in Appendix A. The resume representing a hypothetical neutral applicant contained only initials of the applicant.

The reference letters representing each of the nine treatment conditions are contained in Appendix A. The nine reference letters illustrate the nine possible combinations of male, female, or neutral applicants with male, female, or neutral reference letter writers. Thus, each of the nine experimental conditions represented a different combination of sex of the applicant and sex of the reference letter writer.

The pilot instruments were administered to a group (N = 65) of experienced teachers enrolled in graduate courses at a large Midwestern university. These participants were volunteers and assurance was given that participation in the study would be confidential and anonymous. Summary statistics for participants in the pilot study are contained in Table 1.

A standardized script was followed when administering these materials. This script is shown in Appendix B. After the instruments had been completed, the participants were thanked for their contributions, were debriefed concerning the purpose of the study, and were provided an opportunity
to ask questions.

TABLE 3.1
Descriptive Statistics for Participants in Pilot Study

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex (a)</td>
<td>64</td>
<td>.38</td>
<td>.12</td>
<td>0-1</td>
</tr>
<tr>
<td>Teaching Experience (Years)</td>
<td>64</td>
<td>8.42</td>
<td>6.18</td>
<td>1-24</td>
</tr>
<tr>
<td>Number of Jobs in Teaching sought</td>
<td>62</td>
<td>5.56</td>
<td>20.43</td>
<td>1-100</td>
</tr>
</tbody>
</table>

(a) Scored: Males=1; Females=0.

Following the example of Kasten and Young (1983), a Chi-square statistic was used to analyze the data. Results of this test, as shown in Table 2, indicated that participants perceived the manipulation of sex of applicant ($X^2 = 135.82, p<.01$). The results in Table 3 reveal that participants perceived the manipulation of sex of reference letter writer ($X^2 = 52.28, p<.01$). However, the use of initials for both the reference letter
writer and applicant was not perceived as indicating that the sex of these individuals was neutral.

**TABLE 3.2**

<table>
<thead>
<tr>
<th></th>
<th>MALE</th>
<th>FEMALE</th>
<th>NEUTRAL</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACTUAL SEX</td>
<td>MALE</td>
<td>25</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>FEMALE</td>
<td>0</td>
<td>27</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>NEUTRAL</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>35</td>
<td>27</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: Chi square = 135.82, p<.01, n=65
Cramers Measure of Association, V = $X^2$ (Marascuilo & Serlin, 1988)

Cramers measure of association was used to test the strength of the association. The obtained value of .83 indicated a strong relationship between actual and perceived sex of applicant. A moderately strong relationship between actual and perceived sex of reference letter writer was indicated by a Cramers measure of .63. Since all but one of
the 65 participants correctly perceived that an assistant principalship was the focal position, no analysis was computed for this data.

**TABLE 3.3**

REFERENCE LETTER WRITER

<table>
<thead>
<tr>
<th>PERCEIVED SEX</th>
<th>MALE</th>
<th>FEMALE</th>
<th>NEUTRAL</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACTUAL SEX</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MALE</td>
<td>19</td>
<td>0</td>
<td>6</td>
<td>25</td>
</tr>
<tr>
<td>FEMALE</td>
<td>3</td>
<td>18</td>
<td>6</td>
<td>27</td>
</tr>
<tr>
<td>NEUTRAL</td>
<td>8</td>
<td>1</td>
<td>4</td>
<td>13</td>
</tr>
</tbody>
</table>

Note: Chi square = 52.28, p<.01, n=65
Cramers Measure of Association, \( V = \frac{X^2}{MN} \) (Marascuilo & Serlin, 1988)

**Dependent Variables**

Two dependent variables were used in this study. Both variables were operationalized via a candidate evaluation
form used for screening teacher applicants. The form was modified slightly for use in screening applicants for the position of assistant principal. This form is shown in Appendix C.

The form consisted of a total of six criteria on which the hypothetical applicant was evaluated. One of the dependent variables was the probability of being granted an interview. A Likert-type scale ranging from one through ten was used, with a higher rating indicating a more favorable evaluation of the applicant.

The first five criteria on the form comprised the other dependent variable. A composite score was computed using the following five criteria: (1) communication skill, (2) overall school contribution, (3) disciplinary ability, (4) personal warmth, and (5) growth potential (Stallard, 1990; Young & Allison, 1982; Young & Joseph, 1989; Young & McMurry, 1986; Young & Pounder, 1985). A four point Likert-type scale was used for each criteria, with a higher evaluation indicating a more favorable response.

A pilot study was done to assess the reliability of this dependent variable. Coefficient alpha was computed with the five criteria which comprised one of the dependent variables on the evaluation form. The resultant coefficient alpha for reactions of subjects was .80. This is within the acceptable ranges suggested by Nunnally (1967).
Procedures - Actual Study

Participants of a specific sex were selected at random and were randomly assigned to one of four experimental conditions. Each participant received a packet of information containing a cover letter describing the research project, a position description, an applicant resume, a letter of reference for the applicant, an applicant evaluation form, and a demographic questionnaire.

To ensure a systematic bias was not introduced, and to meet statistical assumptions, male and female principals were randomly assigned in equal proportions to one of four information packets. The four packets of information reflected all possible combinations of the dependent variables, applicant sex and reference writer sex. These packets were then numbered from one to four via a randomization procedure. Each male and female principal was assigned a number corresponding to the four information packets. This assignment was done by drawing from a hat containing the numbers one to four.

Design and Analysis

The present investigation examined variables which may contribute to discrimination during the screening phase of the
selection process. To assess perceptions of practicing male and female administrators toward male and female applicants at the screening stage of the selection process, hypothetical applicants were created through paper credentials. Credentials similar to those used by most college placement offices were used to manipulate sex of hypothetical applicants by varying the biographical sections of the credentials.

Contained with the paper credentials was an applicant resume and a reference letter supporting the hypothetical candidates' employment. The independent variables, each containing two levels, were sex of applicant, sex of evaluator, and sex of the reference letter writer. These manipulations produced a 2 X 2 X 2 completely crossed factorial design. This design yielded a total of eight cells.
CHAPTER 4

RESULTS

Descriptive Statistics

All participants in the study were public high school principals. Participant names were generated at random by Market Data Retrieval (1996). A total of 150 out of a sample of 272 principals (or a 55% response rate) participated in the present study.

The initial mailing to principals (N=272) resulted in a 49% response rate. A second mailing was conducted to increase the response rate (increased to 55% after the second mailing). This second mailing was similar to the first mailing; directions in the cover letter for the second mailing indicated that the materials were being resent as a follow-up to the initial mailing. The follow-up mailing was sent only to those who failed to respond to the initial mailing.

An analysis of variance was used to detect possible differences between principals responding to the initial
mailing and principals responding to the follow-up mailing. Initial and follow-up principals were compared with respect to several dependent variables. The mean responses of principals were found to be similar across mailings with respect to sex (79 males; 71 females), age (initial mean=47.35; follow-up mean=49.77), size of school (student enrollment) (initial mean=712.40; follow-up mean=867.08), teaching experience (initial mean=18.30; follow-up mean=15.40), administrative experience (initial mean=12.32; follow-up mean=10.10) as well as their responses on the two dependent variables.

Descriptive data for participating individuals are pooled and are contained in Table 4. The average age of participants is 48.69 years. All participants had previous experience as teachers (average of 17.59 years of teaching experience) prior to their employment as high school principals. Respondents indicate that they had taught in an average of three school districts, with the number reported as ranging from 1 to 34 with a standard deviation of 4.18.

Ethnicity of respondents was assessed according to five categories. A majority of the respondents are White/Euro American (134 of 140). Other respondents indicated their race as Black/African-American (5 of 140) or Latino/Latina (1 of 140). No respondents indicated their race as being Asian/Pacific Islander, American Indian/Alaskan, or Other.
TABLE 4.4
CHARACTERISTICS OF PARTICIPATING PUBLIC HIGH SCHOOL PRINCIPALS N=150

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (Years)</td>
<td>137</td>
<td>48.69</td>
<td>5.56</td>
<td>29</td>
</tr>
<tr>
<td>Sex (a)</td>
<td>150</td>
<td>1.48</td>
<td>.50</td>
<td>1</td>
</tr>
<tr>
<td>Teaching Experience (Years)</td>
<td>145</td>
<td>17.59</td>
<td>8.19</td>
<td>34.5</td>
</tr>
<tr>
<td>Number of Districts In Which Taught</td>
<td>145</td>
<td>2.97</td>
<td>4.18</td>
<td>34</td>
</tr>
<tr>
<td>Administrative Experience (Years)</td>
<td>145</td>
<td>11.89</td>
<td>6.43</td>
<td>31</td>
</tr>
<tr>
<td>Number of Districts In Which Served</td>
<td>144</td>
<td>1.69</td>
<td>.95</td>
<td>6</td>
</tr>
<tr>
<td>Student Enrollment</td>
<td>150</td>
<td>826.26</td>
<td>663.58</td>
<td>4351</td>
</tr>
<tr>
<td>Use Resumes in Screening Process (b)</td>
<td>144</td>
<td>1.99</td>
<td>.12</td>
<td>1</td>
</tr>
</tbody>
</table>

(a) Scored: Male = 1, Female = 2
(b) Scored: No=1, Yes=2

NOTE: N’s vary because participants did not respond to all items.
Many participants reported that they had served as an administrator in more than one school district (average of 1.69 districts in which served). The principals participating reported also that they had an average of 12 years of administrative experience, ranging from a high of 32 to a low of one. In their present administrative role, the respondent principals had an average student enrollment of 826 in their building.

To provide an indication of the external validity for the procedures used in this study, principals were requested to indicate if they use paper credentials to screen applicants. In response to this query, principals overwhelmingly indicated that they do, indeed, use paper credentials to screen applicants for the assistant principalship. In fact, all respondents, bar one, indicated that they use paper credentials during the screening stage of applicant selection.

Hypothetical administrator candidates were evaluated according to two dependent variables. One dependent variable was the probability of being granted an interview. A Likert-type scale ranging from one through ten was used, with a higher rating indicating a higher probability of being extended an invitation to interview.

The other dependent variable consisted of five criteria on which the hypothetical applicant was evaluated. These five criteria are: (1) communication skill, (2) overall school
contribution, (3) disciplinary ability, (4) personal warmth, and (5) growth potential (Stallard, 1990; Young & Allison, 1982; Young & Joseph, 1989; Young & McMurry, 1986; Young & Pounder, 1985). Each criterion was rated on a four point Likert-type scale. Higher ratings reflect a more positive evaluation than lower ratings.

Ratings on each criterion were summed to form a composite score. Coefficient alpha was used to assess the internal consistency of the composite score. The composite score possessed adequate internal consistency (alpha = .79) as suggested by Nunnally (1967). Summary data for participant ratings on the two dependent variables are contained in Table 5.

The independent variables for this study are sex of the evaluator (male/female), sex of the applicant (male/female), and sex of the reference letter writer (male/female). Each of the independent variables was manipulated to reflect two levels. These manipulations produced a 2 X 2 X 2 completely crossed factorial design. This design yielded a total of eight cells. Response rates across these cells were found to vary. Contained in Table 5 is a breakdown for treatment condition by response rate.
TABLE 4.5

Summary of Cell Means

Independent Variables: A = Evaluator Sex (1=Male, 2=Female),
B = Applicant Sex (1=Male, 2=Female),
C = Reference Source Sex (1=Male, 2=Female)

<table>
<thead>
<tr>
<th>Reference Source Sex:</th>
<th>(C1) Male</th>
<th></th>
<th>(C2) Female</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(B1)</td>
<td></td>
<td>(B1)</td>
<td></td>
</tr>
<tr>
<td>Applicant Sex:</td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Evaluator Sex:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>M1 14.57</td>
<td>15.73</td>
<td>15.77</td>
<td>15.40</td>
</tr>
<tr>
<td>(A1) M2 5.63</td>
<td>6.93</td>
<td>7.33</td>
<td>6.87</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>M1 13.33</td>
<td>15.07</td>
<td>15.40</td>
<td>16.00</td>
</tr>
<tr>
<td>(A2) M2 4.70</td>
<td>6.30</td>
<td>6.27</td>
<td>6.80</td>
<td></td>
</tr>
</tbody>
</table>

N = 120
n = 15

Note: M1 represents the mean based on five criteria; each criterion was summed to form a composite score. M2 represents the mean based on a single score representing probability of interview offer.
To assess for a treatment by response rate interaction, a chi square statistic was calculated. Because an equal number of principals were assigned at random to each treatment condition, the expected value used for analysis is the average response rate (E=18.4) across treatment conditions. The obtained chi square (X^2= 3.93) indicates that response rates were not systematically related to treatment conditions.

**Inferential Statistics**

Each null hypotheses was tested by performing a multivariate analysis of variance (MANOVA). An alpha level of .05 was set as the decisional criterion for rejecting each multivariate hypotheses. Results of the MANOVA and univariate tests are shown in Table 6.

One significant multivariate effect was detected for applicant sex. To determine the multivariate effect, an examination was made for each univariate analysis involving applicant sex. This examination revealed that sex of the applicant was statistically significant with both dependent variables. Given the statistically significant effects detected with both dependent variables, an examination was made on the marginal means. This examination revealed that females were more likely than males both to receive a higher evaluation and to receive an interview offer.
To determine practical significance, (McNemar, 1955, p. 274) an eta value was calculated. These calculations indicate that 4% of the variance is accounted for by applicant sex in the overall rating and 5% of the variance is accounted for by applicant sex in the decision to extend an offer to interview.

**TABLE 4.6**

Analysis of Variance Table

<table>
<thead>
<tr>
<th>Source</th>
<th>Composite Evaluation</th>
<th></th>
<th>Interview Probability</th>
<th></th>
<th>Multivariate Analysis</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MS</td>
<td>DF</td>
<td>F</td>
<td>MS</td>
<td>DF</td>
<td>F</td>
</tr>
<tr>
<td>A</td>
<td>5.21</td>
<td>1</td>
<td>.97</td>
<td>13.67</td>
<td>1</td>
<td>2.97</td>
</tr>
<tr>
<td>B</td>
<td>28.03</td>
<td>1</td>
<td>5.22(a)*</td>
<td>25.67</td>
<td>1</td>
<td>5.57(b)*</td>
</tr>
<tr>
<td>C</td>
<td>18.41</td>
<td>1</td>
<td>3.43</td>
<td>16.50</td>
<td>1</td>
<td>3.58</td>
</tr>
<tr>
<td>A*B</td>
<td>8.53</td>
<td>1</td>
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<td>112</td>
<td>4.61</td>
<td>112</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A=Evaluator Sex; B=Applicant Sex; C= Reference Source Sex

N=120
*p<.05
(a) Eta=.04
(b) Eta=.05
Employee selection research has been refocused several times over the past few decades. Early employee selection research was labeled as macroanalytic, while recent employee selection research is labeled as microanalytic. These different research paradigms vary with respect to focus. Macroanalytic research focuses on the relationship between a predictor of job performance and a criterion of job performance. On the other hand, microanalytic research seeks to identify those variables or factors that influence decisions made within the selection process.

Most early efforts to understand the selection process approached selection from the macroanalytic perspective and sought to investigate the selection interview. Although considerable effort was devoted to assessing the validity of the selection interview, as a predictor of job performance, these efforts were somewhat disappointing. Efforts were
disappointing because results failed to explain why an interview worked or failed to work in a specific setting.

To determine why an interview worked or failed to work in a specific setting, researchers began to direct their efforts toward understanding the decision making that occurred within the selection process. As a result of this reorientation, researchers began to identify variables that influenced the decisions made by those responsible for selecting employees. Interviewers were found to be influenced by many factors that are unrelated to job performance.

Many of the factors identified have legal as well as practical ramifications. For example, selection decisions have been found to be influenced by race (Mobley, 1982), sex, (Rosen & Jerdee, 1974), chronological age (Young & Place, 1988), and disability status (Prince, 1992). The direction of these influences are contrary to several legislative mandates as addressed by Title VII of the Civil Rights Act of 1964, Age Discrimination in Employment Act of 1966, and Section 504 of the Rehabilitation Act of 1973.

Because interviewers have been found to be influenced by factors unrelated to job performance (Arvey & Faley, 1992), researchers have devoted considerable effort to identifying these factors that influence decision making within the selection context. Many variables have emerged within this research stream, but most research has failed to link
findings to any type of theoretical framework. The failure to link the decision making process to any theoretical framework has resulted in a less than cogent approach to selection research.

In contrast to much of the existing selection research, this study attempts to examine selection decisions made by educational administrators within the context of two different theoretical orientations. More specifically, this study examines a certain type of decision made within the selection process and links this decision with different theoretical frameworks. The type of decision examined is a screening decision, and this decision is examined both from an interpersonal attraction perspective (Byrne, 1961), and a social distance perspective (Bogardus, 1966).

Both of these theoretical perspectives are based on the assumption that individuals prefer those who are similar to themselves when they must interact in a contiguous environmental relationship. From an interpersonal attraction perspective, individuals perceived as similar are viewed as being more attractive than individuals perceived as dissimilar. Likewise, from a social distance perspective, individuals perceived as similar are better able to invade personal or professional space than persons perceived as dissimilar.

To test these theoretical perspectives within the selection context, an experimental study was conducted. Similarity was
investigated relative to sex. Sex was varied according to administrator evaluating applicants, applicants seeking a focal position, and reference source of applicants. These variations were assessed within the context of screening decisions for an entry level administrator position.

Findings

Hypothetical job candidates for an assistant high school principalship were created with paper credentials similar to those found in most college placement files. Systematically varied within these credentials are the sex of the hypothetical candidate and sex of the reference letter writer. All other sections of the paper credentials were held constant.

A sample stratified according to sex of high school principals was selected at random from the contiguous United States. An equal number of female and male high school principals were requested to evaluate a hypothetical candidate as if screening for an assistant high school principal in their building. Principals provided evaluations for hypothetical candidates on separate but related criteria. One criterion focused on the qualifications of the candidate, while the other criterion addressed the probability of receiving an interview offer for further consideration.
Evaluations, as provided by high school principals, were analyzed in a completely crossed 2X2X2 factorial design. Sex of principals, sex of hypothetical candidates, and sex of the reference source were each varied two ways. A multivariate analysis of variance was used to assess each main effect and all possible interactions among independent variables.

In total seven multivariate null hypotheses were subjected to empirical test in this study. Using the decisional criterion of .05 for an alpha level, the multivariate tests indicated that only a single multivariate null hypothesis should be rejected. This multivariate hypothesis pertains to the overall vector of means for the independent variable involving sex of the hypothetical candidate.

Given the rejection of the multivariate null hypothesis, an examination was made for each univariate analysis involving the separate dependent variables. For both univariate analyses, the main effect for sex of the hypothetical candidate was statistically significant at the .05 level for alpha. Across both dependent variables, the direction of mean differences was the same. Hypothetical female administrator candidates are evaluated significantly higher than hypothetical male administrator candidates.

Approximately 4% of the variation in actual female and male principals’ ratings of candidate qualifications is due to sex of the hypothetical administrator candidate. Similarly,
approximately 5% of the variation in actual female and male principals’ perceived probability of extending an interview offer to candidates is accounted for by the sex of the hypothetical candidate.

Discussion

Selection research has been impacted greatly by the emergence of numerous legal acts and regulations. Examples of federal legislation relevant to the selection process include the Equal Pay Act of 1963, Title VII of the Civil Rights Act of 1964, the Age Discrimination Employment Act of 1967, and Section 504 of the Rehabilitation Act of 1973. Collectively, these legislative acts contain specific language, placing certain restrictions on various employment practices.

Factors such as race, color, religion, sex or national origin are clearly protected characteristics according to specific language contained in federal legislation. Individuals possessing such characteristics are protected from discrimination in the employment process "unless specific characteristics associated with the protected class status have been proven to be bona fide occupational qualifications (BFOQ) for the position under consideration" (Young & Ryerson, 1986, p. 2). Thus, administrator’s must critically examine whether or not their selection process is in accord with the numerous
legal acts and regulations.

In addition, federal and state legislation provide applicants with certain rights during all stages of the selection process (Young & Ryerson, 1986). Specific language in these acts and regulations applies not only to the interview but also to other materials (e.g. resumes, reference letters) used as a basis for employment decisions which are made prior to the face-to-face interview. Thus, all stages of the selection process are clearly within the purview of federal legislation and relevant governmental regulations.

An administrator's decision making process during the pre-interview stage, or screening stage, has been largely neglected by researchers. Since the pre-interview stage is clearly within the purview of federal legislation and relevant governmental regulations, administrators must be sensitive to the possibility of discrimination occurring at the screening stage. This study in particular, sought to investigate sex discrimination at the screening stage of the selection process.

Past studies have examined the effects of sex of evaluator and sex of applicant on selection, evaluation, and promotion decisions (Graves & Powell, 1995; Simas & McCarrey, 1979). Other independent variables included in these studies were job-type (Cohen & Bunker, 1975), scholastic standing (Muchinsky & Harris, 1977), or performance ability (Heilman et al, 1988). However, the results across these and other
studies are varied and inconclusive.

In one study, female evaluators gave significantly higher ratings on task performance to female applicants than male evaluators gave to female applicants (Hamner et al, 1974). Yet, Oliphant and Alexander (1982) failed to report a significant main effect for sex of evaluator. These conflicting results suggest that further attention should be directed towards sex of evaluator and the potential for interaction with other variables.

Other variables, including sex of applicant, have been shown to affect evaluator's ratings (see e.g. Hamner et al, 1974). Yet, research addressing sex of applicant has been varied also. While one study suggested that female applicants were given lower evaluations than male applicants (Cohen & Bunker, 1975), another study suggested that females were given higher evaluations than males (Heilman et al, 1988).

The existence of varied and conflicting past research provides an opportunity to advance existing knowledge. This study seeks to advance prior research on sex of applicant and sex of evaluator. In order to strengthen the potential for an interaction between sex of evaluator and sex of applicant, a reference letter was included as a third variable.

The reference is a unique source of variance in the selection process. Whether substantiating given information or providing additional information, the reference letter is
frequently used in personnel selection (Muchinsky, 1979). In light of the uniform use of reference letters, this study focused attention on the source of reference letters (a male or female letter writer).

The present study seeks to advance past research on sex of evaluator, sex of applicant, and sex of reference letter writer. A focal position was chosen which would involve close and frequent interaction between employer and employee. This was done deliberately because past research failed to look at positions which involve close daily contact between superior and subordinate. The theoretical framework upon which this study rests, is dependent upon the existence of a close working relationship.

Much of the research addressing employee selection has reported findings which are study specific. If advancements are to be made within this very important area, then research must be couched within a broader framework. A framework that not only explains contemporary results from research but predicts also future results. Without adequate theoretical grounding for selection, future research will continue to redevelop the wheel.

The present study attempts to establish a theoretical grounding for contemporary and future selection research. The theoretical grounding used in this study reflects an integration of certain social psychological models which have
been employed in research on organizational processes. Specifically, research on organizational processes, such as the applicant selection process, has been influenced by psychological models of interpersonal attraction (Byrne, 1961), and social distance studies (Bogardus, 1966).

Intrinsic to interpersonal attraction and social distance theories is the assumption that individuals prefer to interact with those who are similar to self. Interpersonal attraction theory suggests that sex-similarity of evaluator and applicant will result in a higher evaluation of the "similar sex" applicant. Social distance theory provides a structure for examining whether an evaluator will rate differently a similar-sex applicant from a dissimilar-sex applicant when the individuals will be working in close proximity, as in a principal and assistant principal relationship.

Interpersonal attraction may be influenced by biographical similarity or personal attributes such as sex, race or age. In a similar manner, the degree of social distance, or avoidance of an individual, may be influenced by characteristics such as sex, race, religion or personality traits. An integration of interpersonal attraction and social distance theories may help explain why dissimilar individuals are excluded from organizations or social groups.

This study sought to build on past selection studies which investigated the influence of interpersonal attraction,
specifically, sex-similarity (Perry, Davis-Blake, & Kulik, 1994) and the influence of social distance (Rand & Wexley, 1975) on the selection process. Using an experimental design, sex-similarity and social distance were investigated within the context of the screening of applicants by a building principal for an assistant principal position. The focal position of assistant principal was chosen because of the close working relationship between a principal and assistant principal.

Because selection is a cognitive decision-making process, the interpersonal attraction and social distance models were expected to influence the formation of decisions during the selection process. Specifically, this study investigated the formation of decisions during the screening or pre-interview stage of the selection process, when information is evaluated and a decision is made whether or not to extend an offer to interview. The interpersonal attraction and social distance models were expected to support an interaction effect between sex of applicant and sex of rater, as strengthened by sex of the reference letter source. As the findings indicate, these models did not support the anticipated interaction effect.
Implications

Theoretical Implications

Interpersonal attraction and social distance theories suggests that an interaction between applicant and evaluator sex would occur when close daily contact is required between individuals. Results of this study, however, failed to support this notion. Instead, this study revealed applicant sex as the only effect on the overall rating of the applicant and on the probability of offering an employment interview to the applicant. Several implications are offered as possible explanations for these results.

As previously noted, all public high school principals (14,238) in the contiguous United States served as the population for this study. A breakdown of this population reveals that 2,392 (or 17%) were female and 11,846 (or 83%) were male principals. These statistics indicate that females occupy fewer administrative positions in public education, particularly in the principalship. Contrary to these statistics and to past research indicating sex discrimination against female applicants (see e.g. Arvey, 1979; Cohen & Bunker, 1975; Heilman, Martell & Simon, 1988), the present study revealed a preference for female applicants at the screening stage of the selection process for an assistant principalship.

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Several implications may arise from these results. First, it may be that females are being pursued to fill an existing void in public school administration. That is, because the present population of principals reveals about a 6 to 1 disparity between male and female principals, there may be an intentional effort to increase the number of females in all administrative positions.

A second explanation may involve the increased sensitivity of school administrators to legal aspects of the selection process. School administrators must be increasingly aware of numerous legal acts and regulations which prohibit discriminatory employment practices. Thus, administrators may also be more sensitive to the potential influence of protected characteristics, such as sex, on their decisions during the selection process.

Finally, findings from this study do not add to the body of research which has indicated that sex discrimination is preventing female applicants from attaining interviews and or employment. Instead, these findings lend support to a growing body of research that has indicated that sex discrimination is waning. As noted by Arvey and Faley, "[w]e are less definite today in stating that the employment interview is discriminatory against females" (p. 319, 1992).
Practical Implications

The door of opportunity for female applicants seeking entrance into the administrative ranks of public schools may be opening. These findings indicate that female applicants may now have an edge over their male counterparts. Thus, females should actively seek administrative positions because public school districts are likely to be receptive to them, especially at the screening stage.

In addition, female applicants should not try to disguise their identity during the screening stage of the selection process. This is especially true, if in fact, evaluators prefer female administrators over male administrators.

Implications for Future Research

Findings from this study failed to reveal an interaction effect for sex of applicant, sex of evaluator, and sex of reference letter source, although the interpersonal attraction and social distance theories indicated support for such an interaction effect. Future research should continue to follow an integrative approach using interpersonal attraction and social distance models. The integration of these models provides a theoretical framework which may be used in future studies on the selection process.
This theoretical framework could be used as a grounding for a future study on the actual interview or post-interview stage of the selection process. As indicated earlier, the selection process must be viewed as a multistage process. Thus, future research should investigate whether interpersonal attraction and social distance influence decision-making at other stages of the selection process.

In addition, sex is but one of many variables which can lead to interpersonal attraction. Other variables, such as biographical, social or economical differences may lead also to interpersonal attraction among individuals. Future research should investigate these variables as potential influences on decision-making during the selection process.

Limitations

Certain limitations apply to interpretation of results from this study. Several limitations apply to the research design itself. First, the preferred design would have included a control group. This would have enabled comparison of the treatment conditions to a static condition.

Another limitation related to the design, is the low power level achieved. While the response rate was reasonable (55%), it varied slightly across treatment conditions so that several conditions had fewer respondents (n < 17) than the number
specified by the power analysis (Cohen, 1977) and other conditions had more respondents \((n > 17)\) than specified by Cohen, 1977. Consequently, several respondents were randomly excluded in order to achieve equal cell sizes \((n = 15)\). A balanced design resulted (Zak, 1979).

**Conclusion**

In light of numerous legal implications, organizations must strive continuously to improve selection systems. While there may not exist a perfect selection procedure, organizations have a vested interest in using valid and reliable selection systems. Thus, this study sought to expand present knowledge which could contribute to the improvement of selection systems.

An integration of interpersonal attraction and social distance theories established the theoretical framework for the present study. These models were expected to support an interaction effect between sex of applicant and sex of rater, as strengthened by sex of the reference source. The findings did not support the anticipated interaction effect, but did reveal a main effect for sex of applicant.

The main effect for sex of applicant indicates that female administrator candidates are evaluated significantly higher than hypothetical male administrator candidates. About half
of past selection research has suggested female applicants are
given lower evaluations than male applicants. Thus, these
results may be an indication that the evaluations of female
applicants for administrative positions are improving. Finally,
there is certainly a need for continued study in the area of
selection research in order to explain the varied and
conflicting results.
LIST OF REFERENCES


Bogardus, E.S. (1967). Measuring Social Distances. In M. Fishbein's Readings in Attitude Theory & measurement (pp. 71-76).


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APPENDIX A

Pilot Study Instruments
Pilot Study

DOCUMENT INTERPRETATION

1. What is the sex of the applicant represented in the resume?
   a. Male
   b. Female
   c. Could not tell

2. What position is this applicant seeking?
   a. Assistant Principal
   b. Teacher
   c. Could not tell

3. What is the sex of the reference letter writer?
   a. Male
   b. Female
   c. Could not tell

Demographics

1. What is your sex?
   a. Male
   b. Female

2. What is your number of years of teaching experience?

3. What is the number of teaching jobs you have applied for?
JOB DESCRIPTION

TITLE
Assistant Principal

QUALIFICATIONS
Secondary Principal Certificate, State
Teacher Certificate, State

REPORTS TO
Building Principal

PERFORMANCE RESPONSIBILITIES
1. Assist principal in overall administration of the school.
2. Serve as principal in absence of the regular principal.
3. Propose schedules of classes and extracurricular activities.
4. Work with department heads and faculty in compiling annual budget requests.
5. Supervise the reporting and monitoring of student attendance.
6. Assist in maintaining discipline throughout the student body.
7. Perform such record-keeping functions as principal may direct.
8. Perform other tasks and assume other responsibilities as the principal may assign.

TERMS OF EMPLOYMENT
Salary and work year to be established by the Board.

EVALUATION
Performance of this job will be evaluated in accordance with the Board's policy on Evaluation of Professional Personnel.
Rebecca L. Johnson  
3448 Hickory Hill Road  
River City, State  
(608) 222-0641

EDUCATIONAL BACKGROUND

Master's Degree: M.A. - State University  
   Educational Administration

Bachelor's Degree: B.S. - State University  
   Education

PROFESSIONAL EMPLOYMENT

Physical Education and Health Teacher  
   Central High School  
   Plain City, State

CERTIFICATIONS

Secondary Principal, State  
K-12 Physical Education Teacher, State  
Health Education Teacher, State

EXTRA-CURRICULAR EXPERIENCE

Chairperson, Principal's Advisory Council  
Member, Principal's Advisory Committee to study grading  
   system  
Advisor, Junior class  
Varsity Track Coach  
Junior Varsity Track Coach

COMMUNITY ACTIVITIES

Local Education Association  
Local Parks & Recreation Association
EDUCATIONAL BACKGROUND

Master's Degree: M.A. - State University
   Educational Administration

Bachelor's Degree: B.S. - State University
   Education

PROFESSIONAL EMPLOYMENT

Physical Education and Health Teacher
   Central High School
   Plain City, State

CERTIFICATIONS

Secondary Principal, State
K-12 Physical Education Teacher, State
Health Education Teacher, State

EXTRA-CURRICULAR EXPERIENCE

Chairperson, Principal's Advisory Council
Member, Principal's Advisory Committee to study grading system
Advisor, Junior class
Varsity Track Coach
Junior Varsity Track Coach

COMMUNITY ACTIVITIES

Local Education Association
Local Parks & Recreation Association
April 29, 1996

To Whom it May Concern:

Rebecca Johnson is an outstanding candidate for an assistant principal position. I am writing to support Rebecca because she has been an excellent teacher in this school system for the past several years and she is well prepared for an assistant principal position. Her job consisted of teaching three physical education classes and two health education classes.

Good discipline and classroom management were consistently demonstrated while providing numerous activities through the instructional program. Although discipline was maintained, Rebecca enjoyed working with students in a cordial manner. This warmth and geniality also was characteristic of her interactions with staff members and with parents.

The varied interesting and ongoing class activities attested to her excellent preparation at State University. Also, Rebecca contributed to the community through her city recreation work.

Rebecca Johnson will be particularly successful in an assistant principal position because of her effective skills in planning and organizing. Rebecca has contributed greatly in her role as chairperson of the principal's advisory council for the past two academic years at Central High School. I recommend her without hesitation.

Sincerely,

Anne Jones, Principal
Central High School
April 29, 1996

To Whom it May Concern:

Robert Johnson is an outstanding candidate for an assistant principal position. I am writing to support Robert because he has been an excellent teacher in this school system for the past several years and he is well prepared for an assistant principal position. His job consisted of teaching three physical education classes and two health education classes.

Good discipline and classroom management were consistently demonstrated while providing numerous activities through the instructional program. Although discipline was maintained, Robert enjoyed working with students in a cordial manner. This warmth and geniality also was characteristic of his interactions with staff members and with parents.

The varied interesting and ongoing class activities attested to his excellent preparation at State University. Also, Robert contributed to the community through his city recreation work.

Robert Johnson will be particularly successful in an assistant principal position because of his effective skills in planning and organizing. Robert has contributed greatly in his role as chairperson of the principal's advisory council for the past two academic years at Central High School. I recommend him without hesitation.

Sincerely,

Anne Jones, Principal
Central High School
May 29, 1996

To Whom it May Concern:

Rebecca Johnson is an outstanding candidate for an assistant principal position. I am writing to support Rebecca because she has been an excellent teacher in this school system for the past several years and she is well prepared for an assistant principal position. Her job consisted of teaching three physical education classes and two health education classes.

Good discipline and classroom management were consistently demonstrated while providing numerous activities through the instructional program. Although discipline was maintained, Rebecca enjoyed working with students in a cordial manner. This warmth and geniality also was characteristic of her interactions with staff members and with parents.

The varied interesting and ongoing class activities attested to her excellent preparation at the university. Also, Rebecca contributed to the community through her city recreation work.

Rebecca Johnson will be particularly successful in an assistant principal position because of her effective skills in planning and organizing. Rebecca has contributed greatly in her role as chairperson of the principal's advisory council for the past two academic years at Central High School. I recommend her without hesitation.

Sincerely,

Andrew Jones, Principal
Central High School
May 29, 1996

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Sincerely,

Andrew Jones, Principal
Central High School
APPLICANT EVALUATION

After reviewing the position description and applicant materials, please rate this candidate as if you were screening resumes for a similar position in your school. Please circle one number.

A. Applicant's ability to foster communication with faculty and parents.
   1 2 3 4
   Poor Fair Good Excellent

B. Applicant's likelihood to contribute to the overall school environment.
   1 2 3 4
   Poor Fair Good Excellent

C. Applicant's ability to manage student discipline issues.
   1 2 3 4
   Poor Fair Good Excellent

D. Applicant's ability to create a friendly school environment.
   1 2 3 4
   Poor Fair Good Excellent

E. Applicant's potential for professional growth.
   1 2 3 4
   Poor Fair Good Excellent

F. The chances of this applicant being offered an interview:
   1 2 3 4 5 6 7 8 9 10
   Poor Excellent

PLEASE RETURN THIS SHEET IN THE ENCLOSED ENVELOPE.
Thank you for your cooperation.
APPENDIX B

Pilot Study - Scripted Procedures
Scripted Procedures - Pilot

**Step 1:** At the beginning of the class session, the instructor announces to students in the participating class(es) that a brief research procedure related to applicant selection will be conducted at the beginning of the class session. Students are told participation will be voluntary and anonymous. The instructor informs the students that the procedure will not be part of the formal course activities and will have no impact on course grades.

**Step 2:** The researcher then addresses the class using the scripted procedure described below:

"Thank you for your willingness to participate in a brief research procedure about applicant selection. As noted by your instructor this procedure is voluntary and anonymous. If you do not wish to participate, please feel free to decline at this time.

Your participation has been requested because you are experienced educators and your evaluation of the materials I am about to pass out can assist in increasing knowledge about applicant selection in public schools. After reviewing the position description and applicant materials, please rate this candidate as if you were screening resumes for a similar position in your school. Please circle one number. When you have finished, please turn them over and I will collect these documents.

**Step 3:** Now, I would like you to complete the questionnaire which I am about to pass out. Please note that this questionnaire contains two sections, both of which I would like you to fill out: (1) an interpretation of the three documents you just reviewed and (2) an anonymous biographical data section.

When you have finished the questionnaire, please turn it over and I will collect it."

**Step 4:** "Thank you for assisting in today's procedure. Your participation has made a valuable contribution to applicant selection research. If anyone has questions or comments at a later time, please contact me and I will be pleased to respond. Again, thank you for your assistance."
APPENDIX C
Actual Study - Instruments

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JOB DESCRIPTION.

TITLE

Assistant Principal

QUALIFICATIONS

Secondary Principal Certificate, State
Teacher Certificate, State

REPORTS TO

Building Principal

PERFORMANCE RESPONSIBILITIES

1. Assist principal in overall administration of the school.
2. Serve as principal in absence of the regular principal.
3. Propose schedules of classes and extracurricular activities.
4. Work with department heads and faculty in compiling annual budget requests.
5. Supervise the reporting and monitoring of student attendance.
6. Assist in maintaining discipline throughout the student body.
7. Perform such record-keeping functions as principal may direct.
8. Perform other tasks and assume other responsibilities as the principal may assign.

TERMS OF EMPLOYMENT

Salary and work year to be established by the Board.

EVALUATION

Performance of this job will be evaluated in accordance with the Board's policy on Evaluation of Professional Personnel.
Rebecca L. Johnson  
3448 Hickory Hill Road  
River City, State  
(608) 222-0641

EDUCATIONAL BACKGROUND

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   Educational Administration

Bachelor's Degree: B.S. - State University  
   Education

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   Central High School  
   Plain City, State

CERTIFICATIONS

Secondary Principal, State  
K-12 Physical Education Teacher, State  
Health Education Teacher, State

EXTRA-CURRICULAR EXPERIENCE

Chairperson, Principal's Advisory Council  
Member, Principal's Advisory Committee to study grading system  
Advisor, Junior class  
Varsity Track Coach  
Junior Varsity Track Coach

COMMUNITY ACTIVITIES

Local Education Association  
Local Parks & Recreation Association

124
Robert L. Johnson
3448 Hickory Hill Road
River City, State
(608) 222-0641

EDUCATIONAL BACKGROUND

Master's Degree: M.A. - State University
   Educational Administration

Bachelor's Degree: B.S. - State University
   Education

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   Junior Varsity Track Coach

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Local Parks & Recreation Association
April 29, 1996

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Good discipline and classroom management were consistently demonstrated while providing numerous activities through the instructional program. Although discipline was maintained, Rebecca enjoyed working with students in a cordial manner. This warmth and geniality also was characteristic of her interactions with staff members and with parents.

The varied interesting and ongoing class activities attested to her excellent preparation at State University. Also, Rebecca contributed to the community through her city recreation work.

Rebecca Johnson will be particularly successful in an assistant principal position because of her effective skills in planning and organizing. Rebecca has contributed greatly in her role as chairperson of the principal's advisory council for the past two academic years at Central High School. I recommend her without hesitation.

Sincerely,

Anne Jones, Principal
Central High School
April 29, 1996

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Central High School
May 29, 1996

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May 29, 1996

To Whom it May Concern:

Robert Johnson is an outstanding candidate for an assistant principal position. I am writing to support Robert because he has been an excellent teacher in this school system for the past several years and he is well prepared for an assistant principal position. His job consisted of teaching three physical education classes and two health education classes.

Good discipline and classroom management were consistently demonstrated while providing numerous activities through the instructional program. Although discipline was maintained, Robert enjoyed working with students in a cordial manner. This warmth and geniality also was characteristic of his interactions with staff members and with parents.

The varied interesting and ongoing class activities attested to his excellent preparation at the university. Also, Robert contributed to the community through his city recreation work.

Robert Johnson will be particularly successful in an assistant principal position because of his effective skills in planning and organizing. Robert has contributed greatly in his role as chairperson of the principal's advisory council for the past two academic years at Central High School. I recommend him without hesitation.

Sincerely,

Andrew Jones, Principal
Central High School
APPLICANT EVALUATION

After reviewing the position description and applicant materials, please rate this candidate as if you were screening resumes for a similar position in your school. Please circle one number.

A. Applicant's ability to foster communication with faculty and parents.
   
   1  2  3  4
   Poor  Fair  Good  Excellent

B. Applicant's likelihood to contribute to the overall school environment.
   
   1  2  3  4
   Poor  Fair  Good  Excellent

C. Applicant's ability to manage student discipline issues.
   
   1  2  3  4
   Poor  Fair  Good  Excellent

D. Applicant's ability to create a friendly school environment.
   
   1  2  3  4
   Poor  Fair  Good  Excellent

E. Applicant's potential for professional growth.
   
   1  2  3  4
   Poor  Fair  Good  Excellent

F. The chances of this applicant being offered an interview:
   
   1  2  3  4  5  6  7  8  9  10
   Poor  Excellent

PLEASE RETURN THIS SHEET IN THE ENCLOSED ENVELOPE.
Thank you for your cooperation.

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DEMOGRAPHIC QUESTIONNAIRE

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

1. Date of Birth: _____________________________

2. Sex of Evaluator:
   [ ] Male  [ ] Female

3. Race of Evaluator:
   [ ] Black/African American  [ ] American Indian/Alaskan
   [ ] Latino/Latina  [ ] White/Euro American
   [ ] Asian/Pacific Islander  [ ] Other: please describe

4. Your total teaching experience in years:______________

5. Number of districts in which you have taught:________

6. Your total administrative experience in years:_________

7. Type of administrative experience:
   [ ] Assistant Principal/H.S.  [ ] Assistant Principal/M.S.
   [ ] Principal/M.S.  [ ] Principal/E.S
   [ ] Athletic Director/H.S.  [ ] Other:______________________

8. Number of districts in which you have served as an administrator:_________

9. Do you use resumes to screen applicants?
   [ ] Yes  [ ] No

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APPENDIX D

Cover Letter to Study Participants
April 29, 1996

(In Inside Address)

Dear Principal (insert name):

I am writing to ask for your assistance with a research project which examines personnel selection and initial screening decisions of principals. Your participation has been requested because you are an experienced educator and your evaluation of the enclosed materials can assist in increasing knowledge about the selection of assistant principals in public schools. I recognize that you are extremely busy, and I thank you ahead of time for your cooperation. I assure you that it will take only a short time to read the information and complete the applicant evaluation form and the demographic questionnaire.

Enclosed you will find a job description, a reference letter, a resume, an applicant evaluation form, and a demographic questionnaire. If you choose to participate in this investigation, please read the position description and job credentials (reference letter and resume) and evaluate the hypothetical applicant as if you were looking to fill a vacancy in your school. Once completed, please return the applicant evaluation form and demographic questionnaire in the enclosed stamped and addressed envelope.

Your response will be treated confidentially, and your anonymity is assured. If you would like a summary of the results of this investigation, please check the appropriate box on the enclosed stamped and addressed postcard and mail it to me at your convenience. Please note that the materials are numbered for clerical purposes only. The anonymity of your responses will be maintained at all times.

Thank you for your time and input with this investigation. Your assistance will be very beneficial.

Sincerely,

Susan C. Reis
May 29, 1996

(Inside Address)

Dear Principal (insert name):

Approximately four weeks ago I sent you a packet of information to review. I am sorry to bother you again, but I would greatly appreciate receiving your response to this packet of information. Your participation has been requested because you are an experienced educator and your evaluation of the enclosed materials can assist in increasing knowledge about the selection of assistant principals in public schools. I recognize that you are extremely busy, and I thank you ahead of time for your cooperation. I assure you that it will take only a short time to read the information and complete the applicant evaluation form and the demographic questionnaire.

Enclosed you will find a job description, a reference letter, a resume, an applicant evaluation form, and a demographic questionnaire. If you choose to participate in this investigation, please read the position description and job credentials (reference letter and resume) and evaluate the hypothetical applicant as if you were looking to fill a vacancy in your school. Once completed, please return the applicant evaluation form and demographic questionnaire in the enclosed stamped and addressed envelope.

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Thank you for your time and input with this investigation. Your assistance will be very beneficial.

Sincerely,

Susan C. Reis