The effects of supervisor training and integration of severely disabled workers on attitudes toward disabled persons and morale of public school employees

by Stephen Henry White

A thesis submitted in partial fulfillment of requirements for the degree of Doctor of Education
Montana State University

Abstract:
The purpose of this study was to determine the effects of integration and supervisor training upon morale and attitudes of public school employees toward persons with disabilities. Integration consisted of daily contact of nondisabled employees with severely disabled employees. Supervisor training was a structured staff development program which trained co-workers in the skills needed to motivate persons with severe disabilities. The study was conducted in the Great Falls School District, Great Falls, Montana, and a stratified random sample of 109 nondisabled employees participated. These independent variables were part of a four-group quasi-experimental design. Dependent measures included the Attitudes Toward Disabled Persons Scale (Yuker, Block, & Younng, 1966) and the Survey of Department Morale (SDM). The SDM was developed from the Organizational Climate Description Questionnaire and the Staff Assistance Survey of the United States Air Force, field tested to establish reliability and validity, revised, and implemented for the study. The Two-Way Analysis of Variance was selected as the statistic for the study and Analysis of Covariance was employed to equate groups on the basis of pretest differences.

Integration had a significant main effect on employee attitudes, while the effects of supervisor training on attitudes were not significant. Neither treatment had a significant effect on morale. Conclusions to be drawn from the study include: (a) Hiring persons with severe disabilities can be achieved without adversely affecting school climate, (b) morale is a personal construct which is resilient to interventions outside of leader-member relationships, and (c) day to day contact in the workplace is apt to have a stronger effect than other forms of integration, as indicated by the magnitude of the significant main effect for integration ($p<.001$).

THE EFFECTS OF SUPERVISOR TRAINING AND INTEGRATION OF SEVERELY DISABLED WORKERS ON ATTITUDES TOWARD DISABLED PERSONS AND MORALE OF PUBLIC SCHOOL EMPLOYEES

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APPROVAL

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This thesis has been read by each member of the thesis committee and has been found to be satisfactory regarding content, English usage, format, citations, bibliographic style, and consistency, and is ready for submission to the College of Graduate Studies.

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ABSTRACT

The purpose of this study was to determine the effects of integration and supervisor training upon morale and attitudes of public school employees toward persons with disabilities. Integration consisted of daily contact of nondisabled employees with severely disabled employees. Supervisor training was a structured staff development program which trained co-workers in the skills needed to motivate persons with severe disabilities. The study was conducted in the Great Falls School District, Great Falls, Montana, and a stratified random sample of 109 nondisabled employees participated. These independent variables were part of a four-group quasi-experimental design. Dependent measures included the Attitudes Toward Disabled Persons Scale (Yuker, Block, & Younng, 1966) and the Survey of Department Morale (SDM). The SDM was developed from the Organizational Climate Description Questionnaire and the Staff Assistance Survey of the United States Air Force, field tested to establish reliability and validity, revised, and implemented for the study. The Two-Way Analysis of Variance was selected as the statistic for the study and Analysis of Covariance was employed to equate groups on the basis of pretest differences.

Integration had a significant main effect on employee attitudes, while the effects of supervisor training on attitudes were not significant. Neither treatment had a significant effect on morale. Conclusions to be drawn from the study include: (a) Hiring persons with severe disabilities can be achieved without adversely affecting school climate, (b) morale is a personal construct which is resilient to interventions outside of leader-member relationships, and (c) day to day contact in the workplace is apt to have a stronger effect than other forms of integration, as indicated by the magnitude of the significant main effect for integration ($p<.001$).

CHAPTER 1

INTRODUCTION TO THE PROBLEM

Brown v. Topeka Board of Education (1954) became the watershed civil rights case of the 20th century when it served notice that separate but equal was inherently unequal as public policy for minority groups in America. The fact that the case occurred within the context of the public schools is indicative of the instrumental role the schools have played in affecting social policy and change in American society. First Amendment issues, sex equity, age discrimination, desegregation, and affirmative action are examples of benchmark civil rights issues contested in the public schools (Lemon v. Kurtzman, 1971; North Haven Board v. Bell, 1982; Alexander v. Holmes, 1969; Palmer v. Ticcione, 1978; Green v. County Board of Education, 1968). Subsequent legislation has equated access with equity, extending equal opportunity to virtually every aspect of citizenship, and no more dramatically than for disabled Americans who now live, work, and attend school in their local community, rather than in segregated institutions.

The public schools have also been the instrument for the most visible changes for disabled persons. The Education for All Handicapped Children Act of 1975 (Public Law 94-142)

guaranteed each child the right to a free, public, and appropriate education with special emphasis on the provision of that education in the least restrictive environment with nondisabled peers. In its implementation, this legislative mandate fundamentally altered the fabric of the public schools, supporting its goals with financial provision and providing a vehicle for legal recourse when the provisions of the law were not met. Public Law 94-142 did more than provide educational opportunity to the estimated 8 million unserved disabled children at the time. It extended the concept of normalization to the most basic public service to children. Disabled children began to live at home, participate in community activities, shop, play, and interact with nondisabled siblings and peers. In that respect, the law has been an extraordinary success in providing access for disabled Americans, and the public schools have been a major catalyst for substantive change.

Employment of persons with disabilities represents the most resilient barrier to normalization for this segment of our population. The majority of disabled persons live lonely, isolated lives of poverty as adults (Harris & Associates, 1986; Wagner, 1988). The hard-fought changes won in the classroom have altered only slightly the adult outcomes for disabled Americans. An estimated 200,000 to 300,000 Special Education students graduate annually from public schools across America (U.S. Department of Education, 1988a). A self-reported telephone survey conducted by Harris and Associates found that twice as

many working disabled Americans lived below the poverty line as nondisabled, and an estimated 66% of adults with disabilities were unemployed (1986).

The current number of developmentally disabled employees integrated into either private or public business is less than one worker per school district nationwide (Kiernan, 1986; U.S. Department of Education, 1988b). Most of these individuals are employed at entry-level jobs, and the level of employment is well below the level of incidence of persons with such disabilities in the population. Estimates for persons with severe disabilities range from one to four % of the population (Commission on Civil Rights, 1983). Several studies confirm this reality in the workplace at large (Hasazi et al., 1985; Mithaug & Horiuchi, 1983; Kiernan, 1986; U.S. Department of Education, 1988b).

The public schools employ over 4 million Americans, but seldom hire disabled adults. Several literature searches failed to produce a single study of employment for adult persons with disabilities in the public schools. This is particularly disturbing in light of the fact that many of the jobs in school districts are the same types of jobs persons with severe disabilities have successfully performed in the private sector. School support services include maintenance workers, food service workers, printing workers, clerical aides, library assistants, classroom aides, and custodial workers who comprise 42.8% of the school workforce nationwide (Snider, 1988).

The problem is not merely a civil rights issue of equal employment opportunity. From an economic perspective alone, there exists ample justification for the investigation of employment practices regarding persons with disabilities within America's public schools. An estimated 8% of the gross national product is committed annually to promote independence for persons with disabilities in America (Will, 1984).

Public policy emphases on transition, supported employment, and independent living have focused recent research efforts on the ability of severely disabled persons to work productively (Gold, 1976; Bellamy, Rhodes, Bordeau, & Mank, 1980; Rusch, 1987; Gardner, Chapman, Donaldson, & Jacobson, 1988) and on the array of services needed to enable them to become contributing and independent members of our society (Karan, Wehman, Renzaglia, & Schutz, 1976; Wacker & Berg, 1987; Chadsey-Rusch & Rusch, 1986; Bellamy, Rhodes, Mank, & Albin, 1988). The business literature seldom provides data on the numbers of employees with disabilities, their tenure, or their impact on co-workers (Hill & Wehman, 1979; Parent & Everson, 1986; Lignugaris/Kraft, Rule, Salzberg, & Stowitschek, 1986; Chadsey-Rusch, 1986; Rusch & Minch, 1987). Major studies which have been commissioned have focused on the efforts of major corporations to promote hiring of disabled workers and provide reasonable accommodation (U.S. Department of Labor, 1982; President's Committee on Employment of the Handicapped, 1987).

Research examining the impact of these efforts on the businesses themselves has been sparse and has centered on the efforts of large private corporations rather than those of the public sector. Studies of the public schools as providers of services to disabled students are exhaustive, but studies of the public schools as employers of disabled adults are virtually nonexistent.

In the field of educational administration, researchers have recognized the importance of morale to productivity in education, but research has focused on the role of leaders rather than the interaction among staff (Halpin & Croft, 1962; Fiedler, 1973; Weick, 1976; McEvoy, 1987; Sergiovanni, 1987; Dwyer, Barnett, & Lee, 1987). The emphasis on leadership is most evident in the Effective Schools research (Brookover, Beady, Flood, Schweitzer, & Wisenbacker, 1979). Examination of the dynamics of staff interaction, particularly for noncertificated support staff rather than teachers and administrators, has been sparse. If substantive change in employment levels for disabled workers is to occur, examination of the factors which influence the behavior and values of nondisabled workers will be necessary.

There have been several studies of the impact of contact with disabled persons upon attitudes toward disabled persons in general (Allport, 1986; Anthony, 1969; Cole, 1971; Evans, 1974; Donaldson & Martinson, 1977; Higgs, 1975). A large number of studies have investigated the relationship between staff development or awareness training and attitudes toward disabled

persons (Forader, 1970; Haddle, 1973; Elliot & Byrd, 1983). The findings of these studies have consistently indicated that both contact and information correlate positively with attitudes toward disabled persons. Studies have investigated attitudes of rehabilitation counselors, college freshmen, special education teachers, and school-aged children. Investigation of the workplace has seldom occurred in the context of the public schools, and few studies have considered the effect severely disabled workers have on nondisabled peers in any context (Department of Labor, 1982; Rusch & Minch, 1987).

Many researchers advocate an ecological approach which views behavior as a dynamic part of the interaction between the person and the environment (Foss & Peterson, 1981; Chadsey-Rusch, 1986; Cronis, Forgnone, & Smith, 1986). This perspective implies that a disabled person's success is dependent as much on the attitudes and behaviors of co-workers as it is on the worker's attitudes and behaviors. The ecological aspect is particularly important in the transition from school to employment. The absence of basic skills such as the ability to ask for assistance, follow directions, respond to criticism, listen without interrupting, and offer help to co-workers is directly related to terminations (Greenspan & Schoutz, 1981; Lignugaris/Kraft et al,1986; Hanley-Maxwell, Rusch, Chadsey-Rusch, & Renzaglia, 1986).

Statement of the Problem

The problem can be stated in the following question: What effects do systematic supervisor training and integration of severely disabled workers in the public schools have upon the attitudes and morale of co-workers and supervisors toward persons with disabilities? Supervisor training and integration of disabled workers served as the independent variables, and scores on the Attitude Toward Disabled Persons Scale (ATDP) and the Survey of Department Morale (SDM) served as dependent measures of employee attitudes and morale, respectively.

Purpose of the Study

The primary purpose of this study was to investigate the effect of supervisor training on employee attitudes toward disabled persons and the effect the integration of severely disabled persons in the workforce has on the morale of their co-workers. A second purpose was to determine the interaction between supervisor training and integration and to ascertain whether these treatments are more effective when presented separately or in concert.

Research Questions

The current study was an exploratory effort to shift the emphasis for further research from the disabled worker to the

disabled worker's co-workers and supervisors. By examining the effects of supervisor training and integration on employee attitudes and morale, the study extended dimensions of overall organizational effectiveness into the area of disability research.

The research design was developed to answer these questions: (a) What effect does a comprehensive supervisor training program and the integration of severely disabled persons in the workplace have on attitudes toward disabled persons and on morale for public school employees, (b) does a comprehensive program of supervisor training and integration of severely disabled workers result in positive attitudes toward disabled persons and improved morale, (c) does integration of severely disabled workers have a greater effect on morale than a comprehensive supervisor training program, (d) which variable (integration or supervisor training) has the greatest effect on employee attitudes toward disabled persons, and (e) do these variables produce any significant differences when compared to employees who do not receive either treatment? The results of the study are expected to generate new hypotheses regarding heterogeneous ability groups in the public schools, and the study was one of the first in the disability literature to examine the effects of specific treatments on worker morale.

Significance of the Study

The World Health Organization definition of disability (1980) selected for the study provides an illustration of the diversity of individuals who can be included in the population of persons with disabilities. Any restriction or lack of ability resulting from an impairment which restricts one's ability to perform an activity in the manner or within the range considered normal constitutes a disability. Impairment is a loss of pyschological, physiological, or anatomical structure or function. Vocational rehabilitation describes a severe disability as one which includes other conditions or combinations which cause comparable substantial functional limitation. It is this group that is included in this study, and it is their effect on the attitudes and morale of persons without disabilities in the workplace of the public schools that were studied.

An exhaustive body of research on abilities of disabled persons and training technologies to develop those abilities has been developed in the 30 years since Brown v. Topeka (e.g., Skinner, 1957; Piaget, 1963; Montessori, 1964; Stephens, 1971; Haring & Schiefelbusch, 1976; Karan, Wehman, Renzaglia, & Schutz, 1976; Sontag, 1977; Gold, 1980; Engelmann & Carnine, 1982; Wilcox & Bellamy, 1987). Disabled persons have been featured in countless films and media productions, each stressing the abilities of disabled persons (McCarthy, 1985). Presidents such as Franklin Delano Roosevelt and John F. Kennedy had to overcome physical

disabilities, as did epileptics such as Julius Caesar and Napolean Bonaparte, and the achievements of innumerable accomplished professionals with disabilities abound in promotional materials.

Some authors view this effort as an attempt to win approval and achieve normalcy (Davis, 1961; Bowe, 1978). The dysfunctional aspects of disability require a perpetual assertion of functional abilities. Bowe describes this influence as a primary influence in directing the focus of disability research toward the demonstration of functional skills by persons with disabilities. As a result, research continues to focus on disabled individuals or discrete groups such as the deaf or the learning disabled to the exclusion of the dynamics of relationships with persons without disabilities. The reporting procedures of the U.S. Department of Education regarding the Education of the Handicapped Act (Public Law 94-142) embodied in the annual reports to Congress focus almost exclusively on access, and in the context of historical efforts to demonstrate competence, study of the interaction of disabled workers with nondisabled workers has understandably been sparse (U.S. Department of Education, 1987).

Other researchers have found that the abilities of a worker to perform a job are much less important to long-term success than social skills and the ability to become part of a team (Shafer, Hill, Seyfarth, & Wehman, 1987; Shafer, 1987). A growing interest in contextuality, social ecology, and quality of life issues has begun to expand the body of knowledge regarding the human dynamics

of the workplace and disabled persons, but the research remains limited in these areas (Hill & Wehman, 1979; Chadsey-Rusch, 1986; Parent & Everson, 1986; Forman, 1987). As in other areas of disability research, the dominant focus has been on the person or persons with disability, with only recent attention on the nondisabled persons in their environment. This study will attempt to discern the effects which discrete staff development practices (supervisor training) and integration have on the larger and dominant population who participate in our society unimpeded by a recognized disability.

Definitions

The following definitions were used throughout the study and represent terms used by providers of service to disabled persons and terms associated with educational administration as it pertained to morale and attitudes toward disabled persons.

Attitude Toward Disabled Persons: A score ranging from 90 to 180 on the Attitude Towards Disabled Persons Scale (ATDP), a scale constructed in 1960 and expanded to 30 items in 1966 to measure the attitudes of both disabled and nondisabled persons toward disabled persons (Yuker & Block, 1986).

Disability: Restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being (World Health Organization, 1980). For the purposes of this study, disability is synonymous with handicap.

Handicap: A disadvantage for a given individual resulting from an impairment or disability that limits or prevents the fulfillment of a role that is normal for that individual (World Health Organization, 1980). For the purpose of this study, handicap will be synonymous with disability.

Integration: Daily contact of employees who are not disabled with other employees who have severe disabilities.

Morale: The capacity of a group to pull together toward goals its members accept. This capacity is defined by five inclusive constructs of morale: (a) faith in the leaders, (b) faith of members in each other, (c) confidence in equitable distribution of rewards,(d) organizational efficiency, and (e) attention to well-being of group members (Boles & Davenport, 1983), and measured by scores ranging from 25 to 125 on the Survey of Department Morale (SDM).

Normalization: The principle that disabled persons should experience life in the same proportions and stages as nondisabled persons; adults should experience adulthood, with its responsibilities, freedoms, obligations, and risks (Wolfensberger, 1980).

Severely Disabled: A person with a disability which seriously limits one or more functional capacities (such as mobility, communication, self-care, self-direction, interpersonal skills, work tolerance, or work skills) in terms of employability; whose vocational rehabilitation can be expected to require multiple services over an extended period of time; and who has one or more physical or mental disabilities resulting from amputation, arthritis, autism, blindness, burn injury, cancer, cerebral palsy, cystic fibrosis,

deafness, head injury, heart disease, hemiplegia, hemophilia, respiratory or pulmonary dysfunction, mental retardation, mental illness, multiple sclerosis, muscular distrophy, musculo-skeletal disorders, neurological disorders (including stroke and epilepsy), paraplegia, quadriplegia, and other spinal cord conditions, sickle cell anemia, specific learning disability, end-stage renal disease, or another disability or combination of disabilities determined on the basis of an evaluation of rehabilitation potential to cause comparable substantial functional limitation (Vocational Rehabilitation Amendments of 1986).

Staff Development: Increased effectiveness of a school district's employees by providing education and personal experiences which contribute toward an individual being more competent and satisfied in an assigned role.

Supervisor Training: A systematic staff development program of small-group, short duration, and frequent training sessions designed to shift the responsibilities for worksite supports and supervision of disabled workers from outside agencies to regular employees of the school district. Supervisor training is characterized by content linked to specified needs, participant interaction, and skill practice.

Assumptions

The major assumptions of the study were based on application of theoretical constructs regarding organizational change, integration of disabled persons, and descriptors of attitude and morale. First and foremost was the assumption that a

systematic model for training supervisors would result in more effective supervision of workers with severe disabilities, reduce common myths and personal biases toward persons with disabilities, and effect morale favorably. It was assumed that both attitudes and morale were amenable to information assimilated through supervisor training over time.

Secondly, it was assumed that integration of carefully matched severely disabled persons with nondisabled workers would influence the working environment positively, and this influence would manifest itself in higher attitude and morale scores for nondisabled workers when compared with nondisabled workers who have less than daily contact with severely disabled workers.

Thirdly, it was assumed that the instruments selected for the study were valid and reliable. Attitudes toward disabled persons would be measured accurately by the Attitude Toward Disabled Persons Scale (Yuker, Block, & Younng, 1966). The Survey of Department Morale, a composite instrument developed for the study, was assumed to represent an accurate measure of morale as defined earlier. Reliability and validity coefficients are described in detail in Chapter 3.

Finally, it was assumed that staff development would be most successful when motivation theory, principles of change enumerated in the Concerns Based Adoption Model (Hord & Loucks, 1980), and research findings from the effective schools

literature regarding staff development were blended into a systematic program of supervisor training. The theoretical and research bases for the study are enumerated in Chapter 2, where the distinguishing characteristics of the investigation are discussed in detail.

Limitations

The study was conducted in the Great Falls School District, Great Falls, Montana. The district is the second largest K-12 district in Montana with 12,345 students enrolled in 15 elementary schools, two junior high schools, and two compehensive high schools. During the 1988-89 school year, the district served a community of 70,600 people, and its school expenditures per pupil were within $500 of the national average at the time of the study (U.S. Department of Education, 1988b). The use of a single school district limited generalization of the study's findings, but also controlled for extraneous variables in terms of employee morale; that is, treatment and control group employees were subject to the same organizational influences. The dependent measures, the ATDP and the SDM, were limited in that they were designed to measure fluid constructs vulnerable to a host of intervening variables and were not expected to possess the reliability or quantitative rigor of grain yields or even student achievement.

The intervention period, although established to correspond to widely accepted standards for probationary periods for employment, was relatively short. Stratified random sampling from unequal populations, staggered introduction of a major treatment variable, and self-reported measures of vague constructs such as attitudes toward disabled persons and employee morale limit the generalizations which can be made from the findings.

Inferences from this study to the workplace at large are appropriate as long as the limitations and exploratory nature of the study are considered. With these constraints, the study was expected to yield meaningful results which contribute to the body of knowledge and provide a foundation for future research efforts in the area of morale in the public schools and employment of persons with disabilities.

CHAPTER 2

REVIEW OF THE LITERATURE

The purpose of the study was to examine the effects comprehensive supervisor training and integration of severely disabled workers had on attitudes and morale of co-workers and supervisors in the public schools. This chapter provided the theoretical basis for the study, synthesized major issues related to the research, and provided evidence of the need for and limited research in this area to date. The problems associated with employment of disabled workers are complex, and so too are their solutions. This study was an exploratory investigation into some of those complexities, investigating the effects integration and tailored supervisor training had on morale and on attitudes toward disabled persons.

The following major areas of investigation were reviewed: (a) the spectrum of disabilities, (b) employment of disabled persons, (c) the civil rights movement, (d) reasonable accommodation, (e) prejudice, (f) demographic and social trends in the workforce, (g) morale, (h) attitudes toward disabled persons, (i) supervisor training, and (j) integration.

The Heterogeneous Nature of Disabilities

A brief discussion regarding the heterogeneous nature of disabilities, and the resultant spectrum of abilities across disability groupings is essential to provide a background for the study. Perhaps the most obvious example of this diversity can be found in the eligibility requirements for vocational rehabilitation, where 27 specific disabilities are listed, and disabilities determined on the basis of an evaluation describe conditions under which individuals with disabilities not mentioned specifically can qualify for the services of vocational rehabilitation (Vocational Rehabilitation Amendments of 1986). Even when categories such as the 27 noted earlier appear to be precise, they are in reality arbitrary judgments of degree set by social or legal convention. The American Association on Mental Deficiency changed its criteria for defining mental retardation from an IQ of 84 to an IQ of 70 in 1983, in effect removing 7 million Americans from the impairment of mental retardation in one swoop of the pen (Meyen, 1979; Grossman, 1983; Commission on Civil Rights, 1983).

Marc Gold (1980) succinctly articulated the problems inherent in identifying persons with disabilities in his competence/deviance hypothesis: "The more competence an individual has, the more deviance will be tolerated in that person by others" (p. 6). Thus, disabilities which do not constitute a handicap to many individuals are seldom viewed as disabilities at all, making identification of persons with disabilities a much more

difficult task than identification of discrete racial and ethnic groups. A member of a racial or ethnic minority will always be a member of that minority, while disabled persons are much more apt to identify themselves as disabled when they are unemployed and drop the label when they become employed (Harris & Associates, 1986). In effect, the semantic meaning of the word disabled serves as a disclaimer to an individual's adequacy or normalcy. If an individual is disabled, the same person must be something less than able-bodied. Gliedman and Roth (1980) described the disparity between public perception of racial minorities and disabled persons in terms of an exclusively negative social identity: "Our perception of a handicap nearly always reflects an arbitrary unconscious decision to treat normal social functions and the possession of any handicap as mutually exclusive attributes" (p. 30). This alone may explain to some degree the prevailing research focus on the repeated demonstration of competence by disabled workers.

Employment for Disabled Americans

Employment represents the most widely accepted barometer of adulthood and success in American culture. It is the focus for much in our government policy, the rationale for at least one cabinet level department (Department of Labor) and numerous federal programs, and is the measure of success in virtually all areas of life. In many ways, employment is the rite of passage,

the walkabout for young Americans. For persons with severe disabilities, employment is undisputed as a basis for improving quality of life (Brown et al., 1986; Landesman, 1986; Matson & Rusch, 1986). To the Social Security Administration, disperser of the second largest payroll in America, to be unemployed for any length of time is essentially synonymous with being disabled (1986). Madeline Will, Assistant Secretary for the Department of Education in the Reagan administration, summed up the importance of employment in 1984, noting:

> Employment is a critical aspect of the lives of most adults in our society, whether their work involves highly paid career specializations, entry level jobs, or working in situations where ongoing support services are provided. Paid employment offers opportunities to expand social contacts, contribute to society, demonstrate creativity, and establish an adult identity. The income generated by work creates purchasing power in the community, makes community integration easier, enhances independence, and creates personal status (p. 3).

Unemployment is no stranger to workers with disabilities. Despite widely publicized efforts of major corporations to hire disabled persons, the unemployment rates for workers with disabilities has remained several times the rate for nondisabled persons for decades (Gentile, 1977; Rumberger, 1985; Mirga, 1985; Harris & Associates, 1987; Edgar, 1987; Olson, 1987a). This tragic reality is only exacerbated when the level of public expenditures to reduce unemployment and promote independence is taken into consideration. Consider, for example, that an estimated 8% of the

Gross National Product (GNP) is spent annually to this end (Will, 1984). Even more disturbing is the proliferation of government programs to alleviate the problem of high unemployment within a service delivery system rife with restricted access, disincentives for participation in the workforce, complexity, and disorganization which defies efficient program management (Brewer & Kakalik, 1979).

Meanwhile, employer practices in areas such as recruitment of persons with disabilities have been neglected topics in the disability literature (Cornes & Hunter, 1983). Research of this kind is difficult when disabled persons are excluded from the workforce. Senator Harrison Williams, in a 1974 speech before the U.S. Senate, advocated for passage of the Education for All Handicapped Children Act (P.L. 94-142), describing handicapped persons as "...a hidden population... unknown to the communities and individuals around them" (Wolfensberger, 1980). Employment may not be everything, but it is undeniably a major measure of adulthood and a vehicle to decision making, freedom of choice, and independence.

The Civil Rights Movement and Persons with Disabilities

Examination of the Civil Rights movement was included to compare and contrast targeted groups of Americans who have been subject to widespread discrimination and denial of basic civil liberties. Constitutional law, as interpreted by the U.S. Supreme

Court, was reviewed, and demographic data illustrated the chasm between the gains of racial and ethnic minorities and the gains of disabled Americans subsequent to the major Civil Rights legislation of the 1960s and 1970s.

Title VI of the Civil Rights Act of 1964 prohibits discrimination on the basis of race, color, or national origin in any program or activity receiving federal financial assistance. The effect of Title VI is mitigated somewhat by the need to show intent to discriminate and the fact that remedies are limited to a denial of federal funds (Alexander & Alexander, 1985). If a member of a minority group was required to answer questions on the application which were not asked of other applicants, this information would constitute a departure from normal procedures. The manner in which the individual's application was processed, including the reception provided the applicant, the body language used, and the entire sequence of events which occurred from the time the position was posted until it was filled could be used to demonstrate intent. Thus, the entire issue of discrimination in employment is one of context and the uniform and systematic use of procedures. Title VI applies only to recipients of federal funds, and the ultimate remedy is merely removal of those funds. If discrimination occurs in private industry or state and local government agencies who do not receive federal funds, Title VII provides the avenue to judicial recourse.

Title VII extended the protection of the Civil Rights Act to hiring practices, terms of employment, promotion, and dismissal. It can be invoked without evidence of discriminatory purpose. It was designed to address intentional discrimination in the workplace, but the Supreme Court in Griggs v. Duke Power Co. (1971) interpreted the provisions of Title VII to include prohibition of resulting discrimination, regardless of the intent (Beckman & Zirkel, 1983). Despite the fact that a general intelligence test and high school diploma were required for all applicants without intent to discriminate, the Court found that Title VII was directed toward the consequences of employment practices, not merely the motivation.

The establishment of a case of discrimination must meet the following tests for a Title VII disparate treatment claim: (a) membership in a minority group, (b) application for a position for which the plaintiff is qualified, (c) rejection for the position, and (d) the position must remain open and the search for a person to fill the position must continue. Once this is established, the burden of proof shifts to the employer to justify a legitimate nondiscriminatory reason for the practice. The complainant must also be afforded the opportunity to rebut. Title VII allows pecuniary awards for damages, in contrast with Title VI remedies which extend only as far as removal of federal funds.

The courts have been careful not to preclude the use of tests or measuring procedures in hiring, but have established a test of

business necessity or job performance as a legitimate and rational relationship with hiring prerequisites administered uniformly with applicants. In subsequent cases, the Supreme Court permitted the use of standardized tests which produced trustworthy results consistent with a legitimate objective of the state. The Court has also permitted the use of statistical data to determine a case of disparate impact discrimination. For persons with disabilities, the use of statistical data for this purpose has been deemed inappropriate due to the small number of applicants with disabilities and the alternative regulations such as the requirement for reasonable accommodation associated with Section 504 of the Vocational Rehabilitation Act of 1973.

The Equal Pay Act prohibited employers from discriminating between employees on the basis of sex by paying unequal wages for equal work and responsibility. However, employers can differentiate on the basis of: (a) seniority, (b) merit, (c) productivity, and (d) any other factor not related to sex (Beckman & Zirkel, 1983). The scope of this legislation is almost identical to Title VII.

In recent years, the concept of comparable worth has gained considerable attention. In a case originating in the State of Oregon (County of Washington v. Gunther, 1981), the U.S. Supreme Court examined the relationship between protections of Title VII and wage discrimination based on gender. The Court found that Title VII plaintiffs do not have to prove jobs are substantially equal to

sustain a claim of wage discrimination, but ruled five to four that evidence supporting comparable worth was insufficient to establish sex-based discrimination. Twenty states (including Montana) had comparable worth statutes in 1984, all but two enacted since the Civil Rights Act of 1964. Title IX of the same act extends these protections regarding gender to schools receiving federal aid.

The Vocational Rehabilitation Act of 1973 was the primary legislative agent for protecting the civil rights of workers with disabilities. With the Education for All Handicapped Children Act of 1975, these two pieces of legislation have had the greatest impact on providing access for the 12 to 36 million Americans estimated to have a disability.

The Vocational Rehabilitation Act contained four sections which delineate the protections and remedies of the law, Sections 501, 502, 503, and 504. Section 501 requires all federal agencies to take affirmative action to employ and advance in employment qualified handicapped individuals. The remedies move through informal complaints to the Equal Employment Opportunity Commission and from there to the courts. Section 502 created the Architectural and Transportation Barriers Compliance Board to enforce compliance with standards for physical accessibility standards. Section 503 extended the requirements of 501 to contractors who contract for $2,500 or more with the federal government, and Section 504 prohibited discrimination against

persons with handicaps and has been interpreted to fall within the protection of the Fourteenth Amendment to the U.S. Constitution (Brosnan, 1978). Bowe (1978) noted three major shortfalls of this apparent broadening of access for persons with disabilities: (a) federal agencies, required by the Act to promote employment for disabled persons, employed a smaller proportion of disabled persons than the proportion of workers with disabilities in the workforce at large; (b) the unprecedented latent publication of regulations for the law (four years after passage); and (c) widespread use of presumptive notions which deny workers with disabilities access to employment opportunity despite lack of empirical evidence.

Reasonable Accommodation

The concept of reasonable accommodation, the linchpin of the guarantees of Section 504 of the Vocational Rehabilitation Act of 1973, represents a dichotomy of added Constitutional protection for persons with disabilities and a vehicle for veiled discrimination and exclusion from the workforce unacceptable to any other protected group. Included in Section 504, to assure that persons with disabilities were not denied equal employment opportunity on the basis of their disabilities, the essence of reasonable accommodation is a match between a specific person and a specific job. Reasonable accommodation is expected of employers on behalf of applicants with disability, but this right was never meant to be equated with the right to a job.

Children with disabilities can't be denied a free, public, and appropriate education on the basis of the expense of that free and appropriate education. However, in the area of employment, costs determine the reasonableness of accommodation (Commission on Civil Rights, 1983). The interpretation of this phrase has effectively neutralized the legislation as the courts have never clearly defined the concept, and reasonable accommodation for the infinite gradations of human ability make simple, universal rules impossible. The concept was described by Health, Education, and Welfare in the delayed regulations with examples rather than parameters for decision making. Ellner and Bender (1979) describe the only extensive opinion by the Supreme Court on the topic where a hearing impaired individual applied for entrance to a licensed practical nurse (LPN) program at a community college in North Carolina. The Court ruled that the applicant's disability prohibited her from meeting the qualifications of an otherwise qualified handicapped individual as defined within Section 504, even though she possessed a valid license. The Court used the very basis for protection as justification to deny access. Some lower courts have interpreted reasonable accommodation to mean access to full participation in society, extending the concept to housing and consumer rights as well as employment.

The Southeastern Community College case illustrates how the concept of reasonable accommodation has been used as a barrier as often as a bridge to equal opportunity. Studies on the costs of

accommodations for injured workers or newly hired persons with disabilities indicate a minimal cost for the vast majority of accommodations in Europe and the United States (Cornes & Hunter, 1983; McCarthy, 1983; Commission on Civil Rights, 1983). Even with this evidence, the demographic information clearly demonstrates that workers with disability are seldom considered for employment and discouraged from applying by complex bureaucratic disincentives (Harris & Associates, 1986). Disparate adverse impact constitutes a violation of Title VII of the Amendments to the Civil Rights Act of 1964 for minorities when the effect is to produce statistical inequities in proportions of employed persons from protected groups. However, this protection does not extend to Americans with disabilities, because Section 504 allegedly provides additional more appropriate protections through the reasonable accommodation regulation (McCarthy, 1983). In effect, workers with disabilities are denied the protection of Title VII of the Amendments to the Civil Rights Act of 1964 through confusion and, alas, in 1989, widespread prejudice.

The Americans with Disabilities Act of 1988 (ADA) currently being reconsidered by both houses of Congress would extend nondiscriminatory protections by prohibiting discrimination by employers, employment agencies, labor organizations, and job training programs that are now covered by Title VII. Regulations would include a requirement of outreach and recruitment efforts

to increase the workforce representation of individuals with physical or mental impairments. While the ADA is only a bill, its 59 sponsors in Congress illustrate the trend toward increased regulation of the workplace, and activist policies toward employing persons with disabilities.

Prejudice and Persons with Disabilities

The history of prejudice in American culture toward disabled persons, the philosophical bases for such prejudice, and the resulting treatment strategies which have emerged were reviewed for this section. The review examined the relationship between prejudice and the need to continually demonstrate ability to overcome the semantic negativism of disability, and the direction of research in rehabilitation and special education since World War II. During that time frame, the disability research neglected the dominant culture selected for this study (Kettle, 1983). Kettle found that recruitment and selection procedures were biased against persons with disabilities, as reliance was placed on unfavorable assumptions about the safety, time keeping, absence and sickness records of workers with disabilities. This position is not uncommon, and successful placement programs universally include disclaimers regarding these issues, despite Kettle's research which indicated that workers with a disability often have better safety and attendance records than their nondisabled peers.

He also found that inordinate attention was focused on disabilities rather than residual skills and abilities.

Prejudice in the United States stems from a long history of public policy which treated persons with disabilities as less than human. During the formative years of our nation, persons with disabilities were considered a family blight, a curse and families were expected to keep persons with disabilities from others. By the 1820s this focus changed and social mores dictated institutional care, removing further such persons from the gaze of society. This may have been associated more with the changes caused by the industrial revolution than some insidious plot to segregate, but the effect was the same, and the prevailing philosophy of care was of a custodial nature. During the late 19th century, immigration policy forbade people with physical, mental, or emotional disabilities to enter the country (President's Committee on Employment of the Handicapped, 1977). This period began to see a form of benevolent protectionism, with the philosophy that disabled persons should be protected from society. The earlier focus was to protect society from the disabled. with physical and mental deficits as the cause of many of the social ills of mankind and a threat to the gene pool of the human race. To those ascribing to this philosophy, persons with disabilities were a scourge, a pariah to be avoided at all costs. Bowe (1978) succinctly articulated the problem facing persons with disabilities in today's society:

> Disabled persons have been out of the mainstream of American life for 200 years, and these years have seen the construction of modern American society--its values, its heritage, its cities, its transportation and communication networks. So that now, when they are coming back into our society, the barriers are enormous (p. x).

The historical record for persons with disabilities has been less than enlightened, fraught with superstition and distortion. Leonard Kriegel (1969), in a comparison of disability with being Black in America, described the experience of having a disability in this way: "He does not possess the sense of being actively hated or feared by society, for society is merely made somewhat uncomfortable by his presence" (p. 413).

Prejudice distorts social relationships by overemphasizing some characteristic such as race, gender, age, or handicap, and was defined for the purpose of the study as the imputing of more difference to a person with a disability than actually exists (Satilios-Rothchild, 1982). Satilios-Rothchild suggested that prejudice toward persons with disabilities share common sources with other forms of prejudice. These sources include the urge to classify, roles of superiority or inferiority, connected prejudices. Disability may be symbolic of everyone's vulnerability and mortality, forcing people to face unpleasant truths about themselves or their environment. Davis (1961) wrote of an "awkward solemnity" and a "compulsive loquaciousness" which is experienced by the dominant culture when required to integrate and interact with persons with disabilities, and more so as that

disability is more visible and apparent. The spread effect is the generalization from an impairment to the whole person, short-circuiting the normal exchange of information and impression of another person (Burgdorf, 1985; Wright, 1960).

Wolfe Wolfensberger (1972) identified eight common stereotypes applied to disabled persons: (a) the subhuman organism, (b) the menace, (c) the unspeakable object of dread, (d) the object of pity, (e) the Holy innocent, (f) the diseased organism, (g) the object of ridicule, and (h) the eternal child. These descriptors, however polarized, depict the range of stereotypes which continue to plague and distort social intercourse between persons with disabilities and the nondisabled population. For persons with severe and visible disabilities, these prejudices remain. A 1986 study of employer perceptions (Combs & Omvig) found that persons with severe disabilities were least likely to be accommodated. The visible nature of a disability affected the perceptions of 70 employers regarding personal hygiene needs, the propensity for disease, and exaggerated fears regarding accidents or increased insurance rates. Several studies revealed the distortion in these perceptions (Kroger, 1979; U.S. Department of Labor, 1982; Parent & Everson, 1986), yet the visible nature of disabilities was perceived by employers in the Combs and Omvig study as predictors of other diseases and compound problems.

The Workplace of the Future

Current societal trends, futurism, and the dramatic changes in the economic infrastructure of this nation are reviewed in this section to emphasize the critical dimensions of morale and employee attitudes in today's workforce and in the workforce of the 21st century. Naisbitt's 1982 best seller, Megatrends, predicted dramatic changes in our workforce as a result of the shift from an industrial society to an information society. An industrial society was defined as a society where the strategic resource was information, and the information industry has become the dominant economy in Japan, West Germany, and the United States. Portrayed by Naisbitt as equal in magnitude to the Industrial Revolution, this change magnifies the importance of employee attitudes and morale in the workplace of the future.

Packer (1983) identified five ways for management to deal effectively with workers of the 1980s who favor personal work values over traditional work ethics: (a) Develop people-oriented styles of management which emphasize participation, (b) use flextime, part-time scheduling, and four-day work weeks, (c) trust your employees, (d) improve communication, and (e) be receptive to new methods in management and systems. Hoh (1980), in a study of sawmill workers, found the most significant sources of employee dissatisfaction were: inadequate compensation, monotonous work, and poor recognition. Hoh's study also found that workers and supervisors felt that communication needed to

be improved, and suggested small and frequent group meetings to provide an opportunity for gathering feedback and problem solving. O'Neil conducted a demographic study spanning the generation between 1950 and 1981 and identified similar trends to those noted by Packer. O'Neil noted that management would be well-advised to: (a) increase delegation of authority and responsibility, (b) support more interactive communication, and (c) involve each employee in the total picture.

Public school administrators have felt the pressure for innovations in management such as horizontal decision making and differentiated staffing patterns (Anderson, 1987; George, 1987). The Carnegie report and the Rochester experiment, a collective bargaining agreement of shared power, illustrate the impact of these pervasive trends (Rodman, 1987; Olson, 1987b). To many private sector employers, staff development has been elevated to a status equal to capital expenditures, evidence of the advanced stages of transition from an industrial economy to an information economy. Johns, Morphet, and Alexander (1983) described this phenomenon in terms of scarce resources:

> The only real shortages we have in our economy are a shortage of trained people and a shortage of energy, which can only be alleviated by increased investments in education, research, and development (p. 18).

Bradford and Cohen (1984) found that high performing work groups are characterized by a cohesive team, frequent problem-solving meetings, collective decision making, and group action. This affirms the change axiom referred to as power equalization (Leavitt, 1965) which assumes that the only way to overcome resistance of staff to change is to allow subordinates to participate in decisions which directly affect them. Bridges' Zone of Acceptance (1967) provides support for this notion from the perspective of decision-making theory. This theory is predicated on the notion that each employee allows management a certain degree of latitude in making unilateral decisions. When management exceeds that limit, the employee will no longer accept the decision. Outside of this zone of acceptance, management must involve employees, or risk resentment and lower levels of morale.

As idea-intensive work environments have replaced the capital-intensive industry of the pre-microcomputer era, the importance of group interaction has accelerated, and the proliferation of quality circles described in Ouchi's Theory Z (1982) has become more common. These horizontal networks within organizations were designed to produce greater productivity by developing a culture of problem solving. Germane to this discussion is the fact that most quality circles were deliberately constructed to be heterogenous in their makeup. Empowering, mentoring, and the generation of new ideas were expected to result from this configuration.

Morale

Morale has been a critical dimension of organizational effectiveness since the beginning of recorded history. Military strategists from Alexander to Ho Chi Minh have stressed the importance of morale in achieving victory, and concern with morale by the U.S. Armed Forces is one reason that management experts such as Peters and Waterman (1982) cite the U.S. military as one of the most efficient corporations in the world today. Morale, by definition, is the capacity of a group to pull together toward goals that its members accept (Boles & Davenport, 1983). The Hawthorne studies (Hoy & Miskel, 1982) convinced management of the importance of the interpersonal human contributions to productivity in the 1930s, and since that time morale has become an increasingly important consideration in business and education in a society where Cetron (1985) estimated that two of three workers were engaged in businesses whose strategic resource is information (i.e., education, financial services, insurance, government).

Morale is often associated with job satisfaction, or a collection of attitudes which workers have about their jobs (Johns, 1983). This construct was differentiated into two distinct aspects, facet satisfaction and overall satisfaction (Milbourn & James, 1981; Ferratt, 1981). Facet satisfaction referred to a worker's satisfaction with aspects of a person's job, even though other facets may be less than satisfactory. Overall satisfaction was more a

reflection of how a worker felt about going to work each day. Job satisfaction is not morale, however, because it is a single worker's self-evaluation of his or her own worklife, rather than the broader concept of morale which includes commonly-held values within the working environment, perceptions of equity and interpersonal relationships, and the link between work groups to productivity.

Motivation and expectancy theory are also intertwined with morale and the theories of Herzberg, Maslow, and Alderfer have been extensively researched in the public schools and industry (Hoy & Miskel, 1982; Vroom, 1964; Jenkins, 1980; Moberg, 1981; Glickman, 1985). Motivation theory has focused on conscious individual decisions made on the basis of internalized evaluations of alternatives, as opposed to morale which is a construct of interactions among employees with one another, with their supervisor, and with their environment.

Vroom's Expectancy Theory emphasized the interaction of individual values and attitudes with environmental components such as organizational climate. The Effective Schools research has demonstrated that organizational climate (the morale of an entire organization) is a key predictor of effective schools (Brookover et al., 1979; McEvoy, 1987). Many studies of organizational climate have supported the notion that relationships between leaders and subordinates can serve as predictors of effective and ineffective schools (Hoy & Miskel, 1982; Hallinger & Murphy, 1987; Champlin, 1987).

Carew, Parisi-Carew, and Blanchard (1984) developed a model which integrated situational leadership theory with stages of group development by defining morale as socio-emotional tone. Bradford & Cohen (1984) found that high performance (productivity) was closely linked with morale. Morale, then, is not only related to effectiveness, but productivity as well.

This study, while recognizing the central importance of leader-subordinate relationships to both organizational climate and effective schools, explored dimensions outside of this dichotomy and examined the effects of supervisor training and integration of severely disabled workers upon morale in the public schools. Study of the impact of supervisor training upon morale provided a vehicle for validating a number of theoretical models developed in educational leadership in domains which were largely untested, particularly with the noncertificated staff in the public schools who comprise from 40-50% of school district employees nationwide (Snider, 1988). Not a single reference which linked integration of severely disabled workers with morale in the public schools was found in the entire ERIC data base.

Attitudes Toward Disabled Persons

The pervasive prejudice toward persons with disability has already been reviewed, and prejudicial attitudes have been shown to be amenable to change through provision of accurate information and contact with persons with disabilities on a daily

basis. Several studies which established the susceptiblity of attitudes to information (supervisor training) and contact (integration) regarding persons with disabilities were reviewed for this section. The business community has been sheltered from disabled persons for reasons enumerated earlier, but employers who have hired severely disabled workers have been quick to praise their effort, skill, and dedication (Steinhauser, 1978; Pati & Morrison, 1982). They have also been eager to recognize the attitudinal barriers to equity in the workplace. Carrell & Heavrin (1987) note that disabled persons "will never achieve equal employment opportunity unless employers change their viewpoint about the abilities of these workers" (p. 45). The perceptions of employers were the most negative for workers with severe disabilities (Combs & Omvig, 1986), and the federal government hired less than one percent (.85%) of its employees from its own target groups of visibly and severely disabled persons (Commission on Civil Rights, 1983).

The public schools have served as a huge laboratory for testing the effect of various treatments to change attitudes toward disabled persons, and contact (integration) of teachers, students, and administrators with severely disabled students has effected significant changes in attitudes toward disabled persons (Higgs, 1975; Sigler, Mabee, & Lazar, 1978; McDaniel, 1980). These studies, however, are tempered by evidence that the quality of the integration and staff development experiences determine the

amount and direction of the attitudinal change (Oberle 1975; Royster, 1982). Stainback, Stainback, and Stainback (1988) surveyed superintendents to assess their attitudes toward integration of students with severe handicaps into regular schools and regular classrooms. The survey of 122 superintendents indicated that 50.5% held positive attitudes toward integration of students, 15.5% held negative attitudes, and 34% were undecided. This study underscored the problems facing persons with disabilities who seek employment when only a slight majority of chief public school officers held positive attitudes toward integration of students, let alone employees, a full 14 years after implementation of Public Law 94-142.

Attitudes are somewhat difficult to separate from values. Webster's Third International Dictionary (Gove, 1986) defines the former as, "a disposition that is primarily grounded in affect and emotion and is expressive of opinions rather than belief" (p. 141, 4b), and the latter as "relative worth, utility, or importance" (p. 2,530, 3a). This similarity poses a serious problem in establishing construct validity for instruments measuring attitudes, and particularly attitudes toward persons with disabilities, and few instruments have been widely accepted as meeting that construct criteria.

Fishbein and Ajzen (1975), however, defined attitude as "a learned predisposition to respond in a consistently favorable or unfavorable manner with respect to a given object" (p. 6).

Attitudes are learned and become dispositions that result in affected responses toward a given object. If attitudes can be learned, they can be unlearned or relearned, and changed. If attitudes can be changed, then favorable attitudes can become unfavorable and unfavorable attitudes can become favorable. Fishbein and Ajzen's exhaustive study of attitudes, behavior, belief, and intentions led them to a recommendation that attitude can only be measured when an instrument places an individual on a bipolar affective dimension.

The Attitudes Toward Disabled Persons Scale selected as a dependent measure for this study met this test and incorporated the salient features of the Fishbein and Ajzen definition. Developed by Harold Yuker, J. R. Block, and J.H. Younng (1966) to measure the attitudes of both disabled and nondisabled persons toward persons with disabilities, the instrument has been used in 12 foreign countries, and more than 60 dissertations since 1980 (Yuker & Block, 1986). The widespread use and validity, internal and external reliability levels associated with the ATDP, and its ease of administration all contributed to its selection for this study. Limitations and assumptions of the ATDP are discussed in detail in Chapter 3.

Supervisor Training

Supervisor training was reviewed in terms of motivation theory, in-service education, staff development, and change theory

in education, and defined for this study as: a systematic staff development program of small-group, short duration, and frequent training sessions designed to shift the responsibilities for worksite supports and supervision of disabled workers from outside agencies to regular employees of the school district. Supervisor training is characterized by content linked to specified needs, participant interaction, and skill practice. Supervisor training, then, should be considered a form of staff development tailored for a specific purpose, to enable regular employees to develop the skills of specialists in working with and motivating workers with severe disabilities. In the process, supervisor training was expected to contribute to the formation of positive attitudes toward persons with disabilities and enhancement of morale for each participant.

Related research in education indicated that successful staff development was most likely to occur when the training was conducted in frequent sessions of short duration with small groups of participants, and when opportunity was provided for group problem solving and open feedback (Joyce & Showers, 1980; Hord, Rutherford, Huling-Austin, & Hall, 1987; Wildman & Niles, 1987). Staff development, however, as employed to form positive attitudes toward disabled persons, has more often occurred in single-shot training seminars, focused on awareness and role-playing, and imparted values rather than skills in working with persons with disabilities (Merritt, Offner, & McAnally, 1986;

McCarthy, Smart, & Henfield, 1981). Supervisor training attempted to introduce elements of successful change models such as frequent small group meetings, opportunity for problem solving, and ongoing feedback for two purposes: to enhance morale, and to facilitate the exchange of negative or neutral attitudes toward disabled persons for positive attitudes.

The theoretical basis for supervisor training was developed in part from Herzberg's two-factor theory of motivation (1966) which differentiated between those factors which lead to positive job attitudes (motivators) and those factors within a job which meet the basic needs of individuals for job security, fair treatment, and social needs (hygienes). The five motivators identified by Herzberg included: (a) recognition, (b) achievement, (c) responsibility, (d) advancement, and (e) personal involvement or work itself. Herzberg found that employees were more apt to develop positive attitudes toward their job when motivators were present, but the absence of these factors produced only minimal job dissatisfaction. Hygienes such as salaries, working conditions, and company policies had little positive effect on job satisfaction when they were enhanced but a significant negative effect on job dissatisfaction when they were diminished. To Herzberg, motivators and hygienes were mutually exclusive. By systematically including aspects of Herzberg's motivators in supervisor training, a higher level of job satisfaction and employee morale was expected. The following activities were included in the

supervisor training model to specifically address each motivation factor.

Participants were recognized through an awards ceremony and a certificate of completion presented by the Assistant Superintendent for Personnel. The certificates were signed by each participant's supervisor, and a copy placed in the employee's permanent file. Responsibility was addressed in the model by establishing as a goal the transfer of responsibility for motivating workers with disabilities from the trainer to the co-workers and department supervisor prior to completion of the program. Problem-solving strategies were included in each session which required the participants to apply skills acquired in the sessions to hypothetical situations framed within their own working environment.

Achievement was addressed through the use of a training manual which included short answer and fill-in-the-blank activities for each participant. Each employee was responsible for completing a measure of independent work between sessions, provide input during the session, and complete specific requirements during the course. Advancement was not addressed directly, although each participant could take the course for college credit, and the program was an official district staff development program with the option of earning reassigned time. This training format was developed to facilitate each of these motivators for participants.

The content of the supervisor training program was based on the behaviorist theories of B.F. Skinner (1957) which were refined into discrete teaching paradigms by theorists such as Siegfried Engelmann and Marc Gold. Engelmann considered discrimination learning to be the basis of all learning, and endeavored to develop a system of faultless communications which assured that learners with minimal capacities (e.g., persons with severe mental retardation) could acquire complex skills if appropriate controls of the learning sequences and environment were sufficiently controlled (Engelmann & Carnine, 1982). The supervisor training program included instruction in several of Engelmann's strategies.

Marc Gold also was a behaviorist who ascribed to the discrimination theories of learning and developed a powerful and effective teaching strategy known as try another way (Gold, 1980). In teaching a discrete task, Gold would use a combination of physical prompts and the command "try another way" to instruct learners of minimal intelligence to construct complex assembly tasks. This technique is widely used in special education, and was incorporated into the supervisor training program because of its simplicity and easy application.

The behavioral strategies of Engelmann and Gold provided within an interactive format were also expected to positively effect morale and attitudes toward persons with disabilities. These theoretical bases provided a foundation for the treatment

defined as supervisor training and specific content is described in Chapter 3.

Integration

Adults with disabilities remain the most segregated group of Americans who are neither incarcerated nor hospitalized. Demographic information, the paradox between levels of independence and expenditure, and the presence of pervasive but subtle prejudice have already been reviewed. On the subject of integration, the educational experiment of P.L. 94-142, where each disabled student is required by law to be educated to the maximum extent possible with their nondisabled peers, can be viewed as an extraordinary success or a dismal failure. The most obvious failure has been in the areas of independent living and employment, areas most representative of adulthood in American society. The law's success lies in the fact that all students, with or without disabilities, participate, interact, and compete with one another during the school years.

This success, unfortunately, too often comes to an abrupt halt when students leave school. For youth with mild disabilities, only one of six special education graduates earn more than minimum wage as young adults (Edgar, 1987). Many of these young Americans who do not enter the workforce remain at home, segregated from the rest of society by their inability to participate in adult options which require income (i.e., independent living,

travel, leisure activities, postsecondary training). Others with more severe disabilities are placed on long waiting lists for adult residential and day programs such as sheltered workshops (Bellamy, Sheehan, Horner, & Boles, 1980). For those fortunate enough to secure adult services, available options are predominately segregated. Even the 58% unemployment rate for Black teenage high school graduates looks good when compared with the expected outcomes for persons with disabilities (Education Commission of the States, 1985; Edgar, 1987; Wagner, 1988).

The use of integration as a treatment variable to impact attitudes has also been widely documented (Sasso & Rude, 1987; Donaldson & Martinson, 1977) and was introduced as a treatment variable for this study. Because prejudice and bias are susceptible to information and exposure, integration was expected to be a viable treatment for forming positive attitudes toward disabled persons and for enhancing morale.

Characteristics of effective staff development and integration were manipulated to determine their effects upon morale and employee attitudes. Chapter 3 describes the specific hypotheses developed from this foundation and the research design employed to test them.

CHAPTER 3

METHOD

This study involved exploratory research regarding the effects of two variables, systematic staff development (supervisor training) and integration of severely disabled workers in the public schools (integration), upon co-worker and supervisor morale and attitudes toward persons with disabilities. The Great Falls Public Schools (Great Falls, Montana) provided the setting for this research effort. The Great Falls district's organizational structure included multi-faceted support services and 13 collective bargaining units. During the 1988-89 school year, the District served 12,345 K-12 students in 15 elementary schools, two junior high schools, and two high schools.

The community's largest employer was the Malmstrom Air Force Base which operated two flying wings and a strategic missile command. The school district was the second largest employer in the community with 1,748 full and part time employees, and hospitals, local government entities, food distributors, the Burlington Northern Railroad, and four large retail discount stores comprised employer groups with 300 or more employees. Expenditures per pupil were within $500 of the national average

for the public schools for the period of the study (U.S. Department of Education, 1988b).

Population and Sample

The population for the study was limited to employees of the Great Falls Public Schools and was comprised of the total number of persons employed full or part time by the district. A majority of employees with severe disabilities were employed in the support areas of the schools (custodial, food service, teacher aides, clerical and office staff), necessitating that participants in the integration groups were primarily workers in these areas also. Teachers who participated in the treatment groups participated as co-workers and supervisors, rather than instructors. The district hired persons with severe disabilities as vacancies occurred, necessitating the use of a stratified random sampling procedure, and strata used for sampling were unequal in size. The smaller intact groups of co-workers and supervisors created by these placements and the administration of pretests prior to specific placements of workers with severe disabilities prohibited an experimental study, and for this reason, a quasi-experimental design was employed. Participants were selected through the use of a stratified random sample across four discrete groups, using a table of random numbers for selection of employees within each group.

This procedure resulted in formation of four groups of 30 individuals for a total sample size of 120. Attribute variables such as age, sex, years of formal education, and department were examined for their impact on the research design, but were not a central part of the study.

Variables

The independent variables for this study were supervisor training and integration. Supervisor training was defined as a systematic staff development program designed to shift the responsibilities for worksite supports and supervision of disabled workers from tax-supported agencies to regular employees of the school district. It included several components of effective staff development which have been demonstrated in the research of public school employees and change (Champlin, 1987; Wildman & Niles, 1987; Harris, 1980). These components were: (a), frequent sessions of short duration, (b) small groups of participants, (c) interactive format, (d) extensive use of hypothetical scenarios, and (e) opportunity for problem solving which can be directly applied to events within the worklife of the participants. These components were incorporated into all supervisor training sessions. This format was then combined with materials developed specifically for training co-workers and supervisors to effectively work with persons with severe disabilities.

The researcher and one associate jointly developed the training materials, selected the content, and established the format to include the components of effective staff development. A course handbook for supervisors and co-workers was developed for each participant which included readings, hypothetical scenarios for small-group discussion, a list of resources, and activities for each of the eight sessions.

The course handbook was patterned after the Concerns Based Adoption Model (CBAM), a change model which identified stages of concern which individuals experience when involved in the adoption of an innovation (Hord & Loucks, 1980). According to Hord and Loucks, everyone is likely to have some degree of concern at all stages at any given time, but the stages when concern is more or less intense will vary as the change is implemented. The seven stages for the CBAM model include: (a) awareness, (b) informational, (c) personal, (d) management, (e) consequence, (f) collaboration, and (g) refocusing. The stages are not meant to be mutually exclusive, but are generally expected to follow a linear progression from awareness through refocusing.

The supervisor training sessions were designed to correspond to a degree with the CBAM stages. For example, persons who are at the awareness stage are unconcerned about a particular change, while persons at the refocusing stage are apt to have some ideas about the change that would enhance its implementation. In the supervisor training model, the awareness

session focused on heightening the awareness of participants regarding the pervasive unemployment, high cost to taxpayers, and work capacity of persons with disabilities. During the refocusing session, supervisor training focused on the values associated with advocacy and problems associated with providing enough assistance without fostering dependence. A sample of session objectives, topics, and activities has been included here to describe in greater deal the treatment provided.

Introduction. The objective of the first session was to convey to participants their role and responsibilities in the course, and describe the goal of the program: assisting co-workers in developing the skills needed to motivate persons with severe disabilities in the workplace. Topics of the first session included: (a) discussion of reasons disabled persons lose their jobs, (b) discussion of enormous cost associated with training rather than employing persons with disabilities, and (c) discussion of the program format with its emphasis on participation and interaction among each group. Interactive activities for the first session included completion and discussion of a brief true and false quiz of disability trivia on handicapping conditions, recent legislation, and rights in the workplace.

Awareness/Information. Following this session, participants were expected to be able to: (a) distinguish between a disability and a handicap, (b) identify the disability of at least one historical figure, and (c) identify the four aspects of normalization. Topics

included: (a) disabled or handicapped, (b) famous people with disabilities, (c) normalization, and (d) importance of the work environment to adult identity. Interactive activities included group discussions of each topic and responding to a set of hypothetical situations regarding persons with severe disabilities. This practice and a food for thought section were included in the remaining six sessions.

Behavior Management. The objective for this session was that participants would be able to identify three levels of prompts, appropriate use of prompts, and describe examples of commonly used prompts in the general population. Topics included: (a) prompting: what is it, (b) verbal prompts, (c) gestural prompts, (d) physical prompts, and (e) power of prompts. Interactive activities included viewing a film on prompting techniques and discussion, identification of prompts used in each participant's work station, and responding to a set of hypothetical scenarios regarding prompting.

The designated trainers also conducted all of the training sessions for treatment group participants. To control for possible contamination of the treatment due to variability among trainers, the initial eight training sessions were conducted by the researcher, while the associate observed. Following each session, the associate provided a critique of the training as part of a post session conference among the two trainers.

This process was then repeated for the associate trainer during the second set of eight training sessions, with the researcher observing and providing feedback during post-session conferences. Beginning with the third set of training sessions, groups were assigned to either trainer based on locations and times allotted for the training. The author conducted approximately 80% of all the training sessions and the associate trainer the remaining 20%. The dimensions of supervisor training were dependent in some measure on the ability of the person with severe disabilities to assimilate into the workplace. However, disabled worker ability was not considered for the purpose of this study, and it was assumed that appropriate job matching would occur through the screening and interview process to assure that each person with a disability would be able to perform effectively on the job.

The second independent variable was integration, which was defined for the study as daily contact of nondisabled employees with employees who have severe disabilities. All employees within the district who were assigned to work in a department where an individual with a severe disability was also employed were eligible to participate in the study. This included: (a) all new employees during the 1988-89 school year assigned to locations where a person with a severe disability had already been working, (b) employees in locations where newly hired persons with severe disabilities were assigned to work, and (c) employees transferred into locations where persons wth severe disabilities were

previously assigned. Employees with severe disabilities who served as the treatment included persons with the following disabilities:. (a) moderate to severe mental retardation, (b) deafness with mental retardation, (c) chronic mental illness, (d) autism, (e) cerebral palsy, (f) epilepsy, and (g) persons with physical disabilities. Differences across disabilities were not investigated because the dependent measure of employee attitudes (ATDP) provided a generic measure of attitudes toward persons with disabilities. Employees with severe disabilities all qualified as severely disabled under the Vocational Rehabilitation Act Amendments of 1986 and each was regarded as having a substantial barrier to employment.

Two dependent variables were selected because of their relationship to productivity (Bradford & Cohen, 1984) and effect in reducing prejudice (Allport, 1986). Attitudes toward persons with disabilities have been shown to both promote access to employment and build barriers to employment for the same workers with severe disabilities (Combs & Omvig, 1986; Wolfensberger, 1972).

Morale was considered a critical dimension of organizational effectiveness closely related to one's motivation and productivity. Scores on the Attitude toward Disabled Persons Scale (Yuker, Block, & Younng, 1966) and the Survey of Department Morale constituted the dependent measures for this study. Both measures are discussed in detail later in this chapter.

Hypotheses

The literature review indicated that integration and provision of information (supervisor training) had positive effects on attitudes toward disabled persons (Donaldson & Martinson, 1977; Sasso & Rude, 1987). The current study was designed to verify these findings in a new setting (the workplace of the public schools) and to determine the effect of the variables on morale. The following null hypotheses provided the basis for the research design and the foundation for drawing inferences from the study.

H_{01}: There will be no significant interaction between supervisor training and integration for treatment and control group mean scores on the Attitude Toward Disabled Persons Scale pretest and the Survey of Department Morale pretest.

H_{02}: There will be no significant differences between participants employed in integrated environments and participants employed in similar but nonintegrated environments on the mean scores of the Attitude Toward Disabled Persons Scale pretest and the Survey of Department Morale pretest.

H_{03}: There will be no significant differences between groups who participate in supervisor training and employee groups who do not participate in supervisor training on the mean scores of the Attitude Toward Disabled Persons Scale pretest and the Survey of Department Morale pretest.

H_{04}: There will be significant interaction between supervisor training and integration for treatment and control group

mean scores on the Attitude Toward Disabled Persons Scale posttest and the Survey of Department Morale posttest.

H_{05}: There will be no significant differences between participants employed in integrated environments and participants employed in similar but nonintegrated environments on the mean scores of the Attitude Toward Disabled Persons Scale posttest and the Survey of Department Morale posttest.

H_{06}: There will be no significant differences between groups who participate in supervisor training and employee groups who do not participate in supervisor training on the mean scores of the Attitude Toward Disabled Persons Scale posttest and the Survey of Department Morale posttest.

Instrumentation

To measure attitudes toward disabled persons, the Attitudes Toward Disabled Persons scale (ATDP) developed by Yuker, Block, and Younng (1966) was employed. This scale has been the criterion measure for over 60 dissertations and in over 300 studies in 12 countries. It has three alternate forms, with parallel forms (equivalence) reliability medians of .67 to .72. This study employed Form A, a 30-item instrument with split half reliability of .84, an alpha of .84, and a three-week test-retest coefficient of .79. Form A had the highest reliability coefficients of the three forms and was selected for this reason.

In terms of validity, the ATDP was reported to be strongest in the area of construct validity, where convergent validity was assessed by correlating scores obtained on other measures of attitudes toward disabled persons and on constructs closely associated with attitudes. Messick (1980) found that the ATDP correlated closely with these alternate measures, and the greatest discrepancies occurred with measures differing in content and format.

The ATDP has been criticized for several reasons, including social desirability, acquiescence, faking, and factorial structure (Yuker & Block, 1986). Social desirability and acquiescence are closely related concepts which have been shown to affect test results. Social desirability is the tendency to respond to items representing desirable qualities positively and undesirable qualities negatively. The concept of power provides a clear example. Persons who view power as something negative will respond to questions regarding power negatively, even if their behavior indicates a preference for power. This criticism is a common one for self-reported measures and constitutes error variance on a test like the ATDP. Acquiescence refers to a tendency to give positive statements on test items. Of 26 studies, 20 correlation coefficients were negative, with the median - .10. The ATDP is balanced to a large degree to mediate the tendency toward acquiescence and Form A has 12 positive and 18 negative statements. Both social desirability and acquiescence represent

valid criticisms of the ATDP, but their impact does not account for a large percent of the variance in the literature. Thus, they represent error variance and their influence does not alter the results significantly. Faking of the ATDP was examined by Scott and Rohrback (1977) who found that placing persons in a situation which encouraged them to respond in a way that created a positive impression failed to produce significant differences with test scores obtained under standard administration conditions.

The final major criticism of the ATDP has to do with its factorial purity or the instrument's ability to measure attitudes, as opposed to knowledge or values. In this area, the ATDP has been found to be multidimensional as opposed to unidimensional by some authors and unidimensional by others. Yuker, in defense of the ATDP, questions whether this criticism is meaningful in the first place, noting the widespread use of multidimensional constructs such as IQ. Attitudes themselves are a gray and multidimensional construct, but the reliability and validity of the ATDP suggest that the instrument is an appropriate measure of attitudes toward persons with disability.

The Survey of Department Morale instrument is a composite of the Social Actions Unit Staff Assistance Survey used by the Strategic Air Command of the United States Air Force since 1981 and the Organizational Climate Description Questionnaire (OCDQ). These measures reflect the basic constructs of morale identified by Boles and Davenport: faith in the leaders, faith of members in

each other, confidence in equitable distribution of rewards, organizational efficiency, and attention to well-being of group members (1983).

Field Test of the Survey of Department Morale

A 25-item instrument developed from these instruments was constructed using a five point, strongly agree-strongly disagree Likert scale. A field test was administered with 50 participants with positions representative of expected treatment group participants to determine the reliability of the instrument. One-half of the field test participants (25) were selected from representative noncertificated groups. Custodians from the College of Great Falls (a multi-faceted educational institution) and food service workers from the Columbus Hospital in Great Falls were solicited from this group for a two-week test-retest period to yield a reliability coefficient for stability. The other half of the field test was comprised of 25 practicing public school teachers enrolled in school administration courses at Montana State University who were away from their jobs during the Summer of 1988 and therefore not susceptible to daily fluctuations in morale due to factors on the job. This group participated in the field test under the same conditions, and a total of 45 participants from both groups completed the field test survey as instructed.

Reliability. To determine reliability for the SDM, the reliability coefficient was set at .70 as a level which had to be exceeded prior to this study. This coefficient is comparable to the

median employed for school attitudinal measures (Wiersma & Jurs, 1985). A total test coefficient of stability, and a split-half coefficient of equivalence were employed to yield estimates of reliability, and these results for the Survey of Department Morale (SDM) are depicted in Table 1.

Table 1. Reliability Estimates for Field Test of Survey of Department Morale.

	Total Test Retest (stability)	Split-Half Test	Split-Half Retest	(equivalence)
Pearson's r	.899	.893	.885	(corrected by Spearman-Brown formula)

Validity. Content validity for the instrument is related to the Occupational Climate Description Questionnaire (OCDQ) and Air Force Social Actions Staff Assistance Survey (AFSAS) source instruments. Therefore, a brief review of both instruments is warranted here.

The Occupational Climate Description Questionnaire (OCDQ) was validated by Halpin and Croft in 1962 across 71 elementary schools. The purpose of the OCDQ is to measure principal-teacher and teacher-teacher relationships across eight factors or subtests. The original instrument had 64 items factored into eight dimensions of school climate: production emphasis, aloofness, consideration, thrust, hindrance, intimacy, disengagement, and esprit. It is usually administered to entire professional staff

within schools with four-point Likert scale responses. It was chosen for this study because of its wide use in the public schools, its factoring into the eight dimensions of climate, and its relationship to the dependent variable, morale. Climate, defined as organizational morale Carew, Parisi-Carew, and Blanchard (1984), includes several dimensions associated with morale as defined for this study by Boles and Davenport (1983). Four out of five of these dimensions of morale are reflected in the seven OCDQ items which were modified for the SDM, and the OCDQ is included in Appendix B with scoring instructions. Table 2 replicates elements of Halpin and Croft's study which address reliability and validity.

Table 2. Estimates of Internal Consistency of the OCDQ.

	Subscale	Method A[a]	Method B[b]	Method C[c]
1.	Disengagement	73	.59	.66
2.	Hindrance	.68	.54	.44
3.	Esprit	.75	.61	.73
4.	Intimacy	.60	.49	.53
5.	Aloofness	.26	.76	.72
6.	Production ...emphasis.	.55	.73	.53
7.	Thrust	84	.75	.68
8.	Consideration	.59	.63	.64

[a]Split-half coefficient of reliability, corrected by the Spearman-Brown formula (n=1151).

[b]Correlation between scores of the odd-numbered and the even-numbered respondents in each school (n=71).

[c]Communality estimates for three-factor rotational solution (n=1151).

Halpin and Croft asserted that the test had a high predictive validity because these reliability estimates illustrated the dependability of the subtest scores, and because the non-error variance of each subtest was shared in common with the variance of other subtests. Their study was later replicated by Brown who found similar results and concluded that the test was indeed reliable (Olsen, 1988).

The Air Force Social Actions Staff Survey (AFSAS) is a 35-item morale instrument used throughout the Strategic Air Command to ascertain areas of need in the maintenance of morale for enlisted members of the Air Force. Major MacFarland (1988), who developed the instrument in 1982, indicated that the instrument has been used in over 100,000 administrations, and that results are routinely tabulated and used to compare Wings and Missions of the Strategic Air Command to themselves and to one another. There are several alternate forms of the AFSAS, and revisions are made regularly by Strategic Command Headquarters in Omaha, Nebraska. A major shortcoming of the instrument is the fact that reliability and validity measures are not available to the public, but its uninterrupted use since its development attests to the confidence the Air Force places in it. It was chosen for this study because its language is geared to persons with minimal educational backgrounds similar to a large proportion of the population sampled for this study, it enjoys widespread acceptance by the Air Force worldwide, and the survey employs a five-point

Likert scale. Eighteen items were modified from this instrument for the SDM, and a letter from Major MacFarlane, the AFSAS, and scoring instructions are included in Appendix B.

Morale has been defined for this study to include the following major dimensions described by Boles and Davenport (1983): (a) faith in leaders, (b) faith of members in each other, (c) confidence in equitable distribution of rewards, (d) organizational efficiency, and (e) attention to well-being of group members. To determine the degree to which the dimensions described by Boles and Davenport were reflected in the SDM and related to the instruments from which it was adapted, a review of the instrument by 16 personnel directors was conducted.

Personnel directors from AA school districts, state government agencies, and a randomly selected sample ($\underline{n}$ =15) of members of the Great Falls Personnel Managers Association reviewed the instrument, matching constructs to those items which measured its salient characteristic. Twenty-five personnel directors were surveyed, 19 completed the survey, and 16 surveys were completed accurately and included for analysis purposes.

Principle constructs were determined by selecting the mode response for each item. Even though 21 of the 25 items yielded multiple construct responses, the representation of items corresponding to single constructs indicate the ability of the test to examine the major dimensions of morale in an adequate fashion.

Sixteen of the items were perceived to reflect constructs most susceptible to supervisor training and integration: faith of members in each other, organizational efficiency, and attention to the well-being of group members, while nine items were most frequently selected as measures of faith in leaders and confidence in equitable distribution of rewards, perceptions most susceptible to leader-member relationships. Responses of personnel directors are depicted in Table 3, and a composite coefficient of stability (test-retest) score for each construct has been aggregated from the scores of the 45 field test respondents for comparison purposes.

Table 3. Personnel Directors' Assignment of Items by Construct and Corresponding Reliability Coefficients.

Construct	Items	Reliability Measure*
Faith in leaders	6,11,12,13,14,17	.77
Faith of members in each other	3,7,8,15,21,23	.69
Confidence in distrib of rewards	1,9,10,	.67
Org efficiency	2,4,5,22,24,25	.60
Attn to well-being of group members	6,18,19,20	.71

*Coefficient of stability (simple Pearson's r)

Construct validity was also determined through this process, and Table 4 is a modified table of specifications (Gronlund, 1981) which summarizes the instrument source for each of the 25 items, and the principle construct which each item measures.

Directors were asked to specify which of the five dimensions of morale best measured each item and to reject inadequate items.

Table 4. Table of Specifications for Truncated Items of the SDM.

Item	Source Document	Construct
1. Likes job	AFSAS	Conf in rewards[b]
2. Atmosphere	AFSAS	Org efficiency
3. Members do their share	AFSAS	Faith in each other
4. Co-workers get along	AFSAS	Attn to well-being
5. Unreasonable pressure	AFSAS	Org efficiency
6. Motivated to do one's best	AFSAS	Faith in leaders
7. Proud of dept	AFSAS	Faith in each other
8. Comfortable out of school	AFSAS	Faith in each other
9. Hard Work = Recognition	AFSAS	Conf in rewards
10. No favoritism	AFSAS	Conf in rewards
11. Fair discipline	AFSAS	Faith in leaders
12. Accurate evaluations	AFSAS	Faith in leaders
13. Able to talk to supervisor	AFSAS	Faith in leaders
14. Supervisor helpful	OCDQ	Faith in leaders
15. Co-workers listen	AFSAS	Faith in each other[a]
16. Co-workers helpful	OCDQ	Attn to well-being[b]
17. Supervisor pos influence	AFSAS	Faith in leaders
18. Dept co-workers helpful	AFSAS	Attn to well-being
19. Dept morale good	OCDQ	Attn to well-being[b]
20. Work activities after hrs.	AFSAS	Attn to well-being
21. Get along better than other depts.	AFSAS	Faith in each other
22. Feeling of "Let's get things done"	OCDQ	Org. efficiency[b]
23. Co-workers accept faults	OCDQ	Faith in each other
24. Enthusiasm for job	OCDQ	Org. efficiency[b]
25. High org morale	OCDQ	Org. efficiency[b]

[a]Items where >.16% of responses identified >2 constructs
[b]Items where at >.16% of responses identified >3 constructs

The personnel directors included persons with a mean of 11 years experience in employment practices in the public sector or the public schools. This procedure was employed to determine the content validity of the test, and the relationships between the five major constructs of morale and the source documents. Appendix B presents the Construct Validity Survey of the Survey of Department Morale.

Items 1, 19, and 25 were cited by over 20% of respondents as representative of all five constructs rather than an accurate measure for single constructs. This is not considered a detracting factor for the purpose of this study, however, as morale is defined by the five constructs. Three reviewers felt that some items measured additional aspects of morale, such as teamwork for item 22, or congruence with organizational goals for items 19, 24, and 25. Only item 23 was recommended for removal, and that by just one reviewer.

The results of the field test depicted in Tables 2, 3, and 4 were considered representative estimates of dependability for the SDM and satisfy the requirements of reliability and validity for the exploratory purpose of this study. The review of items by the personnel directors yielded representative groupings of the key constructs of morale as defined by Boles and Davenport, and its content was considered valid for the purposes of this study. Critical review by the personnel directors yielded only one question regarding the appropriateness of one item, yet a majority

of respondents (54%) agreed that the item measured the same construct.

While the central purpose of this study was not to develop and validate an instrument to measure morale, these procedures were conducted to assure that the results obtained through the SDM dependent measure were consistent and measures of the attributes of morale. Both the reliability coefficients and the review for validity attest to the stability and consistency of the SDM to adequately measure the dimensions of morale as defined for this study.

Experimental Design

The effects of supervisor training and integration upon attitudes toward persons with disabilities and morale, and the interaction of these independent variables were the primary questions examined by this study. To find for differences across these dimensions, the following quasi-experimental design was employed.

Participants in the study were selected from a stratified random sample of four discrete groups within the Great Falls Public Schools. The groups were comprised of: (a) employees who worked in an environment which includes daily contact with at least one co-worker with a severe disability and participation in a supervisor and co-worker training program, (b) employees who worked in an environment which includes daily contact with at

least one co-worker with a severe disability, but did not participate in supervisor training, (c) employees who participated in supervisor training but did not have daily contact with severely disabled co-workers, and (d) employees who neither participated in supervisor training nor worked in an integrated environment with co-workers who have severe disabilities.

The sample for the study was restricted by placement decisions regarding workers with disability. Because the number of employees with severe disability was contingent on available positions and an appropriate matching of workers' skills with skills required by the job, the number of co-workers and supervisors with daily contact was also limited. Integrated employees, or those who interact daily with workers with severe disabilities, were divided into two groups, one of which received supervisor training and one which did not. Remaining district employees were divided into two groups prior to selection of participants through use of a table of random numbers, of which one group received supervisor training, and the other served as a control group. Participants were then selected at random from these four strata. Participants from groups which were not integrated with persons with severe disabilities were selected from a much larger sample of district employees than groups who were integrated with persons with severe disabilities on October 1, 1988. The result provided a balanced design of four groups of 30 individuals for a total sample size of 120 as depicted in Table 5.

Table 5. Sample Sizes for Stratified Groups.

		Integration	
		Yes	No
Supervisor Training	Yes	n=30 Group 1	n=30 Group 3
	No	n=30 Group 2	n=30 Group 4

All four groups were pretested prior to October 31, 1988. The intervention period for two of the four groups was fixed at 90 days to reflect the accepted probation period for new employees. The groups which received supervisor training and integration or integration only were pretested prior to training and placement of each person with a severe disability in their department. Supervisor Training consisted of eight-sessions provided during the first two months of the intervention period.

All groups were posttested at the same time (February 15, 1989), and all hypotheses were statistically tested at the .05 level of confidence. The Analysis of Variance was considered sufficiently robust to reduce the likelihood of Type I errors, and the .05 level was selected as an adequate probability level to control for Type II errors and to test for significant differences between groups.

Employment of workers with severe disabilities occurred as vacancies became available, yielding pretest scores for integration

groups on the dependent measures at staggered intervals. However, no threat to validity was anticipated since an exaggerated pretest/posttest interval could be assumed to reduce pretest interaction in this instance. All participants were pretested on the ATDP and the SDM prior to training or placement of a worker in their department or work area. Mortality reduced the total sample size to 109 participants.

Group one consisted of participants who received supervisor training during the initial 90 days of employment for a person with severe disability hired within their department. Supervisor training participants completed a course of study of eight small-group training sessions, provided through an interactive problem-solving format. Participants in Group 1 also had daily contact with the employee with a severe disability. Group 2 participated in the supervisor training program only and did not have regular, daily contact with an employee who was severely disabled. Group 3, on the other hand, interacted daily with an employee with a severe handicap, but did not participate in the eight weekly sessions of supervisor training. Group 4 received neither independent measure and served as a true control group for the study.

The intervention period of 90 calendar days was selected because most terminations for persons with severe disabilities occur during the first three months of employment (Greenspan & Shoultz, 1981; Hanley-Maxwell, Rusch, Chadsey-Rusch, & Renzaglia, 1986). It also is representative of probationary periods in the

public sector (30 days to six months). Collective bargaining agreements can vary from 30 days to multiple year probations (i.e., teacher tenure), and a 90-day to six-month probationary period characterizes state government (Montana Codes Annotated, 1987). However, Vocational Rehabilitative Services have used 60 days of successful employment as evidence of rehabilitation for clients with disabilities for over 40 years. If integration and supervisor training were to produce significant differences, the differences were expected to be evident within this critical period. Supervisor training was conducted in eight weekly sessions for participants in Groups 1 and 3 during the intervention period.

Posttest scores on the two dependent measures (the Attitude Toward Disabled Persons scale and the Survey of Department Morale) examined the effects of the independent variables, integration (with two levels, yes and no) and supervisor training (with two levels, yes and no), using a Two-Way Analysis of Variance (ANOVA) procedure to test for mean score differences (Kerlinger, 1973). The Two-Way ANOVA is sufficiently robust to accommodate for small sample size (Ferguson, 1981), and the sample size of 30 participants in each group was designed to establish a balanced design given the constraints of placement decisions and employment opportunities regarding Groups 1 and 3 described earlier. The research design depicted in Table 5 illustrates the levels of integration and supervisor training and is

presented schematically in Figure 1 using a modified Stanley and Campbell design notation (1963).

Figure 1. Quasi-Experimental Design Schematic.

	Pretests	Integration	Supervisor Training	Posttests
Group 1	O_1	X	Y	O_2
Group 2	O_3	-	Y	O_4
Group 3	O_5	X	-	O_6
Group 4	O_7	-	-	O_8

Pretests on both dependent measures are denoted by O_1, O_3, O_5, and O_7 while posttest scores are denoted by O_2, O_4,O_6, and O_8. The X and Y imply exposure to the variables of integration and supervisor training respectively, and the lack of an X or Y in the O_7 to O_8 group depicts no exposure (control) to either independent variable.

The Two-Way Analysis of Variance (Kerlinger, 1973) was selected as the appropriate statistic to both find for differences and determine the interaction of the independent variables. This statistic comprised the major tool for analysis throughout the study and was sufficiently robust to accommodate the limitations of the study (Popham, 1967; Kerlinger, 1973). Pretest scores were examined to determine whether homogeneity of variance existed for the treatment and control groups. Significant differences found on the pretest ATDP score for both treatment variables required the researcher to employ Analysis of Covariance to remove the influence of the pretest scores on posttest scores (Popham, 1967).

A nonsignificant interaction of the independent variables and the pretest ATDP scores met the assumption of linear relationship or homogeneity of regression necessary for Analysis of Covariance (Ferguson, 1981; Winer, 1971). This method allowed the researcher to control for differences in pretest scores and to increase precision of the quasi-experimental analyses of posttest outcomes (Hinkle, Wiersma, & Jurs, 1988).

In terms of disability research, the business literature is replete with testimonials such as that expressed by Jim Osborn of the Osborn Group (1987):

> I'd say the greatest advantage of hiring people with disabilities is one of personal satisfaction both selfishly from my standpoint, also the attitude the rest of our employees have taken with the service. We have close day to day contact with the individuals working with the service and it's becoming more of a family atmosphere. It makes everybody feel good seeing that these people feel good about what they're doing (p. 4).

Unfortunately, there is far too little empirical evidence to support such testimonials. This study was designed to verify perceptions such as Osborn's, and to provide a basis for further research in the fields of school administration and disability research. Chapter 4 will examine the results of the study, analyze the procedures and outcomes outlined in this chapter, and provide the empirical data to support or reject the hypotheses described here.

CHAPTER 4

RESULTS

The primary purpose of this study was to investigate the effect of supervisor training on employee attitudes toward disabled persons, and the effect the integration of severely disabled persons in the workforce has on the morale of their co-workers. A second purpose was to determine the interaction between supervisor training and integration, and to ascertain whether these treatments are more effective when presented separately or in concert. This chapter will describe the results of tests performed on null hypotheses delineated in Chapter 3, examine the attribute variables of participants to determine their influence on the research design, and provide information which can be used to generate further research in this area. The demographic features of the participants (subjects) in the study will be discussed first, followed by delineation of test results for each hypothesis at the .05 alpha level.

Demographic Characteristics of Participants

One hundred and nine public school employees participated in the study out of a stratified sample of 120 employees. Of the 11 participants lost to the study, nine failed to complete and submit

the pretest measures prior to the October 31 start date, and two dropped out of the supervisor training group before the second training session. Tables 6-12 describe the demographic makeup of the remaining 109 participants. Examination of Table 6 illustrates that the sample is representative of the gender distribution across the district.

Table 6. Participant Distribution by Gender.

Sex	Participants	%	District	%
Male	36	33.03	565	32.32
Female	73	66.97	1183	67.68

Table 7 presents a similar comparison regarding distribution of participants by department or position.

Table 7. Participant Distribution by Department/Position.

Dept./Position	Count	%	District Count	%
Food service	15	13.76	113	6.46
Bldgs & grnds	13	11.93	117	6.69
Library/supports	4	3.67	35	2.00
Administration	9	8.26	49	2.80
Teaching staff	32	29.36	806[a]	46.11
Data processing	...4	3.67	10	.57
Clerical	...8	7.34	100	5.72
Special education	...3	2.75	121	6.92
Trades	...1	.92	12	.69
Assistants	20	18.35	385	22.03

[a]includes part-time teachers.

As expected, a disproportionate percentage of buildings and grounds, teacher aides, and food service employees participated in the study, reflecting the strata used in sampling and the fact that greater proportions of workers with disabilities are employed by these departments. Table 8 describes the age distribution of participants. Tables 9 and 10 describe education levels and locations for participants.

Table 8. Frequency Distribution by Age.

Age Group	Count	%
One (20-25)	3	2.75
Two (26-30)	6	5.51
Three (31-35)	10	9.17
Four (36-40)	17	15.60
Five (41-45)	21	19.27
Six (46-50)	14	12.84
Seven (51-55)	22	20.18
Eight (56-60)	11	10.09
Nine (61-65)	3	2.75
Ten (65+)	2	1.84

The median age for participants reflected the median age of the teaching staff of 43 years old (P. Rowe, personal communication, March 28, 1989). Table 9 points out that over half the participants completed their formal education with a high school diploma, while Table 10 indicates that almost one half of the participants worked in the district's elementary schools.

Table 9. Frequency Distribution of Participants by Education Level.

Element:	Count	%
<HS	4	3.67
HS	51	46.79
Apprentice/Votech	9	8.26
BA	21	19.27
MA	23	21.10
PhD	1	.92

Table 10. Frequency Distribution of Participant Work Locations.

Location	Count	%
Elementary	51	6.79
Jr high (middle)	12	11.01
High school	20	18.35
Admin/supports	26	23.85

Tables 11 and 12 describe the tenure for participant employees with the GFPS in terms of years employed and years employed in current building location, respectively. Job tenure data provided an opportunity to compare participant tenure with the demographic makeup of the district. The median length of service for teachers in the Great Falls Public Schools was 13 years as of June 1988 (P. Rowe, personal communication, April 10, 1989), a figure comparable to the median length of service for participants (10.5 years of service).

Table 11. Length in Years of Employment with the GFPS.

Mean	Standard Deviation	Standard Error	Variance	Count
10.54	7.89	.76	62.18	109

Minimum	Maximum	Range	Sum	SS	Missing Cells
1	28	27	1149	18827	11

Table 12. Length in Years of Employment in Current Building.

Mean	Standard Deviation	Standard Error	Variance	Count
6.60	6.35	.61	40.26	109

Minimum	Maximum	Range	Sum	SS	Missing Cells
0	26	26	713	9015	12

Multiple regression analyses were conducted to determine the relationship between these seven attribute variables and scores on the dependent measures. For pretest SDM scores, and posttest scores on both the ATDP and SDM, the F-ratio, multiple correlation coefficients, and probability values were insignificant for all seven variables. However, for the ATDP pretest, both gender and age were significantly related to scores on the dependent measure. Table 13 presents the linear multiple regression analysis.

Table 13. Multiple Regression Analysis for Attribute Variables on ATDP Pretest Scores.

Count	R	R^2	Adjusted R^2
108	.424	.18	.122

Analysis of Variance Table

Source	df	SS	MS	F	p
REGRESSION	7	5244.67	749.24	3.13	p = .0049
RESIDUAL	100	23911.30	239.11		
TOTAL	107	29155.96			

Although the squared multiple correlation coefficient (R^2) accounted for only 18% of the variance, age and gender were significantly correlated with the ATDP pretest score at a .05 probability level. Table 14 describes the relative contribution of each attribute variable. When age and gender were examined for participants across treatment and control groups, both variables could be used to predict with confidence the pretest ATDP scores. However, when the distribution of participants by age and gender were subjected to Chi-Square analysis for goodness of fit for group membership, neither variable contributed significantly on any of the dependent measures. Tables 15 and 16 describe contingency table analyses for treatment and control groups.

Table 14. Beta Coefficient Table.

Variable	Coefficient	Standard. Error	Standard Coefficient	t	p
INTERCEPT	104.74				
Sex	7.41	3.61	.21	2.05	.04*
Age	-2.11	.98	-.26	2.15	.03*
Education	2.21	1.51	.18	1.46	.15
Years w/GFPS	.07	.34	.03	.19	.85
Years in Bldg	-.08	.35	.03	.23	.82
Location	1.20	1.32	.09	.91	.36
Dept/Position	.73	.54	.13	1.34	.18

*$p < .05$

Table 15. Chi-Square Table for Gender, Group Membership, and Supervisor Training.

	Male	Female	Totals		
no Training	21	31	52	df	1
				Chi-Square:	2.43
yes	15	42	57	p =	.12
Totals	36	73	109		

Table 16. Chi-Square Table for Gender, Group Membership, and Integration.

	Male	Female	Totals		
no Integration	16	40	56	df	1
				Chi-Square:	2.43
yes	20	33	53	p =	.31
Totals	36	73	109		

Even though groups differed in proportions of males and females, these differences were not significant. On all scores other than the ATDP pretest, differences between men and women were negligible. Table 17 compares scores on the dependent measures for men and women.

Table 17. Table of Means for Males and Females on Dependent Measure Scores.

Measure	Group	Count	Mean	Standard Deviation	Standard Error
ATDP					
Pretest	Male	36	114.50	14.86	2.48
	Female	73	120.90	17.10	2.00
Posttest	Male	36	123.97	21.27	3.55
	Female	73	123.44	17.92	2.10
SDM					
Pretest	Male	36	96.83	11.56	1.93
	Female	73	98.03	12.36	1.45
Posttest	Male	36	97.33	13.78	2.30
	Female	73	98.00	13.96	1.63

Age was also found to be highly correlated with the ATDP pretest scores, and the investigator sought to establish the influence age had on the research design by examining the proportions of persons in various age groups participating in each treatment and control group. Analysis revealed that participant ages in the three treatment groups and control group did not differ significantly (Chi-Square ($df = 9$, $N = 108$) = 11.74, $p = .23$,).

Further analyses of scores on the SDM pretest, the posttest ATDP measure, and the SDM posttest measure also found no significant differences among groups which were attributed to age. While age did have a significant effect on pretest ATDP scores, all other variables including age for SDM scores and posttest ATDP scores did not, and its' effect on both the research design and dependent measures was insignificant.

Descriptive data and analyses for these variables has been included to determine the influence of demographic variables upon attitudes toward persons with disabilities and morale as measured by the ATDP and SDM, respectively. The findings indicate that the relative contribution of these variables did not significantly affect differences among group mean scores for either treatment variable. Findings for significance resulting from the hypotheses testing which follows can therefore be attributed to the independent variables or their interaction with the dependent measures as described in the following analyses.

Testing of Hypotheses

The first group of hypotheses were formulated to test for interaction between the independent and dependent variables, and to test differences among means for pretest scores on the Attitudes Toward Disabled Persons Scale, and the Survey of Department Morale. All hypotheses were stated as null hypotheses, and the selected alpha level was $p < .05$.

The Null Hypothesis for Significant Interaction on the Pretests

The first hypothesis stated that there would be no significant interaction between supervisor training and integration for treatment and control group mean scores on the ATDP pretest and the SDM pretest. Tables 18-21 describe the results of Two-Way ANOVA for pretest scores.

Table 18. Table of Means for Pretest ATDP Scores.

		Integration		
		no	yes	Totals
Training	no	28 122.04	24 111.75	52 117.29
	yes	28 121.89	29 118.48	57 120.16
Totals:		56 121.96	53 115.43	109 118.79

Table 19. Two-Way Analysis of Variance for Pretest ATDP Scores.

Source	df	SS	MS	F	p
Integration(A)	1	1271.03	1271.03	4.76	.03*
Training (B)	1	294.26	294.26	1.10	.30
Interaction(AB)	1	320.33	320.33	1.20	.28
Error	105	28019.38	266.85		

*p <.05.

The analysis indicated that the assumption for homogeneity of variance was violated, and inspection of the data revealed that pretest scores on the ATDP favored groups who were not integrated with persons with severe disability during the study. Training participants scored higher than nontraining participants, but differences were not significant.

Table 20. Table of Means for Pretest SDM Scores.

		Integration		
		no	yes	Totals
Training	no	28 94.96	24 102.08	52 98.25
	yes	28 95.93	29 98.17	57 97.07
Totals		56 95.45	53 99.94	109 97.63

Table 21. Two-Way Analysis of Variance For Pretest SDM Scores.

Source:	df	SS	MS	F	p
Integration (A)	1	594.02	594.02	4.17	.04*
Training (B)	1	58.83	58.83	.41	.52
Integration (AB)	1	161.05	161.05	1.13	.29
Error	105	14946.79			

*$p < .05$.

As in Table 19, a significant difference among groups was attributable to integration, but no significant interaction was present, and the null hypothesis was retained.

The Null Hypothesis for a Significant Pretest Main Effect for Integration

The second hypothesis stated that there would be no significant difference between participants employed in integrated environments and participants employed in nonintegrated environments on the mean scores of the Attitude Toward Disabled Persons Scale pretest, and the Survey of Department Morale pretest. Tables 19 and 21 indicated significant differences attributable to the independent variable integration, at the selected alpha level, $p < .05$, and the null hypothesis was rejected. These differences necessitated the use of the analysis of covariance procedure to remove the effects of the differences in subsequent posttest analyses. Tables 22 and 23 provide descriptive analyses for pretest scores on the dependent measures.

Table 22. Descriptive Statistics for Integration vs. No Integration Pretest ATDP Scores.

Group	Count	Mean	Standard Deviation	Standard Error	p
no	56	121.96	16.02	2.14	.03*
yes	53	115.43	16.70	2.29	

*$p < .05$.

Table 23. Descriptive Statistics for Integration vs. No Integration on Pretest SDM Scores.

Group	Count	Mean	Standard Deviation	Standard Error	p
no	56	95.45	12.40	1.66	.04*
yes	53	99.44	11.36	1.56	

*$p < .05$.

The Null Hypothesis for a Significant Pretest Main Effect for Training

The third hypothesis stated that there would be no significant differences between groups who participate in supervisor training and employee groups who do not participate in supervisor training on the mean scores of the Attitude Toward Disabled Persons Scale (ATDP) pretest and the Survey of Department Morale (SDM) pretest. Tables 18-21 depicted the differences attributable to the independent variables, and in both cases, those participants who received supervisor training did not differ significantly from those who did. The null hypothesis was therefore retained. On both measures, it is clear that participants were drawn from the same population, as there existed a high degree of homogeneity of variance between groups selected to receive supervisor training, and treatment and control groups who did not receive supervisor training.

Table 24. Descriptive Statistics for Training vs. No Training Pretest ATDP Scores.

Group	Count	Mean	Standard Deviation	Standard Error	p
no	52	117.29	18.01	2.50	.296
yes	57	120.16	15.24	2.02	

Table 25. Descriptive Statistics for Training vs. No Training Pretest SDM Scores.

Group	Count	Mean	Standard Deviation	Standard Error	p
no	52	98.25	12.20	1.69	.52
yes	57	97.07	12.02	1.59	

Posttest Hypotheses

The second set of hypothesis were formulated to test for interaction between the independent and dependent variables, and to test for significant differences among treatment and control group mean scores for posttest scores on the ATDP, and the SDM. Once again, all hypotheses were stated as null hypotheses, and the selected alpha level was .05. Because the null hypotheses for significant main effects on both the ATDP and SDM pretests were rejected for integration (see Tables 19 and 21), pretest measures were employed as covariates for both dependent variables on the

posttests to remove the error variance due to differences among pretest groups. Table 24 supplies the mean scores for the criterion variables (posttests for ATDP and SDM), and for the covariate (pretests for ATDP and SDM), while Tables 26-34 provide the analysis of variance, specific cell and marginal means tables, and analysis of covariance tables employed to test the null hypotheses for posttest measures.

Table 26. Adjusted and Unadjusted Means for Treatment Combinations on the Criterion and Covariate Variables.

		ATDP		Covariate	SDM		Covariate
Group	n	Adjusted	Unadjusted	Pretest	Adjusted	Unadjusted	Pretest
Training & Integration	29	134.70	129.17	118.48	100.99	99.57	98.17
Integration	24	124.10	124.67	111.75	96.59	101.67	102.10
Training	28	114.70	122.04	121.89	98.79	99.17	95.93
Control	28	121.10	117.43	122.04	95.27	91.21	94.96

Table 27. Table of Means for Unadjusted ATDP Scores.

		Integration		
		no	yes	Totals
Training	no	28 117.43	24 125.96	52 120.77
	yes	28 122.04	29 129.17	57 125.67
Totals		56 119.73	53 127.72	109 123.62

Table 28. Two-Way Analysis of Variance for Unadjusted Posttest ATDP Scores.

Source	df	SS	MS	F	p
Integration (A)	1	1663.11	1663.11	4.75	.03*
Training (B)	1	414.50	414.50	1.18	.28
AB	1	13.15	13.15	.04	.85
Error	105	36786.92	350.35		

*p <.05.

Table 29. Table of Means for Adjusted ATDP Scores.

		Integration		
		no	yes	Totals
		28	24	52
	no	121.10	124.10	122.60
Training				
		28	29	57
	yes	114.70	134.70	124.70
Totals		56	53	109
		117.90	129.40	123.65

A clear example of how the analysis of covariance procedure can enhance the precision of the statistical analysis is provided in Tables 30-34. By removing the effects of pretest differences (the covariate), the relative effects of both integration and supervisor training were adjusted considerably.

Table 30. Analyisis of Covariance Significance Tests for ATDP Posttest Scores.

Source	df	Residuals SS	MS	F	p
Integration(A)	1	127.40	127.40	12.57	.00092***
Training (B)	1	4.48	4.48	.44	.52
Interaction(AB)	1	6.47	6.47	.64	.43
Error	104	1054.00	10.14		

***p <.001.

Table 31. Table of Means for Unadjusted SDM Scores.

		Integration no	yes	Totals
		28	24	52
	no	91.21	101.67	96.04
Training				
		28	29	57
	yes	99.57	99.17	99.37
Totals		56	53	109
		95.39	100.30	97.78

Table 32. Two-Way Analysis of Variance for Unadjusted Posttest SDM Scores.

Source	df	SS	MS	F	p
Integration(A)	1	684.86	684.86	3.79	.05
Training (B)	1	232.92	232.92	1.29	.26
Interaction(AB)	1	797.90	797.90	4.42	.04*
Error	105	18967.04	180.64		

*p <.05.

Table 33. Table of Means for Adjusted SDM Scores.

		Integration		
		no	yes	Totals
Training	no	28 95.27	24 96.59	52 95.93
	yes	28 98.79	29 100.99	57 99.89
Totals		56 97.03	53 98.79	109 97.94

Table 34. Analyisis of Covariance Significance Tests for SDM Posttest Scores.

		Residuals			
Source	df	SS	MS	F	p
Integration (A)	1	2.98	2.98	.72	.40
Training (B)	1	15.62	15.62	3.77	.05
Interaction (AB)	1	13.73	13.73	3.31	.07
Error	104	431.20	4.15		

The Null Hypothesis for Significant Interaction on the Posttests

The first hypothesis for posttest measures stated that there would be no significant interaction between supervisor training and integration for treatment and control group mean scores on the Attitude Toward Disabled Persons Scale (ATDP) posttest, and the Survey of Department Morale (SDM) posttest. Unadjusted scores on the ATDP yielded an F for interaction of .04, and a p

value of .85, but when unadjusted scores on the SDM were submitted to a Two-Way Analysis of Variance, interaction between the independent variables and the SDM was significant at the selected alpha, .05. Thus, without examination of pretests to establish homogeneity of variance among treatment and control groups, it would appear that interaction was significant among the treatment variables and dependent measure, SDM. When the pretest differences were covaried with the posttest measures, however, an insignificant F of 3.31 was evident with a p value of .07. Thus, the null hypothesis for interaction was retained for ATDP and SDM posttest measures.

The Null Hypothesis for a Significant Posttest Main Effect for Integration

The second hypothesis for posttest measures stated that there would be no significant differences between participants employed in integrated environments and participants employed in similar but nonintegrated environments on the mean scores of the Attitude Toward Disabled Persons Scale (ATDP) posttest, and the Survey of Department Morale (SDM) posttest.

The Two-Way Analysis of Variance found a significant main effect for integration (F, 4.01, $p < .05$), but significant differences on pretest mean scores required the use of Analysis of Covariance (ANCOVA) to determine whether the null hypothesis should be rejected or retained. Inspection of Table 27 illustrates how the use of analysis of covariance to remove the effects of pretest

differences added precision to the analysis. When ANCOVA was applied to posttest ATDP scores, integration contributed to a significant F 12.57 and a p value of .00092, significant to an alpha level of .001. For the dependent measure of participant attitudes toward persons with disabilities, the null hypothesis is rejected.

The null hypothesis for integration test failed to demonstrate significant differences among groups for the dependent measure of morale (SDM), however. Table 29 supplied the Two-Way Analysis of Variance for this variable, but significant F and p values of 4.32 and .04, respectively, did not meet the tests for significance selected for the study because of pretest differences. An adjustment of the Two-Way ANOVA was required to find for the hypothesis. When ANCOVA was applied, the F was adjusted to .72, with a p value of .40. The null hypothesis for main effects is therefore retained for the effects of integration on morale, but rejected for its effect on attitudes toward persons with disability.

The Null Hypothesis for a Significant Posttest Main Effect for Training

The final hypothesis to be tested stated that there would be no significant differences between employees who participate in supervisor training and employees who do not participate in supervisor training on the mean scores of the ATDP posttest and the SDM posttest. No significant differences existed between the treatment and control groups which could be attributed to supervisor training. When Analysis of Covariance was applied

with the pretest as the covariate, the results confirmed those found by the Two-Way ANOVA presented in Table 29. Inspection of Table 30 reveals the added precision provided by the ANCOVA procedure, as a significant F for interaction in Table 29 (F = 4.42) was not significant following the removal of effects due to pretest differences. No significant differences were attributable to either treatment or to the interaction among the treatments and the dependent measure for morale. The null hypothesis for significant main effects for supervisor training is therefore retained.

Summary

The null hypotheses for interaction were retained for pretest and posttest scores on the ATDP scale and the SDM survey. Null hypotheses were also retained on pretest and posttest measures for supervisor training, but were rejected for integration on pretests for both dependent measures, retained for SDM posttest scores, and rejected for integration on posttests for the ATDP scale. Chapter 5 will discuss the implications of these findings in light of current research and theory regarding integration of persons with disabilities and morale in the workplace.

CHAPTER 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary of the Investigation

The purpose of this study was to determine the effects of integration of persons with severe disabilities (daily contact in the workplace) and supervisor training (training of co-workers and supervisors to work with persons with severe disabilities) upon the attitudes of public school employees toward persons with disabilities and upon morale in the workplace. Public sector employment for persons with disabilities lagged far behind the private sector, and this study was designed to examine treatment effects regarding persons with disabilities in the public schools upon employee attitudes and morale.

The study was conducted in the Great Falls School District, Great Falls, Montana. The school district employed 1,748 employees from which a stratified random sample of 120 were selected for the study. A quasi-experimental 2 x 2 design was implemented with two levels for each treatment variable and four corresponding treatment and control groups. Mortality reduced the participant sample to 109 participants.

Two independent variables were selected for the study: integration of persons with severe disabilities in the workplace and training of supervisors and co-workers to supervise persons with severe disabilities employed in their work area. Dependent variables were: attitudes toward persons with disabilities and morale. The Attitudes Toward Disabled Persons (ATDP) Scale developed by Yuker, Block, and Younng (1966) was selected to measure attitudes toward disabled persons because of its high reliability coefficients, direct application to the construct being studied, established content and construct validity, and extensive use in over 300 dissertations, and 12,000 administrations in several countries and cultures.

The Survey of Department Morale (SDM) was developed to reflect five dimensions used to define morale for the study: (a) faith in the leaders, (b) faith of members in each other, (c) confidence in equitable distribution of rewards, (d) organizational efficiency, and (e) attention to well-being of group members (Boles & Davenport, 1983). The Survey of Department Morale is a composite instrument developed from the Organizational Climate Description Questionnaire (OCDQ) validated in 1962 by Halpin and Croft, and the Staff Assistance Survey of the Air Force developed in 1982 by MacFarlane. Selected items which reflected the dimensions of morale identified by Boles and Davenport (1983) were modified and field tested for the study. Reliability and validity coefficients met or exceeded those levels used to validate

the OCDQ, and the instrument met all predetermined criteria established by the researcher.

A quasi-experimental research design was implemented which consisted of a 2 x 2 design with two levels for each treatment variable, and four corresponding treatment and control groups. Group 1 received both integration and supervisor training as treatments; Group 2, integration only; Group 3, supervisor training only; and Group 4 received neither treatment and provided a control group for the study.

To test the research hypotheses, the Two-Way Analysis of Variance statistic was used, and Analysis of Covariance was employed to statistically equate treatment and control groups by adjusting posttest scores on the basis of mean differences on the pretests. This procedure enabled the researcher to not only remove the influence of pretest differences but to enhance the precision of the analysis as well.

The null hypotheses for interaction were retained for pretest and posttest scores on the dependent measures. Null hypotheses were also retained on pretest and posttest measures for supervisor training, but were rejected for integration on pretests for both dependent measures and posttests for the ATDP. The decision to reject the null hypothesis for main effects of integration on attitudes toward persons with disabilites was based on a p value which exceeded the selected .05 level of confidence.

The generalization of findings from the study needs to be delimited by a relatively short intervention period of 90 days, stratified random sampling from unequal populations, staggered introduction of integration and training, and self-reported measures of vague constructs such as attitudes toward disabled persons and employee morale. The study was designed as an exploratory effort to examine the effects of the independent variables on employee morale and attitudes toward persons with disabilities in the public schools, and to generate research questions regarding the dynamics of the work environment, particularly for noncertificated public school employees and the public sector in general. Subject to these limitations, the findings of the study are presented in the following section.

Discussion

Review of Pretest Hypotheses

The first null hypothesis was retained for interaction on the pretest measures of the ATDP and the SDM, indicating that neither treatment interacted with the dependent measures, and that the relationships among the treatment and dependent measures were linear in nature. Roscoe (1971) states that a linear relationship between the covariate and criterion variables is necessary in order for the Analysis of Covariance to be of any benefit, and suggested a minimal correlation of .30 between the pretest or covariate and the criterion (posttest) variable before the analysis of covariance

technique can be of any benefit. A correlation coefficient of .63 and .41 existed between the pretest and unadjusted posttest means for the Survey of Department Morale and the Attitudes Toward Disabled Persons Scale, respectively.

The second null hypothesis for significant main effects on pretest measures attributable to integration was rejected for both dependent measures, necessitating the use of Analysis of Covariance (ANCOVA) to statistically equate the treatment groups with respect to the pretest differences. The differences attributable to integration on the attitude measure ATDP favored those groups who did not interact daily with persons who had a severe disability. Inspection of these differences on Tables 22, 27, and 29 help explain the subsequent adjustment of p values for ATDP scores as a result of the ANCOVA. For main effects of integration on the morale measure (SDM), inspection of differences on Tables 20 and 23 revealed that integrated participants scored higher than non-integrated participants. In both cases, rejection of the null required the use of ANCOVA.

The third pretest null hypothesis was retained for the main effects of supervisor training. On both measures, differences were insignificant, favoring the no training group slightly on SDM scores and the training group slightly on the ATDP scores. Tables 24-26 present the mean score comparisons for training vs. no training participants.

Review of Posttest Hypotheses

The null hypothesis for interaction between the treatment variables, integration and supervisor training, and the dependent measures was retained for both the ATDP and the SDM, but a significant interaction effect was found for unadjusted SDM posttest scores (Table 31). The ANCOVA, by controlling for the effects of pretest differences, adjusted the p value for interaction from .04 to .07, and the adjusted value fell outside the rejection region selected for the study, $p < .05$. These findings suggest that relationships may exist among the treatment and dependent variables, but the current data is insufficient to consider that relationship the result of anything but chance.

The null hypothesis for significant main effects for integration on the ATDP posttests was rejected. The study clearly found that participants who had daily contact with persons with severe disabilities also had more positive attitudes toward persons with disabilities in general as measured by the ATDP scale. It is interesting to note that the differences attributable to integration for this study exceeded those found in previous studies of students, teachers, and counselors. These differences may be attributed to the workplace setting, to the perceived relationship between employment and adulthood and to the ensuing status which employment provides. It also may be related to the skill growth which occurred within the person with severe disability who was employed alongside the study's participants, and to their

response to that skill growth. Several studies reviewed earlier viewed behavior as a dynamic part of the interaction between the person with a disability and the environment (Foss & Peterson, 1981; Chadsey-Rusch, 1986). If this theoretical position is accurate, the importance of positive attitudes among co-workers and supervisors will be critical to the success of persons with disabilities in the workforce. The results discussed here suggest that integration itself contributes to development of those positive attitudes. The dilemma for persons with disabilities and their advocates becomes one of identifying co-workers and supervisors a priori with positive attitudes toward disabled persons. The current effort attempted to address this issue by providing a staff development treatment (supervisor training) which would also impact attitudes favorably. This aspect of the study is discussed below.

The null hypothesis for significant main effects on the dependent measures attributable to supervisor training was retained for both dependent measures. The study was developed on the assumption that staff development was most successful when motivation theory, principles of change enumerated in the Concerns Based Adoption Model (Hord & Loucks, 1980), and research findings from the effective schools literature regarding staff development were blended into a systematic program of supervisor training. The current study, however, found that

supervisor training did not have a significant effect on either morale or employee attitudes toward persons with disability.

The rejection of the null hypothesis for significant main effects in participant attitudes attributable to integration confirms the findings of previous studies with students, counselors, and teachers (Anthony, 1969; Donaldson & Martinson, 1977). What is somewhat surprising is the magnitude of the integration main effect ($p < .001$), and the corresponding retention of the null for significant main effects attributable to supervisor training. The study failed to result in significant differences among participants for either treatment on the dependent variable, morale, which in some measures conflicts with the oft-stated promotional literature for hiring persons with disabilities.

The positive effect of integration on the attitudes of co-workers and supervisors is an affirmation of a general contact theory which states that contact which leads people to do things together is an effective means of changing attitudes (Allport, 1986). Applied to schools in general and school administration in particular, this notion is inherent in many school improvement models, including clinical supervision, cooperative learning, and the change literature. Change theorists view change as personal, developmental, and contingent on the context and setting of a particular change or innovation (Hord et al., 1987; Gardner et al., 1988). The study selected one of its treatment variables to reflect the contextual dimension of the working environment (integration)

and, to that degree, the results reported here are a reflection of change theory. In light of the finding of significance for integration on employee attitudes, the extensive research in the areas of school climate, teacher morale, job satisfaction, and employee attitudes which attest to the critical role of leaders help to explain the nonsignificant effects of both training and integration on morale (Carew et al., 1984; Champlin, 1987; Sergiovanni, 1987).

For participants in the integrated and supervisor training group, the training had a direct connection to their jobs. For participants in supervisor training who were not involved in an integrated work setting, the training had less of an application to their daily work lives. Inspection of Tables 26-34 revealed that adjusted scores on both measures favored the involved group, although differences were not statistically significant. Further inspection revealed that the treatment group which received training only scored higher than control groups on the morale measure, but not on the attitude measure. For participants who received training and integration, adjusted scores on both measures were higher than all other treatment groups, including the integration only group. The adjusted F for effects of training on morale (SDM) was 3.78 with a p value of .05, and while not significant, the results advocate for further investigations of the relationship between training and morale.

Conclusions

1. School employees who were integrated with persons with severe disabilities on a daily basis were more apt to have positive attitudes toward persons with disabilities than school employees who were not integrated with persons with severe disabilities. This affirmation of previous studies suggests that daily contact with members of targeted, underrepresented groups who have experienced an historical pattern of discrimination reduces the level of discrimination by effecting attitudes favorably. One can reasonably conclude that there is little justification for segregating this population in the workforce or denying access to employment in the public schools.

A related conclusion can be made that attitudes and prejudices are more apt to be modified when real job opportunities are afforded minority groups such as the severely disabled than through public service announcements or telethons. It is reasonable to conclude from the findings of this study that integration in the employment arena has a greater effect than previous efforts to modify attitudes toward persons with disabilities in the classroom, at college, and with rehabilitation counselors.

2. School employees who participated in supervisor training to motivate persons with disabilities were no more apt to have positive attitudes toward persons with disabilities than employees who did not participate in such training. Therefore, one can

conclude that devoting human and financial resources into staff development, awareness training, and public service announcements may in fact be misplaced and better spent finding ways to increase access in real jobs for this population. If previous efforts in awareness training had produced the desired effects, such changes in the attitudes of the nondisabled workforce would be evident in greater access and increased employment levels for persons with disabilities. It is clear that attitudes are effected more by integration than by supervisor training.

3. School employees who were integrated with persons with severe disabilities on a daily basis experienced a level of morale no different from that of school employees who were not integrated with persons who have severe disabilities. This leads to the conclusion that the hiring of members of this target group does not have an adverse effect on co-workers, and removes any justification for continuing to deny access to this population on the presumption that persons with disabilities would have a negative effect on others. It can also be concluded that hiring persons with disabilities does not have the positive effect on morale that has been promoted in the literature of disability advocates. Finally, the results lead one to conclude that morale is a personal construct which is resilient to the effects of individual differences among co-workers.

4. School employees who participated in supervisor training experienced a level of morale which was no different from that of

school employees who did not participate in supervisor training. Therefore, it can be concluded that staff development programs such as supervisor training have little effect on morale. There is little evidence to suggest that a positive relationship exists between in-service programs and morale in the public schools. One may also conclude that morale is resilient to interventions outside of the established relationship between leaders and subordinates. A third conclusion can be made that staff development which is not directly related to one's work performance has little effect on morale.

5. When integration and supervisor training were provided to participants, these treatments did not interact to a significant degree with morale or employee attitudes toward persons with disabilities. These results led to the conclusion that there is no cumulative benefit in introducing both treatments to co-workers and supervisors in terms of morale or employee attitudes. In light of the magnitude of the integration effect and the nonsignificant effects of supervisor training, efforts to increase opportunities for integration of the workforce should take precedence over training programs.

6. Persons with severe disabilities can be integrated successfully into the workforce of the public schools, as measured by positive attitudes of co-workers and supervisors toward persons with disabilities. Therefore, it is reasonable to conclude that increased employment opportunity for this population in the

public schools can serve to reduce prejudice in the workforce. Further integration in other areas such as public housing, public transit, and enrollment in higher education can be expected to have similar effects on public attitudes toward full participation of citizens with disabilities.

Recommendations

1. This study revealed that morale was a complex construct which was not effected to a great degree by supervisor training or integration as provided in this study. A possible explanation may be found in the limitation of time placed on the study (90 days), which assessed the immediate effects of both interventions, but did not examine the long-term effects upon school employees. The short-term analysis was developed in light of existing literature related to the critical period when terminations of persons with disabilities are most apt to occur (Greenspan & Schoutz, 1981, Chadsey-Rusch, 1986), but an extended longitudinal approach to the current research design might be expected to yield greater variance between treatments, or identify trends which can be associated with other dimensions of employment, such as development of friendships or opportunity for advancement. It is recommended that a study be designed to assess employee attitudes and morale for participants in this study on a longitudinal basis to ascertain the long-term effects of integration and supervisor training.

The current study also revealed that morale as measured by the SDM was only moderately effected by the treatment variables. Future studies should be developed which attempt to identify variables which have significant effects on morale, and which serve as predictors of high morale, particularly for the large numbers of noncertificated school personnel employed nationwide.

2. Further research should include studies which examine the relationships between morale for noncertificated staff and motivational factors such as achievement, recognition, added responsibility, horizontal decision making, and promotions. Investigations to determine whether types of positions, education levels, or longevity with an organization can serve as predictors of morale can be made from the data base established by the present study. The study also revealed that integration alone has a significant effect on the attitudes of school employees. In essence, the remedy becomes the cure. Once in the workforce, persons with disabilities have a favorable effect on their co-workers' attitudes toward persons with disabilities in general.

3. It is recommended that further investigation into the benefits of hiring persons with disabilities be conducted which verify that such workers enhance the efficiency of an organization, or at least verify that the presence of persons with handicaps does not diminish an organization's efficiency. Failure to demonstrate how hiring persons with disabilites benefits employers will prolong the period before access to employment opportunities

become a reality for this population. The current effort to train co-workers may assist in developing a critical mass of support for persons with disabilities throughout the school district, but selection of those persons with severe disabilities over persons with no apparent disabilities remains the crucial access question.

4. Conduct a comprehensive descriptive study of local school districts which attempts to identify predictors of disability employment levels based on organizational variables. These variables include size, enrollment, funding levels, climate, supervision models, and leadership styles. This study was unable to establish that integration or supervisor training affected morale in the workplace, and in the absence of such findings, disability advocates need to identify other specific benefits to employers of hiring persons with disabilities. Persons with disabilities will continue to experience discrimination and patronization until a critical mass of employers and employees recognize the value of their contribution to the workforce.

5. Direct the focus of disability research to identify those factors associated with employing persons with disabilities which are positively correlated to business efficiency and profitability. The futurists concur that changes in the workforce will involve flextime, part-time scheduling, and the increased use of four-day work weeks. Systematic study of these innovations and their effects on morale should be studied, particularly in regards to

noncertificated personnel who are apt to fulfill many of the monotonous routinized activities for school districts.

6. Incorporate investigations of noncertificated employees, affirmative action, and full participation of persons with disabilities into existing courses in school administration or develop new course requirements which focus on this neglected area of study. Recent efforts to increase site management autonomy and blur the role distinctions of employees in the public schools lend themselves to such personnel preparation modifications (Thousand & Villa, 1989).

Prior to this study, the literature was virtually nonexistent regarding the effects of integration and supervisor training on employee morale in the public schools. The current findings provided evidence which supports the capacity of integration alone to effect employee attitudes in school district functions. While training did not have a significant effect upon employee attitudes or morale, the magnitude of its effect warrants further examination of its influence on morale. The study also resulted in the development of a measure of morale which is both reliable and valid, and which can be implemented effectively with noncertificated personnel, including persons across education levels and positions within the public schools. Pursuit of research in the recommended areas of study can expand the body of knowledge associated with persons with disability and

levels and positions within the public schools. Pursuit of research in the recommended areas of study can expand the body of knowledge associated with persons with disability and employment, and the body of knowledge for noncertificated school employees and the organizational influences on their behavior.

Generalizations from the study need to be delimited because of the practical limitations in sampling and study of one school district. Nonetheless, the study represented a shift in disability research from study of persons with disability to the study of the effect persons with disability have on persons without disability in the public schools.

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APPENDICES

APPENDIX A

THE ATTITUDE TOWARD DISABLED PERSONS SCALE

ATDP SCALE

NAME_____DATE_____

READ EACH STATEMENT AND PUT AN 'X' IN THE APPROPRIATE COLUMN ON THE ANSWER SHEET. DO NOT MAKE ANY MARKS ON THE QUESTION SHEETS.

PLEASE ANSWER EVERY QUESTION

---

1. Disabled people are often unfriendly.
2. Disabled people should not have to compete for jobs with physically normal people.
3. Disabled people are more emotional than other people.
4. Most disabled persons are more self-conscious than other people.
5. We should expect just as much from disabled as from non-disabled persons.
6. Disabled workers cannot be as successful as other workers.
7. Disabled people usually do not make much of a contribution to society.
8. Most non-disabled people would not want to marry anyone who is physically disabled.
9. Disabled people show as much enthusiasm as other people.
10. Disabled persons are usually more sensitive than other people.
11. Severely disabled persons are usually untidy.
12. Most disabled people feel that they are as good as other people.
13. The driving test given to a disabled person should be more severe than the one given to the non-disabled.
14. Disabled people are usually sociable.
15. Disabled persons usually are not as conscientious as physically normal persons.
16. Severely disabled persons probably worry more about their health than those who have minor disabilities.
17. Most disabled persons are not dissatisfied with themselves.
18. There are more misfits among disabled persons than among non-disabled persons.
19. Most disabled persons do not get discouraged easily.

ATDP SCALE

20. Most disabled persons resent physically normal people.
21. Disabled children should compete with physically normal children.
22. Most disabled persons can take care of themselves.
23. It would be best if disabled persons would live and work with non-disabled persons.
24. Most severely disabled people are just as ambitious as physically normal persons.
25. Disabled persons are just as self-confident as other people.
26. Most disabled persons want more affection and praise than other people.
27. Physically disabled persons are often less intelligent than non-disabled people.
28. Most disabled persons are different from non-disabled people.
29. Disabled persons don't want any more sympathy than other people.
30. The way disabled people act is irritating.

ATDP SCALE

Name_____ANSWER SHEET FORM A

Use this answer sheet to indicate how much you agree or disagree with each of the statements about disabled people on the attached list. Put an X through the appropriate number from +3 to -3 depending on how you feel in each case.

+3 I AGREE VERY MUCH
+2 I AGREE PRETTY MUCH
+1 I AGREE A LITTLE
-1 I DISAGREE A LITTLE
-2 I DISAGREE PRETTY MUCH
-3 I DISAGREE VERY MUCH

PLEASE ANSWER EVERY ITEM

---

(1)	-1	-2	-3	+1	+2	+3	(16)	-1	-2	-3	+1	+2	+3
(2)	-1	-2	-3	+1	+2	+3	(17)	-1	-2	-3	+1	+2	+3
(3)	-1	-2	-3	+1	+2	+3	(18)	-1	-2	-3	+1	+2	+3
(4)	-1	-2	-3	+1	+2	+3	(19)	-1	-2	-3	+1	+2	+3
(5)	-1	-2	-3	+1	+2	+3	(20)	-1	-2	-3	+1	+2	+3
(6)	-1	-2	-3	+1	+2	+3	(21)	-1	-2	-3	+1	+2	+3
(7)	-1	-2	-3	+1	+2	+3	(22)	-1	-2	-3	+1	+2	+3
(8)	-1	-2	-3	+1	+2	+3	(23)	-1	-2	-3	+1	+2	+3
(9)	-1	-2	-3	+1	+2	+3	(24)	-1	-2	-3	+1	+2	+3
(10)	-1	-2	-3	+1	+2	+3	(25)	-1	-2	-3	+1	+2	+3
(11)	-1	-2	-3	+1	+2	+3	(26)	-1	-2	-3	+1	+2	+3
(12)	-1	-2	-3	+1	+2	+3	(27)	-1	-2	-3	+1	+2	+3
(13)	-1	-2	-3	+1	+2	+3	(28)	-1	-2	-3	+1	+2	+3
(14)	-1	-2	-3	+1	+2	+3	(29)	-1	-2	-3	+1	+2	+3
(15)	-1	-2	-3	+1	+2	+3	(30)	-1	-2	-3	+1	+2	+3

ATDP SCORING - FORM A

1. Change the signes of the following positively worded items:

   5, 9, 12, 14, 17, 19, 21, 22, 23, 24, 25, 29

2. Add all of the responses algebraically

3. Change the sign of the algebraic resultant.

4. Add the constant 90

5. The resulting score range is from 0 to 180, with a high score reflecting positive attitudes.

6. If more than 10% of the items are left blank, the test is not scorable. If 10% or fewer items are left blank, score as usual.

APPENDIX B

SOURCE DOCUMENTS FOR THE SURVEY OF DEPARTMENT MORALE

THE AIR FORCE SOCIAL ACTIONS SURVEY

SOCIAL ACTIONS UNIT STAFF ASSISTANCE SURVEY

Rating Inventory

USAF SCN: 86-22

Expires on 31 December, 1988

This voluntary survey was designed to give your unit/squadron commander feedback about how you view your job and environment. Add any comments you might have in the space provided at the end of the booklet. No name or SSAN is required. Indicate your response to each statement by circling the number under the column that represents your opinion. Circle only one response for each statement.

	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
1. I like my job	1	2	3	4	5
2. The atmosphere in my work area makes it easy to do my job.	1	2	3	4	5
3. Members in my unit do their share of work.	1	2	3	4	5
4. Racial, ethnic, or sexual discrimination occurs in my unit.	1	2	3	4	5
5. Racial, ethnic, or sexual comments and jokes are used in my unit.	1	2	3	4	5
6. I get along with the people in my duty section.	1	2	3	4	5
7. I am under unreasonable pressure on the job.	1	2	3	4	5
8. I feel motivated to contribute my best efforts to the unit's mission.	1	2	3	4	5
9. I am proud of my unit.	1	2	3	4	5
10. As an Air Force member, I feel comfortable in the local civilian community.	1	2	3	4	5

	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
11. People in my unit who work hard receive recognition.	1	2	3	4	5
12. This unit does not practice favoritism.	1	2	3	4	5
13. Discipline is administered fairly in this organization.	1	2	3	4	5
14. My unit ensures everyone eligible has an equal opportunity for promotion.	1	2	3	4	5
15. My latest APR/OER accurately reflects my duty performance.	1	2	3	4	5
16. I can talk to my supervisor about problems.	1	2	3	4	5
17. My supervisor offers assistance when I have problems.	1	2	3	4	5
18. Members of my duty section pay attention to what I have to say.	1	2	3	4	5
19. Members in my duty section help each other when we have problems.	1	2	3	4	5
20. My unit commander has a positive influence on this organization.	1	2	3	4	5
21. The First Sergeant in my unit is helpful.	1	2	3	4	5
22. Morale in my unit is good.	1	2	3	4	5
23. I participate in base community activities.	1	2	3	4	5
24. People in my unit get along better than people in other units.	1	2	3	4	5
25. Alcohol use does not affect those who work with me.	1	2	3	4	5

	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
26. The Air Force glamorizes the use of alcohol.	1	2	3	4	5
27. I must drink with my friends in order to be accepted.	1	2	3	4	5
28. If a friend had an alcohol problem I would urge him/her to get help.	1	2	3	4	5
29. Alcohol use by others in my living area has negative effects on my life.	1	2	3	4	5
30. Identified alcohol abusers receive fair treatment in my unit.	1	2	3	4	5
31. The Air Force should do more to prevent alcohol abuse.	1	2	3	4	5
32. Drug use negatively affects performance in my unit.	1	2	3	4	5
33. AF drug prevention programs help reduce the use of illegal drugs.	1	2	3	4	5
34. Urine testing deters illegal drug use.	1	2	3	4	5
35. Identified drug abusers are dealt with fairly in my unit.	1	2	3	4	5

Please circle the number by the appropriate choice.

36. Sex: 1-Male 2-Female

37. Race: 1-AB-SrA 2-Sgt-TSgt 3-MSgt-CMSgt 4-Lt-Capt 5-Maj-Col

38. Other Comments:

LETTER REGARDING VALIDITY OF THE AIR FORCE SOCIAL ACTIONS SURVEY

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR FORCE MILITARY PERSONNEL CENTER
RANDOLPH AIR FORCE BASE TX 78150-6001

Mr Stephen White
Great Falls Transition Project
Vo-Tech Center
2100 Sixteenth Avenue S.
Great Falls, Montana 59405

21 OCT 1988

Dear Mr White

The following information is in reply to your inquiry regarding the Social Actions Staff Assistance Survey.

1. The survey is used Air Force wide at approximately 150 installations. It has been used continuously in the Strategic Air Command since its development in 1982.

2. Periodically, the survey results are aggregated at headquarters offices for study, and all items which are not reliable are removed from the next revision of the survey. The survey items must show reliability and validity in order to be retained and re-administered.

There have been over 100,000 administrations to date, and our experience shows that the survey is a useful tool in helping base Social Actions technicians assess the human relations climate of Air Force organizations.

Please contact me at HQ AFMPC/DPMYI, AUTOVON 487-2149, or (512)652-2149 if I can be of any further assistance.

Sincerely

THOMAS P. MCFARLAND, JR., Maj, USAF
Chief, Operations and Modeling Support
Division

THE OCCUPATIONAL CLIMATE DESCRIPTION QUESTIONNAIRE AND PERMISSION TO USE

ORGANIZATIONAL CLIMATE DESCRIPTION QUESTIONNAIRE*

INSTRUCTIONS: Enclosed in this folder are some questions about your school. Please answer them by marking one of the set of lines provided for each answer. Do not dwell too long on any one item, but answer it as you think the situation exists in your school. There are a total of 64 items that should not take more than a few minutes to answer,

REMEMBER: Answer each question as you think the situation exists in your school.

YOU: As an individual you cannot be identified with this instrument.

*Reprinted by permission of the publisher, from Halpin, Andrew W. (1966). Theory and Research in Administration. New York: The Macmillan Co., pp. 148-150.

	Rarely Occurs	Sometimes Occurs	Often Occurs	Very Frequently Occurs
1. Teachers' closest friends are other faculty members at this school.	_____	_____	_____	_____
2. The mannerisms of teachers at this school are annoying.	_____	_____	_____	_____
3. Teachers spend time after school with students who have ind. problems	_____	_____	_____	_____
4. Instructions for the operation of teaching aids are available.	_____	_____	_____	_____
5. Teachers invite other faculty members to visit them at home.	_____	_____	_____	_____
6. There is a minority group of teachers who always oppose the majority.	_____	_____	_____	_____
7. Extra books are available for classroom use.	_____	_____	_____	_____
8. Sufficient time is given to prepare administrative reports.	_____	_____	_____	_____
9. Teachers know the family background of other faculty members.	_____	_____	_____	_____
10. Teachers exert group pressure on nonconforming faculty members	_____	_____	_____	_____
11. In faculty meetings, there is the feeling of "Let's get things done."	_____	_____	_____	_____
12. Administrative paper work is burdensome at this school.	_____	_____	_____	_____
13. Teachers talk about their personal life to other faculty members.	_____	_____	_____	_____
14. Teachers seek special favors from the principal.	_____	_____	_____	_____
15. School supplies are readily available for use in classwork.	_____	_____	_____	_____
16. Student progress reports require too much work.	_____	_____	_____	_____

	Rarely Occurs	Sometimes Occurs	Often Occurs	Very Frequently Occurs
17. Teachers have fun socializing together during school time.	_____	_____	_____	_____
18. Teachers interrupt other faculty members who are talking in staff meetings.	_____	_____	_____	_____
19. Most of the teachers here accept the faults of their colleagues.	_____	_____	_____	_____
20. Teachers have too many committee requirements.	_____	_____	_____	_____
21. There is considerable laughter when teachers gather informally.	_____	_____	_____	_____
22. Teachers ask nonsensical questions in faculty meetings.	_____	_____	_____	_____
23. Custodial service is available when needed.	_____	_____	_____	_____
24. Routine duties interfere with the job of teaching.	_____	_____	_____	_____
25. Teachers prepare administrative reports by themselves.	_____	_____	_____	_____
26. Teachers ramble when they talk in faculty meetings.	_____	_____	_____	_____
27. Teachers at this school show much school spirit.	_____	_____	_____	_____
28. The principal goes out of his way to help teachers.	_____	_____	_____	_____
29. The principal helps teachers solve personal problems.	_____	_____	_____	_____
30. Teachers at this school stay by themselves.	_____	_____	_____	_____
31. The teachers accomplish their work with great vim, vigor, and pleasure.	_____	_____	_____	_____
32. The principal sets an example by working hard himself.	_____	_____	_____	_____

	Rarely Occurs	Sometimes Occurs	Often Occurs	Very Frequently Occurs
33. The principal does personal favors for teachers.	_____	_____	_____	_____
34. Teachers eat lunch by themselves in their classrooms.	_____	_____	_____	_____
35. The morale of the teachers is high.	_____	_____	_____	_____
36. The principal uses constructive criticism.	_____	_____	_____	_____
37. The principal stays after work to help teachers finish their work.	_____	_____	_____	_____
38. Teachers socialize together in small select groups.	_____	_____	_____	_____
39. The principal makes all class-scheduling decisions.	_____	_____	_____	_____
40. Teachers are contacted by the principal each day.	_____	_____	_____	_____
41. The principal is well prepared when he speaks at school functions.	_____	_____	_____	_____
42. The principal helps staff members settle minor differences.	_____	_____	_____	_____
43. The principal schedules the work for teachers.	_____	_____	_____	_____
44. Teachers leave the grounds during the school day.	_____	_____	_____	_____
45. Teachers help select which courses will be taught.	_____	_____	_____	_____
46. The principal corrects teachers' mistakes.	_____	_____	_____	_____
47. The principal talks a great deal.	_____	_____	_____	_____
48. The principal explains his reasons for criticism to teachers.	_____	_____	_____	_____

	Rarely Occurs	Sometimes Occurs	Often Occurs	Very Frequently Occurs
49. The principal tries to get better salaries for teachers.	_____	_____	_____	_____
50. Extra duty for teachers is posted conspicuously.	_____	_____	_____	_____
51. The rules set by the principal are never questioned.	_____	_____	_____	_____
52. The principal looks out for the personal welfare of teachers.	_____	_____	_____	_____
53. School secretarial service is available for teachers' use.	_____	_____	_____	_____
54. The principal runs the faculty meeting like a business conference.	_____	_____	_____	_____
55. The principal is in the building before teachers arrive.	_____	_____	_____	_____
56. Teachers work together preparing administrative reports.	_____	_____	_____	_____
57. Faculty meetings are organized according to a tight agenda.	_____	_____	_____	_____
58. Faculty meetings are mainly principal-report meetings.	_____	_____	_____	_____
59. The principal tells teachers of new ideas he has run across.	_____	_____	_____	_____
60. Teachers talk about leaving the school system.	_____	_____	_____	_____
61. The principal checks the subject-matter ability of teachers.	_____	_____	_____	_____
62. The principal is easy to understand.	_____	_____	_____	_____
63. Teachers are informed of the results of a supervisor's visit.	_____	_____	_____	_____
64. The principal insures the teachers work to their full capacity.	_____	_____	_____	_____

SEMINAR IN EDUCATIONAL LEADERSHIP AND ORGANIZATIONAL CLIMATE

Scoring for the OCDQ - IV

Subscales	Items
(I. Characteristics of the Group)	
Disengagement (10 items)	2, 6, 10, 14, 18, 22, 26, 30, 38, 60
Hindrance (6 items)	4*, 8*, 12, 16, 20, 24
Esprit (10 items)	3, 7, 11, 15, 19, 21, 23, 27, 31, 35
Intimacy (7 items)	1, 5, 9, 13, 17, 25*, 56
(II. Behavior of the Leader)	
Aloofness (9 items)	34, 40, 44, 51, 53*, 54, 57, 58, 63*
Production Emphasis (7 items)	39, 43, 46, 47, 50, 61, 64
Thrust (9 items)	28, 32, 36, 41, 48, 52, 55, 59, 62
Consideration (6 items)	29, 33, 37, 42, 45, 49

Response	Score
Rarely Occurs	1
Sometimes Occurs	2
Often Occurs	3
Very Frequently Occurs	4

*Scored Negatively

Determining Subscale Scores for an Individual

1. Add the response scores for items responded to within a subscale. Then divide this sum by the number of items responded to within the subscale.

2. Do for all eight subscales.

   Note: Carry division to two decimal points. If more than twenty percent of the items in a subscale are not answered, the subscale is to be discharged.

Determining Subscale Scores for the Unit of Analysis

1. Compute individual subscale scores as above.

2. Add subscale scores within a subscale across individuals. Then divide this sum by the number of individual subscale responses.

3. Do for all eight subscales.

Plotting and Analysis

Plot or conduct analysis of subscales.

MONTANA STATE UNIVERSITY

College of Graduate Studies *Office of the Dean*

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4/25/89
Date

CONSTRUCT VALIDITY SURVEY FOR THE SDM

The attached instrument is designed to measure the five dimensions of morale (A,B,C,D, and E). Please take a few minutes to identify the dimension which most accurately measures items 1 - 25. If more than one dimension applies, please list them in priority of their importance. If no dimensions apply, please indicate with -0-. Feel free to make comments at any time as you go through the exercise.

Name_____

Position_____

Type of Business_____

Years in Management_____

Thank You!

Survey of Department Morale

This voluntary survey was designed to determine how you view your job and work environment. Add any comments you might have in the space provided. Indicate your response to each statement by circling the number under the column that represents your opinion. Circle only one response for each statement.

Morale Dimension Measured	Faith in Leaders	Faith in members	Confidence re: rewards	Organ. efficiency	Well-being of members
1. I like my job.	A	B	C	D	E
2. The atmosphere in my work area makes it easy to do my job.	A	B	C	D	E
3. Members in my department do their share of work.	A	B	C	D	E
4. I get along with the people in my department.	A	B	C	D	E
5. I am under unreasonable pressure on the job.	A	B	C	D	E
6. I feel motivated to contribute my best efforts to my department's goals.	A	B	C	D	E
7. I am proud of my department.	A	B	C	D	E
8. As an employee of this organization, I feel comfortable in the community.	A	B	C	D	E
9. People in my department who work hard receive recognition.	A	B	C	D	E
10. This department does not practice favoritism.	A	B	C	D	E
11. Discipline is administered fairly in this department.	A	B	C	D	E
12. My latest performance evaluation accurately reflects my performance.	A	B	C	D	E

Morale Dimension Measured	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
13. I can talk to my supervisor about problems.	A	B	C	D	E
14. My supervisor offers assistance when I have problems.	A	B	C	D	E
15. Members of my department pay attention to what I have to say.	A	B	C	D	E
16. Members of my department help each other when we have problems.	A	B	C	D	E
17. My supervisor has a positive influence on this organization.	A	B	C	D	E
18. Coworkers in my department are helpful.	A	B	C	D	E
19. Morale in my department is good.	A	B	C	D	E
20. I participate in activities after hours which are work related.	A	B	C	D	E
21. People in my department get along better than people in other departments.	A	B	C	D	E
22. In staff meetings, there is a feeling of "let's get things done."	A	B	C	D	E
23. Most of the staff here accept the faults of their colleagues.	A	B	C	D	E
24. Staff in my department accomplish their work with enthusiasm and pleasure.	A	B	C	D	E
25. The morale of the organization is high.	A	B	C	D	E

APPENDIX C

SURVEY OF DEPARTMENT MORALE

Name_____ Date_____

Survey of Department Morale

This survey was designed to determine how you view your job and work environment. Add any comments you might have in the space provided.

Indicate your response to each statement by circling the number under the column that represents your opinion. Circle one response for each item.

	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
1. I like my job.	5	4	3	2	1
2. The atmosphere in my work area makes it easy to do my job.	5	4	3	2	1
3. Members in my department do their share of work.	5	4	3	2	1
4. I get along with the people in my department.	5	4	3	2	1
5. I am under unreasonable pressure on the job.	1	2	3	4	5
6. I feel motivated to contribute my best efforts to my department's goals.	5	4	3	2	1
7. I am proud of my department.	5	4	3	2	1
8. As an employee of this organization, I feel comfortable in the community.	5	4	3	2	1
9. People in my department who work hard receive recognition.	5	4	3	2	1
10. This department does not practice favoritism.	5	4	3	2	1
11. Discipline is administered fairly in this department.	5	4	3	2	1

	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
12. My latest performance evaluation accurately reflects my performance.	5	4	3	2	1
13. I can talk to my supervisor about problems.	5	4	3	2	1
14. My supervisor offers assistance when I have problems.	5	4	3	2	1
15. Members of my department pay attention to what I have to say.	5	4	3	2	1
16. Members of my department help each other when we have problems.	5	4	3	2	1
17. My supervisor has a positive influence on this company/organization.	5	4	3	2	1
18. Coworkers in my department are helpful.	5	4	3	2	1
19. Morale in my department is good.	5	4	3	2	1
20. I participate in after-hour company activities.	5	4	3	2	1
21. People in my department get along better than people in other departments.	5	4	3	2	1
22. In staff meetings, there is a feeling of "let's get things done."	5	4	3	2	1
23. Most of the staff here accept the faults of their colleagues.	5	4	3	2	1
24. Staff in my department accomplish their work with enthusiasm and pleasure.	5	4	3	2	1
25. The morale of the organization is high.	5	4	3	2	1

APPENDIX D

ETHICS STATEMENT FOR PARTICIPANT CONFIDENTIALITY

-TO: Research Participants in the Great Falls Public Schools Project Ace, 1988-89

From: Stephen White

Re: Statement of Professional Ethics in Research

Any identifiable information gathered through the Attitude Toward Disabled Persons scale (ATDP) or the Survey of Department Morale (SDM) will be completely confidential, and will not be distributed, discussed, or published during the study or in any subsequent periods.

Results will be reported in terms of group comparisons, and in nonidentifiable statistical analyses for the purpose of examining the effects of the treatment variables on the dependent measures noted earlier, and all references to participants will be in terms of nonidentifiable attributes, except for membership as an employee of the Great Falls, MT public schools.

Thank you for your participation.

APPENDIX E

DEMOGRAPHIC DATA FORM

DEMOGRAPHIC DATA

Number ☐

Please check the appropriate box in each category.

Sex: ☐ Male ☐ Female

Age:

☐ 20-25
☐ 26-30
☐ 31-35
☐ 36-40
☐ 41-45
☐ 46-50
☐ 51-55
☐ 56-60
☐ 61-65

Formal education completed:

☐ H.S. ☐ Apprenticeship ☐ B.A. ☐ M.A. ☐ Ph.D.

Employment with Great Falls Public Schools: ☐ years

Employment in present building: ☐ years

Work location:

☐ Elementary ☐ Junior High ☐ High School ☐ District Administration & Support Services

Department/Position:

☐ Food Service
☐ Buildings & Grounds
☐ Library/Media
☐ Administration
☐ Regular Teaching Staff
☐ Data Processing
☐ Clerical
☐ Print Shop
☐ Special Ed.
☐ Other _____

APPENDIX F

TABLE OF CONTENTS FOR SUPERVISOR TRAINING

TABLE OF CONTENTS

APPENDIX G

RAW SCORES FOR PARTICIPANTS AND ATTRIBUTE DATA

	Sex	Age	Educ Completed	GFPS	Bldg	Location	Dept/Position
1	Female	five (41-45)	HS	10	10	Elementary	Aides
2	Female	Seven (51-55)	BA	10	1	Elementary	Aides
3	Female	four (36-40)	MA	11	3	Elementary	Administrat...
4	Female	Seven (51-55)	>HS	6	3	Elementary	Food Service
5	Female	Eight (56-60)	HS	11	2	Elementary	Aides
6	Female	six (46-50)	HS	2	2	Jr High (...	Food Service
7	Male	Seven (51-55)	Apprentice/Vot...	12	11	Admin/Su...	Administrat...
8	Female	three (31-35)	HS	8	1	Admin/Su...	Clerical
9	Female	Nine (61-65)	HS	23	21	Jr High (...	Food Service
10	Male	Seven (51-55)	>HS	9	9	Jr High (...	Bldgs & Grnds
11	Female	three (31-35)	Apprentice/Vot...	3	3	Elementary	Aides
12	Male	five (41-45)	MA	18	15	Admin/Su...	Administrat...
13	Female	four (36-40)	HS	2	2	Elementary	Aides
14	Male	four (36-40)	PhD	1	1	Elementary	Administrat...
15	Male	Nine (61-65)	Apprentice/Vot...	22	2	Jr High (...	Bldgs & Grnds
16	Female	five (41-45)	HS	4	2	Jr High (...	Food Service
17	Female	six (46-50)	HS	18	10	High School	Library/Me...
18	Male	one (20-25)	Apprentice/Vot...	8	8	Admin/Su...	Bldgs & Grnds
19	Female	two (26-30)	HS	1	0	Elementary	Aides
20	•	•	•	•	•	•	•
21	Female	four (36-40)	BA	18	18	High School	Library/Me...
22	Male	Seven (51-55)	HS	18	8	Admin/Su...	Bldgs & Grnds
23	Female	four (36-40)	HS	4	3	Elementary	Aides
24	Male	two (26-30)	Apprentice/Vot...	5	2	Elementary	Bldgs & Grnds
25	Female	five (41-45)	HS	5	5	Elementary	Aides
26	Female	Eight (56-60)	HS	21	8	High School	Library/Me...
27	Female	Ten (65+)	HS	13	12	Elementary	Aides
28	Female	Seven (51-55)	HS	5	5	Elementary	Aides
29	Female	four (36-40)	HS	6	6	Elementary	Food Service
30	Female	Eight (56-60)	HS	13	13	Elementary	Aides
31	Female	five (41-45)	BA	8	3	Elementary	Reg Teachin...
32	Male	Eight (56-60)	HS	9	4	Elementary	Aides
33	Female	three (31-35)	Apprentice/Vot...	4	4	Elementary	Aides
34	Female	four (36-40)	HS	5	5	Elementary	Aides
35	Male	five (41-45)	MA	21	1	High School	Reg Teachin...
36	Female	four (36-40)	MA	2	2	Elementary	Reg Teachin...
37	Female	Seven (51-55)	HS	10	10	Admin/Su...	Clerical
38	Female	six (46-50)	BA	22	20	Elementary	Reg Teachin...
39	Female	four (36-40)	BA	2	2	Elementary	Reg Teachin...
40	Male	two (26-30)	BA	1	1	Elementary	Reg Teachin...
41	Female	three (31-35)	BA	2	•	Elementary	Reg Teachin...
42	Female	one (20-25)	BA	1	1	Jr High (...	Aides

	ATDP Pre...	SDM Pr...	ATDP Post...	SDM Po...	Training	Integration
1	97	114	123	104	yes	yes
2	91	109	104	95	yes	yes
3	122	107	116	95	yes	yes
4	118	125	156	123	yes	yes
5	126	89	127	102	yes	yes
6	145	95	137	97	yes	yes
7	109	98	167	123	yes	yes
8	116	110	108	110	yes	yes
9	101	94	118	108	yes	yes
10	113	86	163	96	yes	yes
11	132	81	134	81	yes	yes
12	106	89	134	92	yes	yes
13	138	87	144	105	yes	yes
14	126	113	144	112	yes	yes
15	116	88	142	79	yes	yes
16	132	82	123	96	yes	yes
17	119	106	127	110	yes	yes
18	105	87	136	96	yes	yes
19	118	105	142	122	yes	yes
20	126	108	•	•	•	•
21	143	117	139	117	yes	yes
22	97	94	125	95	yes	yes
23	133	100	124	89	yes	yes
24	105	88	102	75	yes	yes
25	122	87	106	97	yes	yes
26	107	106	109	93	yes	yes
27	147	82	132	67	yes	yes
28	104	105	118	108	yes	yes
29	129	107	128	109	yes	yes
30	119	96	118	80	yes	yes
31	126	115	104	117	yes	no
32	104	98	132	115	yes	no
33	126	109	114	104	yes	no
34	129	112	154	123	yes	no
35	103	88	102	94	yes	no
36	115	95	106	91	yes	no
37	130	94	159	96	yes	no
38	120	90	123	101	yes	no
39	127	86	120	72	yes	no
40	128	107	107	106	yes	no
41	94	101	107	98	yes	no
42	131	116	123	108	yes	no

	Sex	Age	Educ Completed	GFPS	Bldg	Location	Dept/Position
43	Male	five (41-45)	BA	10	10	Admin/Su...	Reg Teachin...
44	Female	Seven (51-55)	HS	6	3	Jr High (...	Food Service
45	Female	Seven (51-55)	MA	14	11	Admin/Su...	Special Ed
46	Female	five (41-45)	MA	20	20	Admin/Su...	Special Ed
47	Female	four (36-40)	HS	4	3	Elementary	Library/Me...
48	Female	one (20-25)	BA	4	4	Elementary	Reg Teachin...
49	•	•	•	•	•	•	•
50	Male	three (31-35)	HS	4	4	Admin/Su...	Reg Teachin...
51	Female	Seven (51-55)	HS	13	6	Admin/Su...	Clerical
52	Male	Eight (56-60)	Apprentice/Vot...	1	1	Admin/Su...	Trades
53	Female	two (26-30)	MA	7	2	Admin/Su...	Special Ed
54	Female	three (31-35)	BA	1	1	Jr High (...	Reg Teachin...
55	Female	five (41-45)	BA	1	1	Admin/Su...	Aides
56	•	•	•	•	•	•	•
57	Female	three (31-35)	HS	1	1	Elementary	Clerical
58	Male	Seven (51-55)	HS	1	1	Admin/Su...	Food Service
59	Female	Seven (51-55)	HS	1	1	Elementary	Clerical
60	Female	Seven (51-55)	MA	24	2	Elementary	Reg Teachin...
61	Male	six (46-50)	MA	22	11	Admin/Su...	Administrat...
62	•	•	•	•	•	•	•
63	Male	five (41-45)	BA	17	17	High School	Reg Teachin...
64	Male	Eight (56-60)	HS	15	10	High School	Bldgs & Grnds
65	Male	five (41-45)	HS	6	2	Admin/Su...	Bldgs & Grnds
66	Female	six (46-50)	BA	21	16	Elementary	Reg Teachin...
67	Female	Seven (51-55)	HS	22	9	High School	Food Service
68	Female	Eight (56-60)	>HS	10	10	High School	Food Service
69	Female	five (41-45)	HS	6	3	Elementary	Data Proces...
70	•	•	•	•	•	•	•
71	Female	five (41-45)	HS	1	1	Jr High (...	Reg Teachin...
72	Male	six (46-50)	MA	15	7	High School	Reg Teachin...
73	Male	three (31-35)	MA	9	2	High School	Reg Teachin...
74	Female	four (36-40)	MA	14	8	Admin/Su...	Administrat...
75	Female	Nine (61-65)	HS	1	1	Elementary	Aides
76	Female	four (36-40)	MA	17	1	Elementary	Administrat...
77	Female	five (41-45)	HS	9	7	High School	Bldgs & Grnds
78	Female	four (36-40)	HS	9	3	Elementary	Bldgs & Grnds
79	Female	five (41-45)	HS	2	2	High School	Food Service
80	Female	Seven (51-55)	HS	16	1	Elementary	Clerical
81	Male	six (46-50)	MA	16	3	Elementary	Reg Teachin...
82	Male	two (26-30)	HS	1	1	Admin/Su...	Data Proces...
83	•	•	•	•	•	•	•
84	Male	Seven (51-55)	MA	24	14	Admin/Su...	Data Proces...

	ATDP Pre...	SDM Pr...	ATDP Post...	SDM Po...	Training	Integration
43	94	79	111	87	yes	no
44	123	96	137	120	yes	no
45	130	77	140	87	yes	no
46	112	77	131	92	yes	no
47	114	101	140	91	yes	no
48	149	86	98	97	yes	no
49	130	115	•	•	•	•
50	140	87	142	91	yes	no
51	144	77	106	104	yes	no
52	111	95	104	98	yes	no
53	129	81	133	84	yes	no
54	117	109	112	109	yes	no
55	153	114	145	108	yes	no
56	123	78	•	•	•	•
57	124	107	90	113	yes	no
58	98	96	108	94	yes	no
59	106	104	114	101	yes	no
60	136	89	155	87	yes	no
61	143	117	169	118	no	yes
62	•	•	•	•	•	•
63	101	96	149	103	no	yes
64	96	81	118	85	no	yes
65	113	93	103	99	no	yes
66	110	94	117	91	no	yes
67	105	95	116	92	no	yes
68	64	108	90	84	no	yes
69	109	97	146	97	no	yes
70	•	•	•	•	•	•
71	122	92	146	97	no	yes
72	110	106	107	94	no	yes
73	109	97	113	95	no	yes
74	134	105	124	115	no	yes
75	95	109	108	88	no	yes
76	147	109	160	101	no	yes
77	103	87	154	123	no	yes
78	113	111	131	103	no	yes
79	120	93	117	94	no	yes
80	97	115	102	114	no	yes
81	119	111	119	108	no	yes
82	101	97	110	98	no	yes
83	109	•	•	•	•	•
84	103	120	127	125	no	yes

	Sex	Age	Educ Completed	GFPS	Bldg	Location	Dept/Position
85	Male	five (41-45)	HS	5	5	Admin/Su...	Data Proces...
86	Male	Seven (51-55)	HS	2	2	Admin/Su...	Food Service
87	•	•	•	•	•	•	•
88	Male	Seven (51-55)	HS	15	1	High School	Bldgs & Grnds
89	•	•	•	•	•	•	•
90	•	•	•	•	•	•	•
91	Female	Seven (51-55)	HS	12	12	Admin/Su...	Administrat...
92	Male	Seven (51-55)	MA	20	18	Elementary	Reg Teachin...
93	Female	six (46-50)	HS	5	5	Admin/Su...	Clerical
94	Male	Seven (51-55)	Apprentice/Vot...	12	11	Admin/Su...	Bldgs & Grnds
95	Male	six (46-50)	MA	26	26	Jr High (...	Reg Teachin...
96	Male	Eight (56-60)	HS	13	11	Jr High (...	Bldgs & Grnds
97	Female	two (26-30)	HS	1	1	Admin/Su...	Clerical
98	Male	five (41-45)	MA	20	20	High School	Reg Teachin...
99	•	•	•	•	•	•	•
100	Female	five (41-45)	BA	1	1	High School	Reg Teachin...
101	Female	six (46-50)	HS	8	8	Elementary	Aides
102	Male	three (31-35)	HS	4	1	Elementary	Bldgs & Grnds
103	Male	Eight (56-60)	MA	28	23	High School	Administrat...
104	Female	six (46-50)	MA	25	20	High School	Reg Teachin...
105	Female	six (46-50)	BA	23	12	Elementary	Reg Teachin...
106	Female	five (41-45)	HS	8	1	Elementary	Aides
107	Female	Eight (56-60)	>HS	8	8	High School	Food Service
108	Male	five (41-45)	BA	20	2	Jr High (...	Reg Teachin...
109	Female	six (46-50)	MA	24	5	Elementary	Reg Teachin...
110	Female	four (36-40)	HS	2	2	Elementary	Food Service
111	Female	five (41-45)	BA	18	10	Elementary	Reg Teachin...
112	Female	six (46-50)	BA	23	8	Elementary	Reg Teachin...
113	Female	three (31-35)	BA	7	1	High School	Reg Teachin...
114	Female	Seven (51-55)	HS	11	9	Elementary	Food Service
115	•	•	•	•	•	•	•
116	Female	four (36-40)	MA	15	4	Elementary	Reg Teachin...
117	Female	four (36-40)	HS	5	2	Elementary	Food Service
118	Female	Ten (65+)	Apprentice/Vot...	20	20	Elementary	Aides
119	Female	four (36-40)	BA	1	1	Elementary	Reg Teachin...
120	Male	Eight (56-60)	MA	28	24	High School	Reg Teachin...

	ATDP Pre...	SDM Pr...	ATDP Post...	SDM Po...	Training	Integration
85	146	120	154	118	no	yes
86	108	102	128	102	no	yes
87	•	•	•	•	•	•
88	114	95	115	96	no	yes
89	•	•	•	•	•	•
90	•	•	•	•	•	•
91	118	92	126	101	no	no
92	109	96	96	86	no	no
93	108	74	112	76	no	no
94	135	77	94	86	no	no
95	138	103	152	109	no	no
96	104	99	120	65	no	no
97	163	117	155	119	no	no
98	146	93	141	100	no	no
99	•	•	•	•	•	•
100	120	61	95	57	no	no
101	150	99	146	101	no	no
102	112	93	115	72	no	no
103	112	122	118	110	no	no
104	137	101	101	96	no	no
105	111	100	117	94	no	no
106	122	85	117	86	no	no
107	109	111	117	86	no	no
108	133	83	101	96	no	no
109	143	102	127	93	no	no
110	103	104	106	110	no	no
111	103	97	99	81	no	no
112	130	96	130	96	no	no
113	117	86	93	61	no	no
114	103	101	112	88	no	no
115	123	79	•	•	•	•
116	118	80	110	88	no	no
117	127	103	141	99	no	no
118	96	94	109	106	no	no
119	135	98	143	106	no	no
120	115	92	95	86	no	no