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A Comparison of Teacher Attitudes Based Upon Their Involvement in Various Levels of Staff Development

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A COMPARISON OF TEACHER ATTITUDES BASED UPON THEIR INVOLVEMENT IN VARIOUS LEVELS OF STAFF DEVELOPMENT

by

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A COMPARISON OF TEACHER ATTITUDES BASED UPON THEIR INVOLVEMENT IN VARIOUS LEVELS OF STAFF DEVELOPMENT

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This study sought to measure the relationship between teacher attitude and involvement in staff development. It was conducted as a follow-up to a recent implementation and audit of educational standards in the state of Wisconsin and focused upon the results of Standard B for Staff Development. The study compared the attitudes of teachers based upon their involvement in various levels of staff development, which were determined through the audit process.

Previous literature described in the report focused upon the background of state educational standards as well as previous studies which attempted to assess employee attitudes and staff development. In both areas there was considerable latitude in the impact of state standards on educational reform as well as in the relationship between staff development and employee attitude.

The design of the study called for two samples and represented teachers who were employed in school districts with exemplary programs for staff development as well as teachers from districts with nonexemplary programs for staff development. Both groups were similar in that an equal proportion of elementary, middle, and secondary teachers were selected from districts of various sizes. The groups were

compared against each other using a survey instrument designed to measure teachers' attitudes toward educational issues. With the exception of a subscore for professionalism among elementary teachers, the overall results of the study indicated no significant difference in the survey's total scores among teachers from districts with exemplary and nonexemplary programs for staff development.

Recommendations which follow discussion of the results include a replication of the study with perhaps several other survey instruments, a reexamination of the criteria used during the standards audit process, and a more narrow scope among the districts being compared.

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A comparison of teacher attitudes based upon their involvement in various levels of staff development

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James Lehto

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CHAPTER I

INTRODUCTION

Over 10 years have passed since the landmark report, A Nation at Risk (The National Commission for Excellence in Education, 1983), outlined several staggering conclusions concerning the state of public education in the United States. Among the more startling at the time:

> About 13% of all 17 year-olds in the United States can be considered functionally illiterate. Functional illiteracy among minority youth may run as high as 40 percent.
>
> Average achievement of high school students on most standardized tests is now lower than 26 years ago when Sputnik was launched.
>
> Over half the population of gifted students do not match their tested ability with comparable achievement in school.
>
> Between 1975 and 1980, remedial math courses in public four year colleges increased by 72 percent and now constitute one-quarter of all mathematics courses taught in those institutions. (p. 7)

In a state level report published 7 years later in Wisconsin, the Commission on Schools in the 21st Century (1990) noted that several of the same problems continued to be an issue. In outlining these deficiencies the commission stated that, "the basic mission of school had been blurred" (p. 8). The commission described several conditions which existed in the state's schools which contributed to the problems:

> Numerous curriculum mandates, perhaps justified if taken one by one, have in their combined effort "crowded" the curriculum and fragmented teaching and learning.

> State mandates designed to insure a wide range of educational services, for over ten categories of students with exceptional needs, have generated report requirements which translate into a substantial amount of non-value added work for teachers and administrators.
>
> Changes in technology and the nature of effective leadership, work, and citizenship in the new economy are making obsolete the classroom designed for lectures and a focus on single academic disciplines. (p. 8)

The commission concluded that, "The conditions described above make teaching an unusually demanding profession" (p. 11).

In 1993 the performance of the American public school system continued to be poor when compared to international standards. According to Daggett (1993), of the International Center for Leadership in Education, despite new graduation requirements and new test requirements, "the class of 1993 was simultaneously the best educated having met the highest requirements in the history of the nation, and the worst off" (p. 1). Daggett asserted that the skills, knowledge, and behaviors necessary to compete in a technological world have "out paced the ability of the American schools to provide them" (p. 1).

In order to address the problems described above, Daggett (1993) outlined six tasks which should be considered. One which is very important to this study is to focus upon the needs of students. Daggett contended that, "the decisions that have surrounded school reform in America during the past decade have not made the needs of students paramount, but rather have begun and ended with the needs of adults" (p. 31). This self-interest is so significant that Daggett concluded that, "we can change our schools as long as no adult must do anything different" (p. 32).

If Daggett (1993) is correct, then a tremendous challenge exists for educational leaders. How does one bring about the necessary changes in the schools required to address the ever changing technical world when an attitude of self-interest exists among adults, particularly teachers? This study was undertaken in the belief that a solution to the problems presented to these leaders rests in dealing with the attitudes and beliefs of the teachers they lead.

This view has been described by Kelly (1992) with respect to followership. Countless volumes have been written about leaders and the styles with which they move their organizations forward. However, according to Kelly, "after 2,500 years of research and 10,000 published leadership studies and endless best-selling books, we still don't know how to produce leaders" (p. 17). In his book, The Power of Follower-ship, Kelly presented a contrasting view in which change is accomplished as a result of the attitudes and beliefs of the followers. He also made what he referred to as some astonishing observations about leaders and followers.

> Leaders contribute no more than 20 percent to the success of most organizations.
>
> Followers are critical to the remaining 80 percent.
>
> Most people, however impressive their title or salary, spend more time working as followers than as leaders. That is, we spend more time reporting to people reporting to people rather than having people report to us. (pp. 6-7)

Kelly (1992) described five distinct followership styles which range from passive to exemplary and contended that these are reflected in the attitudes of individuals within organizations.

Other writers have held similar views with regard to the importance of followers. Lundin and Lancaster (1990) indicated that followership shall be recognized as being "equally as important as leadership in unlocking the untapped potential of workers and organizations" (p. 19). Stewart (1990) contended that one of the significant challenges concerning this issue is to change the attitude that the "best" or "right" idea comes (only) from the top (p. 7).

This study recognized the significance of followers discussed by Kelly (1992), Lundin and Lancaster (1990), and Stewart (1990) as well as the importance of emphasizing the needs of students rather than adults posited by Daggett (1993). It focused upon the followers in a school organization: teachers, and their attitudes related toward the needs of students.

Rationale

A study of employee attitude is hardly a new idea. The attitudes of employees have been routinely identified as a critical factor in the success or failure of organizations (Coates, 1989; Reynolds, 1992; Sharpe, 1990). For example, Basadur (1992) contended that the contemporary attitude of the typical American worker is significantly different from that of his Japanese counterpart with regard to participative problem solving. Writers from a variety of areas have emphasized the responsibility that leaders have to continually foster a positive mental attitude in order to promote an increase in productivity among employees (Lothian, 1990; Petrick, 1990; Thomas, 1991). Kelly (1992) described the most highly sought followers as "actively engaged,

independent thinkers" (p. 125). The creation of a work environment where the culture of an organization can be shaped in order to reflect a change in attitude has been repeatedly stressed (Deal, 1985; Kanter, 1983; Papalewis, 1988; Peters & Waterman, 1982).

School improvement studies are also quite common and several school districts have demonstrated success. For example, during the years of 1986 and 1987, studies conducted by the United States Department of Education identified hundreds of exemplary elementary and secondary schools through the Elementary and Secondary School Recognition Programs (Corcoran & Wilson, 1986; Wilson & Corcoran, 1987). Profiles of these exemplary schools made it possible to identify several broad themes which were common to all of these effective schools. Themes such as teaching for student competence, setting high expectations, school leadership, creation of professional work environments, allocation of resources, and community relations were illustrated through examples of policies and practices in the schools. Leadership and the creation of professional work environments represent two themes relevant to the nature of the research proposed for this study.

This study utilized these concepts in order to determine whether efforts directed toward school improvement are reflected in teachers' attitude toward educational practices in the classroom. Utilizing categorized lists of school districts identified in a recent statewide standards audit, the researcher assessed teacher attitudes as a result of exposure to one of those standards, staff development.

Statement of Purpose

In 1986 the Wisconsin Department of Public Instruction (DPI) adopted a set of 20 standards for school improvement (Grover, 1991). These standards covered a variety of areas ranging from general operational requirements such as building maintenance and scheduling to more specific curricular areas such as environmental education (see Appendix A). During the past 5 years audit teams have surveyed approximately 85% of the 417 schools to monitor compliance with these standards.

One of the standards, Standard B--Staff Development, required each local school board to, "annually, establish with school board employees a professional staff development plan designed to meet the needs of individuals or curriculum areas in each school" (Grover, 1991, p. 13). In addition, this standard called for the involvement of all licensed support, instructional, and administrative staff in the creation of this professional staff development plan.

During the audit process, standards such as Standard B which were related directly to educational programs received one of four ratings: noncompliance, working toward compliance, compliance, or exemplary. Data available to the researcher at this time indicate that 52 school districts of approximately 255 school districts surveyed have received an exemplary rating in the area of staff development (Bell, 1992).

In a conversation with John Bell, Standards Implementation Consultant for Staff Development, in November of 1992, he described several very important assessment criteria that were established.

According to Bell, these criteria were employed during interviews conducted with teachers, administrators, board members, and parents to determine the existence of the following conditions:

> Compliance: All of the conditions described in [Appendix B] must be met. This was verified through documentation as well as follow up interviews with those people described above.
>
> Non-compliance: One or several conditions illustrated in figure 1 was not met. This was either verified through lack of documentation, or lack of verification through interviews that components indeed existed, or contributors listed had indeed participated.
>
> Working Toward Compliance: This rating most often referred to plans that were nearly completed but lacked certain details required. For example: An acceptable plan could have been developed but had not yet received the approval of a board of education.
>
> Exemplary: In this category all of the conditions in [Appendix B] were met. In addition, the following were evident.
>
> 1. Staff participation was clearly evident in which participants were actively encouraged in developing programs for their departments as well as personal goals.
>
> 2. There was an unmistakable high level of enthusiasm of the participants in the program.
>
> 3. Innovation was highly sought. This was reflected in many of the programs developed by individuals to meet personal goals or topics of interest to individuals.
>
> 4. The programs were strongly based in the current literature associated with staff development. This was also documented within the plans.
>
> 5. There was consensus among all members of the audit team. Through consultation among all members it became obvious that exemplary programs tended to influence other programs which were also being investigated.
>
> 6. Exemplary programs were easily adaptable to other school districts and could serve as role models.

7. There was a high degree of support for the program from the administration and board of education. This was evident in the financial resources allotted as well as release time for the teaching staff. (Personal conversation)

Bell's (1992) description of some of the criteria for exemplary programs is very closely related to teacher attitude. His references to "personal goals," "unmistakable high levels of enthusiasm," "topics of interest," and "thorough consultation among all members" clearly illustrate the significance of teacher attitudes to the audit process. The purpose of this study is to determine whether there is a significant difference in the attitudes of teachers who were involved in these different levels of staff development. The rationale for this study is based upon the significance of teacher attitude. If a difference in teacher attitude was an important criteria in the identification of exemplary staff development programs, it is logical to assume that differences in the attitude of teachers involved in these exemplary programs would also be evident as the programs are implemented.

Research Objective

The research objective was to answer the following question:

Do teachers in the state of Wisconsin who are employed in school districts which have received exemplary ratings for staff development demonstrate different attitudes than teachers who are employed in districts which have received lesser ratings for staff development?

Results of this study sought to determine whether the staff development opportunities for teachers can shape and influence the attitudes of those teachers toward student centered outcomes. These results also

sought to support the findings (compliance, noncompliance, and exemplary) which were made by the teams during the standards audit.

Definition of Terms

Teacher attitude: In this study, teacher attitude represents an individual's position with regard to philosophical issues and contrasting educational practices as measured by Teacher Attitude Inventory (TAI) in his or her classroom (Whitmore, 1984).

Teacher Attitude Inventory (TAI): This questionnaire was designed to measure teachers' opinions regarding educational issues and decisions. The instrument was developed at the Stanford Center for Research and Development at Stanford University (Whitmore, 1984). The 24-item survey serves to measure teacher attitude on a continuum between two contrasting styles.

Staff development: Staff development was defined as, "a set of activities designed to meet the continuing educational needs of the individual licensed school employees or to meet the curriculum area needs" (Grover 1991, p. 15). These programs shall be rated as exemplary, in compliance, working toward compliance, or in noncompliance with regard to the State of Wisconsin Standards Assessment.

Limitations

The results of this study were limited to school districts in Wisconsin which were evaluated in the State of Wisconsin Standards Assessment. It did not evaluate the effectiveness of each staff

development program beyond the rating established by the assessment teams.

Summary

More than 10 years have passed since a landmark report entitled A Nation at Risk (The National Commission for Excellence in Education, 1983) identified several serious faults in the American public schools. A state-level report from the state of Wisconsin as well as several international implications provided by Daggett (1993) indicate a dismal scenario. Given this description, it has been argued that the decisions concerning school reform have catered to the needs of adults rather than those of students (Daggett, 1993). In order to change a trend like this, writer's such as Kelly (1992) suggested that the attitudes and beliefs of followers, in this case teachers, can be shaped in order to make significant changes.

There is evidence to suggest that certain school districts have been successful and several themes such as leadership and professional work environments were identified which have contributed to the success (Wilson & Corcoran, 1987). A statewide assessment of standards designed to enhance the effectiveness of all schools in Wisconsin also identified school districts which have provided exemplary programs such as staff development (Bell, 1992).

This study compared the attitudes of teachers from school districts in Wisconsin which have received exemplary ratings for staff development with attitudes of teachers in districts which have received lesser ratings. It was hypothesized that teachers employed in exemplary

districts would demonstrate different attitudes toward educational issues than teachers employed in school districts which have received lesser ratings.

A direct relationship between involvement in exemplary staff development and teacher attitude would reinforce the significance of a staff development program. Secondly, a direct relationship would also support the various classifications made during the audit process.

Overview

This study focused upon teacher attitude and involvement in staff development. In Chapter II, a review of literature concerning staff development programs, employee attitudes, and the relationship between both is presented. The initial discussion focuses upon the significance of staff development to an organization. Further review describes characteristics of effective staff development programs which have been identified in previous studies.

The major portion of the chapter deals with studies involving staff development and employee attitude. Specific examples have been drawn from within the field of education as well as outside. Chapter II concludes with a summary of the major themes found in the literature review.

Chapter III presents the methodology employed in this study. A review of the research questions are followed by a description of the survey instrument.

Chapter III also defines the sample population and the manner in which the subjects were contacted and surveyed is described. An

overview of the research design identifies the dependent and independent variables as well as the hypotheses tested.

Finally, the presentation of an overview of the statistical procedures allows the reader to grasp the manner in which the data collected in the survey were utilized.

Chapter IV presents the results of the survey. A section of this chapter is devoted to each one of the hypotheses. The numerical data are followed with a statement of acceptance or rejection of the hypothesis.

Chapter V contains a discussion of the significance of the results presented in Chapter IV. A list of conclusions as well as a presentation of areas worthy of further study is included.

CHAPTER II

REVIEW OF LITERATURE

Introduction

The purpose of this study was to determine whether there was a significant difference in the attitudes of teachers who were involved in different levels of staff development which were brought about in response to the implementation of state standards. In order to approach this task it is important to present a brief overview concerning state standards as well as a sampling of the significant literature concerning staff development.

State Standards

The initial portion of the review of literature focuses upon state standards and policies. A brief summary of the background, scope, and a profile of the policy makers gives the reader an appreciation for the variables involved in the standards movement following the report, A Nation at Risk (The National Committee for Excellence in Education, 1983), and just prior to the creation of the Wisconsin Standards (Grover, 1991).

Cycles

It is important to devote some discussion to the background and impact of state policies and standards upon local school districts. State

standards have been around for a great length of time and often repeat themselves. According to Kirst (1984b), who traced educational policies back to the "Old Deluder Satan Act" of colonial Massachusetts (p. 24), policies tend to appear and then reappear in the form of cycles according to the political climate. For example, Kirst described a conversation with a Stanford University colleague in which the friend boasted about re-using old Sputnik era speeches. It seems the colleague was once again encouraging the enhancement of science and mathematics instruction in the mid-1980s because the trend had once again focused in this area. Kirst was even so bold as to predict in 1984 that speeches and educational rhetoric in the mid-1990s would focus upon "at risk" students and dropout prevention. One does not need to look far to realize he was indeed correct.

According to Kirst (1984b) policy cycles are more deeply rooted in the political environment rather than educational research. For example, he cited the Sputnik crisis in the late 1950s as giving rise to higher standards for mathematics and science instruction. In similar fashion, President Johnson's War on Poverty in the mid 1960s was the basis for compensatory education.

To further elaborate his point Kirst (1984b) reviewed the high school reform cycles from the 1890s to the mid 1980s and concluded that during periods of conservative political movements such as the 1890s, the late 1950s, and the early 1980s, discussions of educational reform have focused upon academic standards and subjects. To the contrary, in periods of political liberalism such as in the Depression years and the mid 1960s, this focus shifted toward opportunity, equity, and

vocational preparation. If one follows this line of logic, he might conclude that the shift from a conservative highly academic outlook of the Reagan-Bush era may give way to a more liberal shift toward opportunities for the disadvantaged under the present Clinton era.

It is also important to note that regardless of the continuing cycles, the changes made at each juncture do indeed have some lasting effect. According to Kirst (1984b), "The pendulum swings back and forth, but rarely swings all the way back" (p. 10). In fact, "new problems arise from the solutions to earlier problems" (p. 10). For example, the solution to the dropout crisis most often included the creation of new courses and approaches which have now become institutionalized. As a result, they have increased the curricular and financial load upon the local school districts. In short, the solution to the dropout problem has created a new financial problem for the school districts and highlights the fact that the desired outcomes generally come with an unforeseen challenge.

Local and State Control

The issue of state policies designed to improve education brings about an obvious question for discussion. What should the state control and what should be controlled by the local school district? Prior to the era of A Nation at Risk (The National Commission for Excellence in Education, 1983), Wirt (1978) conducted a study to determine which areas were most routinely controlled by state policies and which were left to local control.

Wirt (1978) focused his study upon data which were generated by the National Lawyer's Committee for Civil Rights Under the Law. This committee used 36 areas of school policy as a basis for examining state statutes, constitutions, and court opinions for each of the 50 states. Because the data provided no clear picture of control patterns, they were subjected to further content analyses.

Wirt (1978) developed a scale of school control which followed the logical possibilities of state versus local control. This 7-point scale followed a progression from absence of state authority to total state assumption. It is interesting to note that the state of Wisconsin ranked in the exact middle (25th) in school local versus state orientation.

Further results of Wirt's (1978) study categorized the 36 policies among five clusters. Those policy areas in the highest clusters of state control included teacher certification, attendance, accreditation, and financial records. Those areas which were highly controlled by the state included special educational curriculum and those related to academic instruction. Typical policies of more moderate state control included counseling, library services, physical plants, and salaries. Finally, those with the bimodal scores, or equal scores of local and state control, included evaluation; student ratios; extracurricular activities; and one most relevant to this study, personnel training.

It is important to note that two policies, evaluation and personnel training, which were recorded bimodal control across the U.S. in 1978, were two of the standards proposed in Wisconsin a decade later. This suggests that just as the limits of state control vary across the states so too do the specific policies.

This distribution of control across the state and local agencies saw a significant shift during the mid-1980s. As noted by Kirst (1984b), reports such as A Nation at Risk prompted a surge of educational reform. The Wisconsin Standards (Grover, 1991) is a clear example of the response. However, not only did the states become more actively involved, but the focus of this involvement also changed.

As stated above, Wirt (1978) found that states devoted bimodal control over areas such as evaluation and personnel training. Following A Nation at Risk (The National Commission for Excellence in Education, 1984), Wirt (1984) noted a new state focus, "on curriculum quality and the capability of teachers to teach a curriculum that includes critical thinking and higher order skills" (p. 9). Wirt suggested that this change was brought about by alarmed state politicians responding to allegations that American school achievement lagged behind other nations. The state leaders who set strategies for economic development for competition throughout the world lost confidence in the ability of local authorities to provide high quality curricula. State standards such as those in Wisconsin received the political and financial backing of the leaders in several state capitals.

Policy Makers

In addition to noting the increased level of state control in educational practices across the nation, it is also important to note which individuals--governors, legislators, or chief state school officers, for example--are most influential in the creation of those policies and standards. In a study of six states, Marshall, Mitchell, and Wirt (1985)

sought to study the interactions which take place among those individuals who demonstrate substantial influence in each of the sample states. their report is of particular interest to this study in that it includes the state of Wisconsin.

Using the results of early field interviews as well as previous literature, Marshall et al. (1985) generated a list of policy actors most likely to be involved in policy decisions. Respondents were asked for the perceptions of policy-making influence by these policy actors over a 3-year period. Results of the study were organized around five clusters of policy influence including insiders, the near circle, far circle, sometime players, and other forgotten players (Marshall et al., 1985).

As noted above, results for the state of Wisconsin are of particular interest to this study. These results indicated that the chief state school officer, the teacher organization, and the governor and his staff were the three most influential in educational policy making. Others in the near circle included educational interest groups, the legislature, and the school boards association. All of the above supported the Wisconsin Standards which were proposed by the Chief State School Officer Grover (1991).

Among those noted as being "often forgotten players" (Marshall et al., 1985, p. 68) were the courts, educational researchers, and producers of educational materials. The clout among politicians and lack of clout among educational researchers, tends to support Kirst's (1984b) notion that reform cycles are more closely related to political events rather than anything else.

Attitudes of Policy Makers

The primary focus of this study is directed toward the attitudes of teachers who carry out the educational policies and standards described above. It would seem very relevant to conclude this discussion of state standards and policies by focusing upon the attitudes of the individuals who create the policies.

Wirt, Mitchell, and Marshall (1985) sought to compare the values and beliefs of state policy makers in each of six states against the various political cultures which existed in each. Using the previous work of Elazar, who identified three distinct political cultures, Wirt et al. (1985) selected policy makers from two states in each of the three cultures for the study. The states of California and Wisconsin represented the Moralistic Political Culture where government is a means of achieving a good community through positive action. Arizona and West Virginia represented the Traditional Political Culture where government's main function is maintaining traditional patterns. Lastly, Pennsylvania and Illinois represented the Individualistic Political Culture where government is a marketplace which relies heavily on partisanship.

Wirt et al. (1985) adapted 11 questions originally developed by Elazar and asked the key policy makers to respond. Results of the surveys indicated a very strong support for the congruency between the political culture of each state and the attitudes of the educational policy makers in the states. In short, the educational policies of the states are primarily a result of the political beliefs and attitudes that exist rather than resources.

Standards Summary

This brief overview has highlighted the significance of state educational standards and policies that exist across the nation. Kirst (1984b) noted that such standards are deeply rooted in our history and tend to follow cycles which are strongly influenced by political events. Although these policies may move in cycles, they often bring about lasting effects upon educational programs.

The controversy between state versus local control has also been continually addressed. Wirt's (1978) study categorized more than 36 educational policies, court settlements, and acts to determine various categories of state control. At the time of Wirt's report policies for personnel training and evaluation tended to be evenly distributed among local and state agencies. However, according to Kirst (1987), in the mid-1980s the states had taken an active role in these areas. Political leaders at the state level are no longer satisfied with decisions made at the local level as a foundation for the states' economic plans.

Finally, literature has been presented which describes the people within these states which create the policies. Marshall et al. (1985) described the various actors in Wisconsin as well as five other states who most often influence state policy. Furthermore, Wirt et al. (1985) indicated that these policy makers' beliefs and attitudes are most closely related to the political culture which exists within the states. In short, policies within the states are a reflection of the attitudes of the people within each state.

Given the above background information concerning state standards, it is now necessary to shift the focus of this study to the literature associated with one of the standards, staff development. Literature in this area forms an overview of the impact of the standard in the educational setting.

Staff Development

The remainder of this chapter presents a variety of concepts related to staff development and its relationship to teacher attitude. The initial discussion in this area is directed to the significance of staff development made at the national, state, and local levels. In addition several of the most common characteristics are described.

A second portion of the literature review of staff development describes several studies in which the relationship between staff development and employee attitude has been examined. This includes studies both within and outside the field of education. Those found within education include studies involving experienced teachers as well as teacher trainees.

Finally an overall summary is provided to identify some of the more significant conclusions of each study. These serve to focus specific research questions that are presented in Chapter III.

The importance of a well-trained work force to the success of an organization has never been greater. Writers such as Senge (1990) strongly argued that in order for an organization to remain competitive, knowledge must be shared among leaders and followers. He stated:

> In an increasingly dynamic, interdependent world, and unpredictable world, it is simply not possible for anyone to "figure it all out at the top." The old model, "the top thinks and the local acts," must now give way to thinking and acting at all levels. (p. 7)

A similar view of the importance of staff development is held by Joyce, Showers, and Bennett (1987) who have done extensive research in staff development as it relates specifically to instruction in four major areas: models of teaching, instructional strategies, curricular structure and implementation, and effective teaching in effective schools. Their emphasis in this particular work was directed toward models of teaching. They stated that most teachers use a "narrow range of practices" and "expand these only when they are provided carefully designed training" (p. 22). Furthermore, they contended that they "have the ample means for designing effective programs." However, they stated that "meager programs with 'one time' weak treatments will not hold the content" (p. 22). They have seen the need for more substantial staff development programs in order to enhance learning energy.

Not only has the importance of staff development been discussed, but so too has the variety of components of staff development, particularly in the field of education. To give the reader a feeling for the variety of characteristics concerning staff development, the writer would like to present a brief summary of literature concerning staff development at the time of A Nation at Risk (The National Commission for Excellence in Education, 1983). Using a meta-analysis of 91 former studies, Wade (1984) was able to draw some significant conclusions involving the scope of staff development activities in school districts.

Wade's (1984) vision of staff development considered not only the measured effects of staff development activities in the participants, but also on the students with whom these participants interact. She developed three hypotheses which sought to assess staff development from the teacher and students' perspective: (1) the effects of the in-service upon the teachers; (2) the effects of the program based upon the focus of the training; and (3) the effects of the program based upon duration, group characteristics, location, sponsorship, incentives, structure, and instructional technique.

Results of the meta-analysis indicated the following:

Effect levels: Results of the study indicated that inservice teacher education programs are moderately effective. Attempts to increase participant's learning were highly effective, while changes in participants' behavior was mildly effective. However results of the program measured in student outcomes were only mildly effective.

Duration: Results indicated that there was no significant effect of length of treatment. There was no significant difference in training sessions that lasted a few hours as compared to ones of more than 30 hours.

Training group characteristics: In this area a combination of elementary and secondary teachers achieved higher effect sizes than groups involving only one of the above. No significant differences in effect were noted as a result of voluntary versus mandatory participation, the size of the training group nor the involvement of a faculty unit versus unrelated individuals.

Location and scheduling: No location or scheduling variables produced a statistically significant impact of effect size.

Sponsorship: Training programs initiated, developed, or funded by the state or federal government or university were significantly more effective than those initiated in the school, either by teachers, administrators, or supervisors.

> Participant incentives: Results indicated that incentives related to status, being a candidate or representative through a competitive selection process, was significantly greater than all other incentives. Incentives for college credit or release time were more moderate while incentives such as pay, certification renewal, or no incentive fell well below the other means.
>
> Structure: Although there were no important differences in the effect sizes among workshops, courses, minicourses, or institutes; it was evident that independent study produced the highest effect size.
>
> Instructional techniques: The study was able to identify four types of instruction that are more effective than others, including: observation of actual classroom activities, micro-teaching, video/audio feedback, and practice. Combinations of these also produced similar means. (Wade, 1984, pp. 50-52)

Following the summary of results, Wade (1984) presented five suggestions for the improvement of staff development programs based upon these conclusions.

In addition to the work of Wade (1984), Sparks (1983) presented a synthesis of some additional characteristics concerning staff development based upon the research of several previous studies. These sought to assess those factors which enhance the effectiveness of staff development programs. Among those worthy of further study are, "a strong need for administrative support, a set of clearly communicated school policies, a school climate which supports collegiality and experimentation, and staff centered planning and implementation" (p. 66). With regard to scheduling, Sparks's work supports staff development programs that are continual and placed over time rather than single events which he deems as largely ineffective.

The purpose of the presentation of the work of Wade (1984) and Sparks (1983) is not necessarily to agree verbatim with it. Rather it is

included to give the reader an appreciation of the scope of components associated with staff development and the perceived impact at the time of the report of the National Commission for Excellence in Education (1984) which described the educational system in a state of risk. A decade later several of these are very relevant to the focus of this particular study.

Meyers and Beall (1992), who identified the principal as a primary facilitator in any staff development program, echoed several of the same conclusions as those presented above. Like Sparks (1983), they identified administrative support, open communication, and involvement of staff as critical components of an effective staff development program. Similar to Wade (1984), they discussed the length of training sessions, location, and structure. However, they further described the need to utilize resources within the school as well as the support of community resources.

The importance of community involvement was also the focus of an in-depth study described by Pink and Borman (1991). In this study they described Chicago's public school reform on staff development which utilized on-site visits and interviews with teachers, administrators, parents, and community resources. Pink and Borman concluded that effective staff development must combine theory with practice but must also involve the collaboration of those community stakeholders described above.

In addition to defining those characteristics which enhance staff development programs, more recent literature has expanded upon the outcomes of staff development, particularly those related to the teachers

themselves. For example, Bennett (1991) described the teacher change process in the Oregon staff development program which addresses the effects of staff development in terms of Maslow's Hierarchy. She stated that effective staff development is a result from an interdependency between the cognitive and affective areas of personal growth.

This change in emphasis toward individual needs has also changed the role of those people who plan staff development activities. According to Diegmueller (1992), the role of the staff developer is shifting from one who sets a rigid agenda for growth to one who helps individuals and schools to set their own plans. Staff development is supported rather than directed.

Four conclusions should be drawn from this initial inspection of staff development. First, the importance of staff development is clearly stated. It is essential to the success of business and industry, as well as school systems.

Second, there are indeed characteristics or components of staff development programs which have contributed to varied levels of their success. These constructs not only refer to the focus of the training, but also the process and structure of those programs.

Third, there is a clear distinction made between the effects of a well established continual exposure to staff development activities as opposed to single event, short-term experiences. Short-term experiences were found inferior to long-term exposures.

Fourth, recent efforts in staff development have changed in both organization and scope. The utilization of resources within the school as well as throughout the community is essential to effective staff

development programs. Finally, outcomes which focus upon the individual needs of teachers as well as the school are receiving more and more emphasis.

Employee Attitude and Staff Development

Discussions of the relationship between staff development and employee attitude have taken place both in the field of education as well as business; however, the results of studies of various groups with a variety of characteristics is unclear. A case study of a single correctional institution provided information on the relationship between training and attitude. Jurik, Halemba, and Musheno (1987) conducted a study with correctional officers in a minimum-security facility. They found the results of surveys given to 179 respondents to indicate that the more highly trained officers tended to be more interested in human service and inmate rehabilitation than in the security dimensions of their jobs. These subjects were also found to be more interested in promotional opportunities rather than extrinsic concerns.

Wright and Fuen (1986) sought to measure the effects of a food service manager training session as a basis for requiring a mandatory program for all food service managers. The study compared 27 noncertified food service managers exposed to a training program with an equal number of noncertified managers who were not exposed. Comparisons of pre- and posttests as well as three follow-up postinspections found no significant gain in the knowledge of the managers exposed to the training. However, the program did note improved attitudes among the experimental group toward health regulations and these attitudes were

still strongly evident during a follow-up 2 months after the study.

Educational systems have also been studied to measure the attitudinal effects brought about by training programs. These studies concerning teacher attitudes have been conducted with teacher trainees as well as experienced teachers. In a study involving minority teacher-trainees, Wolkon and Clarke (1974) found that the trainees' attitudes and values changed to ones more congruent with good teaching and self-actualization. The results came from responses to the Minnesota Teacher Attitude Survey following the completion of an extensive 10-week training session.

Two other studies involved experienced teachers. Provost (1971), in studying the results of a sensitivity training program with teachers in various grade levels, found significant changes in attitude toward self and teaching in general among groups in various races. Clements (1984) attempted to assess whether a teacher in-service program would effect the change in attitude regarding reading instruction in content areas. He found the results of a 16-item attitude survey given before and after participation to show positive changes in teacher attitude. Further results showed an increase in reading instruction by the group which received the in-service instruction.

Not all of the literature indicates a change in attitude as a result of a training program. In a study involving 60 training group participants in three different training sites across the U.S., Noe and Schmitt (1986) examined the attitude of employers toward their jobs, careers, and participation in training programs. One of the conclusions drawn from the data indicated that training had no effect on the attitude and behavior

change of the participants.

Certain studies designed to assess changes in teacher attitude as a result of a training program have also been inconclusive. Shainline (1986) conducted a study with 426 elementary, middle, and secondary teachers in the Albuquerque, New Mexico, Public Schools during a 4-day staff development program. A survey of the participants following the completion of the in-service showed no significant change in attitude toward themselves, teaching, their students, and staff development in general.

Finally, studies have also been conducted to measure teachers' attitudes to staff development itself. Amos and Benton (1988) reported the results of a follow-up study of the East Mississippi Center for Educational Development which sought to measure teacher dissatisfaction with staff development and related activities. Eighty elementary and 80 secondary teachers were randomly selected and asked to respond to a Likert-type scale. Results of the study showed a high level of dissatisfaction with staff development activities among all participants. However, results also showed a higher dissatisfaction level for secondary teachers.

Given the fact that some staff development programs have had a significant effect on employees' attitudes while others have had little or no effect, it is important to narrow the focus of this review to studies in which there has been a demonstrated change in attitudes of teachers as related to staff development and training. The remainder of the chapter describes studies in which the attitudes of employees were found to be effected by involvement in staff development or training. These

discussions describe studies which involved new teachers in the initial years of their career as well as studies which involved experienced teachers. These discussions also distinguish between short-term and long-term programs.

Attitudes of New Teachers

Several attitudinal studies have involved teacher trainees. In a study involving 19 preservice teachers from the elementary, special education, and early childhood programs at Glassboro State College, Galluzzo (1983) sought to examine changes in these individuals' attitudes as they entered a work setting. All of the subjects in the study scored very highly on the Scholastic Aptitude Test (SAT) prior to enrollment in the program. They were given the Minnesota Teacher Attitude Inventory during their teacher training program and again after spending time in schools during student teaching.

Results of the study demonstrated a marked difference in the two sets of scores. It was found that the subjects demonstrated a progressive attitude (student centered) during their teacher training, but demonstrated a significant shift toward traditional (school centered) values during the student teaching experience. These findings suggest that the attitudes of the inexperienced teacher tend to shift as he or she enters the "real world." Theoretical beliefs developed in the training institutions tend to fall in conflict with beliefs found in the contemporary classrooms and begin to change over time.

The attitudes of teacher trainees also received the focus of a study a decade later. Marso and Pigge (1991) attempted to measure

longitudinal changes of new teachers as they progressed through their teacher training. Their research concerned several variables including academic ability, gender, grade level of instruction, earliness of their decision to enter the teaching field, perception of training, personality type, and locus of control. They found that the average attitude scores did not change from entry into teacher training, through student teaching, to the end of their first year of teaching. Rather, attitude was more closely influenced by factors related to locus of control, personality type, gender, and grade level.

The changes in attitude among teachers as they progress through their initial years of service were also examined by Blaze (1985) which may describe how teachers move to a particular orientation within their classroom. In this work, Blaze outlined the results of two ethnographic studies of factors contributing to a particular orientation.

Blaze (1985) suggested that two different perspectives exit within traditional classrooms. The first he referred to as humanization process which "refers to attitudinal and behavioral changes in teachers that primarily results from personal interactions with students as people" (p. 237). In this perspective teachers develop knowledge about the students accompanied by an empathy and tolerance of their individual characteristics. As a result teachers tend to "actively pursue" relational, moral, and counseling avenues within their teaching style (p. 237).

To the contrary, a second phase occurs in which the teacher attitudes become more concerned with the rationalization phase which relates to "more specifically related to classroom management and instruction" (Blaze, 1985, p. 237). This alternate phase leads to a "major

contradiction in their [teachers] work perspectives" (Blaze, 1985, p. 237).

Blaze's (1985) work included one study involving 43 teachers in a predominately white high school in the northeastern part of the U.S. A second study involved 80 teachers from a biracial high school in the Southeast. Data in both studies was collected utilizing tape recorded interviews, open-ended questionnaires, and observations and identified some specific factors which contribute to the shift toward this rationalization process.

Blaze (1985) contended that new teachers enter the profession with some "unrealistic assumptions, values and goals" (p. 241) which are related back to their preservice training. With an overly optimistic attitude about their capabilities and an unfamiliar sense of power, many of the teachers find the first years "traumatic" and "devastating" (p. 241) and the continual shift toward the rationalization of teaching toward classroom control and organization begins.

The data collected by Blaze (1985) suggested that there are several factors within the classroom as well as outside that contribute to this rationalization process. Among those related to the classroom are complexity, students in groups, a variety of student values, slower students, a conflict in achievement versus expectations, course objectives, teacher expertise, and the need for survival at the cost of creativity. In addition, several outside factors such as time, administrative expectations, parental expectations, and the teachers' own personal qualities also lead to this shift (Blaze, 1985).

It is not the purpose of this discussion to do an in-depth analysis of each of the factors above, but rather to emphasize the recognizable influences within classrooms that shape teacher attitudes. The values and beliefs concerning the education of students are no longer primarily grounded in the research-based methods of the training institutions but are shaped by the practices and procedures which exist in the work-place. Furthermore, without some sort of exposure to a specific orientation delivered in a staff development program, the attitudes of new teachers are influenced primarily by factors within the work environment.

The next portion of this review of literature focuses upon experienced teachers. It presents studies in which the attitudes of teachers have been examined following exposures to staff development programs.

Staff Development and Experienced Teachers

Several studies have been reported in the literature concerning specific in-service initiatives in school districts (Abell, 1989; Gilman, Emhuff, & Hamm, 1988; Miller & Ellsworth, 1983; Peterman, 1991). Abell (1989) discussed the effects of a problem-solving study designed to measure teacher behaviors following the completion of science in-service.

In this particular study, middle school science teachers volunteered to participate in an in-service program which included a series of summer meetings followed by a 3-week summer workshop. Following a fall implementation phase, a follow-up study compared the results of 22 in-service participants with 22 nonparticipants. The samples which were

similar according to gender, teaching status, years of service, and level of training (degrees) were exposed to two waves of data collection which included surveys as well as video recordings.

Results indicated that there was no significant difference in teacher behavior; however, in each of the cases, the teachers exposed to the in-service training demonstrated different attitudinal scores, while the control group's scores decreased. The experimental group demonstrated a shift toward more student-centered classrooms where time devoted to lecture and discussion decreased and time spent listening and directly observing students increased.

The significance of this study is two-fold. First, there is again evidence that exposure to in-service activities has an effect upon teacher attitude. Second, those changes in attitude are strongly related to the classroom activities, that is, student centered versus curricular centered.

Science teachers were also the focus of a study by Peterman (1991), who found that exposure to in-service training had an effect on teacher attitude. In a 9-month case study involving an experienced secondary science teacher exposed to Hilda Taba teaching strategies, she was able to identify specific changes in the subject's attitude toward teaching. The subjects "shifted from a basic positivistic approach of finding or giving information to a constructionist method of making sense of the material" (p. 13).

Peterman's (1991) study is even more significant in that the in-service activity which formed the basis for the study is directly related to attitude or teacher beliefs. A focus upon teacher beliefs and attitudes as an outcome of a particular staff development program also formed the

basis of several studies conducted with teachers in Indiana.

Three studies reported in the literature by Dr. David Gilman of Indiana State University illustrate the effects of a similar staff development program implemented in three different locations. In the first, Gilman and Miller (1988) sought to measure the effects of a teacher-taught staff development program on the attitudes and beliefs of public school teachers and administrators. Eighteen teachers in the Southwest Dubois County School Corporation participated in the 6-month program (November 1987 through May 1988) which exposed them to an intensive exposure to fairly new teaching strategies.

Results of pre- and postscores of the Likert Bipolar Attitude Inventory and Osgood's Semantic Differential Scale showed improvement in mean scores in all 11 areas associated with attitude. Significant changes were noted in teachers' perceptions of themselves, attitudes toward teaching, attitudes toward other teachers, and students' perceptions of their teacher's effectiveness.

During the same time period, two additional studies were taking place. Gilman et al. (1988) conducted a study in the Metropolitan School District of Mount Vernon, Indiana, to measure the effects of a peer collaboration and coaching program on teacher attitudes. A sample of 24 teachers who participated in the program were given pre- and posttests to measure program components as well as attitudes.

In addition, Gilman and Sommer (1988) utilized a very similar study in the Vigo County School Corporation in Terre Haute, Indiana. Twenty-seven teachers were given pre- and posttests to measure the changes brought about by exposure to a teacher-taught improvement

program.

Results of both studies indicated a significant change in the performance of teachers with respect to the objectives of the programs. In addition, both programs appeared to be effective in improving teacher attitude, enhancing collegial support and in increasing the students' perception of their teacher's effectiveness (Gilman et al., 1988; Gilman & Sommer, 1988).

Three important points should be made concerning the Gilman studies. First, the impact of staff development upon attitude is again noted. Each of these three examples support that relationship.

Second, mention should be made of the fact that similar studies conducted in three different locations in the state of Indiana found similar results. This emphasizes the fact that an effective program can be shown to produce similar changes in attitude in various locations.

Third, the enhanced attitudes of teachers reflected in the studies, especially those in the Dubois County study, are closely related to an awareness of self and others. Similar to the findings of Abell (1989) and Peterman (1991), these changes seem to be related to an increased awareness about the environment in which the teacher works.

Discussions of studies related to the attitudes of educators related to staff development need not be restricted to teachers. Silver and Moyle (1984) sought to measure the effects of an intense in-service program with school principals. Participants in the program were recipients of a month-long leave of absence in order to attend training sessions provided by the Institute of Educational Administration in Melbourne, Australia. The purpose of the study was to determine

effects in cognitive, affective, and psychomotor skills of the principals following completion of the program. It was also anticipated that changes in the schools managed by these principals would also be noted.

Results of comparisons of pre- and posttest scores collected from both the principals and their subordinates found mixed results in the cognitive areas associated with conceptual complexity and conceptions of leadership role. More significant changes were noted in the attitude they had toward themselves and toward others. According to Silver and Moyle (1984) the participants "gained in self confidence and [became] more appreciative of the diversity and unique merits of other people" (p. 29). This was reflected in the organizational changes in the schools which began to rely less upon bureaucratic structure and more upon the capabilities of individuals.

Silver and Moyle's (1984) research is significant in that, similar to studies involving teachers, their report suggests that the results of a prolonged intensive training program involving principals are not limited solely to the acquisition of knowledge, but rather includes attitudinal changes such as an awareness of self and the relationship to others. The organizational changes identified are also important to note because they tend to reflect a change in the climate which exists following the staff development program.

The examination of school climate was also a significant theme of a study conducted by Flannigan and Trueblood (1983). They described climate as "the values, beliefs, and attitudes of the school community members as reflected in their patterns, processes, and behavior practices

utilized across time" (p. 3). As part of an evaluation component in a staff development program in the Keystone Central School District in Pennsylvania, the authors utilized four different survey instruments to measure school climate and efficiency.

Results of the study indicated that each particular school in the district had its own system of beliefs which often cause it to isolate itself. The results which were organized in order to identify attitude, morale, and school climate profiles indicated that the psychological as well as geographic distance between the schools was bridged as mutual trust and respect were developed. According to Flannigan and Trueblood (1983), the overall climate and professional development continued to grow long after the study was completed.

Once again, the effects of staff development reflected in the changes in attitude in individuals also reflect the attitude and beliefs throughout the organization. Just as in the case of Silver and Moyle (1984), attitudinal changes were reflected in the understanding and respect of others rather merely in one's self.

Long-Term Staff Development

The literature presented above describes the survey of attitudes following the completion of a single training program or for a limited time period. Questions arise as to the effect of training programs over a greater length of time. What are the effects of a well established professional training program on employee attitudes? How are the attitudes of teachers in these programs different from those which are not involved in training programs?

Robbins (1986) reported the results of a study of teacher attitudes associated with a staff development program over a longer period of time. He reported the results of the Napa-Vacaville Follow-Through Research Project which measured the results of a 4-year staff development effort designed to measure students' engaged rates and achievement.

Though the program was centered around 10 major themes, Theme 3 which measured self-esteem, reaction between self and others, and teacher efficacy is of particular importance to this study. Results associated with this component showed the program to have a high impact on teacher self-esteem, relationship with others, and in general a "can do it" attitude. Teacher testimonials indicated "more control and more self awareness of one's strengths and weaknesses" Robbins, 1986, p. 26). In addition, observations of teacher activities during the final years of the study found them more actively involved in improving the overall organization program through grant writing, serving as mentor teachers, private counseling, or becoming actively involved as trainers in the program.

Once again a relationship is evident between staff development and teacher attitude. A point that is very important to note here is the ongoing effects of the changes in teacher attitude. As noted above, once attitudes are changed, they tend to impact not only the individual classroom, but also the entire school organizational climate.

A study which also focused upon the organization beliefs of teachers was undertaken by Harr (1990) in a school district in Chaska, Minnesota. In her study, Harr sought to analyze staff development

programs over a 3-year period and the impact that these programs had on the teachers' attitudes toward job satisfaction.

The research design called for teacher responses to the Minnesota Satisfaction Questionnaire following each year of the program. The collection of data took place over three school years in which the staff development program undertook three distinct phases:

Year 1: No formal staff development program existed.

Year 2: During this period a formal staff development program was implemented which focused upon the development and reinforcement of educationally effective teacher behaviors.

Year 3: During this period several budget cuts and programs changes occurred. The staff development program established the year before had undergone significant changes. For example, teacher trainers were no longer part of the program (Harr, 1990).

The study noted several conclusions regarding the demographic characteristics of the school district and the relationship to job satisfaction. It was found that the gender and years of service to a district did have an impact on job satisfaction. However in cases involving age, level of training, and teaching level, there was no relationship found.

Harr's (1990) conclusions specifically related to job satisfaction and involvement in staff development programs were somewhat surprising. While it was found that the type of staff development program did indeed have an impact on job satisfaction, it is interesting to note that job satisfaction was highest during the time period in which no staff development program existed. This was in contrast to the results that Harr had found in her literature.

Harr's (1990) research has a great deal of relevance to the purpose of this study which is described in Chapter I. First, her study involves teachers who are involved in three distinct levels of staff development which included no formal program, a formal program, and a modified program. Second, the effect of involvement in these various levels is measured against job satisfaction which is in large part grounded in many of the attitudes and beliefs of employees. Both studies are similar in that they serve to provide follow-up data to staff development efforts within a school district.

Harr's (1990) findings concerning job satisfaction and staff development tend to conflict with several of the studies outlined in the literature review presented here. The results of research studies conducted by Abell (1989), Peterman (1991), Gilman et al. (1988), Gilman and Sommer (1988), Gilman and Muller (1988), Silver and Moyle (1984), and Robbins (1986) all clearly indicate a change in employee attitude as a result of involvement in staff development programs. The conflict between Harr's findings and those above leave plenty of room for further investigation.

Summary

The review of literature concerning the relationship between teacher attitude and staff development has brought forth several ideas very relevant to this study. One that is most obvious is the importance of staff development to the success of organizations. Both Senge (1990) and Joyce et al. (1987) spoke to the critical importance of staff development.

A second issue brought to light is the variety of variables associated with staff development programs that have been considered in the literature during the past decade. Wade (1984), in his meta-analysis of more than 91 studies, indicated that a variety of factors have had significant impact upon the results of staff development programs. In addition, the work of Sparks (1983) indicated that factors such as school policy and administrative support enhances the efforts in this area. More recent literature (Bennett, 1991; Diegmueller, 1992; Meyers & Beall, 1992; Pink & Borman, 1991) has emphasized the utilization of school and community resources and note an emphasis on the individual needs of the participants in staff development.

Initial reviews of the literature found no conclusive evidence that involvement in staff development programs always lead to a change in employee attitude. While several studies indicated that no change in attitude was observed following staff development (Noe & Schmitt, 1986; Shainline, 1986), much of the literature presented here has identified studies in which there was a significant change in teacher attitude (Clements, 1984; Jurik et al., 1987; Wright & Fuen, 1986). For this reason the review of literature was narrowed in focus to studies in which staff development was observed to effect teacher attitude.

Significant discussion was presented regarding the attitudes of inexperienced teachers as they progress through their teacher training experiences. Galluzzo (1983) and Marso and Pigge (1991) all addressed the changes in teacher trainees' attitudes as they moved from the training center to the real classroom. Whereas Galluzzo (1983) found a significant change in teacher attitudes from progressive views during

training toward traditional views following the first years of service, the other studies were not as clear. However, Marso and Pigge (1991) found that there were factors such as personality type, gender, and teaching level that had a significant effect on an attitude change.

In order to more clearly address the philosophical change that occurs in new teachers as they enter the classroom, the work of Blaze (1985) was presented as a means of explaining the two different perspectives that occur in traditional classrooms. His work supports the notion that factors such as complexity, student groups, student values, ability levels, conflict between achievement and expectations, and teacher survival exist in and out of the classroom and cause beginning teachers to move from one perspective to another. These factors naturally confront new teachers and a need exists for a continual reinforcement of new ideas through staff development opportunities.

The literature review also addressed staff development programs involving experienced teachers. Included were studies that involved staff development programs directed toward specific curricular areas as well as more generalized teaching strategies. A majority of the studies presented did show a significant attitude change as a result of exposure to a staff development program; however, a description of those attitudes is even more interesting.

Rather than a mere description of a positive or negative attitude, several of the results identified attitudes related to an awareness of the work environment. For example, Abell's (1989) study noted an attitude shift toward student centered classrooms with more time devoted to direct observation of students. The Peterman (1991) study described an

attitude shift on the part of the teachers from a positivistic approach of finding and giving information to one of a constructionist approach of making sense.

Further discussion of employee attitudes showed an impact on the organization itself. The Flannigan and Trueblood (1983) study addressed the unique characteristics of a particular school and described the changes that occurred following staff development. Silver and Moyle (1984) noted how principals began to rely less on bureaucratic structure and more upon the capabilities of individuals. The long-term effects of staff development became evident.

Finally, studies (Harr, 1990; Robbins, 1986) were presented which measured the effects of long-term staff development efforts. The results of these studies indicated changes in attitude according to certain demographic characteristics; but once again, a prolonged change in self-esteem, relationship with others, and more active involvement was found.

As a result of this review, several themes are evident which focus the study to specific research questions as well as construct the hypotheses.

1. Staff development programs have been shown to have an impact on the attitudes of teachers in school districts. These include the studies described by Galluzzo (1983), Marso and Pigge (1991), Abell (1989), Peterman (1991), Robbins (1986), and Harr (1990).

2. There are demographic characteristics, such as gender, teaching level, and years of service, which have been related to changes in teacher attitude.

3. The attitude changes described in the studies were most often related to student learning, awareness of self and others, and organizational beliefs.

4. Evidence that exposure to various levels of staff development has been inconclusive in predicting a change in teacher attitude. Further investigation is appropriate.

The literature presented above and the broad themes which have been outlined give merit to a further examination of the relationship between teacher attitude and involvement in staff development. The remainder of this study is directed to the assessment and evaluation of this relationship.

Overview

This study focused upon teacher attitude and involvement in staff development. The literature review provided in this chapter formed the basis for many of the components described in future chapters. Chapter III presents the methodology employed in this study. A review of the research questions are followed by a description of the survey instrument.

Chapter III also contains a definition of the sample population and a description of the manner in which the subjects were contacted and surveyed. An overview of the research design identifies the dependent and independent variables as well as the hypotheses tested.

Finally, the presentation of an overview of the statistical procedures allows the reader to grasp the manner in which the data collected in the survey was utilized.

Chapter IV presents the results of the survey. A section of this chapter is devoted to each one of the hypotheses. The numerical data and a statement of the acceptance or rejection of the hypothesis follow.

Chapter V contains a discussion of the significance of the results presented in Chapter IV. A list of conclusions and a presentation of areas worthy of further study are included.

CHAPTER III

METHODOLOGY

The purpose of this study was to determine whether there is a significant difference in the attitudes of teachers who were involved in different levels of staff development. This chapter contains a description of the research design and methodology which were employed in the study. Specifically, the chapter presents the research questions as well as the conceptual and operational hypotheses. In addition, a description of instrumentation, the sample population, and the independent and dependent variables are included. Finally, a description of the data analysis explains the manner in which the final conclusions were supported.

The conceptual hypothesis of the study was: The attitudes of teachers in Wisconsin who are employed in school districts which have received exemplary ratings for staff development will be different than the attitudes of teachers in Wisconsin who are employed in school districts which have received lesser ratings for staff development.

Research Questions

The research questions for the study were:

1. Is there a significant difference in the attitudes of teachers who are involved in different levels of staff development?

2. Do teachers in Wisconsin who are employed in school districts which have received exemplary ratings for staff development respond differently to an attitude survey than teachers in Wisconsin who are employed in school districts which have received lesser ratings?

3. Are teachers involved in various levels of staff development aligned with either traditional instructional practices or more flexible, experimental behavior?

Instrumentation

In this study, A Teacher Attitude Inventory (TAI): Identifying Teacher Positions in Relation to Educational Issues and Decisions was used. According to its author, Whitmore (1984), the TAI "was constructed to provide a short, relatively nonthreatening questionnaire that would be a reliable indication of teacher attitudes regarding philosophical issues and contrasting educational practices" (p. 4). It was designed to serve as a means of evaluation and research in six areas.

Of the six possibilities listed, the researcher chose a purpose similar to two that were described:

> to assess the extent to which faculty attitudes or opinions have changed over time, particularly in response to faculty development activities or changed district policies or procedures. . . .
>
> to assess the relationship between job satisfaction in various settings. (Whitmore, 1984, pp. 4-5)

Measurement of teachers' attitudes following their involvement in staff development programs in various settings was attempted.

Background of the Instrument

The TAI (Whitmore, 1984) was developed for field-based research at the Stanford Center for Research and Development in Teaching at Stanford University. It was constructed to measure the attitudes of teachers in distressed elementary schools following the completion of an in-service program. This program encouraged the teachers to break away from traditional methods and experiment with new alternatives, to attend to individual students and emotional needs, and to individualize instruction more often in order to increase pupil success and opportunities for self-correction. The responses of the study were measured against descriptive information concerning the groups attitudes and values prior to the in-service program (Whitmore, 1984).

The TAI (Whitmore, 1984) was selected because its philosophical framework and content match very closely the results described in the majority of studies in Chapter II. In those cases, attitudes were not merely described as positive or negative. Rather they described the teachers' attitudes to policies and practices within the school and classroom reflecting school beliefs as well as their personal beliefs. The TAI also relates very closely to the notions put forth by Daggett (1993) in Chapter I. It tends to look at student needs versus needs of adults.

The TAI (Whitmore, 1984) is a relatively short (24 items) non-threatening instrument used to assess teacher attitude by asking the teacher to relate their personal positions and beliefs to two contrasting statements regarding teaching practice. It uses a 5-point Likert-type scale in which the respondent shows a tendency to agree or disagree

with a pair of statements. The statements are assumed to be dichotomous in that agreement with one indicates disagreement with the other. A neutral response is also considered valuable information.

The statements are assigned to four subscales: Controlling Versus Releasing, Rigidity Versus Flexibility, Individualism Versus Group Orientation, and interest versus disinterest in Professionalism (Whitmore, 1984). As noted above the subscales are dichotomous and the tendency to agree with one extreme is seen as disagreement with the other and would be noted in the subscale scores.

The TAI (Whitmore, 1984) has undergone experimental testing for reliability and validity through assessment of contrasting schools within two school districts in order to test the instrument as a predictor of teacher behavior. Tests of item-item correlations, item-subscale correlations, correlations between subscales, internal consistency of subscales, fall-spring correlations for subscales, and the total scores were calculated. Results showed moderate reliability with the total scores being most reliable. Whitmore (1984), who claimed that the subscales should receive further examination, indicated that the subscales of rigidity and control are most reliable.

Validity was tested by factor analysis which sought to determine to what extent patterns of responses corresponded to and validated the hypothesized four dimensions. Results in this area indicated that the "total scores would be more valuable than the sub-scores" (Whitmore, 1984, p. 10).

The shortcomings of the instrument with regard to reliability and validity are typical of other self-reporting instruments which attempt to

measure attitudes. According to Whitmore (1984), "the validity data will be limited, tentative, and subject to scrutiny for each individual or group whose scores are to be used as the basis for professional judgments" (p. 10). In a phone conversation with Whitmore in September of 1992 during which the design of this study was shared, she concluded that the instrument would be appropriate for this study.

Survey Modification

With permission of the author and publisher, the survey instrument was modified slightly so that demographic information labels could be added to the survey cover. These labels in no way affected any of the items or required responses in the instrument itself. For that reason there was no change in the reliability or validity of the instrument.

Research Design

Target Population

The target population utilized in this study was elementary, middle, and high school teachers from the state of Wisconsin whose districts have participated in a standards audit conducted by the Wisconsin Department of Public Instruction. During the audit process each school was evaluated on its compliance with more than 20 standards designed to promote effective instruction. Those audit teams which investigated each district's performance in Standard B, Staff Development, followed the criteria illustrated in Appendix C as well as interviews with school

district personnel. Table 1 shows the results of the state standards audit using these criteria.

Table 1

Results of State Standards Audit for Standard B
(Distribution of Districts)

Year	Exemplary	Compliance	Working toward	Non-compliance
91-92	30	53	0	1
90-91	30	51	1	5
89-90	31	53	0	0
88-89	23	54	5	4
Totals	114	211	6	11

Note. Data from Wisconsin Department of Public Instruction (Bell, 1992).

As stated in Table 1, approximately 114 school districts in Wisconsin received exemplary ratings, 211 were found in compliance, 6 were rated as working toward compliance, and 11 were found to be in noncompliance with regard to Staff Development. The names of those districts are available from the Wisconsin Department of Public Instruction and appear in Appendix A of this report.

Sample Population

The sample population to be studied in this project was a group of 120 teachers: 60 teachers from exemplary school districts and 60

teachers in the remaining three categories of school districts. A sample of this size (n = 120) was large enough to make valid statistical projections and at the same time be manageable given the size and complexity of the target population.

In order to insure validity in the selection process, the writer employed a stratified random sample (Borg & Gall, 1989) of exemplary and nonexemplary school districts. First, to insure inclusion of school districts of various sizes, an exemplary and a nonexemplary school district were randomly selected in each of the four athletic competition classes established by the Wisconsin Interscholastic Athletic Association (WIAA) to form eight sample districts. In this way teachers from school districts of all sizes were included in the study.

Secondly, to insure validity within each school district which participates, an equal number of elementary, middle, and secondary teachers were randomly selected from each of the eight districts. This process permitted the responses to accurately represent the overall makeup of Wisconsin teachers by teaching level.

Each of the districts identified was contacted and asked to furnish a list of all full-time teachers in that school district. A random selection of teachers at each teaching level was then made. Lists of all teachers selected remained anonymous. Those teachers that were selected received a letter of introduction, a survey, a response form, and a self-addressed stamped envelope. Copies of the letters to the district as well as to each teacher are included in Appendix B.

The surveys were mailed to all participating districts during March of 1994. In that way all of the participants completed the survey at the

same point in the school year and received an equal length of time in which to complete the survey. It was recommended that the respondents complete the survey in a nonthreatening setting. Therefore, the teachers selected were encouraged to complete the 10- to 15-minute survey alone in a comfortable setting (classroom, home, etc.). If follow-up postcards were required, they were made to all districts at the same time.

The use of the survey instrument and the sampling technique described above has received the approval under the exempt category by the Human Subjects Institutional Review Board of Western Michigan University. A copy of the approval documentation is included in Appendix E.

The Independent Variables

The independent variable, level of staff development, was established by the guidelines established by the Wisconsin Department of Public Instruction (Bell, 1992). They are defined in two categories:

Exemplary: School districts which have received an exemplary rating for staff development programs.

Nonexemplary: School districts which have received ratings of compliance, noncompliance, or working toward compliance on staff development programs (Bell, 1992).

The Dependent Variables

The dependent variable, teacher attitude toward educational issues, was defined in terms of a total rating as well as four subscale

ratings.

Total: The teacher's overall evaluation of his or her position on a continuum of two dichotomous extremes of traditional "3-R" instructional practices, or more flexible and experimental behavior.

Control: Student behavior is controlled in a traditional teacher-centered style, or a total-growth, cognitive socioemotional method which considers self-image.

Rigidity: Learning is directed toward content and subject matter, or directed toward process in which skills in problem solving and inquiry are promoted.

Individualism. Structure and consistency resulting in group achievement is favored, or there is willingness to individualize to promote individual achievement and self-fulfillment.

Professionalism: Teachers are reluctant to move away from traditional values and prefer independence with limited teamwork; or teachers strive for continual growth, are eager to participate, and enjoy faculty teams (Whitmore, 1984).

Intervening Variables

Other variables which may have an impact on teacher attitude and were controlled by the stratified sampling procedure are also included.

Size of district: The size of a district may cause its teachers to have different attitudes toward educational issues due to bureaucracy, resources, or demographics.

Level of teaching: The grade level at which a teacher works may have an influence as to the attitude toward staff development.

Gender: The gender of a particular teacher may have an impact on the attitude toward educational issues.

These formed the basis for alternate conclusions which are addressed in Chapter V of this report.

Hypotheses

The operational hypotheses for the study are as follows:

Ha 1: The overall mean scores on the TAI of teachers from school districts with exemplary staff development programs will be significantly different from the mean scores of teachers from districts with nonexemplary staff development programs.

Ha 2: The mean scores for rigidity of teachers from exemplary districts will be significantly different from the mean scores of teachers from nonexemplary districts.

Ha 3: The mean scores for control of teachers from exemplary districts will be significantly different from the mean scores of teachers from nonexemplary school districts.

Ha 4: The mean scores for professionalism of teachers from exemplary school districts will be significantly different from the mean scores of teachers from nonexemplary school districts.

Ha 5: The mean scores for individualism of teachers from exemplary school districts will be significantly different from the mean scores of teachers from nonexemplary school districts.

Analysis

Results of all the surveys were compiled according to the instructions in the test manual and coded for statistical analysis. In order to accept or reject Hypothesis 1, the total scores of teachers in exemplary districts were compared to those in nonexemplary districts utilizing a t test for independent samples. This test was performed with each group as a whole as well as analyzed according to grade level. A second test was also used to analyze the total scores of each group according to a particular range of scores. In this case, a 2 x 3 contingency table was constructed and a chi-square statistic was computed.

A t test for independent samples was also utilized to accept or reject Hypotheses 2, 3, 4, and 5. This test compared the subscores of teachers in exemplary districts with those in nonexemplary districts with the entire group as well as to analyze subscores according to teaching level.

A final test was conducted to analyze the relationship between the subscores and the total scores. A multiple regression analysis was performed to measure the impact of the subscores on the total scores and to determine whether a particular subscore more strongly influenced the total scores. All of the results were compared at the .05 significance level.

Discussion describes the comparisons of each in relationship to the hypotheses put forth previously. Following this analysis, a list of conclusions was developed as well as a list of possible implications for further study.

Summary

The purpose of this study was to determine whether there is a significant difference in the attitudes of teachers who have been involved in various levels of staff development. This chapter has outlined the specific research questions, the hypotheses, instrumentation, and sampling procedures to be employed in the study. Both the survey instrument and the sampling technique has received the approval of the Human Subjects Institutional Review Board of Western Michigan University.

Five hypotheses have been developed in an attempt to answer the research questions concerning teacher attitudes and staff development. Upon completion of the data collection, each hypothesis was evaluated according to appropriate statistical procedures.

Overview

To this point a description of the research problem, summary of relevant literature, and an overview of the methodology to be employed have been provided in this report. The remainder of the study deals with the analysis and discussion of the findings of the study.

Chapter IV presents the results of the survey. A section of this chapter is devoted to each one of the hypotheses. The numerical data and a statement of the acceptance or rejection of the hypothesis follow.

Chapter V contains a discussion of the significance of the results presented in Chapter IV. A list of conclusions and a presentation of areas worthy of further study are included.

CHAPTER IV

ANALYSIS OF DATA

The purpose of this study was to determine whether there was a significant difference in the attitudes of teachers who have been involved in different levels of staff development. These various levels of staff development, exemplary and nonexemplary, were identified during a follow-up to the implementation of educational standards in the state of Wisconsin. This chapter presents an analysis of the data generated during the study in response to each of five hypotheses concerning teacher attitude and involvement in staff development previously presented in Chapter III. Prior to presenting the data, this chapter provides an overview of the research design including hypotheses, sample population, and methodology. The data analysis is followed by an overview of the remainder of the study.

Overview of Research Design

The research hypotheses are framed around the following question: Do teachers in the state of Wisconsin who are employed in school districts which have received exemplary ratings for staff development demonstrate different attitudes than teachers who are employed in districts which have received lesser ratings for staff development?

Each of the hypotheses were designed to assess whether teachers' scores on the Teacher Attitude Inventory (TAI) (Whitmore, 1984)

would vary according to the level of staff development program in which they were involved. These levels of staff development were rated by audit teams as a follow-up to the implementation of the Wisconsin Educational Standards: A Blueprint for Excellence (Grover, 1991) in the state of Wisconsin. The particular ratings were established according to documentation of activities, staff participation and enthusiasm, innovation, and administration support. The hypotheses focus upon the relationship between teachers' attitudes and their involvement in a particular level of staff development determined during the audit process. Each hypothesis suggests that the attitudes of teachers will vary according to the level of the staff development program in which they were involved. The operational hypotheses were as follows:

Ha 1: The overall mean scores on the TAI of teachers from school districts with exemplary staff development programs will be significantly different from the overall mean scores of teachers from school districts with nonexemplary staff development programs.

Ha 2: The mean scores for rigidity of teachers from school districts with exemplary staff development programs will be significantly different from the mean scores for rigidity of teachers from school districts with nonexemplary programs for staff development.

Ha 3: The mean scores for control of teachers from school districts with exemplary staff development programs will be significantly different from the mean scores for control of teachers from school districts with nonexemplary programs for staff development.

Ha 4: The mean scores for professionalism of teachers from school districts with exemplary staff development programs will be

significantly different from the mean scores for professionalism of teachers from school districts with nonexemplary programs for staff development.

Ha 5: The mean scores for individualism of teachers from school districts with exemplary staff development programs will be significantly different from the mean scores for individualism of teachers from school districts with nonexemplary programs for staff development.

Methodology

Survey research was utilized in order to accept or reject the hypotheses above. The methodology, which was previously described in Chapter III, called for teachers who represented districts with exemplary programs for staff development as well as teachers from districts which had received lesser ratings for staff development to respond to a similar attitude survey. The purpose was to compare the differences in scores and subscores among the two groups in order to articulate the differences in the staff development programs which were identified during the state standards audit process.

Sample Population Description

Two groups of teachers were randomly selected from a target population of teachers in Wisconsin whose districts had participated in a recent standards audit. These standards covered a variety of areas ranging from general operational requirements of building maintenance and scheduling to more specific curricular areas such as environmental education. During the previous past 5 years, approximately 85% of the

417 school districts in the state had been audited to monitor compliance with these standards.

One group represented teachers whose school districts had received exemplary ratings for staff development, while the other group represented school districts which had received lesser ratings for staff development. The districts which represented the exemplary group included the Antigo, Seymour, Rosendale/Brandon, and Gillett School Districts. Those which represented nonexemplary school districts included the Portage, DePere, Chilton, and Pardeeville School Districts.

Each group represented a stratified sample of its larger population such that teaching level, district size, and gender were equally represented. All of the teachers in the sample population (N = 120) were contacted during March of 1994 and asked to respond to the Teacher Attitude Inventory (Whitmore, 1984). Following the initial wave of responses, a follow-up reminder was mailed to nonrespondents approximately 2 weeks later. The final responses tally (N = 86), approximately 72%, is presented in Table 2.

A review of Table 2 indicates that the level of response with both the exemplary group (n = 44) and the nonexemplary group (n = 42) are relatively equal; 51% versus 49%. Furthermore the groups are homogeneous (Borg & Gall, 1989) with regard to demographic characteristics of teaching level and district size; however, there is a higher number of females who responded from both the exemplary and nonexemplary populations. More specific data are presented as part of a description of each hypothesis.

Table 2

Descriptive Statistics of Teachers From Exemplary and Nonexemplary School Districts

Teaching level	Exemplary			Nonexemplary		
	Male	Female	Total	Male	Female	Total
Elementary	2	12	14	2	12	14
Middle	5	7	12	7	5	12
High school	11	7	18	10	6	16
Total	18	26	44	19	23	42

Analysis

In order to present the findings of the study to the reader in a logical manner, the following format is employed. Each of the five operational hypotheses which were presented in Chapter III is stated in the form of a null hypothesis. Each is followed with a description of the statistical tests which were employed to analyze the data as well as a concise statement of whether the null hypothesis is supported or rejected.

Hypothesis 1

Null Hypothesis 1: There is no difference in the total mean scores on the TAI of teachers from school districts with exemplary staff development programs than the total mean scores of teachers from school

districts with nonexemplary staff development programs.

The means of total scores of the exemplary and nonexemplary groups were compared utilizing a t test for independent samples. The calculated t value of -0.18 compared to the two-tailed critical value of 1.99 with 84 degrees of freedom, described in Table 3, was not significant at the .05 alpha level and the null hypothesis was not rejected.

Table 3

Comparisons of Teachers From Exemplary and Nonexemplary School Districts Based Upon Total Scores

Group	n	Mean	SD	Std. error	t value	df	2-tailed prob.
Exemplary	44	88.11	10.55	1.59			
					-0.18	84	.858
Nonexemplary	42	88.52	10.62	1.64			

After initial analysis of the data collected to test the hypothesis, two additional tests were conducted in order to test Hypothesis 1. A second t test and a chi-square test were utilized to compare smaller components of the sample populations to determine if the relationship held constant.

To further compare the total scores of exemplary and nonexemplary teachers, the data were reorganized in two other formats. First, the total scores for both exemplary and nonexemplary teachers were sorted according to teaching level. In this manner the scores of elementary, middle school, and high school teachers in the exemplary districts

could be compared independently with their counterparts in the non-exemplary districts. Because of the variation in size among the three groups, three distinct test statistics were measured against three distinct critical values.

The means of total scores of the exemplary and nonexemplary elementary teachers were compared utilizing a t test for independent samples. The calculated t value of -1.95 compared to the two-tailed critical value of 2.056 for 26 degrees of freedom, described in Table 4, was not significant at the .05 alpha level.

The means of total scores for exemplary and nonexemplary middle school and high school teachers were also compared with specific test statistics and critical values. The middle school comparisons produced a calculated t value of 1.05 compared to a critical value of 2.074 with 22 degrees of freedom, while the high school results produced a calculated t value of 0.62 compared to the critical value of 2.04 for 32 degrees of freedom. There was no significant difference at each of the three levels.

To further examine the relationship which existed between the sample populations, a second format reorganized the data into three different ranges of total scores. Because previous tests had shown the means of both groups to be similar, this procedure was utilized to determine whether either group had a tendency to score within a particular range of low, medium, or high scores.

Support for this second format is supported by Whitmore's (1984) description of total scores which stated that, "Teachers who have higher total scores, probably over 100, are those most inclined to be flexible, to be interested in new ideas and materials, and to encourage pupil

Table 4

Comparisons of Elementary, Middle, and High School Teachers From Exemplary and Nonexemplary School Districts Based Upon Total Scores

	Exemplary				Nonexemplary						
Group	n	Mean	SD	Std. error	n	Mean	SD	Std. error	t value	df	2-tailed prob.
Elementary	14	87.29	9.59	2.564	14	94.93	11.06	2.955	-1.95	26	.062
Middle	12	89.58	13.02	3.759	12	84.75	9.25	2.669	1.05	22	.306
High school	18	87.78	9.95	2.345	16	85.75	9.05	2.263	0.62	32	.541

*p = .05.

self-direction through a program of individualized instruction" (p. 14). At the same time, she contended that "teachers with notably low scores, probably under 85, are possibly least willing to experiment and participate in programs of professional growth" (p. 14). Finally, "scores in the mid range (86-99) are more difficult to interpret for practical reasons" (p. 14). By analyzing the data according to three different ranges and comparing the results to Whitmore's descriptions above, the researcher sought to determine whether similarities which existed in the means of both groups, were also evident within the distribution of those scores among the three ranges.

The total scores of exemplary and nonexemplary teachers were recoded to low, medium, and high score ranges. The scores were analyzed using 2 x 3 contingency table and utilizing the chi-square test.

Results of the chi-square test indicated a Pearson contingency coefficient of .88568 which was compared to a two-tailed critical value of 5.991 with 2 degrees of freedom is not significant at the .05 level. Further examination of the residuals in each column show none to be greater than 2.0 in absolute value. This indicated that none of the categories are significant (Hinkle, Wiersma, & Jurs, 1988). These results are presented in Table 5 and show no significant difference in the scores of either group according to a particular range of scores.

In summary, the total scores of exemplary and nonexemplary teachers were not significantly different. This was supported by an initial t test which compared the means of total scores between the exemplary and nonexemplary groups. This was supported by two additional tests which included a t test which compared the total scores of

Table 5

Comparison of Two Ratings of Staff Development With Three Ranges of Total Scores

	Low range		Middle range		High range	
Group	Score	Residual	Score	Residual	Score	Residual
Exemplary	9	-1.7	28	0.9	7	0.9
Nonexemplary	12	1.7	25	-0.9	5	0.9

Note. Pearson contingency coefficient = .88568, df = 2, p = .64221. Minimum expected frequency = 5.860. Residual = difference between number observed and number of scores expected.

both groups according to teaching level, and a chi-square test which compared the total scores of both groups according to the ranges of scores.

In response to Hypothesis 1, there was no significant difference in the means of total scores of teachers from exemplary school districts and those of teachers from nonexemplary districts. Results were not significant and the null hypothesis was not rejected.

The remaining four hypotheses focus upon the four subscores: rigidity, control, professionalism, and individualism, which were measured by the instrument. Similar to the analysis conducted in Hypothesis 1, the researcher elected to conduct several tests with each hypothesis in order to attain a more clearly defined analysis of each subscore. With each hypothesis, two tests were conducted to compare the means on a particular subscore.

First, the means of each subscore of teachers from exemplary programs were compared to the means of each subscore of teachers from nonexemplary programs using a t test for independent samples at the .05 level of significance. Secondly, the means of each subscore of elementary, middle, and high school teachers, from exemplary programs were compared to the means of each subscore of their counterparts in nonexemplary programs using the same test and significance level. The second test provided additional information with which to accept or reject each null hypothesis.

Hypothesis 2

Null Hypothesis 2: There is no difference in the mean scores for rigidity of teachers from school districts with exemplary staff development programs than the mean scores for rigidity of teachers from school districts with nonexemplary programs of staff development.

Comparisons of the mean scores for rigidity between the large groups produced a t value of 0.02. This value, which was compared to a two-tailed critical value of 1.99 with 84 degrees of freedom, indicated that the means of subscores of the entire groups related to rigidity were not significantly different. These results are reported in Table 6.

A second test of Hypothesis 2 analyzed the data according to teaching level. The mean scores for rigidity of the exemplary and nonexemplary elementary teachers were compared utilizing a t test for independent samples. The calculated t value of -0.16 compared to the two-tailed critical value of 2.056 with 26 degrees of freedom.

Table 6

Comparisons of Teachers From Exemplary and Nonexemplary School Districts Based Upon Subscores of Rigidity

Group	n	Mean	SD	Std. error	t value	df	2-tailed prob.
Exemplary	44	22.64	3.72	0.56			
					0.02	84	.982
Nonexemplary	42	22.62	3.41	0.53			

Using the same procedure, the mean scores for rigidity of exemplary and nonexemplary middle school comparisons produced a calculated t value of 0.54 compared to a critical value of 2.074 for 22 degrees of freedom. High school results produced a calculated t value of 1.40 which compared to the critical value of 2.04 with 32 degrees of freedom. These results appear in Table 7. Both tests indicated that there was no significant difference in the mean scores of rigidity between the entire groups nor between each group according to the three teaching levels. Based on results in Table 7, representing data collected to test Hypothesis 2, the null hypothesis is not rejected.

Hypothesis 3

Null Hypothesis 3: There is no difference in the mean scores for control of teachers from school districts with exemplary staff development programs than the mean scores for control of teachers from school districts with nonexemplary programs of staff development.

Table 7

Comparisons of Elementary, Middle, and High School Teachers From Exemplary and Nonexemplary School Districts Based Upon Scores for Rigidity

	Exemplary				Nonexemplary						
Group	n	Mean	SD	Std. error	n	Mean	SD	Std. error	t value	df	2-tailed prob.
Elementary	14	22.86	3.09	0.824	14	23.07	4.09	1.092	-0.16	26	.877
Middle	12	22.50	5.09	1.469	12	21.58	2.91	0.839	0.54	22	.593
High school	18	22.56	3.29	0.766	16	23.00	3.14	0.785	1.40	32	.691

*$p = .05$.

Comparisons of the mean scores for control of the large groups produced a t value of 0.33. This value, which was compared to a two-tailed critical value of 1.99 with 84 degrees of freedom, indicated that the means of subscores related to control of the large group were not significantly different. These results are reported in Table 8.

Table 8

Comparisons of Teachers From Exemplary and Nonexemplary School Districts Based Upon Subscores of Control

Group	n	Mean	SD	Std. error	t value	df	2-tailed prob.
Exemplary	44	21.26	3.24	0.49			
					0.33	84	.742
Nonexemplary	42	21.05	3.72	0.57			

The second test of Hypothesis 3 analyzed the data according to teaching level and subscores. The mean scores for control of the exemplary and nonexemplary elementary teachers were compared utilizing a t test for independent samples. The calculated t value of -2.01 was compared to the two-tailed critical value of 2.056 with 26 degrees of freedom.

Using the same procedure, the mean scores for rigidity of exemplary and nonexemplary middle school comparisons produced a calculated t value of 1.38 compared to a critical value of 2.074 with 22 degrees of freedom, while the high school results produced a calculated t value of 1.65 which compared to the critical value of 2.04 with 32

degrees of freedom. These results appear in Table 9. Both tests indicated that there was no significant difference in mean scores of control between the entire groups nor between the groups according to the three teaching levels. In Hypothesis 3, the null hypothesis was not rejected.

Hypothesis 4

Null Hypothesis 4: There is no difference in the mean scores for professionalism of teachers from school districts with exemplary staff development programs than the mean scores for professionalism of teachers from school districts with nonexemplary programs of staff development.

Comparisons of the mean scores for professionalism for the large groups produced a t value of -0.97. This value, which was compared to a two-tailed critical value of 1.99 with 84 degrees of freedom, indicated that means of subscores related to professionalism of the large group were not significantly different. These results are reported in Table 10.

Following the same format of multiple tests for previous hypotheses, a second test of Hypothesis 4 analyzed the data according to teaching level. The mean scores for professionalism of the exemplary and nonexemplary elementary teachers were compared utilizing a t test for independent samples. The calculated t value of -2.57 was compared to the two-tailed critical value of 2.056 with 26 degrees of freedom. Because the calculated value exceeded the critical value the mean scores of professionalism among elementary teachers were significantly different at the .05 alpha level.

Table 9

Comparisons of Elementary, Middle, and High School Teachers From Exemplary and Nonexemplary School Districts Based Upon Scores for Control

	Exemplary				Nonexemplary						
Group	n	Mean	SD	Std. error	n	Mean	SD	Std. error	t value	df	2-tailed prob.
Elementary	14	20.14	3.59	0.960	14	23.00	3.92	1.048	-2.01	26	.055
Middle	12	22.25	3.39	0.978	12	20.25	3.70	1.067	1.38	22	.181
High school	18	21.56	2.73	0.643	16	19.94	3.00	0.750	1.65	32	.109

*p = .05.

Table 10

Comparisons of Teachers From Exemplary and Nonexemplary School Districts Based Upon Subscores of Professionalism

Group	n	Mean	SD	Std. error	t value	df	2-tailed prob.
Exemplary	44	23.98	3.37	0.51			
					-0.97	84	.334
Nonexemplary	42	24.67	3.21	0.50			

Using the same procedure, the mean scores for professionalism of exemplary and nonexemplary middle school comparisons produced a calculated t value of 0.36 compared to a critical value of 2.074 with 22 degrees of freedom, while the high school results produced a calculated t value of -0.08 compared to the critical value of 2.04 with 32 degrees of freedom. These results appear in Table 11. Tests involving the mean scores for professionalism with the entire groups as well as those with middle school and high school teachers indicated no significant difference at the .05 alpha level. However, there was a significant difference in the professionalism scores of elementary teachers. In Hypothesis 4, the null hypothesis is not rejected.

Hypothesis 5

Null Hypothesis 5: There is no difference in the mean scores for individualism of teachers from school districts with exemplary staff development programs than the mean scores for individualism of

Table 11

Comparisons of Elementary, Middle, and High School Teachers From Exemplary and Nonexemplary School Districts Based Upon Scores for Professionalism

	Exemplary				Nonexemplary						
Group	n	Mean	SD	Std. error	n	Mean	SD	Std. error	t value	df	2-tailed prob.
Elementary	14	24.86	2.96	0.790	14	27.14	1.51	0.404	-2.57	26	.016
Middle	12	24.08	3.34	0.965	12	23.58	3.48	1.003	0.36	22	.723
High school	18	23.22	3.69	0.869	16	23.31	2.94	0.734	-0.08	32	.938

*$p = .05$.

teachers from school districts with nonexemplary programs of staff development.

Comparisons of the mean scores for individualism of the large groups produced a t value of -0.35. This value, which was compared to a two-tailed critical value of 1.99 with 84 degrees of freedom, indicated that the means of subscores related to individualism between the large groups were not significantly different. These results are reported in Table 12.

Table 12

Comparisons of Teachers From Exemplary and Nonexemplary School Districts Based Upon Subscores of Individualism

Group	n	Mean	SD	Std. error	t value	df	2-tailed prob.
Exemplary	44	20.16	4.16	0.628			
					-0.35	84	.726
Nonexemplary	42	20.45	3.54	0.545			

Following the same format of multiple tests for previous hypotheses, a second test of Hypothesis 5 analyzed the data according to teaching level. The mean scores for individualism of the exemplary and nonexemplary elementary teachers were compared utilizing a t test for independent samples. The calculated t value of -1.72 compared to the two-tailed critical value of 2.056 with 26 degrees of freedom.

Using the same procedure, the mean scores for individualism of exemplary and nonexemplary middle school comparisons produced a

calculated t value of 1.29 compared to a critical value of 2.074 with 22 degrees of freedom, while the high school results produced a calculated t value of 0.02 compared to the critical value of 2.04 with 32 degrees of freedom. These results which appear in Table 13 indicate that there was no significant difference in the mean scores of individualism according to teaching level.

Both tests indicated that there was no significant difference in the mean scores for individualism between the entire groups nor between each group according to the three teaching levels. Therefore, in Hypothesis 5, the null hypothesis was not rejected.

An analysis of the findings related to the subscores indicated that none of the four hypotheses which related to rigidity, control, professionalism, and individualism were supported. Comparisons of mean scores between the entire groups as well as across teaching levels produced no significant differences.

However, one last test was utilized to analyze the significance of each subscore upon the total score. According to Kerlinger (1986), multiple regression analysis is an effective method in estimating the magnitudes of different sources of influence upon a dependent variable. In this particular case the researcher sought to determine whether any of the subscores more strongly influenced the total scores and, if so, was this source of influence similar in both the exemplary and nonexemplary population? A test of multiple regression analysis was conducted with total scores and all of the subscores.

Table 13

Comparisons of Elementary, Middle, and High School Teachers From Exemplary and Nonexemplary School Districts Based Upon Scores for Individualism

	Exemplary				Nonexemplary						
Group	n	Mean	SD	Std. error	n	Mean	SD	Std. error	t value	df	2-tailed prob.
Elementary	14	19.42	3.98	1.062	14	21.79	3.26	0.872	-1.72	26	.098
Middle	12	20.92	3.78	1.090	12	19.25	2.42	0.698	1.29	22	.211
High school	18	20.22	4.66	1.098	16	20.19	4.22	1.054	0.02	32	.982

*$p = .05$.

Multiple Regression Analysis

In this study the Teacher Attitude Inventory (Whitmore, 1984) produced a set of total scores which were supported by a set of subscores. The analysis of these scores to this point has focused upon a particular score of one particular group and compared it to the corresponding score of the other group (rigidity scores of exemplary teachers versus rigidity scores of nonexemplary teachers). As noted in the previous section, no significant difference was found between the groups with any of the total scores or subscores.

Utilizing multiple regression analysis an equation was generated for the exemplary data and nonexemplary data to compare the effects of each subscore on the total score within each group. In the equation the total score represented the criterion variable (Y) and each subscore represented the predictor variables (rigidity = X_1, control = X_2, professionalism = X_3, and individualism = X_4).

Results of the multiple regression analysis of scores of teachers in exemplary districts produced a calculated F value of 2469.01, which strongly exceeded the critical F value (F = 2.62) of 4 and 39 degrees of freedom at the .05 alpha. This indicated the strong significance between the subscores and the total scores for teachers in exemplary districts. Obviously the total scores were totally dependent on the subscores.

Further review of the calculated t values of all subscores in the equation produced calculated values of X_1 = 26.77, X_2 = 23.83, X_3 = 25.47, and X_4 = 32.08, all of which exceeded the critical t value of

2.02 with 39 degrees of freedom at the .05 alpha. These data, which are described in Table 14, indicated that all of the subscores, when used in combination with each other, were significant contributors to the total scores for teachers in exemplary districts.

Table 14

Multiple Regression Analysis of Total Scores With All Subscores in Exemplary School Districts

Count	R	R^2
44	.998	.996

Source	df	Sum of squares	Mean square	F test
Regression	4	4763.62113	1190.90528	2469.09
Residual	39	18.81069	0.48233	$p < .001$
Total	43	781.83182		

Variable	t value
Rigidity (X1)	26.765
Control (X2)	23.836
Professionalism (X3)	25.468
Individualism (X4)	32.077
Constant	1.182

*$p = .05$.

A casual observation indicates that the subscore of individualism generated the highest $\underline{t}$ value with the exemplary group. However, according to Kerlinger (1986), these $\underline{t}$ values are very unstable when calculated together and any conclusion would be speculative. The more sound conclusion was that all subscores had to be considered valid indicators of the teachers' overall attitudes and opinions related to this instrument.

Data from the regression analysis of scores from teachers for nonexemplary districts produced a calculated $\underline{F}$ value of 530.71, which strongly exceeded the critical $\underline{F}$ value ($\underline{F}$ = 2.62) of 4 and 37 degrees of freedom at the .05 alpha. This indicated a high degree of significance between the subscores and the total scores for teachers in nonexemplary districts. Obviously the total scores were solely influenced by the subscores.

Review of the calculated $\underline{t}$ values of all subscores in the equation produced a calculated values of $\underline{X}_1$ = 12.43, $\underline{X}_2$ = 11.85, $\underline{X}_3$ = 11.08, and $\underline{X}_4$ = 9.35, all of which exceeded the critical $\underline{t}$ value of 2.02 for 37 degrees of freedom at the .05 alpha. These data, which are described in Table 15, also indicated that all of the subscores, when used in combination with one another were significant contributors to the total scores for teachers in exemplary districts.

Another casual observation indicated that the subscore of rigidity generated the highest $\underline{t}$ value with the nonexemplary group. However, once again according to Kerlinger (1986), these $\underline{t}$ values are very unstable when calculated together and any conclusion would be speculative. The more sound conclusion was that all subscores had to be

Table 15

Multiple Regression Analysis of Total Scores With All Subscores in Nonexemplary School Districts

Count	R	R^2
42	.991	.982

Source	df	Sum of squares	Mean square	F test
Regression	4	4547.22110	1136.80527	530.71
Residual	37	79.25509	2.14203	$p < .001$
Total	41	626.47619		

Variable	t value
Rigidity (X1)	12.429
Control (X2)	11.850
Professionalism (X3)	11.076
Individualism (X4)	9.351
Constant	0.860

*$p = .05$.

considered valid indicators of the teachers' overall attitudes and opinions related to this instrument. Again, all subscores were valid indicators of the teachers' overall attitudes and opinions related to this instrument.

Summary

The purpose of this study was to determine whether there was a significant difference in the attitudes of teachers who have been involved in various levels of staff development. This chapter has presented the results of the survey conducted with the teachers from districts which have received exemplary ratings for staff development and teachers from districts which have received lesser ratings. A statistical analysis of these results indicated that there was no significant difference between the scores and subscores of teachers in each group.

In the analysis of Hypothesis 1, the means of total scores of teachers from exemplary districts were compared with means of total scores of teachers from nonexemplary districts using a t test for independent samples of the entire groups as well as with each group according to grade level. A further comparison of the numbers of high, middle, and low ranges of mean scores of both groups using a 2 x 3 contingency table and a chi-square test was also conducted. Although several tests were conducted, no significant differences were found in the means of total scores between each group. The null hypothesis was not rejected.

With the exception of one case, the analyses of Hypotheses 2, 3, 4, and 5, which dealt with the subscores produced similar results. Each of the subscores of the exemplary groups were compared to subscores of nonexemplary groups with entire groups as well as compared among grade levels. With the exception of the professionalism scores of elementary teachers, there was no significant difference noted in any of

the subscores between the groups. The null hypotheses related to subscores were not rejected.

The final test sought to analyze the relationship among subscores within the exemplary teacher group as well as the nonexemplary group. Results of a multiple regressional analysis indicated that within each group all subscores had a significant impact on the total scores and that all subscores when used in combination with each other were significant contributors to the total scores of both groups.

A casual observation indicated that the subscore of individualism generated the highest $\underline{t}$ value with the exemplary group while the subscore of rigidity generated the highest $\underline{t}$ value with the nonexemplary group. Because such values are highly unstable when used in that manner (Kerlinger, 1986), the more sound conclusion is that there is no significant difference in the multiple regression between the exemplary and nonexemplary groups.

In general, the data indicates that there is no relationship between the scores of teachers on an attitudinal survey and their involvement in various levels of staff development.

Overview

The final chapter in the study presents a summary, discussion, conclusions, and recommendations related to this study.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this study was to determine whether there was a significant difference in the attitudes of teachers who were involved in different levels of staff development. It was designed as a follow-up to an audit of educational standards which were implemented in the state of Wisconsin.

This chapter provides a brief overview of the study, including the research question, conclusions drawn from the literature, and methodology. This is followed by a summary of the findings, discussion, and recommendations for further research.

Overview of the Research Design

This study used survey research as a means to focus upon the following research question: Do teachers in the state of Wisconsin who are employed in school districts which have received exemplary ratings for staff development demonstrate different attitudes than teachers who are employed in districts which have received lesser ratings for staff development? Five hypotheses were developed from the question and were designed to assess whether teachers' scores on the Teacher Attitude Inventory (Whitmore, 1984) vary according to the level of staff development in which they were involved.

As a result of the review of previous literature, several themes were evident which served to focus the study to the research question as well as construct the hypotheses.

1. Staff development programs have been shown to have an impact on the attitudes of teachers in school districts. These include the studies described by Galluzzo (1983), Marso and Pigge (1991), Abell (1989), Peterman (1991), Robbins (1986), and Harr (1990).

2. There are demographic characteristics such as gender, teaching level, and years of service, which have been related to changes in teacher attitude. Blaze's (1985) meta-analysis of 91 previous studies identified training group characteristics and participant incentives as having a significant impact on the success of staff development programs. Furthermore, Blaze (1985) and Marso and Pigge (1991) described teachers' longitudinal shift in orientation in their classroom practices as they progress through their initial years of teaching.

3. The attitude changes described in the studies were most often related to student learning, awareness of self and others, and organizational beliefs. These were noted in the reports of Abell (1989), Peterman (1991), and Gilman and Miller (1988).

4. Evidence that exposure to various levels of staff development has been inconclusive in predicting a change in teacher attitude. Further investigation is appropriate. Several studies that were presented such as Jurik et al. (1987) and Gilman and Sommer (1988) indicated a change in attitude as a result of staff development. Studies provided by such as Shainline (1986) indicated no change in attitude as a result of staff development.

Review of Methodology

Two groups of teachers were randomly selected from a target population of teachers in Wisconsin whose districts had participated in a recent standards audit. The audit took place following the implementation of the Wisconsin Educational Standards: A Blueprint for Excellence (Grover, 1991). One group represented teachers whose school districts had received exemplary ratings for staff development, while the other group represented school districts which received lesser ratings for staff development. These ratings were determined by the audit teams according to documentation of activities, staff participation and enthusiasm, innovation, and administrative support.

Each group (N = 60) represented a stratified sample of its larger population in that equal numbers of teachers were randomly selected according to teaching level, gender, and district size. All of the teachers in the sample population (N = 120) were contacted during March of 1994 and asked to respond to the Teacher Attitude Inventory (Whitmore, 1984). Following the initial wave of responses, a follow-up reminder was mailed to nonresponders approximately 2 weeks later. The final response tally (N = 86), approximately 72%, was subjected to statistical analyses and is presented in Chapter IV.

Summary of Findings

A statistical analysis of the data indicated that there was no significant difference in the scores or subscores of teachers from school districts with exemplary programs for staff development and teachers

from school districts with nonexemplary programs for staff development. In the first series of statistical tests involving Hypothesis 1, the means of total scores of teachers from exemplary districts were compared with the means of total scores of teachers from nonexemplary districts. A t test for independent samples of the entire group as well as a t test for independent samples of each group according to grade level indicated no significant difference in the mean scores. A further comparison of the distribution of high, middle, and low ranges of scores of both groups using a 2 x 3 contingency table and a chi-square test was also conducted. No significant differences were found in the total scores of teachers from districts with exemplary and nonexemplary staff development programs. In Hypothesis 1 case the null hypothesis was not rejected.

A second series of t tests was conducted in order to accept or reject Hypotheses 2, 3, 4, and 5, which dealt with the subscores between the exemplary and nonexemplary groups. Each of the means of subscores of the teachers from exemplary districts were compared to the means of subscores of teachers from nonexemplary districts as entire groups, as well as divided among grade levels. With the exception of the professionalism scores of elementary teachers, there was no significant difference in the means of subscores of teachers from districts with exemplary and nonexemplary staff development programs.

The final test sought to analyze the relationship between total scores and subscores within the exemplary teacher group as well as within the nonexemplary group. The researcher sought to determine whether any of the subscores more strongly influenced the total scores; and if so, was this source of influence similar in both the exemplary and

nonexemplary populations?

Results of multiple regression analysis indicated that within each group, all subscores had a significant impact on the total scores. All subscores, when used in combination with each other, were significant contributors to the total scores of all groups.

A further review of the raw data indicated that the subscore for individualism generated the highest t value with the exemplary group while the subscore for rigidity produced the highest t value with the nonexemplary group. Although it might appear that a difference existed, according to Kerlinger (1986), these t values, when compared with each other, are unstable and any conclusion would be speculative. A more sound answer is that there was no observable difference in the multiple regression between the exemplary and nonexemplary groups.

Conclusions

In general, based upon the findings of this study, there is no significant difference in the scores and subscores on the Teacher Attitude Inventory (Whitmore, 1984) between teachers from the exemplary and nonexemplary groups. Teachers who were employed by school districts with exemplary staff development programs did not respond significantly different than did teachers employed in districts with nonexemplary programs for staff development. Therefore, the following conclusions are made:

1. The level or quality of staff development program had no effect on the attitudes of teachers who participated in the study.

2. Standard B: Staff Development from the Wisconsin Educational Standards: A Blueprint for Excellence (Grover, 1991) had no significant impact on the attitudes of teachers who participated in the study.

3. The difference in ratings for staff development established by the audit teams had no significant impact on the attitudes of teachers who participated in the study.

Discussion

A positive outcome of any research study is to add to the body of knowledge and understanding of that which was studied. As a result of this study there are several items worthy of discussion:

Teacher Attitude and Staff Development

The review of literature provided in Chapter II indicated that the relationship between teacher attitude and staff development was inconclusive. While several studies indicated that no change in attitude was observed following staff development (as examples see Noe & Schmitt, 1986, and Shainline, 1986), much of the literature presented has identified studies in which there was a significant change in teacher attitude (Clements, 1984; Gilman & Sommer, 1988; Jurik et al., 1987; Wright & Fuen, 1986).

The findings presented in Chapter IV of this study indicated that there was no relationship between teacher attitude and staff development. More specifically, the findings indicate that the level of quality of staff development as determined by the audit teams following the

implementation of state standards in Wisconsin had no impact on teacher attitude. Teachers in districts with exemplary levels of staff development demonstrated similar attitudes as teachers from districts with lesser ratings.

Further review of these results indicated that the similarity in attitudes between the groups held constant across grade levels. With the exception of one subscore with one level of teaching (professionalism at the elementary level), there was little difference in the attitudes of elementary, middle school, and high school teachers in exemplary and nonexemplary districts.

The summary of results described above indicates that this study concurs with the findings of Noe and Schmitt (1986) as well as Shainline (1986) and Amos and Benton (1988), who found that involvement in staff development has no effect on employee attitude. No significant changes were noted in any of the studies following the implementation of a staff development program.

The results above are also congruent with some of the findings of Harr (1990). Her research indicated that during a 3-year period in which changes of staff development occurred, teachers responded most favorably to a job satisfaction survey during a period in which no staff development took place. It is plausible to assume that a statewide effort to enhance staff development through the implementation of a state mandate had an effect on the attitudes of teachers in general.

Follow-up to State Standards

As noted by Kirst (1984b), state standards are deeply rooted throughout history and tend to occur in cycles and often in response to political events rather than educational research. For example, the National Commission for Excellence in Education (1984) report, A Nation at Risk, prompted a surge in educational reform. The state standards adopted in Wisconsin in the late 1980s are a progression of one of these cycles.

By comparing the attitudes of teachers in school districts with exemplary and nonexemplary staff development programs, this study was designed to assess a response to a political cycle through educational research. In the state of Wisconsin 417 school districts were required to conform to standards established by the legislature. At the time of this study, very little has been written concerning the impact of these standards on school districts in Wisconsin and this work sought to provide data in order to measure their effects.

The results provided in this study indicate that the quality of staff development as measured during the audit process had little effect on teacher attitude. The attitudes of teachers, as measured by the Teacher Attitude Inventory (Whitmore, 1984), from school districts with exemplary staff development were not significantly different from teachers in districts with lesser programs of staff development. The impact of Standard B: Staff Development could not be measured in the attitudes of teachers who participated in the study. This would suggest that at the time of this study, the state standard for staff development had no

direct impact on the attitudes of teachers within the school districts.

Although there was no significant difference in attitude noted between the groups, the consistency between the groups may be in itself significant and tend to describe the overall attitudes and beliefs of teachers in Wisconsin. Means of total scores for the teachers in exemplary programs (88.11) and teachers from nonexemplary programs (88.52) were very similar and indicated an overall attitude which was characterized as being "least willing to experiment and participate in professional growth" (Whitmore, 1984, p. 14). This would suggest that those teachers who responded to the survey instrument for the study tend to follow-up traditional curriculum centered classroom practices. If such were the case, their attitudes would not be congruent with those of state policy makers noted in 1985.

In a previous study, Wirt et al. (1985) compared the attitudes of policy makers in several states found that the values and beliefs of state policy makers in Wisconsin were congruent with moralistic views of achieving a good community through positive action. This discrepancy between the attitudes of teachers in this study and the attitudes of policy makers described by Wirt et al. (1985) indicates that the view of education is not shared among the two groups. Further study between policy makers and teachers in the schools would be extremely meaningful.

Suggestions for Further Study

The data from this study indicated that there was no significant difference in the attitudes of teachers based upon their involvement in

various levels of staff development. However, modification of the study may produce additional relevant data concerning these concepts.

State Standards

In this particular study the impact of the standard promoting staff development was measured by the assessment of teacher attitudes using the Teacher Attitude Inventory (Whitmore, 1984). In order to lend further support to this finding the researcher would suggest measuring other variables which exist in the school district. For example, state assessment scores, results of Preliminary Scholastic Aptitude Test (PSAT) or American College Testing (ACT) scores, advanced placement tests, or norm referenced tests may present additional performance indicators of teachers as a result of involvement in staff development.

Secondly, given the complexity of the typical school district, it may be difficult to attribute the varied attitudes of teachers to a single concept or standard. For example, the Wisconsin Educational Standards (Grover, 1991) consisted of more than 23 areas related to instructional practice. Some of these which are designed to meet the individual need of students (i.e., gifted and talented, education for employment, and at risk) may also have a significant impact on the attitudes and beliefs of teachers. A correlation study which examines the districts' performance in several of these areas may provide a clearer picture of the effects of the standards in each district, and specifically with respect to teachers' attitudes.

It should also be noted that the focus of the study was directed toward differences brought about by the quality of the staff

development program. Because both groups were involved in some level of staff development program, another area for further study would involve an investigation of the evaluation criteria used to rate the various districts (Grover, 1991).

According to Bell (1992), a variety of audit teams have visited the school districts over a 5-year period. Given the time span, the variety of teams who made the assessments, the turnover of staff within the districts, and the longevity of the programs themselves, it may be beneficial to focus the study to a more homogeneous sample of districts. Perhaps a study of districts which were evaluated during the same time period by the same audit team would provide different data.

Lastly, it may be beneficial to conduct a correlation study between staff development and several other characteristics in the district. The commitment to the improvement of the staff may be more closely related to fiscal practices than educational. A review of budget allocations, the cost per student, teaching load, and class size may also identify a reason for an exemplary or nonexemplary program.

Additional Research

In this particular study results of the Teacher Attitude Inventory (Whitmore, 1984) indicated no difference in attitude between teachers in various levels of staff development. Given the close similarity in the responses in the two groups, it may be beneficial to expand the study. This study focused upon educational issues and decisions which are directed toward the classroom. A more broad-scale approach may address the overall perceptions and attitudes of teachers toward their

total work environment. For example, an assessment of overall job satisfaction similar to that conducted by Harr (1990) would provide additional data not reported in this study. She utilized the Minnesota Satisfaction Questionnaire as a follow-up to three different levels of staff development in the Chaska, Minnesota, School District.

It may be beneficial to conduct a longitudinal study in that the assessment of attitudes takes place throughout the implementation of the staff development program (Peterman, 1991). Results of several attitude checks may give a more concise picture of the changes that occur as a result of involvement in staff development than does a single assessment.

Finally, it may be beneficial to conduct this study utilizing a multi-faceted approach such as that conducted by Abell (1989), who integrated a series of personal interviews into the research design. When dealing with attitudes, it is difficult to restrict certain values and beliefs to a numerical scale. A case study involving interviews with individual teachers or a series of focus interviews with several members of the teaching staff as well as the staff trainers would give the researcher further insight into the value and effects of any staff development program.

Concluding Remarks

Two significant points were made in the initial portions of this study. The first dealt with the critical shortcomings of our current educational system and the cycle of educational standards; for example, staff development; by which our educational policy makers respond to

these shortcomings.

The second point dealt with attitudes of the people working in the educational system and the impact that their values and beliefs bring to the job site. Daggett (1993) contended that these beliefs, specifically those of adults, bring a great deal to bear upon any changes that may take place.

This study was undertaken in the belief that the teachers are indeed the key to success in educational reform. Educational reform is hard work and requires more than just a continual cycle of new standards. If educational reform is accomplished, it will take the combined efforts of all stakeholders--board members; superintendents; principals; and particularly, teachers--with a shared system of beliefs and attitudes, of what is truly important for young people.

This study of staff development and teacher attitude was an attempt to identify staff development as a significant contributor to a change in attitude among teachers in our schools. It was hypothesized that a particular set of educational standards such as the Wisconsin Educational Standards: A Blueprint for Excellence (Grover, 1991) would have a significant impact on the attitudes of teachers. Although the results of the study indicated that there was not a strong relationship between staff development and teacher attitude, the need for an effective strategy to change the attitudes of our teachers and thus enhance the level of educational expertise among them continues.

As Daggett (1993) stated, "the decisions that have surrounded school reform in America during the past decade have not made the needs of students paramount, but rather have began and ended with the

needs of adults" (p. 31). If this is true, then the staff development activities which have been provided to our teachers have probably followed the same pattern, and are more geared to teacher needs rather than student needs. Results such as those in this study indicated that the standards have done little to change this attitude. More must be done.

APPENDICES

Appendix A

Wisconsin Standard B

Staff Development

Section 121.02(1), Wis. Stats.

Each school board shall:

(b) Annually, establish with school board employes a professional staff development plan designed to meet the needs of individuals or curriculum areas in each school.

Staff Development

Overview

Standard (b) requires school districts to establish with district employees a professional staff development plan designed to meet the needs of individuals or curriculum areas in each school.

The preparation of school personnel is a continuous process beginning with a preservice program and extending throughout the professional's career. Shifts in the public's expectations for schools have been dramatic over the past several decades. New knowledge and understandings, new generations, and new expectations all make continuing education of professional staff an essential component of overall teacher education.

Recognizing the importance of inservice education for school board employees, the DPI no longer issues lifetime licenses. DPI requires all employees to renew their licenses on a periodic basis. License renewal requires completion of continuing education courses in the form of 6 semester credits at an accredited college or university or the equivalent of 180 clock hours of preapproved professional activities every five years.

School districts must be staffed by effective licensed school employees in order to provide all students with a sound educational program. School personnel can remain effective only if they engage in ongoing professional staff development activities which meet their needs, the needs of the students, and the needs of the instructional programs.

The intent of the standard is to ensure opportunities for licensed school board employees to increase the knowledge and skills necessary for their competent performance in the school(s) of their employment.

DPI can assist districts in meeting Standard (b) by consulting with districts as they formulate and implement their staff development plans. And, on an ongoing basis, DPI indicates which programs are approved for the continuing education of school district staff.

Administrative Rule

PI 8.01(2)(b). Each school district board shall annually establish a professional staff development plan designed to meet the needs of individuals or curriculum areas in each school. The plan shall be developed with the cooperative efforts of licensed support staff, instructional staff, and administrative staff.

Definition of Terms

Annually. Each school calendar year.

School board employees. Licensed support staff, instructional staff, and administrative staff of the school district.

Staff development plan. A set of activities designed to meet the continuing educational needs of individual licensed school employees or to meet the curriculum area needs.

Meeting Standard (b)

Requirement	Example of Documentation
Establish a professional staff development plan each school year designed to meet the needs of individuals or curriculum areas in each school.	• Copy of the school district's professional staff development plan. • Evidence of the school board's approval of the professional staff development plan.
Involve licensed support staff, instructional staff, and administrative staff in creation of the annual professional staff development plan.	• List of the names of staff members who participated in the creation of the annual professional staff development plan and their assignment as support, instructional, or administrative staff.

Questions and Answers

1. **Must the professional staff development plan be developed for the full school calendar year, or may it be developed in phases?**
   Individual activities and programs which will result in meeting the objectives of the professional staff development plan may be developed in an ongoing fashion.

2. **Must the professional staff development plan include annual continuing education activities expressly designed to meet the needs of all school board employees?**
   No, this determination may be dictated by a district needs assessment. Some groups may be assessed as having more immediate needs to be addressed by the professional staff development plan than others, whose needs may not necessarily require annual attention.

3. **Must the professional staff development plan include only inservice activities offered at the school district level?**
   No.

4. **Must the school district appoint a professional staff development committee?**
   No–however, the professional staff development plan must be developed in cooperation with licensed support staff, instructional staff, and administrative personnel of the school district.

5. **Must the school district develop a discrete professional staff development plan in addition to the school district curriculum plan?**
   Yes, but the professional staff development plan should also address school district curriculum needs.

6. **Must a formal needs assessment survey be conducted?**
   No, individual staff needs and curriculum area needs may be identified through a variety of formal and informal strategies.

DPI Resources

Personnel

Bureau for Teacher Education, Certification, and Placement
Lond Rodman, Director
(608) 266-1879

Dorothy J. Placide, Inservice Education Coordinator
(608) 266-2820

Publications

Wisconsin Department of Public Instruction. *The Equivalency Clock Hour Program: Guidelines for Submittal and Approval.* Madison, WI: DPI, 1986.

Appendix B

School District Standards Monitoring Document

STANDARD (b) - STAFF DEVELOPMENT	Yes	No	Documentation Source Offered
Annually, establish with school board employes a professional staff development plan designed to meet the needs of individuals or curriculum areas in each school.			
● A professional staff development plan is on file, developed through the cooperative efforts of licensed support staff, instructional staff, and administrative staff. *Comments:*	☐	☐	
● The plan is established annually. *Comments:*	☐	☐	
● The plan is designed to meet the needs of individuals or curricular area in <u>each</u> school. *Comments:*	☐	☐	

Appendix C

Teacher Attitude Inventory

Teacher Attitude Inventory

GENDER: _____Male ____Female Grade teaching _____

School _____ Date _____

Instructions

The following pairs of statements have been chosen to illustrate some real questions about the teaching role. The purpose of the inventory is to obtain a clearer picture of the attitudes and feelings teachers have regarding these controversial issues. Individual responses to the questionnaire will not be disclosed, but group results will be made available to you.

Please consider the two statements given beside each number. Ask yourself, "Where do I generally stand regarding the contrasting positions in relationship to teaching my grade level?" Then, mark *one* "X" on the continuum indicating how you most often would respond, though exceptions often occur.

A mark in Column "1" indicates strong agreement with the first statement.

A mark in Column "2" indicates mild agreement with the first statement

A mark in Column "3" indicates no preference between the two statements.

A mark in Column "4" indicates mild agreement with the second statement.

A mark in column "5" indicates strong agreement with the second statement.

Joanne Rand Whitmore, Ph.D.

Teacher Attitude Inventory

Date _____

	1	2	3	4	5	
1. Schools are too structured these days.	—	—	—	—	—	A major problem in today's schools is a lack of well-defined structure.
2. Most of my energy at this grade level is spent trying to retain some control and maintain order.	—	—	—	—	—	Most of my energy is spent trying to find ways to make the curriculum more meaningful to individual students.
3. Teachers need many opportunities to increase their skills and knowledge of new techniques by participating in in-service workshops.	—	—	—	—	—	In-service workshops are not necessary; teaching experience and extension classes help the teacher more.
4. The teacher's prime responsibility to the child is to teach him/her how to fit into the society and meet its expectations.	—	—	—	—	—	The teacher' prime responsibility is to help release the child to feel free to develop him/herself toward an increasing sense of self-fulfillment as an individual, relatively independent of society's expectations.
5. Teachers should not become too personally and emotionally involved with individuals in the class.	—	—	—	—	—	A teacher must be a special close friend before being able to help the student realize his/her fullest potential.
6. Teachers should be acknowledged for being innovative and opportunity provided for them to share their ideas with other teachers.	—	—	—	—	—	No special recognition should be given to teachers for being "innovative" as it fosters a competitive spirit and exaggerates the value of innovation.
7. Some children cannot be motivated because of other environmental influences.	—	—	—	—	—	There is no child who cannot be motivated to learn.
8. The teaching style (methodology) and curriculum should be consistent within a school and relatively consistent within a district or a nation.	—	—	—	—	—	Every teacher should be free to modify the curriculum or implement any method that helps accomplish district or nationally defined objectives for the grade.

	1	2	3	4	5	
9. Some form of individual instruction is generally more effective than group instruction for my grade level.	—	—	—	—	—	Group instruction is still the most practical and effective method of teaching for any grade level.
10. Faculty meetings should expose teachers to new ideas, material and approach; memos can communicate technical, clerical information.	—	—	—	—	—	Faculty meetings should be very brief and confined to essential "business."
11. Children cannot learn well in a noisy room full of movement.	—	—	—	—	—	Children should be allowed to talk and to leave their seats or the room freely any time to accomplish work.
12. A teacher should be free to test any idea or a new technique in teaching.	—	—	—	—	—	Experimentation should occur only under the close supervision of administrative staff.
13. A teacher can significantly influence the attitudes and values of children even from a "culturally deprived" home and social environment.	—	—	—	—	—	A teacher can do very little to motive children from a "culturally deprived" home and social environment.
14. Most children in the grade that I teach are capable of increasing their responsibility for self-evaluation and self-discipline as individuals and as a group.	—	—	—	—	—	Pupils cannot be expected to assume responsibility for self-discipline and evaluation before the secondary level; until then the teacher must assume most responsibility for discipline and evaluation.
15. There is too much experimentation in our schools and too little respect for traditional approaches.	—	—	—	—	—	Teachers must be willing to experiment with new approaches because our schools are in need of many changes before they will successfully do their job.
16. Individual pupil conferences with all students are very seldom possible in classes of 25 or more.	—	—	—	—	—	A teacher can and should make time for frequent conferences with individual pupils on personal and academic matters.

	1	2	3	4	5	
17. Teaching staffs should be more involved in the development and evaluation of their programs.	—	—	—	—	—	Development and evaluation of programs can best be carried out by administrative staffs.
18. Group discussions in class are usually a waste of time.	—	—	—	—	—	Group dialogue and exploration of ideas are useful educational techniques.
19. A teacher should employ any approach or technique that will contribute toward the development of the potential for uniqueness, creativity, and individuality in each child.	—	—	—	—	—	The teacher is most effective when he or she confines methods to standard ones, such as those suggested in curriculum guides which are designed to be suitable to most children.
20. Teachers are not intended to be psychologists and therefore should confine their efforts to teaching subject matter and academic skills.	—	—	—	—	—	Teachers must apply the principles and theories of social psychology and child development to most effectively provide for learning and socioemotional needs of each child.
21. Students should be encouraged to become increasingly involved in planning and evaluating.	—	—	—	—	—	Students may be involved only to a very limited extent regarding planning and evaluating; the final decisions must be those of the teacher.
22. Too much flexibility and pupil planning in a classroom creates feelings of insecurity and confusion.	—	—	—	—	—	Flexibility and spontaneity in a classroom are vital because such conditions foster creativity and enthusiasm.
23. It is most effective for a teacher to gain the respect of his/her pupils as a close personal friend.	—	—	—	—	—	It is important for a teacher to demand the respect of pupils by maintaining a proper amount of distance.
24. Teachers should help each other evaluate approaches, identify problems or weaknesses and design methods for correcting the problems.	—	—	—	—	—	Evaluation should be a personal matter, involving only the teacher and principal.

Appendix D

Cover Letter

March 1994

Dear Fellow Educator:

At no time in history has our profession received so much attention. Significant amounts of financial and human resources have been devoted in an effort to address the current levels of performance and strategies required for improvement. Several surveys, taken in an attempt to provide this additional insight, have caught the eye of the media. They have focused on declining test scores, drop-out rates, or days of instruction.

Though the above information is relevant, it is my belief that the answers to the problems in education should consider the input of the people working in education; specifically teachers. It is with this thought in mind that I am asking for your assistance. I am genuinely interested in your opinions concerning educational issues and decisions and would appreciate you taking a few minutes of your busy schedule to complete the enclosed survey.

The questionnaire which is enclosed has been selected as a survey instrument for a doctoral dissertation with Western Michigan University. It was selected as a non-threatening method for assessing the attitudes of teachers concerning educational issues and decisions based upon their involvement in district staff development programs as well as demographic characteristics.

If you are willing to participate, please complete the survey and merely return it in the self-addressed, stamped envelope. The data collected shall serve to provide an overall description of the attitudes of teachers in Wisconsin. All individual responses shall be kept confidential.

I would sincerely appreciate your assistance in this project and look forward to receiving your valued opinion. Should you have any additional questions, feel free to contact me or my advisor, Dr. Patrick Jenlink.

Best wishes for a successful school year.

Sincerely,

James W. Lehto, Principal
Shawano, High School

pc Dr. Patrick Jenlink
Department of Educational Leadership
Western Michigan University
Kalamazoo, Michigan 49008

Appendix E

TAI Scoring Sheet

TAI Scoring Sheet

Teacher: _____ School: _____

Date of Administration: _____ Grade Teaching: _____

Item	Score	Rigidity	Controlling	Professional	Individualism
1 R		•			
2			•		
3 R				•	
4			•		
5					•
6 R				•	
7					•
8		•			
9 R					•
10 R				•	
11			•		
12 R				•	
13 R		•			
14 R			•		
15		•			
16					•
17 R				•	
18			•		
19 R		•			
20					•
21 R			•		
22		•			
23 R					•
24 R				•	
Total					
No. Items					
Average					

Appendix F

Human Subjects Institutional Review Board Approval

Human Subjects Institutional Review Board

Kalamazoo, Michigan 49008-3899

WESTERN MICHIGAN UNIVERSITY

Date: July 28, 1993

To: James Lehto

From: M. Michele Burnette, Chair

Re: HSIRB Project Number 93-05-10

This letter will serve as confirmation that your research project entitled "Staff development and teacher attitude towards educational issues and decisions"Staff development and teacher attitude towards educational issues and decisions" has been **approved** under the exempt category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the approval application.

You must seek reapproval for any changes in this design. You must also seek reapproval if the project extends beyond the termination date.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: July 28, 1994

xc: Warfield, EDLD

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