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ABSTRACT

A study examined the nature and operation of the institutions in which exemplary vocational education programs exist. Three research questions guided the study: Are there common elements that characterize institutions as exemplary? How is the presence of these common elements reflected in educational levels and types of institutions? and What implications do the findings have? An analysis of the anecdotal and contextual data from the naturalistic study collected from the 15 exemplary institutions in 11 states yielded 11 themes: school climate; ecology (physical and material) dimension; milieu (people) dimension; social system (school organization) dimension; culture (norms, beliefs, and values) dimension; administration; leadership style; high expectations; risk taking; flexibility; and vision and sense of mission. Several teacher attributes were discussed: a caring attitude; acceptance of student diversity; creation of positive classroom climate; high expectations for themselves and their students; competence; and stability. A strong sense of pride and active involvement in student organizations were noted at each of the institutions studied. Program curriculum was examined in terms of content of programs, faculty ownership, and meeting industry needs. Well-developed support services and institutional marketing were present in the programs. (Twenty-five references and a list of institutions participating in this study are included.) (NLA)

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ASSESSING THE NATURE AND OPERATION OF INSTITUTIONAL EXCELLENCE IN VOCATIONAL EDUCATION

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INTRODUCTION

Attention to excellence in vocational education is most frequently focused toward programs, classrooms, and individual student performance. For example, research questions are often framed to study course content, methods of instruction, and elements of delivery on the classroom level. The broader context in which learning is nested has seldom been researched, and little past study has been devoted toward these larger environments in which vocational programs are found—in this case, the institutions themselves.

This research project was based on the premise that the study of institutions in which exemplary vocational education is found might provide insights regarding the nature and importance of this environment. Specifically, a study of exemplary institutions may provide better conceptions of quality instruction and learning environments, a sounder foundation from which to understand and support significant change and improvement, and an avenue of improvement by linking the research in vocational education with other efforts to understand and facilitate institutional improvement.

STATEMENT OF THE PROBLEM

This study sought to provide an understanding of the nature (characteristics or attributes) and the operation (functioning) of the institutions in which exemplary vocational education programs exist. Research questions guiding this study were as follows:

1. Are there common essential elements or attributes which characterize vocational education institutions as exemplary and, if so, what are they?

2. If common elements are found among institutions identified as exemplary, how is the presence of these elements reflected in different educational levels and types of institutions?

3. What implications do the findings have for program planning and evaluation, for leadership development and support, and for further study?

THEORETICAL/CONCEPTUAL BASE AND RELATED LITERATURE

Prior to implementing this research study, the researchers conducted a thorough review of the literature, which was summarized in a related document titled *Institutional-Level Factors and Excellence in Vocational Education: A Review of the Literature* (Wardlow & Swanson, 1991). The major goal of this literature review was to illuminate the contribution of the educational institution to excellence in vocational education and more specifically, to describe institutional factors associated with excellence. It is not the intent of this report to duplicate the materials and information presented in the literature review document. However, three components of the literature review are of considerable value in establishing the framework for this study. These components are (1) a discussion of the concept of excellence, (2) vocational education as an "unattended issue" in the educational reform movement of the 1980s, and (3) an overview of variables associated with effective schools.

What is Excellence?

Any discussion of exemplary (excellent) vocational education institutions should include an effort at achieving some common understanding of the major construct under study. What is excellence? While the construct seems to be one to which many institutions, programs, and individuals aspire, there is little agreement on what it is. *The American Heritage Dictionary* (Morris, 1970) includes in its definition of "excellence" the terms "superiority; pre-eminence. . . . Something in which a person or thing excels" (p. 456). It further defines "excel" as "To be better than; surpass; outdo. . . . To surpass others; to be better than others." It is noteworthy that each of these definitions is based on a model of comparison, in that one achieves excellence in comparison to others.

While a dictionary definition is of value in clarifying the concept of excellence, the operational characteristics of excellent institutions may be of greater benefit in the process of understanding excellence. Fortunately, authors such as Lewis (1986) and Peters and Waterman (1982) have undertaken the task of describing these characteristics.

In his book *Achieving Excellence In Our Schools*, James Lewis (1986) discussed what he calls "hallmarks of excellence" for schools. These include the idea that all school

people in such an institution help children to become "something more than they ever hoped to be." Schools of excellence welcome new ideas and provide incentives and rewards to their personnel for developing innovations and programs to improve student outcomes. They have administrative leadership which creates an organizational culture and structure in which "the talents of all the school people may flourish." The school boards avoid the details of the daily operations and trust the administrators. Schools of excellence have top administrators who accentuate the positive and convey a sense of future and vision to the community and school personnel. They back their commitments with dollars and give school people freedom to take risks, question long-standing principles and practices, and try new things. These schools have "the courage to change things even when all is going well, . . . to require its administrators to share power and authority with school people, . . . to stick with its values during difficult times, . . . to rely less on short-term results and more on long-term gain, and the courage to involve all school people at all levels of the organization to improve people and solve problems" (p. xii).

The study of excellence has not been limited to the education profession. American business has had increasing interest in such studies. Additionally, some authors have sought to study examples of excellence in the business community to inform the search for excellence in other institutions.

In their book entitled *In Search of Excellence: Lessons from America's Best-Run Companies*, Peters and Waterman (1982) report on their investigation of excellence in the business sector. They list eight attributes which they believed characterized "most nearly the distinction of the excellent" in American business:

1. A bias for action. These companies promote experimentation and implementation.

2. Being close to the customer. They provide "unparalleled quality, service, and reliability." They listen to the customer "intently and regularly."

3. Autonomy and entrepreneurship. They foster many leaders and innovators throughout the organization. Autonomy exists on the "shop floor." They don't "hold everyone on so short a rein that he (sic) can't be creative." They encourage practical risk taking, an atmosphere in which mistakes are acceptable, and they support good tries.

4. Productivity through people. These companies respect each individual within the organization.

5. Hands-on, value driven. A philosophy based on human values is prominent and the leadership routinely visits all facilities.

6. Stick to the knitting. They focus on the business interests that they know best how to do.

7. Simple form, lean staff. The structural forms within the organization are simple and the top-level staffs are relatively small.

8. Simultaneous loose-tight properties. While autonomy is given to many different levels, these companies maintain rigid adherence to a few central core values. (pp. 13-18)

Additionally, Peters and Waterman (1982) found that these successful companies concentrated their efforts on the fundamental aspects of operating a business. These efforts, which might also be categorized as traits of excellent companies, are described in the following statement:

> Our findings were a pleasant surprise. The project showed, more clearly than we could have hoped for, that the excellent companies were, above all, brilliant on the basics. Tools didn't substitute for thinking. Intellect didn't overpower wisdom. Analysis didn't impede action. Rather, these companies worked hard to keep things simple in a complex world. They persisted. They insisted on top quality. They fawned on their customers. They listened to their employees and treated them like adults. They allowed their innovative product and service "champions" long tethers. They allowed some chaos in return for quick action and regular experimentation. (p. 13)

The Lewis and Peters and Waterman books are examples of the available popular works which represent the contemporary interest in improving our educational and business institutions. While they did not provide specific definitions of excellence, they did provide a profile of characteristics that excellent companies possessed. Such profiles provide insights that are particularly useful for establishing a framework for understanding institutional excellence.

Perhaps the most important points to be concluded from this discussion of excellence were that excellence is based on a model of comparison and that characteristics (attributes) associated with excellence can be identified. These points were central to the researchers' perception of the concept of excellence.

The "Unattended Issue"

Popular works in the educational reform movement literature of the 1980s either ignored vocational and technical education or dismissed it as a minor consideration in the reform efforts. Authors such as McNett (1984, p. 33) and Magisos, Attwood, Imel, and Hughes (1984, p. 3) called it the "unattended issue." Several reform authors who did address it were less than supportive of the concept. In the Paideia Proposal, Adler (1982) considered the concept of vocational education at the secondary level as not viable. Authors such as Sizer (1984) suggested that task specific approaches to education leave students with outdated skills even before they enter the rapidly changing workplace.

Goodlad (1983) and the National Commission on Excellence in Education (1983), however, each called for a restructuring of schooling to provide a closer collaboration between schools and the workplace. Within the reform movement, vocational and career education is viewed as important by those such as Silberman (1988) who stated that "vocational education helps students achieve intellectual, social, vocational, and personal goals" (p. 38). Hughes (1984) expressed similar support.

Only recently have studies been reported which directly address excellence in vocational education. Two of the first educational reform reports which dealt with vocational education articulated the need for it in the secondary schools. These were *Education for Tomorrow's Jobs* (National Research Council, 1983) and the *Report of the Panel on Secondary School Education for the Changing Workplace* (National Research Council, 1984). *Education for Tomorrow's Jobs* focused on vocational education in comprehensive public high schools. It promoted vocational education as an equal partner with college-preparatory education in the secondary schools.

The *Report of the Panel on Secondary School Education for the Changing Workplace* (National Research Council, 1984) suggested that the same competencies are

needed to prepare a young person for work or for college. It further stated that vocational education cannot substitute for a thorough grounding in fundamental knowledge and basic intellectual competencies needed for learning and advancement throughout a working lifetime. Basic academic competencies are indeed basic and must precede the development of other skills. The report also refers to a study of employers which indicates that employers want employees who are able and willing to learn throughout a working lifetime.

The educational establishment has responded to the reform movements by increasing academic requirements for high school graduation and for college admission (National Commission on Secondary Vocational Education, 1984). These requirements were sometimes seen as a threat to the survival of the vocational technical classes at the secondary level. Silberman (1988) reported findings of an enrollment survey related to vocational education. He stated that "The main reasons given for (enrollment) decreases are scheduling difficulties imposed by increased graduation requirements, the general decline in secondary school enrollments, the inability to fulfill academic requirements at the area vo-techs, and the sending schools' unwillingness to release their students" (p. 39).

Vocational education responded to the increased competition for students by focusing on structural diversity, enhanced teacher preparation, and patterns of financing, and by seeking equal access for all students. The reports of these efforts seem to assume that they will meet identified learner needs, while the question of excellence is not often directly addressed (National Commission on Secondary Vocational Education, 1984; Copa et al., 1985; Phelps & Hughes, 1985).

Phelps and Hughes (1985) suggested that central questions which should be asked in vocational education are those which relate to mission, purpose, and outcomes. While the core concern of the mission is the preparation of the learner for vocation and work, there is less than consensus about whether this preparation should prepare individuals for specific job skills, or prepare individuals for work in general, or both.

Additionally, Phelps and Hughes (1985) wrote that the field of vocational education has arrived at a pivotal point in its history. The nature and viability of its future rest on the formulation of responses to several central, philosophical questions. They cited Copa who posited some of these questions:

> What is the nature of work in our society today and how do we best prepare individuals to engage in this work? Has the term "vocational" outlived its usefulness or is it especially relevant given the present conditions of work in our society? Does vocational education prepare for second class work or is all work equally meaningful simply because it is done by people? Why isn't vocational education included as a sound element of an academic curriculum? To what extent could all of secondary education be considered vocational education? (p. 2)

These questions, which are presently in the minds of educators and the general public, raise fundamental concerns about the outcomes and public perceptions of secondary vocational education.

As stated earlier, the reform movement literature largely ignored vocational education. If one accepts the premise that education about work is worthy of study in the educational system, then regardless of whether it should be offered in its present form—as vocational education—or whether it should be presented to students in another form, vocational education should not remain an "unattended issue" in the educational reform debate.

School Effectiveness Studies

One outcome of the educational reform movement has been the abundance of research associated with school effectiveness. As one might logically expect, this research has attempted to identify those variables associated with effective schools.

What variables are purported to contribute to school effectiveness? Based on a comprehensive review of the literature (Wardlow & Swanson, 1991), the following variables were identified as being associated with effective schools. These variables appeared consistently throughout the literature and indicate the range of influences thought to affect educational excellence.

At the district level, several variables were identified. Each of these may be considered as an institutional level or larger structural variable:

1. The vision of the head administrator or superintendent and the cohesiveness of central administrative staff;

2. Support for school improvement, within the contexts of community cultural and political considerations and resource considerations;

3. Support of the school board or governing body for the administration of the institution;

4. A political climate which is supportive; and

5. The history of the institution within the community. (Wardlow & Swanson, 1991, p. 38)

Many of the variables of educational excellence identified from the literature were directed at the school or building level. For example, the role of the principal is considered an important one in effective schools. The principal's role is important for several reasons. Principals in effective schools contribute to the development of a shared vision of excellence; a vision that is accepted and articulated by teachers, students, and parents, as well as the principal. Principals in effective schools are also committed to the achievement of excellence. They possess attributes that help them motivate people so that excellence can be attained. Principals in effective schools are also willing, and indeed make concerted efforts, to involve teachers and staff members in decision-making and problem-solving processes that affect the school. Essentially, they empower their faculty and staff to become involved in the quest for excellence.

Faculty members in effective schools are cohesive and provide positive support and encouragement for their colleagues. Noticeable in effective schools are patterns of communication which create cooperative/collaborative working relationships among teachers. Faculty members in such schools also exhibit a shared consensus regarding educational values. This consensus is reflected in goal focused activities that are oriented toward clear, attainable, and relevant objectives. Progress toward these goals is then assessed in relation to the outcomes sought. An important characteristic underlying these shared educational values (and their associated objectives and outcomes) is a genuine concern for student welfare and attention to maximized student learning.

Another variable associated with effective schools is employment stability and continuity of key staff. Teachers in these institutions generally are pleased with their work and working conditions and do not wish to leave these schools. One aspect of effective schools that contributes to a positive working environment is school policy that reinforces the authority of teachers and supports strong classrooms.

Effective schools are also characterized as having high and uniform standards for academic achievement. Indeed, high expectations are the norm in these institutions and are not limited to students. Teachers, other staff members, and administrators also express a concern for reaching a high level of achievement in their individual and collective roles within these schools. Coupled with this pattern of high expectations was a focus on recognizing success. Students, teachers, and staff received awards or other visible recognition which commemorated the achievement of success or high quality in personal and group endeavors.

Perhaps the major points to be gleaned from this brief discussion of variables associated with effective school sites are the following:

1. Principals help develop effective schools by creating a sense of vision for the school and by involving teachers in decision-making and problem solving processes.

2. Teachers communicate with each other, have effective working relationships, participate in school decisions, and are genuinely concerned with student achievement and welfare.

3. A pattern of high expectations exists throughout these institutions.

However, it must be noted that all of the variables and themes noted previously were based primarily on the results of studies conducted in elementary and secondary school settings. An assumption could be made that these school effectiveness factors apply to vocational education institutions as well. Is this assumption true? A study of exemplary vocational education institutions was needed to verify or disprove this assumption. An additional need for this study was to determine other factors uniquely associated with effective vocational education institutions—if any.

RESEARCH METHODS AND PROCEDURES

Naturalistic procedures were used for this study. The study employed an interpretive design that sought meaning and understanding from within the context of the setting. The setting, for the purposes of this study, was defined as institutions offering exemplary vocational education.

Although the research methodology selected for this project draws on many of the procedures used in case studies, it should be noted that this investigation was not designed to provide an in-depth description of each of the institutions studied. Instead, the overall goal of the project was to identify and document themes that were consistent across these institutions.

The first step was to carefully select a national resource group. The primary functions of this group were to provide general consultation about the project and to identify and select study sites. Membership included individuals knowledgeable about vocational education institutional settings and the study of institutions using naturalistic approaches. The resource panel consisted primarily of individuals who were knowledgeable about vocational education on a national level. One member of the resource panel had considerable expertise in the area of school effectiveness and school improvement. Institutions offering exemplary vocational education programs were identified through the use of the resource panel. Additionally, panel members identified a second panel of knowledgeable individuals in the field who assisted in the selection of sites.

Based on the input from the original and the second panel, approximately twenty-five institutions were identified. Comprehensive high schools, secondary vocational centers, postsecondary technical institutes/colleges, and community colleges were all in this listing. These institutions provided the pool from which sites were chosen for inclusion in the pilot and field studies.

A pilot study was conducted in four comprehensive high schools to develop expertise in naturalistic data collection. These high schools were selected because of their accessibility and willingness to participate. In this approach, the same team of two to three researchers visited each site to observe activities and to interview staff members and

students. These researchers were vocational education professionals with experience in both naturalistic and positivistic research procedures.

In consideration of the research design of this study, the researchers collected anecdotal and contextual data through researcher observations and interviews. No predetermined criteria (factors to look for or specific questions to be asked) were used to guide the observations and interviews to avoid bias in the data collection process. It should be noted that one school of thought for conducting studies of this design includes only a preliminary review of the literature prior to data collection to reduce the possibility of researcher bias in the data collection process. In such an approach, an exhaustive review of the literature is conducted either after or during the data collection and is used to discuss the findings. In this study, the comprehensive literature review was conducted prior to the data collection to fulfill contract obligations.

Field studies were conducted in eleven states with fifteen institutions—two comprehensive high schools, five secondary vocational centers, four postsecondary technical colleges, one proprietary postsecondary technical institute, and three community colleges. (A list and a brief description of these institutions is included in the Appendix.) During field site visits, systematic observations and interviews were conducted with representative institution staff members and students. Copious field notes were made of the observations and interviews. Audio tape recordings were also made of selected individual interviews and the majority of the group interviews. These were later transcribed and indexed with the field notes. Joint interpretation and triangulation procedures were used to corroborate the data collected. For example, similar questions were posed to individuals and groups with differing roles to determine the agreement of the data collected. Whenever possible, exit interviews were conducted with administrative personnel at each participating institution. The purpose of these exit interviews was primarily to elicit response regarding the validity of the data collected.

Preliminary results were shared with representatives of the participating institutions individually, in group meetings, and through a project-related newsletter for their comments regarding the interpretation of the data. This activity continues as part of an ongoing project. This was done to gain intersubjective agreement in the findings between and among the participants and the researchers.

FINDINGS

An analysis of the anecdotal and contextual data collected from the exemplary institutions yielded a number of general themes. For the most part, these themes were consistent across the institutions studied, regardless of their clientele, mission, educational level, or type of institution. The remainder of this section classifies and discusses these themes according to a contextual framework. Specifically, this framework classifies themes under the headings of school climate, administration, teacher attributes, student attributes, vocational student organizations, curriculum, support services, and institutional marketing. Although every effort has been made to identify concise, focused themes, it must be noted that obvious overlap exists between a number of these themes.

School Climate

A number of themes and subthemes related to school climate were observed and documented. These themes and subthemes have been categorized according to a school climate model proposed by Anderson (1982). Anderson's model is used in this report solely for organizational purposes. Although other school climate models have been proposed by various researchers, Anderson's model was selected primarily because of its utility in framing the themes identified in this section. Further, the Anderson model was selected as a framework only after all data had been collected and interpreted.

In reviewing the work of many other researchers in the field, Anderson (1982) noted that "school climate includes the total environmental quality within a given school building" (p. 369). School climate can be classified into four distinct dimensions, namely (1) ecology, (2) milieu, (3) social system, and (4) culture. The ecology dimension relates to the physical and material variables in a school. Variables in the milieu dimension are those related to the background characteristics of people in a school. Social system variables reflect the school's organizational structure, and the culture dimension consists of variables regarding the norms, beliefs, and values of people within the school site.

Ecology (Physical and Material) Dimension

The researchers observed that exemplary institutions were noticeably concerned with the appearance of their building facilities and surrounding grounds. Representative

examples of this concern were well-landscaped grounds, an absence of trash on hallway floors, and very little graffiti or vandalism. As an illustration of this concern, researchers observed several instances where students and staff members picked up trash in hallways and on campus grounds that had been left by others. While there were exceptions to these observations, they were remarkably consistent from school to school. Researchers also noted that classrooms and laboratories were well-organized and attractively arranged. The clutter that often accompanies many vocational programs was difficult to find. Even programs that generated considerable amounts of discarded materials or required large amounts of consumable materials (e.g., welding, autobody, and carpentry programs) were remarkably clean and orderly.

Observational and interview data provided evidence that resources for equipment, supplies, and other needed program materials were typically regarded as being "adequate" to "very good." Equipment was uniformly observed as being up-to-date and, in some instances, "state-of-the-art." A number of faculty members in such programs noted with obvious pride that their equipment and technology was ahead of many (if not most) of the related businesses in their region or area. Indeed, some of the programs visited were among the leaders in the country (in both business and educational settings) in terms of having the latest technology and equipment.

The acquisition of needed equipment was considered to be a priority concern of instructors, administrators, and advisory committees in these exemplary institutions. In fact, a number of staff members noted that if they had an identified equipment need, they and their administrators would come up with a workable plan to attain the needed items. As one faculty member in a postsecondary institution said, "If we need something (equipment), we figure out a way to get it." In some cases, industry linkages were developed or called upon to help the school obtain the needed equipment. Other instances were noted where institutions developed arrangements to use equipment at a business site. One school had a unique arrangement where a business purchased sophisticated computer equipment and software specifically for business and educational use. The business used the computers and software for a certain time period during the day and then allowed the school to use it solely for training purposes during the rest of the day. Another school had a similar arrangement with the auto collision industry. In this instance, a variety of auto collision equipment manufacturers provided the institution with equipment, but with the stipulation that the equipment would be available to update current employees in the

industry and that the manufacturers would have access to the equipment so they could demonstrate the equipment to prospective clients. Regarding this equipment sharing arrangement, an administrator in the school stated,

> We knew that we would not be able to do that (keep up with state-of-the-art equipment) looking at the conventional sources of equipment. We knew that we had to form partnerships with business and industry. . . . for example, in our auto collision repair area we have twenty-two agreements with manufacturers to share equipment. Much of it we have not purchased. Much of that is upgraded as we go along.

Instructors and administrators in many of these exemplary institutions also suggested that if an equipment need (generally for lower cost equipment) was great enough, there was enough flexibility in budgeting arrangements and financial resources to internally reallocate funds for the acquisition of essential equipment.

Classroom and laboratory facilities were also considered by staff and students as being "adequate" to "very good." Consistent with the observations regarding equipment, researchers noted that the facilities for many of the programs in these institutions were "top-notch." It would have been difficult to envision the facilities being any better. It was noted that, in such cases, instructors, advisory committee members, and other industry experts had provided considerable input into the design and planning of these facilities. Generally, the input and comments directed at classroom and laboratory facilities indicated that instructors and administrators were committed to developing and maintaining the most up-to-date and effective facilities possible.

When questioned about resources, instructors consistently expressed opinions that they were able to obtain a resource level necessary to conduct effective programs. Interview data with administrators and staff members also indicated that resources were made available to fund innovatiove ideas. For example, a number of schools had funds available so that faculty members could travel to other schools to learn new ideas and thereby improve their own programs. Several of these institutions have even incorporated this process into the regular planning and budgeting cycle so that each department in the school will periodically have an opportunity to visit school or business sites. Another method of obtaining funding for innovative ideas was through writing and presenting special grant proposals to outside agencies. Several institutions even had personnel specially designated to write the proposals.

When reviewing the data regarding resources in these exemplary institutions in a cumulative sense, it appears that these schools have been able to achieve sufficient levels of funding that enable their teachers to concentrate on other instructional concerns rather than complaining or worrying about inadequate equipment, supplies, and facilities. The level of funding necessary to reach this point might best be labeled the "critical threshold." Determining the exact level of funding necessary to reach this "critical threshold" is difficult, if not impossible to ascertain. However, the overwhelming majority of the exemplary schools in this study appear to have reached this funding level.

Milieu (People) Dimension

Morale in these institutions was generally cited as being "good" by both students and teachers. High levels of morale were reflected in such statements as "This is the best school I've taught in" or "I'm proud to work here." In agreeing with this view, one instructor said,

> [our school] is so far ahead in terms of programs, in terms of care and concern for the students, in terms of professional development, courses, and faculty, that, generally, other institutions look to us as the leader in the state. . . . I also believe that the people I work alongside of, the people I work with, . . . their own professional attributes, the way they approach their students, and the way they approach their curriculum . . . is unbelievable.

Another instructor from a different institution noted,

> I'm not new to this game at all. I have been around here for a while. There are XX vocational (education institutions) in the state of XXXX and I have taught in three of them. This is far and away the better one of the three that I have been involved with.

Similarly, students commented very favorably about the camaraderie and respect they had observed in their programs and throughout the school. A student in one school said, "It's like a big family here." Another student commented, "You just walk down the halls and other students and teachers (who you don't know) will say 'Hi' to you." While detailed more completely in the teacher section of this paper, a common theme reflecting positive student morale was that teachers in these exemplary schools were viewed as truly caring about their students. Interviews with faculty members provided evidence that this caring attitude helped increase student self-esteem and confidence. Numerous students reiterated and confirmed this finding. One student was moved to the point of tears when

she described how the school and teachers had helped her to overcome some of the problems she was facing. Again and again, student comments were linked with the notion that teachers (and the school) cared about them.

The researchers learned through interviews with instructors and administrators that personnel turnover in these institutions was fairly low. Although this factor is consistent with the findings regarding positive teacher morale, the advantage noted by several administrators was that it enabled the institution to maintain a greater degree of stability. Stability of personnel allowed for greater consistency of relationships between administrators, instructors, and students, and for long-term consistency of program direction. In recognition of the importance of this stability, one school recently implemented an "assurance of employment" policy. In this policy, should positions be lost due to changes in the nature of technology or program directions, affected personnel would be able to receive training that would allow them to be employed elsewhere in the institution.

Faculty or staff stability may have been enhanced by administrative hiring practices. Administrators consistently noted that faculty had substantial input in hiring new department members because "they have to work with them." Consequently, opportunities for compatible personal and working relationships within departments were increased. Another factor that may be related to staff stability is faculty cooperation across departments. This cooperation was noted in shared projects and in institution and faculty association sponsored social activities.

An interesting observation to the researchers was that instructor stability and longevity were not equated with program stagnation or overall declines in program quality. This lack of stagnation might be related to the many opportunities that these institutions provided—indeed, encouraged—to their instructors to change and try new ideas. Overall program quality seemed to be enhanced, rather than diminished, by instructor longevity. While one would hope that this would be the case, observations made outside of this study would suggest that this does not always happen.

Social System (School Organization) Dimension

Good communication was observed among all personnel in these exemplary institutions, with limited exceptions. Faculty members noted that administrators were very knowledgeable regarding the types of activities being conducted in their programs. They also stated that they could readily meet with their administrators to discuss concerns they had. Consistent with good communication was an observed attitude of trust and respect among teachers, support staff, and administrators. Positive working relationships between organized collective bargaining units and school administrators typified this attitude of trust. People were treated as professionals in these exemplary schools. This attitude was reflected by a support staff member when she stated,

> There's a respect for the individuals here. And I think that respect is (shown by the) administration and faculty support. We appreciate other jobs that people do. . . . I think the administration respects the faculty and . . . we respect the jobs that management does.

There was ample evidence that administrators made conscious efforts to insure that staff members shared in decision-making processes in their schools. Teachers cited instances where they had substantial involvement in institutional and program decisions. Typical instances of collaborative decision-making situations were in the areas of curriculum, new teacher hiring, and equipment and supply budgets. One administrator let the teachers as a group make the decisions regarding all of the equipment purchases. He simply provided them with information regarding the total funds available and the teachers decided among themselves how these equipment funds would be spent. The instructors and the administrator were pleased with the outcomes of this process.

Teacher hiring decisions consistently involved considerable input from the current teaching staff. One lead instructor went so far as to say that, "I hire all the new teachers in my program." His implication was that the administration trusted him enough that they valued his opinion and would not go against his judgement when hiring a new instructor. Teachers citing these examples sincerely felt that their input was important and definitely had an impact on the final decisions that were made. Administrator comments reinforced this observation. An administrator in one postsecondary institution noted that he essentially let the faculty determine the qualifications of potential faculty and how these individuals might "fit" in the system. Although he interviewed prospective faculty members to

determine their communication skills and personality traits, he viewed his role in the personnel selection process as being much less important than that of the faculty.

Teacher-to-teacher relationships in these schools were observed to be very collegial. Many instances were cited of situations where teachers from other departments or programs provided special assistance to their colleagues. The following comment was typical of faculty responses regarding cooperation:

> Even though [our school is] quite large in numbers, interdepartments work with one another. For example, [a colleague] is in the writing lab and I had to call her up one day and ask her if she would help my students with their writing skills. It was done. I see a great working [relationship] with other departments.

Another example of instructor cooperation was demonstrated in a secondary center. In this school, instructors in the welding and computer-aided drafting (CAD) programs cooperated very closely. The welding instructors and their students showed the CAD instructor and students how they constructed projects based on designs developed by draftspersons. In return, the CAD students developed designs for projects needed by the welding instructors or students. In a postsecondary institution, a completely automated model manufacturing system was in the process of development. It necessitated the total cooperation of a wide range of program areas. The faculty was given control of the project and they made it work. They refined the concept and developed the processes and procedures necessary to coordinate this project between all of the participating program areas. Instructors were committed to making the project a success and they were well on their way. The faculties in several schools conducted regular, well-attended social events for themselves and their families. Similar to previous student comments, a number of teachers also noted that they perceived the faculty relationships in their schools as being like a "family." Teachers in all of these schools tended to view the relationships among their faculties as friendly, cooperative, and professional.

Although teacher-to-teacher relationships were cordial and professional, there was also an observed atmosphere of friendly competition between instructors in a number of the institutions. These were not detrimental, and indeed appeared to have positive effects regarding morale and job satisfaction.

Culture (Norms, Beliefs, and Values) Dimension

The research team observed that the exemplary institutions visited generally had an overt focus on developing and maintaining high quality standards. Many of the staff and students at these schools articulated a view that their school was "the best" of its kind in their region and they wanted to keep it that way. These institutions commonly referred to their individual "standards," which they believed met or exceeded the standards one would have for a leading educational institution.

At several institutions, staff and students could clearly articulate a philosophy of the importance of quality in their work. One school expressed its commitment to quality through banners, stickers, and posters. At another institution, faculty members clearly explained their institution's adoption and implementation of a school-wide quality control program and how this program would benefit students and other clients. At another school, clerical personnel re-did a project three times because the first two efforts were not up to their own perceptions of the school's quality standards. The decision to do this was entirely their own and was not based on a supervisor's request. It was noted that other institutions likely would have been pleased with either of the first two attempts at the project.

School climate was enhanced by a strong sense of "mission" in the vocational centers, technical colleges, and community colleges visited. Administrators, teachers, and students in these institutions could readily articulate the purposes of their school or program. This mission was usually stated in such terms as "developing job skills" and "career preparation." Stated more simply, people in the exemplary schools knew what they were all about. However, researchers did not observe a unified sense of mission among vocational education instructors in comprehensive high schools. Instructors in some of the high school programs, notably in programs undergoing transition, had difficulty in expressing the mission of their vocational education courses. (The transition referred to in this section reflects changes that were occurring in some high school vocational programs. These changes included major shifts in course offerings and content. Some instructors were apprehensive about these changes and were not certain about the purpose of the new vocational education courses and content.)

While career and occupational missions were clearly focused in most of the institutions participating in this study, several had additional "agendas" or "goals" which

were manifested in symbolic ways throughout these institutions. For example, one technical college actively sought to promote an attitude of "caring" and "enthusiasm" in all contacts with its constituents. Several institutions promoted, with obvious pride, their consistent adherence to high standards. An administrator in one of these schools noted that the profile of her institution was considered by many students and faculty members to be "so rigorous and so demanding." The benefit of this rigor, however, was a high demand for graduates. Another administrator in this school noted an example of this demand by citing a statement made by one of the school's board members. This board member introduced herself by saying, "I'm from XXXX company and we stand in line for (this school's) graduates." Several institutions had adopted a focus on achieving high quality standards. One of these was a community college that had implemented a stringent program of quality control for the courses it was offering for the employees of a major U.S. corporation. The other was a previously noted technical college which implemented such a quality control program across the entire institution.

One community college was extremely successful with its focus on programs oriented specifically to one particular industry. Similarly, other schools could often identify characteristics or initiatives that made their institutions unique. Several institutions noted that high academic standards made them different from comparable schools. Another reflected on its commitment to quality and community development. Additionally, several other institutions emphasized that their concern for students was more pronounced than other schools in their area or region. The researchers observed that while focusing on a select group of occupational programs or unique traits was harmonious with the overall educational mission of the institutions, perhaps the greatest impact was in differentiating these institutions from their counterparts. Administrators and teachers were quick to refer to these unique traits when contrasting their institutions with comparable schools in their regions.

Administration

Major characteristics regarding the administrative teams in the exemplary schools were leadership style, high expectations of self and others, risk taking, flexibility, and a strong sense of mission and vision. General observations of the research team were that the administrators in these exemplary institutions were very effective and successful.

Indeed, the chief administrators in certain schools exhibited characteristics and behaviors that were indicative of exemplary leadership, particularly in that they instilled a sense of mission and vision for their institutions.

Leadership Style

Two primary constructs related to leadership style are consideration and initiation of structure (Bass, 1990). The consideration construct reflects "the extent to which a leader exhibits concern for the welfare of the other members of the group" (p. 511). Stated differently, the consideration dimension reflects a leader's "people orientation." The construct of initiation of structure "shows the extent to which a leader initiates activity in the group, organizes it, and defines the way work is to be done" (p. 512). This dimension reflects a leader's "task orientation" or concern for getting the job done.

Administrators in this study considered themselves to be very people-oriented. Interviews with staff members generally confirmed this belief. Evidence of this "people orientation" was noted in administrative efforts to involve staff in decisions that directly affected them. Overall, administrators in exemplary schools were concerned about the welfare and needs of their staffs. This concern was reflected in a decision-making process or style best classified as participatory rather than authoritarian. Several administrators, in reflecting on the decision-making processes in their schools, noted that they "had become less autocratic over the years." They specifically noted that when their faculty members were involved in the decision-making processes, thoughtful and considerate decisions were made. Staff members also showed a greater commitment to the decisions made. Another outcome of participatory decision-making was support for (or at the least, less criticism or complaining about) group decisions from staff members who did not agree with or support the majority. Administrators observed that such individuals were more supportive because they were part of the final decision.

Consistent with these findings was the observation that administrators in these schools tended to delegate responsibility to other staff members. Faculty and support staff in exemplary schools commented that their administrators "trusted them and let them do their jobs." Although a strong people-orientation was observed in these administrators, interview data also indicated that these individuals possessed high concern for accomplishing tasks. Perhaps the most interesting finding regarding leadership style was

that administrators in these exemplary schools have developed the ability to insure that tasks are accomplished within an atmosphere of concern for staff involvement and participation. Although not discussed in great detail, researchers observed that tasks were likely being accomplished because people were being given greater personal autonomy and responsibility regarding the achievement of these tasks.

High Expectations

Administrators noted that they expected high performance from themselves and their staff members. This expectation of high performance was verified by faculty and support staff. The researchers observed that one likely outcome of these high performance expectations was the establishment of a de facto standard of excellence. Although difficult to define, teachers, students, and administrators seem to know when this standard is attained. This standard of excellence is a thread that clearly runs through the activities in exemplary schools. The relationship of this standard to high expectations is that administrators fully expect themselves and their staff members to conduct their duties so as to reach the de facto standard of excellence in their schools.

Risk Taking

Numerous examples of instances where administrators were willing to take risks and initiate new ventures or projects were cited. The risks entailed were largely related to funding. If the projects or new ventures did not succeed, then precious funds would have been expended that could have been used to help develop or expand existing programs. In some cases, the fiscal health of the institution could have been seriously jeopardized. There was a sense that these administrators focused on the advantages to be gained from these risks rather than on the disadvantages or hazards posed by them. One institution challenged the community to collaborate with them in developing a technology center to bring new businesses into the community. If the initiative would have failed, the school would have suffered financially because it had invested considerable funds in the effort. Another school developed satellite campuses in other countries, again at great expense. There was also the uncertainty that these satellite campuses would function as effectively as they had in the United States due to differing cultural values and traditions. While these are examples of ventures that entailed considerable financial risk, numerous other examples were given where administrators helped institute new programs, promoted cooperative efforts within their communities or other educational institutions, or implemented

organizational change. The major risks involved here centered on change, which always has hazardous elements. An administrator in one school noted that one of the keys to his institution's ability to act proactively was the larger than usual proportion of funds (when compared with other schools in their system) in an account specially designated to fund new ideas or initiatives.

In addition to a willingness to take reasonable risks, these administrators demonstrated an ability to foresee trends or events that would have impacts on their schools. Consequently, they were able to take steps to maximize the positive effects of these events or to minimize the negative effects. One school undertook a major curriculum development project long before the state mandated system-wide change. Another institution was able to obtain expensive state-of-the-art equipment for one of their programs by anticipating a manufacturing company's plans. They knew that this company was looking for a possible training site in which it could install its equipment. Several years before the company made its final decision, this school had built facilities which would accommodate this specialized equipment and, as a result of this foresight, received the equipment grant. The attitude of the administration in this school was characterized in the following way: "I think most schools are reactive to business and industry and we have become proactive. I think that is a major difference . . . between ourselves and many educational organizations." Still another institution realized the potential benefits of computer technology and implemented a computerized registration and fee payment system which greatly reduced the time students spent waiting in line. Students can now register by phone and immediately enter their registration directly into the campus computer system. Many comparable institutions still do not have such systems.

The importance of the administration's role in risk taking and creating an atmosphere of creativity was perhaps best summarized by the following quote from a technical college assistant administrator:

> If I were to assess this institution and the reason we have been able to do some of the things that we have done, [it would be] the environment of taking chances, the environment of creativity [and] innovation. This is encouraged in this educational environment. I think it goes right back to our board of directors. They promote that. You can make mistakes here. . . . If we try something and it doesn't work, you know we are applauded for the effort of having taken the chance. I think that [this is a result of] the directors that we have had. . . . They have been tremendous coaches and are creative futurist kinds of thinkers.

Flexibility

Flexibility was another trait that faculty members and support staff noted regarding these administrators. They were not locked into traditional paradigms or familiar modes of operation. They encouraged staff members to be creative. They were willing to consider new ideas and proposals. More importantly, they were willing to support these creative ideas and proposals, both financially and with personal encouragement. One faculty member stated,

> One of the things that I see that helps [make this school work] is the freedom to try new things. We don't have somebody that says this is the way you must function. [We have] the freedom to try something different and then to move forward. If it doesn't work, then try something different. Go in a different direction.

The trait of flexibility was sometimes expressed in examples that showed how administrators had circumvented bureaucracies or other systems in order to solve problems. As an illustration of this perspective, one community college administrator worked closely with a faculty member to draw up plans for a new on-campus lab facility to replace a rented facility that required a commute of three miles. Although armed with figures that showed that such a facility could be built and maintained for approximately the same money that was being spent on the rented facility, the central administration board would not commit to building new facilities, primarily due to political considerations. Finally, after several years of exploring alternatives, the administrator and instructor developed a plan which involved the lease of a temporary building which could be constructed on campus. However, this building was designed so that, while it was for all practical purposes a permanent facility, it met the criteria specified for a temporary building. The community college board approved the lease of this facility and it was constructed.

Vision and Sense of Mission

Perhaps one of the most important findings regarding administrators in exemplary schools was their ability to instill a sense of vision and mission within their faculties, support staffs, students, and communities. Not only did administrators clearly articulate their goals and mission for their institutions, but their staff members were able to do so as well. It was observed that people in these schools felt that they knew why they were there and what they were supposed to do. Staff members in several schools commented on the importance of their administrators in establishing this sense of mission. A staff member in

one school said, "The reason this school is so successful is because of the vision of (the administrator)." "Having vision" was also cited by several others when describing reasons that their administrators were so effective. Additionally, a faculty member in a postsecondary technical institute stated,

> There is no question as to what the goals are. That comes right from the top. There is clarity of vision from the [administrative] office, and that clarity of vision is communicated in a variety of ways. I don't think that there are very many instructors that don't have a clear idea of what it is they are supposed to teach.

Several administrators commented on the importance of creating a vision and sense of mission. These administrators believed that this aspect of their job was extremely important. Consequently, they were devoting more time to these kinds of activities and were delegating more of the day-to-day managerial functions to other staff members.

Teacher Attributes

Several of the most notable teacher characteristics are presented in this section. Specific teachers attributes discussed are a caring attitude, acceptance of student diversity, creation of positive classroom climate, and high expectations for themselves and their students.

Caring Attitude

A caring attitude exhibited by instructors was among the most consistent and powerful of the themes identified in this study. Regardless of the type of institution or educational level, examples of teacher caring were repeatedly cited. Lending additional support to the strength of this theme was the obvious emotion and sincerity in which these examples were stated. In some instances, students broke down in tears when discussing situations in which their instructors had provided needed support and counseling.

Based on the numerous examples cited, teachers in these exemplary institutions exhibited genuine concern for their students as individuals, and students detected this concern. The following are student comments which reflected this teacher attribute:

> They care here. . . . You can tell by their actions . . . if you've got a problem, they'll pull you out of class and talk to you and they'll do everything they can to help you.
>
> The instructors [here] are more like friends than instructors. There is one that I called up and we are going out for lunch. She went out of her way for me. I wanted to graduate in August. The class that I needed for graduation was not offered in the summer, so she came to school and she was my instructor for this class just so I could graduate. She went out of her way for me. They take the extra step to help the students.
>
> The teachers seem like they're here for the kids, not as a job, but that they want to be involved with . . . your personal [life]. . . . If there's something wrong, not in school, it's like they care, and they want to help you get back into it.
>
> That's what makes me want to come here. If we say, . . . "Oh gosh, we're just dumb" or something like that, the teachers say, "No, you're not."
>
> I got a thank you note [from my instructor] in the school mail today. . . . That's something I've never had before from any teacher. That helps a lot. Just a pat on the back. Acknowledging what you do.

Additional student observations reflecting this caring attitude were that their teachers were patient and willing to create opportunities for students to discuss their needs. Teachers themselves noted that they practiced esteem building and student participation in their educational processes, an assertion which was verified by students.

The teachers in the exemplary vocational education institutions offered support beyond the normal expectations of a teacher-student relationship. They were willing to spend time with students or spend time performing duties not usually considered to be part of a teacher's responsibilities. For example, one high school student who was having personal and school problems noted that she probably would have been expelled from school due to excessive absences except for the efforts of one of her vocational education instructors. She said, "Mr. XXXX (the vocational education instructor) calls me some mornings to make sure I come to school. He does that for several students." Other student responses reflecting this teacher characteristic (support beyond normal expectations) were as follows:

> [The instructor] is setting me up with displaced homemakers, so that I can have some kind of outlet there for my children and just [reduce] the stress level for me. She calls me two times a week at home to see—"Can you make it to class? Is there a problem? Do you need a ride?" She's there. And a lot of times she's there when I don't even acknowledge the fact that

she's there. She'll walk up and say, "Did you forget so and so meeting or do you know you have to do this today?" And she'll say, "Are you O.K.?" And if I'm not, she'll pull me in the office and we'll have a good cry and then she sends me back on my routines. She's been a lot of support for me because she has two children and she's single also. And she's pulling me through it, she really is, because without her I would have already dropped out. I would have had to; I wouldn't have had a choice. But she's given me all these options that I can do. And when I can't do [things], she's given me make up times . . . and she's not that way with just me—she's that way with all of her students.

I found that in my class, the teacher works with the students if they have problems with things or they're having problems at home or something. He'll take them in his office and talk to them, try to help them work things out. . . . He'll even give them his home phone number if they ever need help or somebody to talk to. . . . And in a sense, my teacher has become a friend for me because we've done some things together and we can talk and it's worked out great.

Acceptance of Student Diversity

Teachers in exemplary programs accepted student diversity. They recognized that each student has different abilities, wants, and needs. These teachers allowed students to be unique. They used these differences to create learning environments suitable to the individual student and to the collective class. The following are some typical student comments illustrating this teacher characteristic:

I learned a lot in her class. She makes literature fun. I'm serious. She really made it fun. . . . We related the plot of the story into our own life. Even though it may have been written two hundred years ago, there's something in there that affected the writer that can also affect our lives.

We set up reading groups and math groups that we help with. We set up groups that might be embarrassed to go to learning lab and we do that right in class.

[The instructor] knows where we're coming from. He doesn't do it from his standpoint. [Instead, he understands] everybody else's standpoint, where everybody is. He makes it where we are and how we're going to move into their positions.

[The instructor] will keep explaining it to you until you understand how to do it. Some other teachers will just assign the work and nobody will talk to you [about what you did wrong]. . . . But he'll hold the whole class up to teach that one person [who doesn't understand something]. He'll go over it again and again until they know what he's doing. Either that or he'll just decide to let the others go ahead and he'll work with the one person.

Positive Climate and High Expectations

Teachers created a positive climate in their classes. They were demanding, having high expectations of students, yet they were friendly and encouraging. The environment created by these teachers was one of challenge for students to better themselves. Students accepted this and felt comfortable in their classes. Several student responses related to climate and high expectations were as follows:

> [The instructors] want you to work to your potential. But if you're having trouble with something, they don't say, "You've got to know this by tomorrow." Instead, they'll help you with it. If they see that you're trying to work up to your potential, that's fine. But if you're just sitting there in class not doing anything, just barely doing anything, just to pass, that's not what they want. They want you to work to your potential.

> Everybody gets along in our class. . . . [W]e never laugh at anyone; we laugh with them. When you can take someone laughing at something you did and laugh with them back again, you know you're getting along real well. The atmosphere in the classroom is created by the instructor.

Interestingly, students were extremely accepting of the high expectations and standards imposed by their instructors. Students expressed a view that these high standards and expectations would provide them with an "edge" when looking for jobs. They also thought that high standards and expectations were one of the factors that made their vocational programs better than comparable programs in other schools.

Teacher Competence and Professional Demeanor

Many other attributes of effective teachers such as those related to teaching methods and knowledge of subject matter were noted and are validated in the education literature. The teachers in the institutions studied were typically very competent in the technical knowledge and skills required in their occupational fields. This competence was reflected in high quality teaching experiences for students, coupled with effective interaction and feedback with students. When students spoke of the competence of their instructors, they generally used some variation of the following statements paraphrased here: "He/she (instructor) knows what's going on" or "She/he knows what it's all about." One instructor referred to the importance of technical competence by stating

> Everyone who is here has the genuine experience. The students know that they are learning through the genuine article and not by someone who may have had a lot of book-learning and not a lot of practical experience to go with it. That is an example and that sets a mood. It makes a sense of trust between the student and teacher that may not be there when the teacher is

found out not to have the ability to support some of the things that he or she is teaching.

Instructors in the exemplary schools were also observed to be very effective in their use of pedagogical skills. They had the abilities to use appropriate teaching methodologies to translate their knowledge and experiences to students.

Additionally, research observations concluded that these teachers conveyed an attitude of professionalism consistent with their occupational area through attention to personal appearance. They expected the same of their students. While the interpretation of professional appearance varied from program to program, instructors were nevertheless concerned with providing a good role model for students in this area. While students and instructors were observed to dress informally in some programs, their appearance was consistent with requirements of the occupation. Conversely, students and instructors in other programs were observed wearing matching uniforms or styles of dress, again consistent with occupational norms.

Stability of Faculty and Staff

Researcher observations and data presented by administrators and students all verified the conclusion that the institutions studied were staffed by extremely competent and capable instructors. Administrators were queried regarding the processes used in their schools to locate and hire such individuals. Several noted that one of the factors that helped them find high caliber instructors was the reputation of their schools. This factor was of considerable value in enticing highly qualified individuals to apply for instructor openings. Several other administrators replied that they looked for a certain "spark" which indicated that a prospective staff member was willing to put in the effort needed to meet the standards expected in their schools. They noted that it was difficult to explain what this spark was, but that they felt it was very important in hiring staff members. Interestingly, the major factors that administrators considered were such characteristics as motivation, an ability to interact effectively with people, and commitment. These concerns were considered by many to be more important than technical competence. They generally assumed that those individuals who reached the interview level had already been sufficiently screened for technical competence. One administrator noted that he/she had reopened searches for a few positions because, even though the candidates in the first search were technically qualified, there were concerns that the personal attributes of these individuals did not mesh with the

needs of the school. Almost all of the administrators involved other staff members in the selection of new staff members. In a number of instances, the final selection decisions were primarily made by staff members with whom the new person would work. Administrators rarely contradicted these decisions.

Student Attributes

A strong sense of pride among the students was noted at each of the institutions visited by the researchers. During interviews with individual students and with groups of students, and during observations of students in educational activities, a great feeling of pride in themselves and in their institutions was expressed. One postsecondary student in a robotics program provided a very typical comment about his institution: "This is just the best place I've run across as far as education goes. You can't beat it."

In a reference to her instructor and program, another student stated,

> They have the best training, the best instructors. I think our firearms instructor is one of the best. We get trained better than any [other program like ours] . . . [it's] one of the best . . . you know it is top rate. It is great to know that I am getting trained the best that there can be.

Students had positive feelings about being involved in their programs. They maintained professional standards among themselves, including appropriate behavior and dress. Many students indicated that they believed that entry into their programs was by a selective process. One student noted that in his program

> there are a lot of stringent guidelines [for entry], [the students are] more dedicated to what they are doing. . . . They are weeded out from the beginning. [Low ability students] don't even get into the program.

This finding was especially interesting in light of the fact that almost all of the institutions participating in this study were open-enrollment schools, which means they could not establish policies that prohibited student enrollment into their programs. Follow-up interviews with institutional administrators indicated that such student selection was not widely practiced. However, the perception of selection was not highly discouraged and may even have been perpetuated as a part of an underlying student esteem building activity. Many programs administered written tests, individual career counseling sessions, and

departmental interviews prior to admission to the program which seems to contribute to the selectivity perception.

It is the observation of the researchers that such an activity results in a self-fulfilling prophecy, that while anyone can be admitted to a program, some students self-select out prior to beginning and the students who do enter the program believe they are superior and begin to function accordingly. The result is a set of high expectations that each student places on him/herself and on the program. These high expectations are readily articulated by students in interviews and by observing their education-related activities. With students placing high expectations on themselves, instructors experience little difficulty in having them accept the perception that their programs are "tough," but that rigor is a precursor to high quality.

Vocational Student Organizations

Active vocational student organizations exist in the majority of the institutions studied, regardless of the level or age of the students involved. However, the level of commitment to student organizations expressed by individual administrators and faculty members varied widely.

While some individuals expressed the opinion that such activities were extracurricular to the education of students and, as such, were of only incidental importance to the mission of the institution, other individuals believed that student involvement in such organizations was an important component of the total educational program of each student. It is interesting to note that in nearly every institution there were individual faculty or staff members who were personally committed to providing at least one overall vocational student organization, even if individual vocational programs did not offer one. Thus, students were afforded the opportunity to participate.

Students and instructors actively involved in vocational student organizations generally discussed their value in such terms as "student recognition," "leadership," "public relations," and "personal development." As such, these organizations were considered as accomplishing objectives that were consistent with and complementary to their vocational

programs. Instructors in particular felt that these student organizations were a most effective way to accomplish these goals and objectives.

Conclusions regarding vocational student organizations, therefore, are not as consistent as the other themes noted in this report. However, because these organizations played such a visible role in some schools, as well as in selected programs in all schools, their role in these exemplary schools cannot be discounted.

Curriculum

At each of the institutions studied, the researchers sought to determine the nature or content of the curriculum as well as its underlying philosophies. An examination of the data collected provides strong evidence of three important subthemes of curriculum in institutions of excellence. The technical content of each of the program offerings is strongly influenced by the use of industry\community-based advisory committees, but that content is tempered by the teaching methodology concerns of instructors who work in close cooperation with these committees. Further, individual faculty members have a strong sense of ownership in their curricula. It was also observed that there is much more being taught to students than the technical content that teachers are able to articulate.

Content of Programs/Advisory Committees

Nearly all of the institutions offered some form of competency-based framework for organizing the technical content of instruction. This content is developed through the use of advisory committees, who work closely with individual instructors to identify the current technical knowledge and expertise needed by workers in the industry. The advisory committee process appeared to be a continual activity to insure that each program is current with industry standards. Indeed, active and involved advisory committees were an observed trademark of most of the institutions participating in the study. The instructors work with their respective advisory committees throughout the advisory process to insure the practicality of teaching particular skills within the context of the program and to assist in determining appropriate teaching procedures for each of the technical skills. When new skills are identified which are not possessed by the instructor, the advisory committee assists the instructor in inservice activities to gain the necessary skills. Nearly all of the institutions visited had adequate programs and policies for providing instructors with leaves

and financial support to participate in such activities. When new skills are identified for which necessary equipment is not available, the advisory committee assists with obtaining the equipment.

At several of the institutions visited, the researchers met with advisory committee members from a sampling of vocational programs. In each case the members were very enthusiastic in their support of their respective programs. They also felt that they were very knowledgeable of the program, the graduates of the program, and the instructional staff. As one member articulated, this may be a result of their close-working association with the program.

Faculty Ownership

In each of the institutions under study there existed a strong sense of ownership among the faculty for the curriculum offered in their respective programs. This sense of ownership was a result of faculty members having major responsibility for the development, implementation, and updating of the curriculum for their programs. Although considerable input for curriculum development was obtained from advisory committees and other industry sources, instructors were directly responsible for translating input into useable curriculum. A number of institutions fostered this process by providing considerable technical support to instructors. Technical support was primarily provided by two means. One was the availability of support staff who did the considerable amounts of word processing and copying needed to maintain up-to-date curriculum materials. The other means of support was on-staff curriculum consultants or experts in the institution. These people provided guidance to instructors regarding any curriculum concerns they had.

Faculty members took great pride in developing and maintaining course materials. Several of the institutions recognized the twin concerns of instructor involvement in curriculum development and keeping curriculum up-to-date. They accomplished these goals by offering financial incentives to instructors for continual updating of course materials. Typically, these financial incentives were salary increases or bonuses that rewarded instructors for developing new curricula or for updating curricula for their vocational education programs.

A Dual Curriculum

When asked to explain their philosophies of curriculum, nearly all instructors articulated the importance of providing the most current technical skills needed by the industry. They explained the importance of task analysis in the planning model and the use of the advisory committee in representing the industry. Nearly every instructor explained the importance of "meeting industry needs" and did so in terms of providing students with specific technical skills.

Observations of many classes, student and teacher interactions, and student interviews provided a philosophy of curriculum in practice by instructors which was quite different from that being articulated. In nearly every instance, instructors did at least an adequate job of providing technical skills training. However, the level and efficiency of that training was essentially what one would expect to find in any well organized vocational education program. Perhaps of more importance was finding that programs in these institutions appeared to provide for additional student skills in the affective, personal development, and general problem-solving areas.

These observations are noteworthy in light of the philosophies which underlie curriculum development. The philosophies driving the curricula of these programs seem to be competing conceptions of curriculum development. A number of conceptual discussions to describe the philosophies which drive the nature of the vocational education enterprise exist; two will be explained here.

McNeil (1986) suggests four alternative philosophies by which to develop educational programs:

1. The "humanistic curriculum" is committed to meeting the learner's needs for self-actualization, achievement, individualism, and relevance of their education to daily living. This is often associated with the "holistic" approach to education.

2. The "social reconstructionist curriculum" is used as a vehicle to influence social change. Learning opportunities stress that individuals examine their beliefs and values and cooperate toward social change.

3. The "technological curriculum" operates on the principle of mastery or competency-based learning. Task analyses of work roles provide an arrangement of measurable performance objectives. This approach is most closely associated with the Prosser and Snedden model of vocational education which operates under a "social efficiency" paradigm. (See Wirth, 1974, 1977)

4. The "academic curriculum" focuses on developing rational minds with skills in the scientific process. It is most closely associated with an emphasis on common core studies called "basics."

Swanson (1980) outlined a second conceptual model of philosophies which guide curriculum. He noted that there are three historically based cultural "streams" which influence the American mainstream and, thus, guide curriculum:

1. The "philosophical stream" originated with the ancient Greek culture and described the ultimate end of education as the "pursuit of truth." "The pursuit was the end and any discovery to truth was regarded as transitory, temporary, or instrumental and thus only means to illuminate a further search."

2. The "theistic stream" had its origin in the Judeo-Christian tradition and became a strong influence beginning in the 16th century when the concept of "work" began to acquire some intrinsic merit alone, being regarded as having "some soul-redeeming features" of its own. From this stream came the "Protestant work ethic."

3. The "socio-economic stream" originated mainly in England and gained its impetus from the popular economic philosophy of Adam Smith (*The Wealth of Nations*, 1776 [1921, 6th ed.]). It provides justification for the wide differences in social and economic conditions which existed between individuals in society (i.e., workers and peasants at one end of the scale with industry leaders, professionals, and politicians at the other end). It justifies these differences as "natural law." The social efficiency paradigm of Snedden and Prosser seems closely aligned with this philosophic stream.

Upon observation of the institutions under study, a sort of dual curriculum philosophy seems to exist in the minds of the students, faculty, and administrators. Each

of these individuals seems able to articulate (with varying degrees of success) a philosophy of curriculum which is built upon both the technological curriculum and the socioeconomic stream. As previously noted, faculty members were eager to explain the detail with which their courses are organized around task analyses and how their programs provide individuals with the necessary technical skills to fit into an important work role needed in society. Indeed, the adoption of the Snedden/Prosser social efficiency paradigm by vocational education is well documented in the literature (see Leutkemeyer, 1987; Wirth, 1974, 1977) and served as a foundation for the original federal vocational education legislation. This model accepts the "natural law" of individuals fitting into social classes and promotes the concept that education should train them to fulfill work roles necessary to society. Also inherent in this philosophy is the notion that the only important course content or subject matter of vocational education is the development of specific skills needed by a particular industry. Thus, the proponents of this paradigm believe that vocational educators should teach only what is required for the development of these skills. The Snedden/Prosser model assumes that the teaching of additional skills is irrelevant and inefficient.

However, when students are asked to describe why they believe their institutions or programs are among the best educational programs, the overwhelming first responses relate to factors not readily articulated by faculty or administrators (who articulate the technical skills philosophy). These student responses relate to the humanistic and holistic features of their programs. Students seem to believe that the processes of their educational endeavors are as important as the technical content of their programs. They especially noted the caring attitudes of their teachers and classmates, and how these attitudes are related to building and enhancing their self-esteem. Instructors and students alike expressed concerns for insuring the development of values and the individual's worth to society.

Indeed, some instructors noted that these affective, personal development, and general problem-solving skills were the most important things they taught. Regarding this belief, one electronics instructor stated that the most important things he taught were

> reasoning, logical reasoning, and deductive reasoning; the ability to follow a problem from a symptom to a series of possible causes to the isolation of the most plausible cause; [and] the investigation by various analyses or measurements of which one problem is in fact the cause of the difficulty in repair or whatever. Logical deductive reasoning is number one on the list [as well as] . . . problem-solving skills in a general sense.

Another instructor voiced a similar belief:

> [The important things I teach are] problem solving, self-esteem, [and a] logical approach to solving a problem. . . . [to] see if you can get the people around you to work with you as a team. It might not be in a classical sense what you would see as logical reasoning, but there are life skills there that are directly transferable to the job and into their own lives.

It may be the pervasiveness of these affective, personal development, and problem-solving skills across the entire institution that make these schools and their programs quite unique in vocational education. Through observations of their programs, their students, and their instructors, these institutions appear to provide a more holistic education for their students. In practice, they are concerned with the development of the "whole person" rather than just providing technical skills. Supporting evidence for this observation is provided elsewhere in this paper such as in the teacher and student sections and the climate section.

This may be among the most refreshing of all the findings of this study. The thing that separates the very best vocational education institutions from the good ones may be that the very best reach beyond their stated curricular outcomes and educate individuals holistically. They are much more interested in how people learn than in what they know. There seem to be no artificial boundaries between theory and practice.

Support Services

Each of the secondary centers and postsecondary institutions visited had well-developed support service programs. (The exceptions to this observation include the secondary programs located within comprehensive high schools where, it is believed, support services are provided for the larger student body.) The support services include general education programs or "basics skills centers," career counseling, and placement programs for students, and clerical support for instructors. Those institutions serving adults and other special populations were especially "tuned in" to the needs of these groups and provided specialized counseling services and programs to them.

Each institution operated some form of general education program to assist students in sharpening necessary skills in academic basics such as reading, writing, and mathematics. Many of these programs provided individualized instruction and one-to-one

student-faculty assistance. In nearly every instance, students who participated in these programs, as well as those who did not participate, spoke very highly of the program and believed it to be a strength of the institution. Faculty members in technical areas indicated their strong support for these academic skills programs by noting that they were necessary and that they were not considered undue competition for institutional resources.

With the exception of the vocational programs in the comprehensive high schools, each institution had extensive vocational placement and career counseling components. Students were very positive in their assessments of these activities, believing that the institution did a good job in assisting each student in determining his/her individual abilities and talents and then finding suitable employment upon completion.

Institutional Marketing

Nearly all of the institutions did a good job of marketing their programs to the related industries in their geographic service areas. Marketing was done by establishing support for each program through the use of advisory committees and by providing support and encouragement for faculty members to actively participate in industry-based activities. There was a general expectation of faculty members to physically "get out of the building" and into the businesses.

These institutions were actively involved in their communities, were sensitive to community needs, and provided service activities to their communities. Many of them maintained full-time institutional marketing personnel to assess community needs and interests and determine the institution's role in filling appropriate needs. It should be noted that all of the institutions considered themselves as having good support within their communities. Further, it was observed that a majority of the institutions served economically stable communities. Several administrators and faculty noted that their local economic bases were generally stable.

REFLECTIONS/CONCLUSIONS

This study provided a rare look into exemplary vocational education institutions. These institutions are models of the practices, beliefs, and values for which many other schools strive, but cannot quite attain. Those schools that have not yet reached exemplary status can learn much from the institutions in this study. Perhaps more importantly, the findings from this study can provide a framework for stimulating dialogue in and among those vocational education institutions wishing to achieve excellence. Excellence can indeed be attained; the schools cited in this study provide evidence and examples of how it can be done.

Themes identified and described in the findings were generally consistent across all of the institutions studied, regardless of their clientele or mission. Additionally, the factors described in this report overlap, and this study imposes no sense of order or importance. Indeed, some factors may be dependent on or precursors of others. Some seemingly important ones may not manifest themselves in the absence of seemingly minor ones. The study makes no assumption in this respect. These are questions for future study. This study confirms the presence of characteristics and features common to exemplary vocational programs. Any of these factors may occur in any institution. It may be the unique combination of all these factors that creates excellence.

Research indicates that schools in which exemplary vocational education programs exist are a nice place to work. They are neat and orderly and conducive to the development of a sense of pride. They are reasonably well-maintained and have adequate resources for staff, equipment, and facilities. These institutions maintain a positive social and professional climate. Faculty and students alike convey a sense that they truly care about each other as individuals. This may be the result of administrative leadership styles which produce a collective sense of ownership in the mission of the institution. High degrees of trust and mutual respect are evident. This may be a result of the administration focusing on communication and participation in decision making. Indeed, administrators seemed willing to share their power and authority. They trust the people they hired to carry out the activities of the organization. In turn, administrators then focus on developing vision and mission. This builds a sense of trust and pride on the part of the faculty, which in turn they passed on to their students.

An alternative reason that these institutions have such a positive climate is that they seem to be above a "critical threshold" of resources. Faculty in these institutions were not preoccupied with competing for resources to maintain their programs. One might theorize that there is a "hierarchy of institutional needs," from the bottom of which an institution progresses on the path to excellence. The question of the unique contribution of this phenomenon demands further study.

Additionally, these institutions seem to have unique cultures in which participants have a common vision. This vision, however abstract, is continually developed and articulated by the chief administrators. The resultant culture is guided by a collective sense of mission, which is built on a commitment to high standards and pervades every program. Faculty, support staff, and students alike seem to understand that a core set of norms, beliefs, and values guide their activities. If an institution aspires to excellence, its members should cooperate in developing a shared vision.

Administrators in these institutions exhibit unique characteristics. As noted previously, their management style creates a climate of trust. They seem to operate on the belief that they hire good people and let them do their jobs. Active overseeing of employees was not a conspicuous characteristic of exemplary institutions.

While administrators maintained high expectations for themselves and their staff, which are manifested as a "standard of excellence," they were perceived as warm and caring individuals who were perceptive of the personal needs of their students and staffs. If an administrator aspires to excellence, trust, as a management style, is more effective than authoritarian attention to detail.

These administrators were risk takers. They encouraged and supported their faculty to be creative in designing and delivering education. Further, a climate of creativity expected both success and failure.

An attitude of true concern that instructors hold for their students may be as important as technical expertise. Students of all ages believed that this may be the most important characteristic of instructors in exemplary institutions. Supporting this was evidence that administrators placed an equally high value on the personal characteristics of prospective teachers when conducting the hiring process. This theme may overlap or

contribute to institutional climate. A different "critical threshold" may exist here. Truly effective student learning may be best facilitated by a precursory feeling that their instructors care for them as people. This conclusion is consistent with Maslow's "hierarchy of needs" theory. This theoretical construct merits additional study.

Exemplary institutions provide a two dimensional curriculum. One dimension consists of the technical content associated with student programs. The second dimension consists of educating the students as holistic, thinking individuals. It may be the unique combination of these two curriculum priorities which elevates these institutions above their peers. It is unlikely that institutions aspiring to excellence can attain it without both.

The study sought to understand the nature and operation of institutions in which exemplary vocational education programs exist. It identified several themes and sub-themes which were common across the institutions in the study (research question 1) and it found that these themes existed across different types and levels of institutions (research question 2). What implications do the findings have for program planning and evaluation, for leadership development and support, and for further study (research question 3)?

The interpretive design of the study should help to develop understandings of the culture of exemplary programs. Interpretive research provides an opportunity for the reader to gain an understanding of not only the phenomena, but also the richness of the meanings held by the subjects about the observed phenomena. The approach may be as significant as are the findings.

Institutional decision makers should be aware of the importance of themes such as climate, administrative roles, teacher attributes, and curriculum development and plan for these in developing their institutions. The study suggests that a high level of excellence is an attainable, achievable goal and factors such as a positive climate can be developed. However, of all the identified themes, most appear to be very complex. Each has several subthemes which were identified and, likely, several which were not identified. The study does not place any form of hierarchy among these. In other words, we do not know how all the individual pieces of the puzzle fit together to form an exemplary institution. We do not know the formula. Rather, the nature of the research design caused the researchers to view institutional excellence in a more holistic manner. As a result, the findings should be understood and used in the same way. Could an institution elect to choose from among

these findings and employ only a selected few? We do not know. For one to have manifested itself among the institutions in the study, it may have been dependent on another. One might conclude that there is a likelihood that the most effective way to develop these characteristics in an institution is for that institution to participate in a mentoring process with an exemplary institution, in which participants in the aspiring institution gain a holistic view of the concept of institutional excellence.

Additional questions from the study serve as implications for future study. How do the characteristics of exemplary institutions interact? How do they influence each other, and what is the relative importance of each? Further study is demanded to address these questions if the educational establishment should seek to apply the findings of studies such as this. If exemplary institutions cooperated and communicated with each other on an ongoing basis, could new levels of excellence be created or new understandings developed? Might these institutions be influential in developing a new agenda for excellence in education? Could such a discussion between exemplary institutions be developed into an ever-expanding circle of institutions seeking excellence? Could such a circle be self-sustaining? Could it begin the process of mentoring aspiring institutions into it? Finally, are there other, as yet undiscovered, themes or characteristics of exemplary institutions which are vital to the formula? Each of these questions implies that further study of the institution and its role in educational excellence is warranted.

The students, faculties, administrators, and other staff members of the institutions participating in this study have provided a most important contribution to the field of vocational education. However, their story is not yet complete. The people in these institutions will continue to define and modify excellence in vocational education in future studies, particularly in the areas of leadership development and support, program planning, and evaluation. Plans are underway to facilitate a network in which the exemplary schools identified in this study can begin to establish a forum for discussion among themselves. It is expected that the agenda they create can be extremely helpful to all vocational education institutions. As such, this may only be the first chapter in a continuing saga of institutional excellence in vocational education.

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APPENDIX

Listed in this appendix are the institutions participating in this study. Identified alphabetically, this listing also provides a very brief organizational profile of each institution. (Although enrollment figures are given in these profiles, it should be noted that many of these figures reflect head-counts rather than full-time equivalent students.)

Alexandria Technical College
1600 Jefferson Street
Alexandria, MN 56308

Alexandria Technical College is a public postsecondary institution within the Minnesota Technical College System. Total enrollment (full-time and part-time) is approximately eighteen hundred students. The campus is located in Alexandria, Minnesota. Alexandria, with a population of seventy-six hundred people, is located in a rural area of the state.

Dunwoody Institute
818 Dunwoody Boulevard
Minneapolis, MN 55403

Dunwoody Institute is a private, non-profit postsecondary institution. The school is located near the heart of Minneapolis, Minnesota (a major Midwest metropolitan area). Enrollment at Dunwoody Institute is over one thousand students.

The Fashion Institute of Technology
227 West 27th Street
New York, NY 10091

F.I.T. is a specialized public college of the State University of New York. Its primary mission is to prepare people for careers in fashion and fashion-related industries. Although F.I.T. is headquartered near the center of New York City, it has additional campuses around the world. Enrollment in all of the campuses is over twelve thousand students.

Fox Valley Technical College
1825 Bluemound Drive
P.O. Box 2277
Appleton, WI 54913-2277

Fox Valley Technical College is a public postsecondary institution and is part of the Technical College system in the state of Wisconsin. The college has two campuses—one in Appleton (population of sixty thousand) and the other in Oshkosh (population of fifty thousand people). Over two thousand students are enrolled in the college's various programs.

The Frances Tuttle Vo-Tech Center
12777 North Rockwell
Oklahoma City, OK 73142-2710

The Frances Tuttle Vo-Tech Center is a public institution offering both secondary and postsecondary vocational education programs. Frances Tuttle is located in a suburban area of Oklahoma City, Oklahoma. Enrollment is approximately twelve hundred students in full-time programs and over fourteen thousand students in adult short-term programs and courses.

Glenn A. Hare Occupational Center
Washoe County School District
425 East 9th Street
Reno, NV 89520

As part of the Reno, Nevada public school system, the Glenn A. Hare Occupational Center provides secondary vocational education programs to junior and senior students. Enrollment in the center is approximately three hundred students.

Great Oaks Joint Vocational School District
3254 East Kemper Road
Cincinnati, OH 45241

The Great Oaks Joint Vocational School District is composed of four campuses which serve thirty-five participating school districts. Great Oaks is a public institution that offers secondary programs to juniors and seniors within the districts served. The Great Oaks campuses also offer a sizeable number of specialized updating programs and courses to businesses and adults. The campuses are located in suburban areas of Cincinnati, Ohio. Enrollments are approximately twenty-five hundred high school juniors and seniors and approximately sixty-five thousand adult students.

Lake County Area Vocational Center
10525 West Washington
Grayslake, IL 60030

Located in an outer-tier suburb of Chicago, the Lake County Area Vocational Center is a public institution that offers vocational education programs to juniors and seniors from its cooperating high school districts. Approximately one thousand students are enrolled in the school's various programs.

Mesa Community College
1833 West Southern Avenue
Mesa, AZ 85202

Mesa Community College is a public college located in Mesa, Arizona. It is a member of the Maricopa County Community College District, which essentially encompasses the Phoenix, Arizona metropolitan area. Total enrollment in all

programs (academic, technical, occupational, special interest, and continuing education) is approximately twenty thousand students.

College of San Mateo
1700 West Hillsdale Boulevard
San Mateo, CA 94402

The College of San Mateo is a public community college and has its campus in San Mateo, California. San Mateo is a city of almost eighty thousand people and is located in the San Francisco metropolitan area. Total college enrollment (all programs) is over fourteen hundred and fifty students.

Renton Vocational Technical Institute
3000 Northeast 4th Street
Renton, WA 98055

Renton VTI is one of five public vocational technical institutes in the state of Washington. The city of Renton has a population of over thirty thousand people and is within the Seattle metropolitan area. Enrollment at Renton VTI is approximately three thousand full-time equivalent students.

High School District 214
2121 South Goebbert Road
Arlington Heights, IL 60005-4297

Township High School District 214 consists of six comprehensive high schools. The high school campuses are located in Arlington Heights, Illinois, which is a western Chicago suburb. Each school's enrollment is about fifteen hundred students.

Vermont Technical College
Randolph Center, VT 05061

A public two-year institution, Vermont Technical College is a rural residential campus located in Randolph Center, Vermont. The college is part of the Vermont State Colleges system. Enrollment is about six hundred and fifty students.

Westland High School
146 Galloway Road
Galloway, OH 43119

Westland High School is a public, comprehensive high school located in a suburban area on the outskirts of Columbus, Ohio. It is a part of the South-Western City School District. Total school enrollment is approximately eighteen hundred and fifty students.

In addition to the schools noted above, four comprehensive high schools volunteered to participate as pilot research sites. The research team investigated specific vocational programs in each of these high schools. In addition to collecting data on each of these programs, the researchers developed and refined the data collection procedures and protocols to be used in the larger study. The high schools serving as pilot research sites were

Cannon Falls High School
Cannon Falls, MN

Heron Lake/Okabena/Lakefield High School
Lakefield, MN

Madelia High School
Madelia, MN

Willmar High School
Willmar, MN