SPECIAL SECTION   An Organizational Change Process: The Mississippi Valley Industrial Teacher Education Conference's (MVITEC) Structured Approach

Editor's Note

This section includes three reviewed and edited presentations and the editor's summary of one presentation at the November 9-10, 1996 meeting of the MVITEC. The major portion of this meeting to consider changes in the organization was devoted to sharing prerequisite information that wasdiscussed and thoughtfully considered by members. This was followed by group activity directed toward capturing agreement on descriptors of vision, mission and purpose to guide decisions on change in the group's structure and procedures.

The record of this meeting is scheduled to appear in two Special Section articles with the content of the first section following below and the content of the second to appear in the Winter/Spring 1997 issue of *The Journal of Technology Studies.* Consideration of the nature of the journal's readership provides the rationale for documenting this case. Leaders or aspiring leaders comprise the readership, and knowledge derived from the following ought to be helpful in those roles. Specifically, the material in this section:

1. although describing a process undertaken by a unique organization within the technology professions, should be instructive, generalizable, and adaptable, in part or entirely, to change situations in other professional organizations.

2. deserves careful reading for what the content offers to readers regardless of their particular area of responsibility as a technology professional, to wit:

Martin's is not only a strong admonition for change but includes criteria to determine whether there is a need for and, indeed, possibility of success in a change process. It may be considered to be a model that goes beyond exhortation by providing substantive and useful criteria to those who will participate in a change process.

In his comments on the strengths and weaknesses of procedures and traditions of the organization, Evans draws upon significant and long experience with MVITEC and other groups that he knows well and to which he has contributed in meaningful ways to build a penetrating analysis. He follows with conclusions on what has worked, what has not worked and what changes might be considered for the organization to function effectively in the future.

Because the article related to his presentation could not be included in this Special Section, and because of its pertinence to the process, a brief abstract of David J. Pucel's presentation follows:

As part of the prerequisite information considered at the conference, Pucel (Pucel & Flister, 1995) provided data that complemented the other presentations thought to be helpful to the considerations on change. Pucel reported survey results that characterized the professional responsibilities and interests of the members of MVITEC. Essentially demographic in nature, the data revealed the broad scope of responsibilities of these individuals among the several components or specializations that the reporter placed under "industrial education": Technology Education, Technical Education, Trade and Industrial Education, Industrial Technology, Training and Development, Engineering, and other programs. Sixty-nine percent of the respondents were higher education administrators in coordinator, chair, or dean positions. The respondents judged that their institutions were in transition and that this occasioned projections for programs in some to be dropped and in others to be added. Although they had leadership responsibilities in the six or more areas of industrial education noted above, a majority of respondents thought that the focus of MVITEC should be on three, namely, technology education, industrial technology and trade and industrial education, while a strong minority would include technical education and training and development.

Finally, on the question related to preferences for program topics, a majority of the respondents indicated three: developing higher education programs, the interface among industrial education programs, and K-12 technology education programs. A large majority did not want the conference to focus only on technology education.

Johnson's presentation of a paper written by himself, Evans, and Stern was based on the premise that MVITEC members could better contibute to the process of considering their organization's vision, mission, and purpose, and perhaps confirm its uniqueness in these categories, by being informed about other organizations' positions on these elements. The report on the National Association of Industrial and Technical Teacher Educators is one of several on different organizations presented during the meeting. It, along with the content of the three presentations noted above, exemplifies the types of information thought necessary to members before they could further engage in the change process.

As many of the reports on other organizations as possible will be included in a Special Section in the next issue of this journal. Along with those reports will be a summary of the culminating process that was undertaken during the same meeting in which MVITEC members formulated pertinent Purpose, Vision, and Mission statements. **JS**

Reference

Pucel, D. J., & Flister, S. (1995, November). *Mississippi Valley member institutional environments and interests.* Paper presented at the Mississippi Valley Industrial Teacher Education Conference: Lisle, Illinois.

Balancing Traditions and Contemporary Needs — G. Eugene Martin

Because people create change, they must accept that there can be no perfect or permanent solutions. Similarly, finding a balance between the great traditions of the Mississippi Valley Industrial Teacher Education Conference (MVITEC) and the contemporary need of its members has no perfect or permanent solutions. In fact, finding an appropriate balance is like shooting a moving target. The balance will change hourly, daily, monthly, and yearly, and members of MVITEC must be prepared to adapt constantly. Their willingness to adapt and the methods they choose will clearly determine the very future of MVITEC.

People created MVITEC; people maintain MVITEC; and people will determine the future of MVITEC. There are no other alternatives other than the actions of dedicated and concerned people. Our rapidly changing world, however, demands that leaders of MVITEC develop quicker, speedier, more agile, and more flexible reflexes to such changes. It's time to change, no question about it. The critical question is finding a balance in how such change is handled.

During any given time period, the members of MVITEC have served as this organization's architects. Members have shaped and reshaped it through their attendance and level of participation. However, at this time, MVITEC needs help—individually and collectively. It needs to find better, more productive ways to conduct its business. It needs to develop a new set of responses that hold promise for the future. It needs to define a balance between its past ideals and its focus on the future. Leaders must first define MVITEC's vision and mission and then articulate these ideas to the profession(s) it serves.

There are many avenues for MVITEC to pursue in addressing this issue of balance. For example, the members might examine the positions and changes in other organizations and associations. Their actions could serve as guides. Some have been quite successful, but others, unfortunately, have not been as successful. Similarly, the members might consider industry and specifically what various companies have done to address change. What are the success stories? Are there lessons to be learned when trying to make fundamental changes in how an organization conducts itself in order that it might better cope with a new, more challenging environment? What are the roles of people in the organization when change is eminent?

John Kotter, in the March-April 1995 issue of the Harvard Business Review, identified eight common errors made by people when trying to bring about change or even a complete transformation in an institution—an institution such as MVITEC. He stated that even the most capable people of an organization often make at least one of the following errors:

1. *Failure to establish a great enough sense of urgency.* An early indicator of a troubled organization is the failure by its key leaders (e.g., each member of MVITEC) to address the need for change. This failure may be caused by several factors. Kotter stated that some leaders simply "underestimate how hard it can be to drive people out of their comfort zones. Sometimes they grossly overestimate how successful they have already been in increasing urgency. Sometimes they lack patience. . . . In many cases, executives become paralyzed by the downside possibilities" (p. 60). The membership of MVITEC, whether as individuals or as a group, must facilitate some very frank discussions of potentially unpleasant facts including the growing competition from other organizations and associations, shrinking membership, lack of participation, complacency, an outdated mode of operation, dwindling travel budgets, and other relevant indexes of a declining organization. Membership must feel a sense of urgency, as Kotter stated, "to make the status quo seem more

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dangerous than launching into the unknown." When is the urgency rate high enough? Kotter stated that it is when about 75% of the membership "is honestly convinced that business-as-usual is totally unacceptable" (p. 62).

2. *Not creating a powerful enough guiding coalition.* There must be a guiding coalition (a group of people) in every organization that comes together and develops a shared commitment to change. The key words are a *shared commitment.* A major transformation is made easier when a high sense of urgency is also present. In MVITEC, the Chair is responsible for forming the guiding coalition, which may consist of any number of people, but often is less than the total membership. This coalition must assess MVITEC's problems and opportunities. Kotter stated that ultimately, without a guiding coalition, the opposition will soon come together and stop the change process. The membership of MVITEC has the opportunity to serve as the guiding coalition.

3. *Lacking a vision.* In addition to assessing the problems and opportunities, a guiding coalition also develops the vision for the organization—a vision that is relatively easy to communicate to the entire membership, the institutions its members represent, and the profession of technology as a whole. MVITEC needs a sound and sensible vision that will rally the membership together and inspire change. This vision should represent the future of this organization. How would you, the membership, want people to describe MVITEC in the year 2005? This answer tells you where you want to be. The vision gives meaning to daily routine. The vision represents the desirable future state of this organization. It can be vague (e.g., Martin Luther King's vision of "I have a dream") or very precise (Alcoa Aluminum's "there will be zero defects in the products that we manufacture"). This vision must include a realistic, credible, and attractive future for MVITEC, a condition that is better in some important way than what now exists. Kotter stated that as "a rule of thumb: if you can't communicate the vision to someone in five minutes or less and get a reaction that signifies both understanding and interest, you are not yet done with this phase of the transformation process" (p. 63).

4. *Undercommunicating the vision by a factor of ten.* Change in MVITEC will be impossible unless all members are willing to come together to support change while often making short-term sacrifices. Overcoming these sacrifices can only occur when there is a credible and continuous communication from the leaders about the need for change or a new vision. Once the vision is communicated clearly to all parties who will be affected, then the leaders and members of MVITEC need to become a living symbol of the new vision.

5. *Not removing obstacles to the new vision.* Although communication is important, removing obstacles to change is equally important. With regard to this organization, the obstacles may be its (a) structure (rules, regulations, and traditions); (b) job classifications or titles (e.g., Conference Chair); (c) membership size; and (d) even the very people who make up this organization. Such obstacles must first be identified, assessed, and prioritized. Then they can be confronted and removed while members maintain a balance to achieve the desired vision. A lack of action can be threatening and may soon lead to the demise of an organization like MVITEC. People must be empowered to act if credible change is to occur. In fact, members must become empowered *to act* and to *act now.*

6. *Not systematically planning for and creating short-term wins.* The historical long-term stability of this organization may be attributed partly to its ability to adjust to changes as they have occurred. As leaders and members examine the future of MVITEC, they must address long-term goals and short-term wins. Short-term wins help to heighten a sense of urgency and force detailed analytical thinking that can clarify or revise this organization's vision. Short-term wins must be communicated to all members, so they feel they had a role in all of the successes. Short-term wins are vitally important when change will involve a long-term commitment. Change for this organization is a long-term commitment, and it must include measurable short-term wins.

7. *Declaring victory too soon.* Change in a culture, like the culture of this organization, takes time, often 5 to 10 years, or even longer. Change initiators and change resistors, unfortunately, often create a premature victory celebration. Members and leaders should capitalize on the short-term wins in order to address the even bigger problems that lie ahead.

8. *Not anchoring changes in the corporation's culture.* The old cliché, "that is the way we do things around here," is but one small piece of evidence that change has stuck. Change in MVITEC will be realized when it is reflected in the behaviors of its members, their approaches to problems and opportunities, and their attitudes. When the next elected Chair of this organization personifies the behaviors, approaches, and attitudes of the members, then change has been institutionalized. Change will be a reflection of what was, what is, and what can be. It will personify a balance

between older traditions and contemporary needs.

Price Pritchett, in his publication Culture Shift (1993), addressed the very issue of how people handle change, and he identified some 16 guidelines for changing the way people handle change. These guidelines, which follow, seem to have relevance to the members and leaders of MVITEC as they prepare to address the need for change.

1. Speed up.
When change hits, a common response is caution. Faced with the unfamiliar, surrounded by uncertainty, the organization gears down. . . . But change won't wait on you. You simply don't have time to take your time. (p. 5)

2. Stay cool.
Change should get your attention. It should give you an emotional charge, and you should take it seriously. The secret is knowing how to scramble without getting spastic, how to be more intense and still in control. (p. 7)

3. Take the initiative.
The shift toward a culture of initiative and independence means you must figure out for yourself what the organization needs. Then move on it. (p. 9)

4. Get going.
Rapid change calls for a rapid response, but people often bog down in planning how to react. They confuse getting ready with actual progress. They diddle away precious time preparing to do something. . . . You can take time to roll up your sleeves, but that's about it. (p. 11)

5. Try easier.
Innovate. Bust out of your old routines. Be willing to make a radical change. . . . The secret is to simplify. Search for different solutions. Easier ones. . . . You can't handle change very well if you don't change—no matter how determined you are, and regardless of how hard you try. (p. 13)

6. Spend energy on solutions.
Buckle down. Channel your thoughts and efforts along productive lines. Get busy instead of getting mad. . . . Action is better therapy than tears. And doing your part to help the organization adjust will lower your level of emotional stress a lot better than resisting the changes ever would. (p. 15)

7. Take more risks.
Change redefines where the biggest gambles lie. No longer is there safety in the status quo, in trying to conduct business as usual, or in sticking with what brought success in the past. The so-called conservative approach has become the biggest crapshoot of all. The surest security in today's world comes from a willingness to take risks. You need nerve. (p. 17)

8. Don't let strengths become weaknesses.
A culture of inflexibility develops if people put too much faith in their strengths. So be prepared to abandon your best moves. Show respect for what works. Go ahead and give the organization what it needs most—even if that's not your strong suit. . . . The key is to keep learning. Develop in new directions. Adapt. Don't get locked in to a set of skills or an approach that could become outdated. Be willing to bend, to adjust, because a rapidly changing world requires new competencies. Do your part to keep the culture from getting stiff. (p. 19)

9. Welcome destruction.
A culture that's unwilling to break things can't move fast. If it tries to salvage everything, it ends up carrying a lot of old baggage. Bureaucratic practices and all kinds of other bad habits build up over time. Even beloved tradition can anchor the organization to its past, making it tough to respond to the pull of the future. Protecting what "is" often sabotages what "could be." . . . Help create a culture where people are rewarded for disturbing the peace. (p. 21)

10. Make more mistakes.
Change often leaves people feeling exposed . . . vulnerable . . . insecure. They get jumpy about doing anything that might make them look bad. Fear of foul-ups causes them to freeze up. Productivity nosedives. It's a common problem when the organization makes it safer to do nothing rather than do wrong. . . . On the surface it sounds irresponsible, but to flourish in a rapidly changing world you actually need to make more mistakes. Fail quickly. Fail often. If you do something and it doesn't work, just recover in a hurry and try something else. (p. 23)

11. Shoot for total quality.
Change has a way of bringing out the best, the worst, and the so-so in people. . . . Pressed to keep up with change—to do more with less—some people play fast and loose. . . . When enough people get lax in the chase to get things done, the organization's reputation gets a little shabby. (p. 25)

12. Protect what can protect you.
Since your job can never be secure in an insecure organization, it makes sense to invest your energy in protecting what can protect you. Think beyond the "me" issues. Focus instead on strengthening the organization so it can better serve. Rather than maneuver in an effort to protect yourself, do everything within your power to protect the customer. (p. 27)

13. Practice aloyalty.
Over the years loyalty developed a good reputation. Long considered a virtue, loyalty got rewarded by service pins, automatic pay raises, and promotions. But today loyalty creates problems when people pledge allegiance to a culture that no longer should exist. . . . The absence of loyalty is not necessarily disloyalty. A culture of aloyalty is better than allegiance to outdated values, beliefs, and behaviors. (p. 29)

14. Have faith in the opportunities.
We need to remember that opportunity often comes disguised as trouble. Rather than dwelling on the negatives, we need to attack problems with a can-do attitude. We do the best job of managing change when our mind-set is relentlessly positive. Hope for tomorrow enables us to transcend the problems of today. . . . Believe in the opportunities,

and you help them appear. Keep the faith, and you contribute to a culture of optimism, hope, and expectancy. (p. 31)

15. Take personal responsibility for fixing things. There are more than enough problems to go around, so take your share of the responsibility for fixing things. Push for a culture of personal accountability. (p. 33)

16. Act like a child.
Adults try to cope with the challenge of change by "using their heads," trusting in logic, and drawing on experience. But as kids we followed our hearts as much as our heads. We trusted our creative instincts, our intuition, because our logical thinking skills had not yet developed, and since we had not been around long enough to learn much from the past, we did not get trapped by our old solutions. We did not get hung up in tradition. . . . We need to act like children again—create a culture that knows how to learn—and we can give the organization the keys to the kingdom. (p. 35)

At no time in the history of MVITEC have the issues of change and balance been so prominent and important as they are today. This is not the first group of professionals to address these issues, and it will surely not be the last. In fact, just about 10 years ago, leaders of the International Technology Education Association addressed a similar issue when they decided to change the name from *industrial arts* to *technology education.*

The vision for MVITEC should be a bonding agent that provides purpose and distinctiveness. The purpose will answer the question, "why does this organization exist?" The distinctiveness will establish a unique position for the organization. Seymour (1993) stated that if all the members do not "use virtually the same words to describe your distinctiveness, your individuality, you have a problem that

necessarily affects the quality of your operation" (p. 60). Purpose and distinctiveness can be accomplished only when MVITEC's members have a sense of history about the organization, understand what works and what doesn't work, and are willing to understand the view of the profession it serves. This vision should hold emotional power for members as they organize MVITEC's knowledge while supplying hope, passion, and direction. The vision should be something worth remembering. It should give the members something to rally around. Seymour (1993) concluded by stating that "the purpose of a vision statement is to articulate, clearly and concisely, our institutional intent. It should focus on values, guiding principles, and distinctive competencies to the exclusion of almost everything else" (p. 71). Balancing the traditions and the contemporary needs of the members of this organization will help the membership to understand its unique culture plus the emerging conditions in the profession. The process that the members engage in to define the vision and mission is much more important than any definitive statements that may be ultimately developed. The process, it is hoped, will provide the members with an opportunity to identify some level of comparative advantage and thereby create a framework for future decision making.

Thus, first, the organization's vision must be defined. Second, its mission must be decided. Once that has been clearly delineated, then yearly goals must be identified to achieve the mission. Finally, balancing traditions and contemporary needs may be a very arduous task, but it is imperative for the survival of MVITEC.

References

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Rupert N. Evans

The Historic Role of the Mississippi Valley Industrial Teacher Education Conference

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Many of us have had extensive experience with the MVITEC Conference, but we need more than personal experience if we are to address the historic role of the Conference properly. The Conference had been going strong for 40 years when I attended my first meeting, and by the time I became a member,

it was 50 years old. Since I am one of the older members, it is clear that a substantial amount of our history is not available first-hand. Much of what I know about the history of the Conference has come from interviews with fellow Conference members and historians, and from the study of documents in our files in the

University of Illinois Archives. I am at least as proud of my years as Conference historian as of the other roles I have played in our organization, and hope that this experience adds value to my presentation.

One purpose of history is to help us to avoid accidental, unknowledgeable re-creation of the past. Since the purpose of this year's Conference is to address the vision, the mission, and the goals of the Conference, I have tried to present a bit of our history in ways designed to aid that purpose.

This paper begins by evaluating some of the unique ways in which the Conference has operated. These procedures have had a substantial effect on our accomplishments. Next, I address ways in which the mission and goals of the Conference have been developed by the membership and ways in which the membership has changed. Some of the changes in goals of the Conference are described, and the paper ends with a brief personal view of what I believe we should learn from our history.

OPERATING PROCEDURES OF THE MVITEC

Most historians have paid much more attention to the stated goals and to the paper products of the Conference than to its procedures. In some ways, however, the procedures have been more important. They are distinctly different from the procedures used in most organizations, and they have survived with fewer changes than have the goals of the Conference. Other organizations have goals that are remarkably similar to the goals of the Conference, but no competing organization has procedures similar to ours. The means always affect the ends, but too often the means are overlooked by historians and by reformers.

Procedures That Have Had Positive Results

More than most organizations in our field, MVITEC has had continuity. Not only have there been relatively few general chairmen (recently, their tenure has averaged about 10 years), but the membership has been remarkably stable. The rule "once a member, always a member, of some class" is believed to be unique.

Not only have people persisted in membership, but they have also been remarkably consistent in attending. The rule "if you miss three meetings in a row you are automatically transferred to 'past member' status" probably has been a major factor in encouraging attendance.

The rule "only members may speak" encourages visitors to seek membership and assures all members an opportunity to be heard.

The rule "no one may become a member unless he or she has been a visitor one year and is present at the time of induction" has allowed newcomers to see in advance what they are getting into.

The process of electing members-at-large has increased the diversity of membership and has added some very capable members, many of whom could not have been admitted through standard membership procedures.

The screening of prospective members by the membership committee has been conducted fairly and efficiently. It has eliminated several potentially embarrassing cases from being brought to an uninformed vote.

The expectation that the general chairman would set the program and choose the presenters has worked well. The expectation that he would pontificate on the state of the profession at least once during each session should be revived, for it has fallen somewhat into disuse during the reigns of the last two chairmen.

An unwritten rule is that the Conference will not attempt to reach a consensus. "Take what you can use, and leave the rest behind" has been cited frequently when someone tries to bring professional disagreements to a vote or otherwise impose an orthodoxy on the organization. Probably this rule has kept within the Conference some of those who were, at least temporarily, in the minority. Since voting on professional controversies rarely changes deeply held views, this has been a good rule. Certainly it has led to lively discussions.

Perhaps the most important procedures of the Conference have been the rules that limit the style and length of presentations and that emphasize thorough discussion. "No presentation may be read" and "no presentation may exceed 15 minutes in length." The practice of allowing no more than three presentations per half-day session allows opportunity for full discussion of topics. Contrast this with the usual conferences we attend, which maximize the number of formal presentations and minimize or even eliminate discussion.

Procedures That Have Had Positive and Negative Results

The rule that there can be only one active member per institution has kept large institutions from dominating discussion, but is has kept some very capable persons from becoming members. The negative aspects of this role have been somewhat mitigated by the expansion in the number of members-at-large.

The rule "no one can become a member unless he or she is invited by a member to be a visitor and is proposed for membership by a member" has also had mixed results. It has encouraged some members routinely to invite

all professionals from their state to attend, but other members choose to invite no one. As a result, some states and some institutions are unrepresented and some marginally qualified persons are proposed for membership.

Procedures That Have Had Mostly Negative Results

The rule "an active member must be the person who is directly responsible for the program of industrial teacher education at his or her institution" has kept many excellent persons from membership, has enabled some people of marginal capabilities to become members, and has encouraged some major fudging of facts in order to allow a person to become or to continue active members.

The worst rule, allowing a single member to blackball a prospective member, was changed more than a decade ago. The current rule, allowing a group of members to block membership, has never been invoked, but it probably should be changed to allow new members to be approved by majority vote.

While it is not a formal role, there is a long-standing practice of considering technology education and vocational industrial education almost entirely in the context of public school grades 6–12. This pernicious habit has encouraged development of curricula in isolation from the activities of other educational institutions such as elementary schools, community colleges, and technical institutes, and it has minimized interaction with technical education in four-year institutions, in the armed forces, and in business and industry.

MEMBERSHIP CONTROL OF THE CONFERENCE MISSION AND GOALS

The founding members of the Conference seem to have had little interest in controlling its activities directly. They installed a powerful person, William Bawden, as General Chairman and continued to keep him and each of his successors in office until they died or retired from that office (usually well after they had retired from their paid roles in the profession). Because of the long tenure of these Chairmen, Harold Silvius, the first historian of the Conference (though he did not bear that title), regularly referred to them as the Life Chairmen of the Conference. The Chairman has always had sole authority to select the program topics and the persons who would make presentations. And, he has been expected to speak *ex cathedra* from time to time on the directions that the Conference and the profession should take.

Nevertheless, it has been the members, not the Chair, who really have determined the mission and goals of the Conference. They have achieved this control in a variety of ways.

1. The Chairman regularly consults with members about desirable topics, and the last four Chairmen usually have asked for a vote on the final list of topics as a guide in preparation of the program.

2. It has been a continuing source of amusement to Conference members for the speaker of the moment to preface his remarks by "The Chairman has asked me to talk on topic X, but I have decided to approach topic Y."

3. After the typical three oral presentations per half-day session, the free-wheeling discussion has tended to begin by concentrating on only one or two of the presentations, and then to wander off in whatever direction the members choose to go. Until recent years, non-members rarely have been allowed to make a presentation, or even to ask a question during the discussion period. And even now, these privileges are extended only rarely.

4. The selection of the General Chairman is controlled by the members (though they have not controlled the time of his retirement).

5. Most important, the members control the membership. This control is exercised in several ways. To become a new member, you must have been a guest for two conferences, and only a member can invite a guest. Although the General Chairman selects the membership committee, the membership votes by secret ballot on new members, and at least one of the major members of our procession was denied membership by being blackballed by members. It seems likely that several members have stopped attending because they felt that their views were not influential in the discussions around the Conference table.

CHANGES IN MEMBERSHIP AND PROGRAM

Most of the early members of the Manual Arts Conference of the Mississippi Valley were heads of departments of manual training or manual arts in colleges in Illinois, Indiana, Iowa, Missouri, and Wisconsin, states where such collegiate instruction began. It has sometimes been assumed that the duties of such departments were confined to the preparation of teachers for the public schools, but this was not the case. Several of them trained people in and for business and industry, and most of them provided instruction for other collegiate departments, including engineering, elementary education, occupational therapy, and industrial design. And several of them provided

general education elective courses for all students in their own institutions.

The chief interest of the members since the inception of the Conference has clearly been practical arts and industrial education programs for the public schools. They showed this interest by inviting to membership the heads of large city school programs and key members of state education departments who were concerned with manual training, manual arts (and later, industrial arts and technology education), trade and industrial education, and career education.

It is difficult to determine causes, but as these programs became accepted in the public schools, the number of lit. members who were city school administrators declined. At the same time, emphasis in Conference programs shifted away from how to operate public school programs to stress, instead, how to prepare teachers and administrators. However, concern about what should be taught in the public schools has never been absent from Conference deliberations. The goals and content of manual training, manual arts, industrial arts, trade and industrial education, career education, or technology education have been debated at every conference, and at almost every conference one or more of its program sessions have concentrated on educational goals and content.

For most of the first two thirds of the life of the Conference, the most important controversy, which ran through almost every discussion, was the extent to which our programs should emphasize preparation for employment. Some members have felt strongly that the public schools should have no role in preparing any student for any occupation or group of occupations; for some of these members, "work" in education has been on a par with other Anglo-Saxon four-letter words. A few members have argued with equal passion that it was reprehensible to fail to offer instruction in the public schools to prepare students who wished to gain entry into one or more occupations. Discussion of these points of view has verged on intemperance at times, but no actual violence has occurred, and the one death we have had at the conference table almost certainly was not due to the topic of the moment.

However, for the last 20 years or so, it appears that the great majority of members have been happy with the trend in the public schools to prepare every student for college entry despite the fact that 90% of handicapped youth do not attend college and a majority of students do not graduate from college. Consequently, in recent years the transition from high school to work has seldom been a topic of discussion here. Our programs have come to ignore or disparage the valiant efforts of most of our graduates who labor in secondary schools to meet the real life needs of their students. This shift in emphasis appears to have been due almost entirely to changes in Conference membership that have practically eliminated those who are concerned with vocational or career instruction at the secondary school level.

RESPONSES OF THE CONFERENCE TO THE CONTEXT IN WHICH IT OPERATES

When the Conference began, less than 10% of the population was graduating from high school. This percentage is now about 80, and in some communities, less than 10% do not graduate. When the Conference began, the opportunities in postsecondary education were limited almost entirely to four-year programs. Now, one or more publicly supported two-year postsecondary institutions is near almost every home, and technical programs in four-year institutions are broader and more available than ever before. However, the Conference has paid little attention to technical types of programs that are offered outside grades 6–12.

When the Conference began, the high school curriculum was almost completely prescribed, with few or no electives. During the 1950s and 1960s, breadth of curricular offerings was at its height, but we have now returned to a curriculum that is almost as circumscribed as that at the turn of the century. The lack of electives has destroyed many of the programs with which we have been concerned in the past and has curtailed opportunities severely for teachers who are graduates of our programs. In turn, this has cut the ranks of institutions that have teacher education programs in our field and has cut the ranks of teacher educators within those institutions that continue to have programs. In self-defense, and to meet the need for technically trained workers, many collegiate industrial arts departments that had no use for the teaching of salable skills in the secondary schools now spend almost all of their time developing salable skills in their own programs. If budget cuts have been necessary, these salable skills programs have been given resources from teacher education programs, based almost entirely on undergraduate enrollments.

At the same time, the ranks of trade and industrial teacher educators were thinned by the removal of earmarked federal funds for this activity. In some states these teacher education positions were eliminated completely. But even in institutions where such programs

have continued, few of their representatives are invited to participate in the Conference. Fewer and fewer members are concerned with the school-to-work transition.

As a result of these changes, the number of Conference members has shrunk substantially, and it seems likely that unless changes are made, this shrinkage will continue until universities begin again to add programs of technology teacher education in response to renewed demand for secondary school teachers.

At the same time, the influence of the members of the Conference has declined. When the Conference began, most of its members were administrators of substantial programs and supervised substantial numbers of staff members. In the 1950s and 1960s, Fryklund was General Chairman at the same time he was the President of Stout State College, and many of the members supervised staffs of 20 or more professors. Now, many supervise only their own work, and many have substantial duties that have nothing to do with industrial teacher education.

Most of the changes noted above have occurred gradually, but the Conference lost status suddenly because of a major change in its membership qualifications. During the 1970s many of its members became heads of colleges or schools of technology in their universities. Late in this decade the members decided that new members should be directly in charge of industrial teacher education programs, which effectively eliminated the voices of the new deans and directors who headed programs that included both technical education and industrial arts teacher education.

This membership rule almost certainly has hampered changes that the conference should have made long ago. One distinct step was taken to broaden the organization when at-large membership was added. This type of membership removes all of the traditional strictures and has increased the diversity, the influence, and the intellectual horsepower of the Conference. Perhaps the proportion of members-at-large should be increased to half or more of the total membership.

CHANGES IN GOALS OF
THE CONFERENCE
Largely because of changes in its membership, this has become almost entirely a conference on industrial arts/technology education in the public secondary schools. It is my personal opinion that the Conference should also be concerned with the transition from school to work and with teacher education for technical education programs at all levels of higher education and in business and indus-

try. However, it would be difficult to change the goals of the Conference without a corresponding change in membership.

In recent years, the very name of the Conference has begun to sound archaic. The first name of the Conference was finally changed after 40 years when Professor Lynn Emerson said that he would no longer ask for permission to attend a conference that was labeled with the obsolete name of Manual Arts. The Industrial Revolution, which gave its name to Industrial Arts, Trade and Industrial Education, and the Mississippi Valley Industrial Teacher Education Conference, is widely considered to have been replaced by the Information Age. Manufacturing, which has provided most of our content, has long been surpassed in number of employees and in value of its output by the service economy. Consideration should be given to a change of name, perhaps to the Mississippi Valley Technical Teacher Education Conference.

We need continually to ask ourselves, "Are the goals and procedures of the Conference relevant to today's needs?"

WHAT WE SHOULD LEARN
FROM OUR HISTORY
History tells us that when the context changes, organizations must change also. Actual changes almost always lag behind the need for change, but they will occur eventually. Change can occur internally, or it can be forced by events outside the organization. It can occur in a planned fashion, or it can happen with little or no forethought. If changes are inappropriate or too long delayed, the organization may die and be replace by other organizations that are more appropriate to the needs of a portion of society.

History rarely provides specific guidance, but suggestions may be inferred. Here is what I infer from our history

1. If our organization is to be influential, at least some of its members must be influential.
2. MVITEC should consider whether its goals, its membership, its procedures, and even its name are appropriate to today's context.
3. The time at which the General Chairman is replaced has been and is now an opportune time for organizational change, but we should not throw the baby out with the bath water.
4. Our procedures may need less change than our goals and our membership.
5. The strength of an organization is dependent on the strength of its members. We need to recruit the strongest possible new members and the strongest possible General Chairperson. Such people will ensure

that we have the procedures and the program direction that will make the organization effective and influential. Strategic planning usually assumes that incumbents can provide the vision that is needed. Will a Moses arise?

6. The greatest strength of the MVITEC has been its influence on the course of our field. This influence has been expressed outwardly through the efforts of individual members who have written, have built educational programs, and have participated in professional meetings in ways that have brought improvement. Many of their thoughts have been developed and refined through MVITEC presentations and discussions. (H. H. London always referred to this process as "road-testing of ideas.") The influence of the conference has also been expressed inwardly, through the development of new leaders in the crucible of MVITEC participation. Ask anyone who has made a presentation before us to contrast this experience with that of presenting a paper at a typical professional conference. The fostering of both outward and inward influence should be continued and intensified as a conscious goal of the Conference.

7. With the virtual disappearance of vocational education from secondary schools in the United States, we need to renew questions about the role of technology education in aiding students in the transition from school to work.

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The National Association of Industrial and Technical Teacher Educators (NAITTE)

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The importance of professional organizations should not be underestimated. Although individuals in a profession may have only a minor influence on their field, they can have significant power through their professional organizations. Members of a professional organization can work toward the continuation of the profession in its current form, and they also can promote new initiatives that could alter the profession in important ways. Professional organizations can also provide a means for the professional growth and development of its members through both formal activities and informal relationships and interactions.

The field of industrial teacher education includes numerous professional organizations that are based on particular philosophical views which attract fairly homogeneous groups of professionals. Most of the professional organizations have one primary focus. For example, the International Technology Education Association (ITEA) has emphasized the advancement of nonvocational public school programs in technology education, whereas the National Association of Industrial Technology (NAIT) has focused on postsecondary programs for technologists. Only three professional associations are devoted solely to the advancement of teacher education in industrial, technical, or technology education. These teacher education organizations include the Mississippi Valley Industrial Teacher Education Conference (MVITEC), the National Association of Industrial and Technical Teacher Educators (NAITTE), and the Council on Technology Teacher Education (CTTE). The purposes of this article are (a) to examine the history, philosophy, and mission of NAITTE; (b) to explore its relationship with other teacher education organizations; and (c) to examine its structure so readers can better understand how it encourages cooperation and collaboration among several diverse programs.

HISTORICAL CONTEXT OF THE FOUNDING OF NAITTE

Before NAITTE evolved into an organization, the field of industrial education was

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characterized by restrictive federal rules made during the late 1920s and early 1930s and conflicting views regarding who should have primary responsibility for the preparation of trade and industrial education (T&I) trainers. As described by Evans (1988), the founders of the National Association of Industrial Teacher Trainers (NAITT) were concerned that federal rules were becoming too restrictive, which could lead to low enrollments in the industrial education programs offered in public schools and colleges. They were also concerned that the federal rules would create further artificial barriers between industrial arts and T&I by preventing future industrial arts teachers from enrolling in courses that were taught by staff whose salaries were paid with vocational funds. Some educators believed that colleges and universities were the logical place for training T&I teachers, because these institutions were already involved in the preparation of nonvocational teachers. In opposition to the colleges and universities, large school districts (e.g., Milwaukee, Chicago, St. Louis) were positioning themselves for this role by hiring their own teacher trainers and developing training centers that would prepare industrial and technical teachers for their schools. State Boards of Education were also trying to gain control over the field of industrial teacher training. The goal of these boards was to have direct control over the hiring of teacher trainers, because members believed that the university professors spent too much of their time in activities that were unrelated to the preparation of teachers. These teacher trainers worked out of state board offices, and they provided both teacher training for and supervision of new teachers.

These conflicting approaches to teacher training seemed irrelevant for those who worked solely with industrial arts teachers. Industrial arts programs were based on the philosophy that their content was appropriate for all students; therefore, industrial arts was a form of general, not vocational, education. As a result, state and federal requirements were a lesser concern for the industrial arts teacher educators, because they did not receive federal and state vocational funds. In contrast, many of the teacher trainers for T&I were temporary employees, and most of these trainers were paid, at least in part, by the state boards of vocational education through state or federal vocational funds. In addition, some colleges and universities were already educating industrial arts teachers as well as teachers for other general education subjects.

Thus, NAITT was founded in 1937 in response to both the increasing federal restric-

tions and the power struggle for control over industrial teacher training (Evans, 1988), a situation that was similar to the events that led to the creation of the American Vocational Association in 1926 (Evans, 1986). Leaders in the field of industrial teacher training felt threatened by the current situation and wanted to do something about it, but there was no one they could turn to. The Trade and Industry Division of AVA seemed like a logical ally, but its membership was composed primarily of state and local supervisors who wanted teacher training conducted through in-service activities. Because there was no existing professional group, Professors George E. Myers from the University of Michigan and Homer J. Smith from the University of Minnesota proposed that a new organization of industrial teacher trainers be created. It was believed that a group of teacher trainers could have a stronger influence on industrial education if they were organized like the state vocational directors. Thirty-six educators from 21 states met at the 1936 AVA convention in San Antonio, Texas, and formed the National Association of Industrial Teacher Trainers. Its officers included George E. Myers, University of Michigan, as president; Oakley W. Furney, New York State Department of Education, as vice president for T&I; Robert W. Selvidge, University of Missouri, as vice president for industrial arts; and Homer J. Smith, University of Minnesota, as secretary-treasurer.

Throughout the years, NAITT has evolved and developed in response to various events (see Figure 1). In 1953, NAITT became the National Association of Industrial Teacher Educators (NAITE), because some members had strong views against the word *trainers* and a preference for the broader term *educators*. In 1956, NAITE became the temporary home of many professionals in health occupations because they did not have an organization of their own. In 1967, the name was again changed to reflect the growth of technical education, this time to the current name of the National Association of Industrial and Technical Teacher Educators (NAITTE). In 1980, educators in health occupations withdrew from the membership because they had formed their own organization. The latest significant change in the membership of NAITTE occurred in 1985, when military and industrial trainers were accepted as members. Both the changes in the name of the organization and the type of professionals welcomed into the NAITTE membership reflect its willingness to adapt to the changing nature of the field; it has become a diverse organization that accepts the wide range of roles subsumed under the
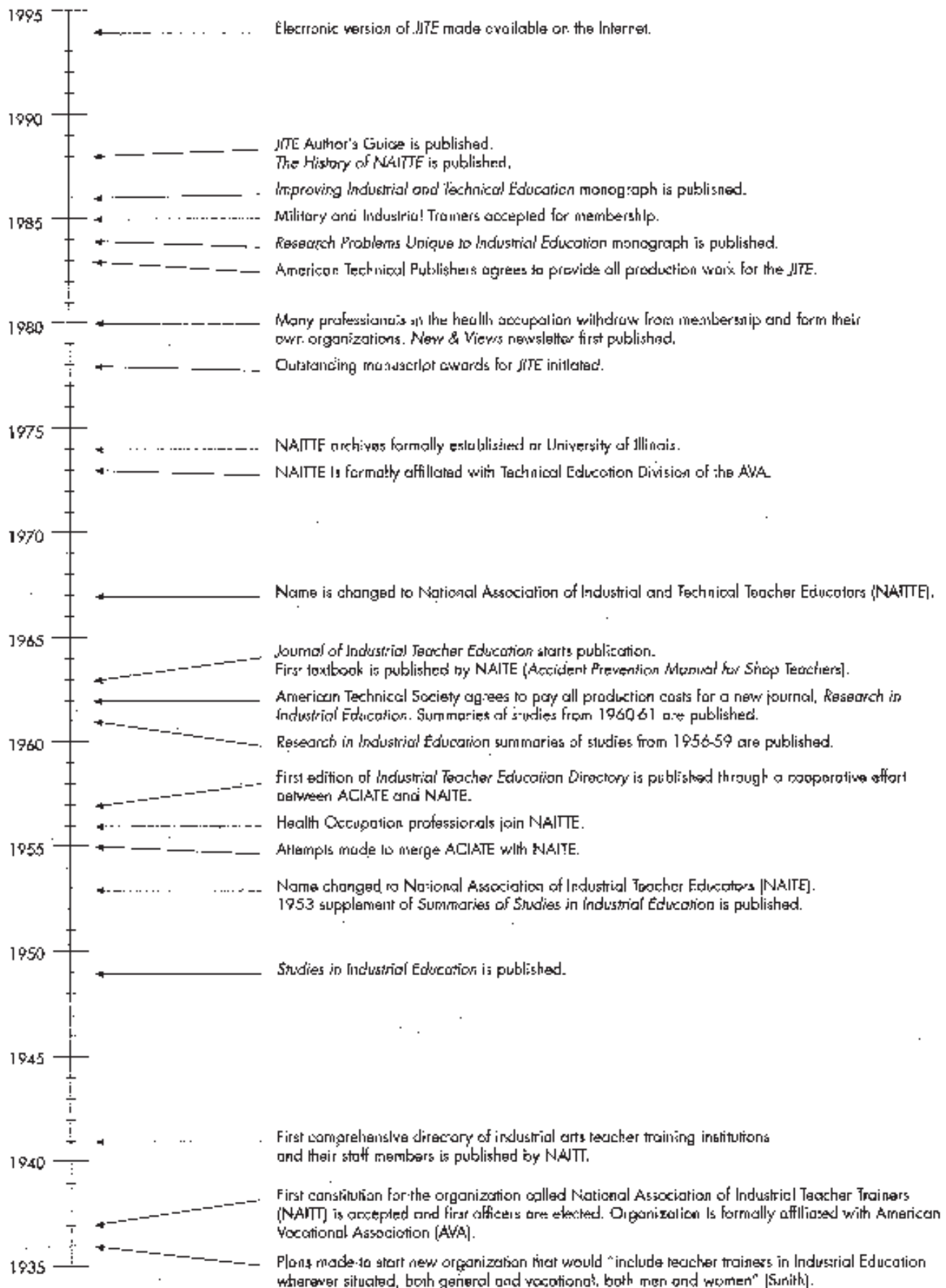
1995 — Electronic version of JITE made available on the Internet.

1990

JITE Author's Guide is published.
The History of NAITTE is published.

Improving Industrial and Technical Education monograph is published.

1985 — Military and Industrial Trainers accepted for membership.

Research Problems Unique to Industrial Education monograph is published.

American Technical Publishers agrees to provide all production work for the JITE.

1980 — Many professionals in the health occupation withdraw from membership and form their own organizations. *New & Views* newsletter first published.

Outstanding manuscript awards for *JITE* initiated.

1975 — NAITTE archives formally established at University of Illinois.

NAITTE is formally affiliated with Technical Education Division of the AVA.

1970

Name is changed to National Association of Industrial and Technical Teacher Educators (NAITTE).

1965 — *Journal of Industrial Teacher Education* starts publication.
First textbook is published by NAITE (*Accident Prevention Manual for Shop Teachers*).

American Technical Society agrees to pay all production costs for a new journal, *Research in Industrial Education*. Summaries of studies from 1960-61 are published.

1960 — *Research in Industrial Education* summaries of studies from 1956-59 are published.

First edition of *Industrial Teacher Education Directory* is published through a cooperative effort between ACIATE and NAITE.

Health Occupation professionals join NAITTE.

Attempts made to merge ACIATE with NAITE.

1955 —

Name changed to National Association of Industrial Teacher Educators (NAITE).
1953 supplement of *Summaries of Studies in Industrial Education* is published.

1950 —

Studies in Industrial Education is published.

1945 —

First comprehensive directory of industrial arts teacher training institutions and their staff members is published by NAITT.

1940 —

First constitution for the organization called National Association of Industrial Teacher Trainers (NAITT) is accepted and first officers are elected. Organization is formally affiliated with American Vocational Association (AVA).

1935 — Plans made to start new organization that would "include teacher trainers in Industrial Education wherever situated, both general and vocational, both men and women" (Smith).

Figure 1. Timeline of Significant Events in NAITTE History.

inclusive term of *industrial education*. Each of these changes in NAITTE's membership did not occur in a perfunctory or casual manner; rather, significant controversy lead to much deliberation by NAITTE's leaders before the changes were made.

MISSION AND GOALS

Ever since its founding, NAITTE has been a comprehensive organization that encompassed the various subfields of industrial education, including those with either a vocational or a general education perspective. The policy to open the membership to a wide range of related programs can be traced back to the vision of the founders. The organization's members clarified their position on this issue when they agreed with Homer J. Smith's view that they should "include teacher trainers in Industrial Education wherever situated, both general and vocational, both men and women." Many of the founders believed that the quality of industrial education programs would be greater if secondary students had the opportunity to explore industrial occupations through industrial arts courses before they enrolled in vocational programs. This view carried over to teacher training. The founders agreed that teacher training programs should enroll students from both the industrial arts and T&I, because this was the best way for members of each group to understand each other. However, a substantial number of teacher educators who joined later did not agree. Some educators wanted to keep T&I teacher training separate because of its vocational funding, whereas other educators wanted to keep industrial arts teacher education separate because of its general education emphasis.

Although many different pressures and challenges have faced NAITTE over the years, the goals that were adopted by NAITT's founders in 1937 have changed little. The original constitution, adopted in 1937, included the following five *Aims and Purposes*:

> This Association shall earnestly endeavor:
> (a) To bring about closer cooperation among those engaged in preparing and up-grading teachers and other workers in Industrial Education.
> (b) To stimulate and take appropriate action concerning practices and proposals in industrial teacher-training and in other educational phases related thereto.
> (c) To increase the contribution of the group to the extension and perfection of all phases of industrial education and of other forms of vocational education.
> (d) To foster research and the recording of experience in line with professional interests.
> (e) To promote other common desires of the group. (Silvius, 1948, p. 453)

With the exception of the change from "teacher-training" to "teacher education" in 1953, these *Aims and Purposes* remained the same until 1980. Even though there were major changes in the wording of the 1980 constitution, the basic goals of NAITTE remained the same:

> This Association shall earnestly endeavor to:
> (a) Bring about closer cooperation among those engaged in the professional preparation of teachers for Industrial Arts, Trade and Industrial Education, and Technical Education;
> (b) Promote efforts to improve the quality of Industrial and Technical Education;
> (c) Disseminate information regarding research and development activities that have implications for Industrial and Technical Teacher Educators;
> (d) Promote the common good of the group. (NAITTE, 1980)

The only significant change to the goals of NAITTE occurred in 1985 when the *Aims and Purposes* were replaced by the following *Mission* statement:

> The Association serves as the catalyst for excellence in the industrial and technical teacher education profession. The organization accomplishes this mission of stimulating and promoting positive change by:
> (a) Providing opportunities for professional improvement;
> (b) Promoting cooperation among related client groups in the field; and
> (c) Serving as authority and advocate in the preparation of professionals in industrial and technical teacher education and industrial and military trainer training. (NAITTE, 1985, p. 5.0.0)

The most recent modification of the *Mission* statement occurred in 1989. Even though this was primarily an improvement of the wording in the prior statement, the authors of the new statement were careful to insert the phrase "in all settings." Also, the term *training* reappeared, this time to include people who conduct training in industry.

> The Association advances and promotes excellence in industrial and technical teacher education and trainer training in all settings. The Association accomplishes this goal by providing opportunities for professional improvement for its members, promoting cooperation among related groups in the field, and serving as authority on and advocate for industrial and technical teacher education and trainer training. (NAITTE, 1992, p. 2.00)

A common thread connecting the four versions of NAITTE's goals is the emphasis on fostering cooperation among the related groups in the field. Anyone familiar with the history of industrial and technical education is aware of

the conflicts and power struggles that have occurred between the various groups over the years. This is especially true regarding the industrial arts and the vocational-technical communities. We believe that the separation between the general education advocates in industrial arts and the vocational interest of the others has been an unfortunate situation for all, but obviously others disagree. Some leaders in the industrial arts community shunned vocational-technical education because, in contrast to their own program, they viewed it as too specialized, too occupation oriented, and unrelated to the needs of the majority of students. In contrast, many educators in the vocational-technical community failed to discern the subtle philosophical and practical differences between their programs and the industrial arts program and they viewed the industrial arts as feeder programs for T&I programs. Although these statements oversimplify the differences between the programs, they serve to characterize the historical division between the two programs. Even today, if one substitutes "technology education" for "industrial arts," the above comments still hold true. Based on the historical record of NAITTE, it is clear that the founders of the organization recognized the quandary created by a separation (whether real or perceived) between the vocational and the general education supporters in the profession. In the published Aims *and Purposes* of NAITTE, the leaders were explicit about the need to bring about closer cooperation among those engaged in the professional preparation of instructors for technology education, T&I, technical education, and industrial training.

EXTERNAL INFLUENCES AND RELATIONSHIPS

As stated by NAITTE Historian Rupert N. Evans, the

> NAITT-NAITTE structure was and is an anomaly, and the fact that it relates to several subject fields has caused tensions (and sometimes tempers) to flare repeatedly. It has also produced good communications within industrial education and worthwhile, joint projects in general and vocational education which the other subject-oriented teacher education organizations rarely have been able to duplicate". (1988, p. 12)

Viewed another way, the structure of NAITT-NAITTE is a reflection of the organization's continued goal to enhance the cooperation among technology (industrial arts), T&I, and technical teacher educators.

One example of NAITT's support for the diverse views in the field was the inclusion of a vice president for each of the constituent groups on its Executive Committee. From 1937 through 1938, there were two vice presidents, and from 1939 through 1949, there were three vice presidents. Usually two of these vice presidents represented industrial arts and one represented T&I, or vice versa (Evans, 1988). In 1950, the number of vice presidents on NAITT's Executive Committee increased to four. Eventually, the third vice president was designated to represent postsecondary technical teacher education; beginning in 1985, the fourth vice president represented industrial and military training interests. According to NAITTE's *Administrative Handbook,* the vice presidents must "currently function in teacher/trainer education" and "be a member of the respective Division (Technology Education, Trade and Industrial Education, Technical Education, Industry Specific Training) of the American Vocational Association" (NAITTE, 1992, p. 4.50). Including such disparate representation on the Executive Committee of NAITTE has been a hallmark of the organization since its inception and a feature that differentiates it from many other professional organizations.

According to policy, each vice president was to represent a specific constituent group of NAITTE, althuogh in 1950 all four vice presidents were involved in the preparation of industrial arts teachers. One reason for this problem was that each of the vice presidents was actually involved in programs that prepared both industrial arts and T&I teachers, but all were perceived by the members as "industrial arts proponents." This imbalance toward industrial arts on the Executive Committee created such a disturbance in the organization that none of the vice presidents was reelected. To prevent similar conflicts from arising again, a more rigid system of designating the primary program of each vice president was instituted in 1951. This system guaranteed that each group would have equal representation on the Executive Committee.

Mississippi Valley Industrial Teacher Education Conference

The desire of NAITTE's leaders to include members from both the industrial arts and the T&I programs was probably influenced greatly by the structure of the Mississippi Valley Conference (Evans, 1988). The Manual Arts Conference of the Mississippi Valley was founded in 1909 to bring together the department heads who worked in teacher education programs in manual arts (which evolved into industrial arts and then technology education) and industrial education (which evolved into trade and in-

dustrial education) and state and large-city supervisors. The structure of the Conference seemed to develop out of a "midwestern" conviction that strong vocational programs were built on a foundation of worthwhile courses in industrial arts, home economics, and other practical activities in the elementary and secondary schools (Bawden, 1950). Many of the founding members of NAITT were also members of the Mississippi Valley Conference. Of the 11 who attended the initial planning meeting for NAITT, 6 were members of the Mississippi Valley Conference. Four of the seven temporary officers of NAITT in 1936-37 were members of the Mississippi Valley Conference; in 1937-1938 five of the eight officers were also conference members.

The connection between the Mississippi Valley Industrial Teacher Education Conference (MVITEC) and NAITTE remains strong even today. Four of the five "conference chairs" of MVITEC have been members of NAITTE. Of the 91 active, at-large, and associate members of MVITEC, 28 are also members of NAITTE (31%). Even though NAITTE has enjoyed a strong relationship with MVITEC, the Council on Technology Teacher Education (CTTE) has also had strong representation in the Conference. Of the 91 active, at-large, and associate members of MVITEC, 59 are also members of CTTE (65%). Twenty-six percent of the MVITEC's members are also members of *both* NAITTE and CTTE (24 of 91). It is interesting to note that 86% of MVITEC's members who belong to NAITTE are also members of CTTE. In contrast, only 41% of MVITEC's members who belong to CTTE are also members of NAITTE. These data lead to two interrelated conclusions. On the one hand, the willingness of NAITTE members to join CTTE seems to support NAITTE's long-standing tradition of trying to bring together the various groups in the field. On the other hand, the relatively small percentage of CTTE members who also belong to NAITTE suggests that many CTTE members feel that membership in NAITTE is not sufficiently relevant to their professional interests.

Council on Technology Teacher Education

The Council on Technology Teacher Education (CTTE) was originally founded as the American Council on Industrial Arts Teacher Education (ACIATE) in 1950. The creation of ACIATE was somewhat parallel to the creation of NAITTE. Although NAITTE tried to serve both industrial arts and vocational education, its close affiliation with several divisions of the American Vocational Association gave the impression that NAITTE was primarily a "vocational" organization. This was apparently the predominant belief of members of the American Industrial Arts Association (AIAA), who did not believe that NAITTE could serve their needs in teacher education. To better represent teacher education in industrial arts, the members of AIAA helped to create ACIATE. Although representatives from NAITTE were opposed to the creation of an organization that seemed to duplicate many of their own efforts, there was little they could do to stop it (Kinzy, 1973).

Even though the relationship between NAITTE and CTTE/ACIATE has been cordial through the years, it has also been limited. The longest cooperative working relationship between these two organizations has revolved around the publication of the *Industrial Teacher Education Directory*. Each year since the first edition was published in 1957, NAITTE and CTTE have jointly sponsored its publication. Several attempts have been made to merge the two organizations, but each one has failed because of the differences in the overall philosophies of the groups. Their affiliation with such different organizations (i.e., AVA and ITEA) has also been a contributing factor. Some efforts have been made through the years to reduce the competition between the two organizations. For example, when members of NAITTE considered a proposal in the early 1960s to prepare a series of "yearbook" publications, it was rejected because such a project would compete with the ACIATE yearbook series, even though the ACIATE yearbooks did not address vocational and technical teacher education. Instead, leaders of NAITTE planned to publish the Journal of Industrial Teacher Education (*JITE*), a scholarly research journal, something that was clearly missing in the field. The desire to avoid direct competition and overlap of publications between NAITTE and ACIATE was clearly explained by *JITE* Editor Ralph C. Bohn and Associate Editor and NAITTE president Robert M. Worthington in their "From the Editor" comments in the first issue of this journal.

The Journal actively supports the American Council on Industrial Teacher Education and their yearbook series. The contribution made by the yearbooks have provided major assistance in the upgrading and clarification of industrial arts. It is hoped that this Journal will complement the efforts of the yearbook by presenting content of interest in all facets of industrial education and providing a rapid dissemination of current and significant information. (Bohn & Worthington, 1963, p. 2)

CONCLUDING THOUGHTS ON COOPERATION AND COLLABORATION ACROSS PROGRAMS

The assumption that underlies the structure and mission of NAITTE is that the programs of technology education, T&I, technical education, and industrial and military training are fundamentally similar across a wide range of characteristics (see Table 1). Of course these programs are not identical. Clearly, each program is based on a distinct philosophy, purpose, methodology, content area, and clientele. Although this may be an oversimplification, the primary differences between these programs are a matter of breadth and scale. As one reads across the columns shown in Table 1, the depth and scope of the program characteristics become more defined and specific. For example, the occupational orientation of technology education is to provide students with an awareness of various technology-oriented careers. In contrast, the occupational orientation of industrial and military training is to provide retraining and skill updating for specific jobs, or even more specifically, for particular job tasks. In spite of these differences in the specificity of the occupational orientation, the programs are fundamentally similar because they all enhance students' occupational knowledge at some level. The same is true for each of the other program characteristics in Table 1. All of the programs, to some degree, incorporate teaching about technology, integrate academic content into their courses, have a connection to business and industry, emphasize hands-on learning through application, and assess student learning through performance and product assessment.

The similarities between the programs can also be observed through their members' opportunities for professional networking. Even though professionals in each of the programs can network through specialized and exclusive channels (e.g., CTTE, NAITTE, NAIT, ASTD), there are only a few opportunities for teacher educators in each of the related programs to work together, share experiences, discuss common problems, and collectively develop solutions. As shown in Table 2, there are several common avenues for professionals in one program to network with professionals from other programs. For example, the American Vocational Association brings together some of the teacher educators from technology education, T&I, and technical education. NAITTE, and to some extent MVITEC, brings together teacher educators from all four of the programs, and the American Educational Research Association (AERA) brings together a more select group of teacher education researchers from the four programs. Opportunities for both learning about the work of others and disseminating the results of one's own work are available through the *Journal of Industrial Teacher Education.* Logically, if Table 2 is correct, networking should be easiest between adjacent columns. For historical reasons, however, in four-year colleges the technology teacher educators have worked more closely with technical teacher educators than with teacher educators in T&I and industrial and military training.

Although no one would argue that it is not important for professionals to belong to organizations that address their specific needs, conservatives in each of the technology-related teacher education programs may argue against professional organizations that try to serve too many constituencies, contending that these organizations can only offer services that are diluted to the issues that are common to each group. Other educators seem to believe that, although memberships may be smaller, the programs will fare much better with multiple organizations because they will have the support and political clout of several "parent" organizations, such as ITEA and AVA (Rathbun & Martin, 1979). The founders of NAITTE would have argued that professional strength is gained through diverse representation and that the differences between the various programs present opportunities for critical discussions and collective problem solving. More recently, the claim has been made that

> NAITTE's unique and valuable contribution may be the integration of the combined efforts of its diverse audience to the future of education for work. The adoption of a broader perspective does not lessen the importance of secondary teacher preparation programs. Instead it provides a bridge for dialog and understanding between groups with a common goal. (Flesher, 1994, p. 91)

To accept this view, one must accept the claim that there are more similarities between the programs than differences. In 1940, Homer J. Smith stated this in the following way:

> I think each year the general and vocational phases of industrial education become more interlocked. These are really unlike in purpose and emphasis but they are seen more each year to be mutually sustaining. It becomes more difficult to know where one leaves off and the other begins. (pp. 143–144)

Table 1

Comparison of selected program characteristics among related fields in industrial and technology education

Selected Program Characteristics	Technology Education	Trade & Industrial Education	Technical Education	Industrial and Military Training
Occupational Orientation	Career awareness	Vocational preparation	Specific job preparation	Job retraining and updating
Location of instruction	Elementary & secondary schools	Secondary schools or area vocational centers	Postsecondary institutions (community colleges) Technical institutes Universities	Most training offered on site in industrial setting Some training offered at local community colleges or private training organizations
Curricular emphasis on academics	Integrated into existing curriculum	Integrated into existing curriculum or adopt new curriculum that emphasizes integration (e.g., Principles of Tech.)	Integrated into existing courses or taught as separte courses (e.g., technical math, technical writing)	Integrated into courses when appropriate
Relationship to business and industry	Limited	Extensive relationship through advisory boards and student internships	Extensive relationship through advisory boards and student internships	Interaction across companies increasing as HRD expands and becomes more professional
Content organizers	Many models exist Crafts (e.g., woods, metals, drafting) General technical systems (e.g., resources, processes, applications, impacts) Human productive systmes (e.g., construction, manufacturing, transportation) Physical systems of technology (e.g., fluidic, thermal, electrical, mechanical) Technology as applied science (e.g., physical, biological, and information technologies) Cognitive processes (e.g., design, problem solving, transferable skills)	Organized according to traditional occupations; emphasis is on breadth within an occupation	Based on specific roles of technicians	Basic skills training (e.g., basic reading or mathematics, technical writing) Soft skills training (e.g., team building) Technical skills training

Table 1 continued

Sources for course content	Individual teacher preferences Textbooks School district curriculum guides State curriculum guides Professional association recommendations National project reports (e.g., Technology for All Americans Project)	Individual teacher preferences State and national curriculum clearinghouses Union and nonunion professional organizations (e.g., Ameriican General Contractors) Advisory committees	Recognized standards and occupational licen- Industry advisory committees	Formal needs assessment Job and task analysis
Primary instructional methods	Classroom lectures/discussions Simulations & problem-solving activities	Classroom lectures/discussions Traditionsl lab activity Simulations & problem-solving activities On-site work experience	Individualized because of open entry/open exit policy Classroom lectures/discussions Traditional lab activity Simulations & problem-solving activities	Classroom lectures/discus-sions Heavy reliance on audio-visuals Traditional lab activity Simulations & problem-solving activities On-the-job training
Instructional facilities	Most programs are offered in traditional industrial arts facilities Some programs have redesigned or constructed new facilities designed for modular instruction	Traditional industrial arts "shops" Specially designed shops/labs in area vocational centers	Specially designed shops/labs	Some specially designed labs that simulate workplace Considerable instruction takes place in workplace
Assessment of learning	Performance and product based Some reliance on pencil-and-paper examinations	Performance and product based Some reliance on pencil-and-paper examinations	Performance and product based Some reliance on pencil-and-paper examinations	Performance and product based Some reliance on pencil-and-paper examinations
Occupational work experience requirements for teachers	None is typically required	Varies from 3 to 7 years	Considerable experience is expected, although this varies depending on availability of qualified instructors Technical degrees sometimes substitute for work experience	Instructors typically have extensive work experience because they are often offered training positions based on their experience and competency levels
Certification and/or licensure of teachers	Provided by State Boards of Education Considering "National Board" certification	New standards for preparation and certification of T & I teachers Can be provided by professional organizations (e.g., ASE) National Occupation Center Test Exam	Certification provided by individual professional organizations	Increased interest in formal certification of industrial trainers
Teacher program accreditation	NCATE accreditation and/or State Board of Higher Education program approval	State accreditation	National accreditation	No accreditation process established

Table 2

Opportunities for professional networking among members in related fields in industrial and technology education

Opportunities for Professional Networking	Technology Education	Trade & Industrial Education	Technical Education	Industrial and Military Training
Teacher education associations	Council of Technology Teacher Educators National Association of Industrial and Technical Teacher Educator Mississippi Valley Industrial Teacher Education Conference	National Associated of Industrial and Technical Teacher Educator Mississippi Valley Industrial Teacher Education Conference	National Association of Industrial and Technical Teacher Educator	American Society for Training and Development National Society for Performance and Instruction National Association of Industrial and Technical Teacher Educator Professor's Network (ASTD)
Other professional associations	International Technology Education Association American Vocational Association (Technology Education Division) American Educational Research Association (attempts are being made to establish a new special interest group for technology education)	National Association of Trade & Industrial Education American Vocational Association (T&I Division) American Educational Research Association (Vocational Ed. SIG) Omicron Tau Theta	National Association of Industrial Technology National Council for Occupational Education American Vocational Association (Technical Education Division) American Educational Research Association (Voc. Ed. SIG) American Society for Engineering Education	American Society for Training and Development American Educational Research Association (Military Education and Training SIG) American Educational Research Association (Training in Business & Industry SIG)
Scholarly journals	*Journal of Technology Education* *Journal of Industrial Teacher Education* *Journal of Technology Studies*	*Journal of Industrial Teacher Education* *Journal of Vocational and Technical Education*	*Journal of Industrial Teacher Education*	*Journal of Industrial Teacher Education* *Human Resource Development Quarterly* *Performance Improvement Quarterly*
Practitioner magazines	*The Technology Teacher* *Tech Directions (formerly School Shop)* *TIES* *Vocational Education Journal*	*Vocational Education Journal* Various trade journals *Tech Directions (formerly School Shop)*	*Vocational Education Journal* Various trade journals	*Technical & Skills Training* *Performance & Instruction* *Training & Development* *Training*

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