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TECHNOLOGY STUDENT ORGANIZATIONS

1989

Council on Technology Teacher Education

38th Yearbook

TECHNOLOGY STUDENT ORGANIZATIONS

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Foreword

As we look through imperfect glasses into the 21st Century, several characteristics of future life seem to be visible. Certainly, the students who populate our classes will be living in a much different world from the one their teachers experienced early in their adult life. This new world will demand a high level of problem solving, increased need for cooperative behaviors, and an ever-accelerating requirement for continuing education.

School leaders must address the demands of the future as they design and modify educational programs. No longer can the past be the beacon for providing direction for educational experiences. Our youth must be able to participate in school activities which are carefully designed to carry them effectively into their adult lives.

This Council on Technology Teacher Education Yearbook presents a vital avenue for developing many essential personal skills necessary to be a fully participating member of society. This vehicle is the student organization as an integrated part of the technology education curriculum. The editors and chapter authors provide the information needed to develop a rationale for student organizations and to organize and lead a successful association chapter.

This yearbook will facilitate the meaningful integration of student organizations into emerging technology education curriculums. Through these activities, students can enhance their leadership and followership skills, interpersonal relations talents, problem solving and creative capacities, and other vital abilities.

All of us in the profession owe the editors and authors a word of appreciation for their willingness to organize and communicate their knowledge on student associations. Now the ball is in our court. As an AIAA conference speaker said more than twenty years ago, quality of life is largely determined by where we put the "i." There is an "i" in winning and one in failure: another in grief and one in excitement; one in faith and one in distrust. We need to put our "i" where it can make a difference. Each of us needs to say, "I will begin or continue to work with technology education student associations at whatever level my teaching assignment dictates."

March 1989

R. Thomas Wright
President, CTTE

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Yearbook Proposals

Each year, at the ITEA International conference, the CTTE Yearbook Committee reviews the progress of yearbooks in preparation and evaluates proposals for additional yearbooks. Any member is welcome to submit a yearbook proposal. It should be written in sufficient detail for the committee to be able to understand the proposed substance and format. Fifteen copies of the proposal should be sent to the committee chairperson by February 1 of the year in which the conference is held. Below are the criteria employed by the committee in making yearbook selections.

CTTE Yearbook Committee

CTTE Yearbook Guidelines

A. Purpose:

The CTTE Yearbook Series is intended as a vehicle for communicating education subject matter in a structured, formal series that does not duplicate commercial textbook publishing activities.

B. Yearbook topic selection criteria:

An appropriate Yearbook topic should:

1. Make a direct contribution to the understanding and improvement of technology teacher education.
2. Add to the accumulated body of knowledge of the field.
3. Not duplicate publishing activities of commercial publishers or other professional groups.
4. Provide a balanced view of the theme and not promote a single individual's or institution's philosophy or practices.
5. Actively seek to upgrade and modernize professional practice in technology teacher education.
6. Lend itself to team authorship as opposed to single authorship.

Proper yearbook themes *may* also be structured to:

1. Discuss and critique points of view which have gained a degree of acceptance by the profession.
2. Raise controversial questions in an effort to obtain a national hearing.
3. Consider and evaluate a variety of seemingly conflicting trends and statements emanating from several sources.

C. The yearbook proposal:

1. The Yearbook Proposal should provide adequate detail for the Yearbook Planning Committee to evaluate its merits.
2. The Yearbook Proposal should include:
   (a) An introduction to the topic
   (b) A listing of chapter titles
   (c) A brief description of the content or purpose of each chapter
   (d) A tentative list of authors for the various chapters
   (e) An estimate of the length of each chapter

Previously Published Yearbooks

*1. *Inventory Analysis of Industrial Arts Teacher Education Facilities, Personnel and Programs,* 1952.
*2. *Who's Who in Industrial Arts Teacher Education,* 1953.
*3. *Some Components of Current Leadership: Techniques of Selection and Guidance of Graduate Students; An Analysis of Textbook Emphases;* 1954, three studies.
*4. *Superior Practices in Industrial Arts Teacher Education,* 1955.
*5. *Problems and Issues in Industrial Arts Teacher Education,* 1956.
*6. *A Sourcebook of Reading in Education for Use in Industrial Arts and Industrial Arts Teacher Education,* 1957.
*7. *The Accreditation of Industrial Arts Teacher Education,* 1958.
*8. *Planning Industrial Arts Facilities,* 1959, Ralph K. Nair, ed.
*9. *Research in Industrial Arts Education,* 1960. Raymond Van Tassel, ed.
*10. *Graduate Study in Industrial Arts,* 1961. R. P. Norman and R. C. Bohn, eds.
*11. *Essentials of Preservice Preparation,* 1962. Donald G. Lux, ed.
*12. *Action and Thought in Industrial Arts Education,* 1963. E. A. T. Svendsen, ed.
*13. *Classroom Research in Industrial Arts,* 1964. Charles B. Porter, ed.
*14. *Approaches and Procedures in Industrial Arts,* 1965. G. S. Wall, ed.
*15. *Status of Research in Industrial Arts,* 1966. John D. Rowlett, ed.
*16. *Evaluation Guidelines for Contemporary Industrial Arts Programs,* 1967. Lloyd P. Nelson and William T. Sargent, eds.
*17. *A Historical Perspective of Industry,* 1968. Joseph F. Luetkemeyer, Jr., ed.
*18. *Industrial Technology Education,* 1969. C. Thomas Dean and N.A. Hauer, eds. *Who's Who in Industrial Arts Teacher Education,* 1969. John M. Pollock and Charles A. Bunten, eds.
*19. *Industrial Arts for Disadvantaged Youth,* 1970. Ralph O. Gallington, ed.
*20. *Components of Teacher Education,* 1971. W. E. Ray and J. Streichler, eds.
*21. *Industrial Arts for the Early Adolescent,* 1972. Daniel L. Householder, ed.
*22. *Industrial Arts in Senior High Schools,* 1973. Rutherford E. Lockette, ed.
*23. *Industrial Arts for the Elementary School,* 1974. Robert G. Thrower and Robert D. Weber, eds.
*24. *A Guide to the Planning of Industrial Arts Facilities,* 1975. D. E. Moon, ed.
*25. *Future Alternatives for Industrial Arts,* 1976. Lee H. Smalley, ed.
*26. *Competency-Based Industrial Arts Teacher Education,* 1977. Jack C. Brueckman and Stanley E. Brooks, eds.
*27. *Industrial Arts in the Open Access Curriculum,* 1978. L. D. Anderson, ed.
28. *Industrial Arts Education: Retrospect, Prospect,* 1979. G. Eugene Martin, ed.
29. *Technology and Society: Interfaces with Industrial Arts,* 1980. Herbert A. Anderson and M. James Benson, eds.
30. *An Interpretive History of Industrial Arts,* 1981. Richard Barella and Thomas Wright, eds.
31. *The Contributions of Industrial Arts to Selected Areas of Education,* 1982. Donald Maley and Kendall N. Starkweather, eds.
32. *The Dynamics of Creative Leadership for Industrial Arts Education,* 1983. Robert E. Wenig and John I. Mathews, eds.
33. *Affective Learning in Industrial Arts,* 1984. Gerald L. Jennings, ed.
34. *Perceptual and Psychomotor Learning in Industrial Arts Education,* 1985. John M. Shemick, ed.
35. *Implementing Technology Education,* 1986. Ronald E. Jones and John R. Wright, eds.
36. *Conducting Technical Research,* 1987. Everett N. Israel and R. Thomas Wright, eds
37. *Instructional Strategies for Technology Education,* 1988. William H. Kemp and Anthony E. Schweller, eds.

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*Out-of-print yearbooks can be obtained in microfilm and in Xerox copies. For information on price and delivery, write to Xerox University Microfilms, 300 North Zeeb Road, Ann Arbor, Michigan, 48106.

Contents

Preface

Student organizations have not been a dominant factor in the industrial arts/technology education curriculum in the past. Generally, there were no student organizations in technology education in junior and senior high and, quite often, none at the college level for students preparing to be technology education teachers. Without having personal experience in a student organization, and because it was seldom stressed as an important element during teacher preparation, most technology education teachers did not provide students the opportunity to participate in a technology education student organization.

In recent years, however, some enthusiastic teachers saw the need for an organization for students to provide additional opportunities to succeed, gain recognition, and to develop leadership abilities. They observed other discipline-related student organizations and the benefits that students, teachers, and the program derived from those organizations. Individual teachers started local student organizations and generated enough interest to have teachers meet during the national conferences of the International Technology Education Association (formerly American Industrial Arts Association) beginning in 1965. By 1978, the student organization concept had grown strong enough to establish its own incorporated body. Thus, the Technology Student Association (formerly American Industrial Arts Student Association) became an organization specifically intended for technology education students at the elementary and secondary levels. In only a few years, it has gained recognition and momentum as it continues to grow.

Simultaneously, student organizations developed at the college level. The growth in TSA along with the movement toward technology education led to the revitalization of the Technology Education Collegiate Association (TECA) to help prepare future teachers to initiate and manage a TSA chapter.

Consequently, the purpose of this yearbook is to provide a text for both undergraduate and graduate students and to help current and future technology teachers utilize student organizations as an integral part of the total technology education curriculum. The first Section describes **WHY**

student organizations are an important part of the curriculum; Section II provides detail about **WHAT** technology student organizations are and their background; and Section III describes **HOW** to utilize technology student organizations as an integral part of the total technology education curriculum.

M. Roger Betts
Arvid W. Van Dyke

Acknowledgments

The preparation of a CTTE Yearbook requires more than writing and editing. All CTTE Yearbooks enjoy the highest respect in the profession. Therefore, the editors chose chapter authors who respected the Yearbook series and would dedicate their time to enhance the profession through technology student organizations.

The idea for a Yearbook on this topic benefited from the encouragement of Drs. Thomas Wright and James Bensen. The CTTE committee members spent hours reviewing and reforming the proposal into a sound outline for a professional publication. The acquisition of materials to document the information presented is attributed to former TSA Executive Director, Mrs. Kay Schaeffer, and the two full-time Executive Directors in the technology education profession, Mrs. Rosanne White, TSA, and Dr. Kendall Starkweather, ITEA.

Twelve chapter authors met together in a Norfolk hotel room during the 1988 ITEA International Conference. They accepted the challenge to outline, write, rewrite, and proof a CTTE Yearbook the profession needed. The co-editors praise these authors for their dedication and skillful work.

Without the help of several editors, reviewers, and word processors, this Yearbook would not be finished. Wes Stephens, a long-time friend of technology education, led the way by reviewing and commenting on each chapter. Donna Lawyer contributed to the management of the correspondence and chapter revisions. Donna Faull, Glencoe Publishing Company, took the manuscript and transformed it into a professional masterpiece.

The support and encouragement within the departments where we work during the spare moments not consumed by this yearbook did not go unnoticed. Special mention of the support provided by time and suggestions from Mr. Thomas A. Hughes, Jr. is warranted.

The editors express appreciation to their own families, and those of the chapter authors, for their patience and encouragement. We know it equalled that provided by Kathy Betts whose patience, encouragement, and hospitality was unsurpassed.

M. Roger Betts
Arvid W. Van Dyke

A STUDENT PERSPECTIVE

J. Eric Bush
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Columbus, Ohio

The Technology Student Association (TSA), formerly called the American Industrial Arts Student Association (AIASA), and the Technology Education Collegiate Association (TECA), formerly called the American Industrial Arts College Student Association (AIACSA), are the organizations created to give students additional opportunities for recognition and leadership development. TSA is organized to provide learning, leadership, and citizenship experiences for students on the elementary, middle, junior, and senior high school levels. TECA is committed to similar purposes on the collegiate level.

The benefits provided TSA members on the local, state, and national levels impact on the school, community, state, and nation. The leaders developed through student groups become valuable assets to business, industry, and education. Students who are members of TSA benefit educationally and socially. TSA members share educational experiences within their own chapter and with other chapters in the state and nation. Students also benefit socially. Members meet and become close friends with students from other schools throughout the vast network of TSA chapters.

TECA is a growing organization. The innovative leadership of the TECA officers and Management Board has benefited technology education across the country. The combined leadership of TECA and TSA is significantly increasing the potential of each. Students who have made the transition from TSA to TECA to ITEA have and are making valuable contributions to each.

TSA and TECA are organizations that I believe in. I was fortunate to be a member of the program at Mt. Gilead High School in Mt. Gilead, Ohio, under advisor Merrill Brucker and part of a TECA chapter at The Ohio State University under advisor Dr. William D. Umstattd. As a two-term local, state, and national officer in TSA, I experienced first hand

the increased motivation that is one of the benefits TSA provides. As a three-term local officer at The Ohio State University chapter, President of the Ohio College Student Industrial Technology Education Association (OCSITEA - a TECA state affiliate), and three-year member of the TECA Management Board, I observed the sharing of knowledge on the collegiate level through TECA activities. Both organizations were significant parts of my learning.

During my seven years as a TSA and TECA member, I have attended eight state-wide TSA conferences, six national TSA conferences, two TECA regional conferences, and four ITEA conferences. Even as a freshman, I felt I was part of the TSA team. The TSA national conference in Norfolk, Virginia, was an inspirational culmination to my first year and served as a great motivator for my future efforts in TSA. Since that first conference, I have traveled to national conferences in Houston, Texas; Knoxville, Tennessee; Orlando, Florida; Wichita, Kansas; and Baton Rouge, Louisiana. I also went to Tulsa, Oklahoma for the Presidential Forum on the name change from AIASA to TSA. During those conferences, I met and became close friends with some of the top students and teachers in the country. I had the chance to compete on the local, state, and national levels and even bring home two national trophies. However, the people in these organizations are what really make the difference. As tough as the competitions are, there is always someone willing to help calm the nerves and build confidence.

TSA and TECA advisors are a special breed of teacher and instructor. By being involved in the TSA organization, I have worked with a number of outstanding educators who gave me the continuing desire to improve opportunities for students. The first step was to become involved as a high school student. The second step was to become the Ohio TSA Competitive Event Coordinator and Conference Director. In this position, I have worked with advisors and students to improve the quality of the state conferences for the students. TSA gave me a freedom to develop leadership and organizational skills. The organization also provided a means to apply those skills for the betterment of the group. This led to the third step of choosing a career in technology education. As a technology teacher and TSA advisor, I will be able to provide students the chance to take advantage of the TSA experience.

Students all around the country are eager to be successful and they want to gain recognition. TSA and TECA provide activities to accomplish this. As an officer of TSA and TECA, I have spoken at over thirty state conferences for TSA, TECA, ITEA, and other vocational student organizations, such as: the Future Farmers of America (FFA), the Future Homemakers of America/Home Economics Related Occupations

(FHA/HERO), the Distributive Education Clubs of America (DECA), the Vocational Industrial Clubs of America (VICA), and the Office Education Association (OEA) in Kentucky, Ohio, Virginia, and West Virginia. I have also spoken at seven nation-wide conferences in Florida, Kansas, Louisiana, Ohio, and Oklahoma. During these speaking engagements, I used the speaking skills developed by participating in Extemporaneous and Prepared Public Speaking Contests sponsored by TSA. As an officer, I applied the parliamentary procedure skills learned by participating in the Chapter Team Competition. I have tried to spread the word about the great experiences available through participation in technology student associations.

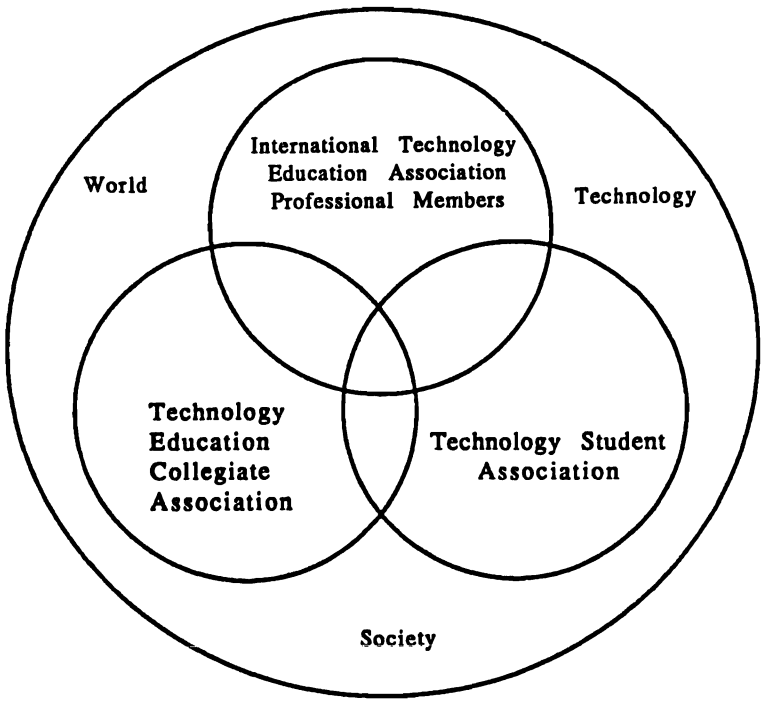
TSA and TECA can be integral parts of the ever-updating technology curriculum. The benefits and opportunities are endless. Our imagination becomes our only limitation as we tap into the potential of these inspirational, goal-oriented student organizations. **Take advantage of all that TSA and TECA have to offer!!!**

SECTION ONE

Technology Student Organizations:

WHY

Section I describes WHY student organizations are an important part of the educational process for students in secondary and higher education. The first chapter uses a conversation between teachers and a student to explain the benefits that students and teachers receive from technology student organizations. This is followed by a focus on developing the *whole student*, their basic needs, and the benefits of student organizations for meeting those needs. Chapter three introduces the concept that student organizations enhance professional and leadership abilities.



EDITORS' NOTES:

Throughout this yearbook, an attempt has been made to use the *current* terms, although former names have been used when referring to them in an historical context, in quotations, or official titles. For example, the term *chapter* is used instead of *club*. The term *club* generally refers to extra-curricular or after-school groups, while the term *chapter* is a more appropriate term to describe the role of student organizations as an integral part of the curriculum. The current and former names of organizations are also listed below.

CURRENT TERM	FORMER TERM
Technology Education	Industrial Arts
Technology Student Association (TSA)	American Industrial Arts Student Association (AIASA)
Technology Education Collegiate Association (TECA)	American Industrial Arts College Student Association (AIACSA)
International Technology Education Association (ITEA)	American Industrial Arts Association (AIAA)
Council on Technology Teacher Education (CTTE)	American Council on Industrial Arts Teacher Education (ACIATE)
chapter	club
student organization	student club

CHAPTER ONE

WHY STUDENT ORGANIZATIONS?

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Normal, Illinois

Sub-Topics:

- Characters in the Scenario
- The Scene
- Scenario

Technology education is a discipline with tremendous potential for increasing the technological literacy of our citizens, as well as for helping students see the relationships between school subjects. In addition, technology education can serve to show how knowledge is applied to every day life. Regardless of the emphasis a technology education program takes, there must be a *human* element. And that is where student organizations can make a major impact.

Student organizations offer many opportunities for group interaction, the development of a positive self-image, the application of technology through community service activities, and the development of leadership abilities. Student organizations offer benefits to the teacher as well. Relating class activities to local, regional, state, and/or national competitive events can be highly motivational for students; organization activities can serve important roles in the public relations program; and the natural interaction between teacher and students can be utilized to develop meaningful relationships.

To illustrate these attributes, the following scenario was written. It provides an overview of the potential student organizations have for enhancing a technology education program. It was written after personal and telephone interviews with parents of members, student members, officers, advisors, and alumni of student organizations. The names are fictitious, but many of the statements are paraphrased or are actual comments made during these interviews.

CHARACTERS IN THE SCENARIO

John Skaggs – technology education teacher
Lanny Bower – technology education teacher and TSA advisor
Mary Sheen – student teacher with Mr. Bower
Karen – student and a state officer of TSA

THE SCENE

Two technology education teachers, Lanny Bower and John Skaggs, are in a coffee shop at a state conference. They have completed the preliminaries of their discussion (family and fishing) and begin to discuss another topic close to their hearts — technology education. Let's eavesdrop.

SCENARIO

John: Did you come alone?
Lanny: No, I brought my student teacher and a member of our TSA chapter.

John: TSA?

Lanny: That's right. You didn't know that AIASA changed its name to the Technology Student Association?

John: No, when did that happen?

Lanny: At the national conference back in 1988 — our TSA has a state officer, so she keeps me up to date.

John: You mean she was there? Doesn't that cost a lot of money?

Lanny: Our state delegation arranged to go together. As for the financing, the state association paid for the transportation, our local TSA paid for the room, and she paid for her own meals and incidentals.

John: She had to pay for some of her own costs?

Lanny: I am sure our TSA would have done more if there had been a greater need, but Karen's parents were very willing to support her.

John: I find that hard to believe. I have a feeling most of the parents of my students would be very uneasy about sending their daughter or son to a conference so far away.

Lanny: If you knew the situation, I think it would be easy to understand.

John: What do you mean?

Lanny: Well, when Karen was in the seventh grade, she was a scared, timid, little girl. At that time, her older brother was one of the leaders in the senior class. He was getting a lot of attention. So, the parents had a reason to be concerned about their daughter.

John: It sounds like something that just sort of naturally corrects itself as time goes on.

Lanny: I'm not so sure about that. At least in this case, I can connect her maturation progress to activities in TSA.

John: What do you mean?

Lanny: Well, her junior high teacher said she was conscientious and a fairly good student, so I encouraged her to run for secretary of TSA when she was in the eighth grade. She finally agreed, but was sure she would lose. So, we discussed some of her strengths that suit the role of the secretary, and I told her that she would have a chance to explain why she wanted the job prior to the election.

John: How did she do?

Lanny: To be honest, she didn't do very well, but her dedication and commitment showed through so she got elected.

John: So, she jumps from being the local chapter secretary to become a state officer?

Lanny: Oh, heavens no. She was our local vice president last year and she has competed in various competitions. Her best event is extemporaneous speaking.

John: That doesn't sound like the scared, timid, little girl you mentioned earlier.

Lanny: You wouldn't believe the confidence she has now. At our last state conference, she got up to give her campaign speech for the state Sergeant-at-Arms and I don't mind telling you I was really proud of her. If she was scared, no one could tell it.

John: That sounds like quite a success story.

Lanny: Well, the story isn't over yet. I expect that she will probably run for a national office this year. She has already begun to lay the ground work.

John: She must be quite a person. I would like to meet her.

Lanny: You may have the chance, she's with Ms. Sheen, our student teacher, in the exhibit area now. Say, this might be a good time to check out the exhibits. We might run into them.

John: I would be glad to join you.
(The conversation continues as Lanny and John make their way to the exhibit area.)

Lanny: What CAD program are you using?

John: Oh, we have an outdated system, but our school board has just approved the funds to buy several new work stations. That's why I am so interested in checking out the exhibits.

Lanny: It's really hard to keep up-to-date, isn't it?

John: It is, but we can still teach a lot of the basic principles on the older equipment. Don't you think?

Lanny: I suppose so, it's just so nice to be able to do the fantastic things the new work stations can do.

John: Well, here we are. Which direction should we go?

Lanny: I always go clockwise and make sure I hit every aisle.

John: Here, let's pick up a bag before we get too far along so we can carry all the materials we pick up.

Lanny: Okay.

John: Boy, the nature of the exhibits sure has changed over the past few years.

Lanny: What do you mean?

John: It seems like every machine is connected to a computer somehow.

Lanny: I guess you're right.
An enthusiastic young voice: Hey Mr. Bower, may I see you for a moment?

Lanny: Oh, there's Karen and Ms. Sheen. Let's go see what they want and I'll introduce you.

John: Sure, I would like to meet them.

Lanny: Ms. Sheen and Karen Summer, I would like you to meet Mr. Skaggs. He is the technology education teacher at Supreme High School.
(Ms. Sheen and Karen acknowledge Mr. Skaggs.)

Mr. Skaggs: Mr. Bower speaks highly of you two.

Ms. Sheen: Oh, you can take his comments with a grain of salt. He is always so positive.

Mr. Skaggs: Yes, I know, but that's really a very good characteristic.

Ms. Sheen: You're right.

Karen: Mr. Bower, please look at this. It's a bar code reader.

Mr. Bower: A bar code reader?

Karen: Yes, we need one in our lab.

Mr. Bower: A bar code reader?

Karen: Yes, we could do lots of things with it. Students could have their own bar codes, and each piece of equipment could have its own bar code, and we could keep track of all kinds of things. Besides, that's the way it's done in many industries.

Mr. Bower: Well, I suppose so, but is it expensive?

Karen: Not really, we already have the computer and if the school can't afford to get us one, I'll bet the TSA could help buy it.

Mr. Bower: Well, let's get the information and give it consideration when we get home.

Karen: There are lots of interesting things here at this show. I'm sure glad I came.

Mr. Bower: Well, we just got here so we'll go ahead and look around.

Mr. Skaggs: Is there a chance we could all have lunch together? I'll buy.

Ms. Sheen: It sounds good to me.

Karen: Sure, I have no plans.

Mr. Bower: I'll join you for dessert. I have a committee meeting that should finish at noon, but it always runs late. So, let me know where you will be and I'll join you later.

Mr. Skaggs: Okay, where would you like to eat?

Ms. Sheen: You're buyin'.

Mr. Skaggs: There is a coffee shop right here in the convention center and I noticed they have a nice luncheon menu. Let's meet there at 12:00.

Ms. Sheen and Karen: Okay.

(John and Lanny spend about an hour in the exhibit area and then Lanny goes to his committee meeting, and John attends a special interest session. John arrives at the coffee shop a few minutes before 12:00. Momentarily, Ms. Sheen and Karen join him. They are seated, order their meals, and the conversation begins.)

Mr. Skaggs: I wanted to talk to both of you because I sense from the conversation with Mr. Bower that the TSA chapter in your school is really making a difference.

Karen: It's really true, we have a very active organization.

Ms. Sheen: I can attest to that. We didn't have a student organization in my high school, and now, I can see that I really missed something.

Mr. Skaggs: What do you mean?

Ms. Sheen: The TSA at our school provides the students with lots of opportunities.

Mr. Skaggs: Give me some examples.

Ms. Sheen: Right now, they are into a community service project.

Karen: We started by working with the Council on Aging to identify needs in the community. This last weekend, a bunch of us got together and did some work for some of the elderly people in our community. We repaired, cleaned, and replaced storm windows; did some touch up painting; and raked leaves from the yard. It was fun! You could just tell they appreciated our efforts so much! We were even invited in for cookies and they told us stories. We just have to do that again sometime.

Ms. Sheen: You see, that activity not only gives the members a sense of satisfaction and accomplishment, but it also gives the elderly a much better impression of our youth than they ordinarily get in the newspaper.

Mr. Skaggs: Yes, I'm sure it does.

Karen: And, there is even more to the story.

Mr. Skaggs: What do you mean?

Karen: There was a picture of some of our members on the front page of our local newspaper.

Mr. Skaggs: Really?

Karen: Yeah, it was of a couple of our members talking with an elderly lady out on her front porch. There was a real nice article too. That kind of publicity won't hurt a bit when it comes time for us to go into the community to raise funds.

Mr. Skaggs: Why do you need to raise funds?

Karen: Oh, it seems like we are always needing money. We have parties, we take a large group to the state conference, and we try to send a few to the national conference, too.

Mr. Skaggs: What happens at these conferences?

Karen: Oh, we have a lot of fun! We make a lot of new friends and we enter competitions, and we have social activities. It's just a real blast!

Mr. Skaggs: What do you mean, competitions?

Karen: Oh, there are several different kinds of competitive events. Some are team events and others are individual. I always enter the extemporaneous speaking contest. It's my favorite.

Ms. Sheen: She likes that one because she always wins!

Mr. Skaggs: That makes a lot of sense. But, I don't really see how extemporaneous speaking relates to technology education.

Ms. Sheen: Let me respond. Don't you think students should learn to express themselves in front of a group? Isn't that an important aspect of leadership?

Mr. Skaggs: Yeah, I guess.

Ms. Sheen: And, it doesn't hurt to let the rest of the school know that technology education is more than tools and machines and materials — it's a discipline concerned about the whole person. I believe the English and speech teachers in our school are kind of proud of our Technology Student Association.

Mr. Skaggs: I guess that makes sense, but I still don't see how that fits directly into the activities in the classroom.

Ms. Sheen: The topics are always about some aspect of technology — content learned in class, plus some research by the students.

Mr. Skaggs: Oh, now I see the connection.

Ms. Sheen: There are other competitions that relate directly to the classroom activities. For example, there's a bridge building contest and we study various aspects of truss design, stress, strain, and load in our construction technology class. Building and testing bridges is a highly motivating activity. It is done right in the technology lab. The students can use the knowledge gained in the classroom to build even better and stronger bridges.

Mr. Skaggs: Yeah, I believe I am beginning to see the relationship between contests and course content.

Ms. Sheen: Actually, Mr. Bower does almost all of the TSA activities during class. There are only occasional after-school meetings.

Mr. Skaggs: Really? I thought being the advisor for TSA took a lot of extra time.

Ms. Sheen: I thought so, too. But as a student teacher, I can see how it is possible to integrate most of the TSA activities right into the class.

It does take some extra time for service projects and fund raisers, but I think it is worth it.

Mr. Skaggs: In what way?

Ms. Sheen: Mr. Bower has such a good rapport with his students. I believe it is because he is able to develop a special relationship with each student, and it seems like he has no discipline problems at all! As a student teacher, that was my greatest worry. Now that I have been there a couple of months and have become active in TSA, I notice that discipline is not such a big issue anymore. And, another thing, the students at our school selected classes for next year this past week.

Mr. Skaggs: Why did you bring that up?

Ms. Sheen: Because, a lot of people told me that it might be hard to get a job as a technology education teacher because there is such a strong emphasis on the so called *academics*. Well, I can tell you that at our high school, there are plenty of students who want to get into the technology education courses. And, you know why?

Mr. Skaggs: No, please tell me, because I am having enrollment problems at Supreme High School.

Karen: Let me answer that. I think the TSA has a lot to do with it. I joined TSA when I was in the seventh grade and learned to know Mr. Bower and about all the neat things they do at high school. Since I became active in TSA, I really wanted to continue to take technology education courses.

Mr. Skaggs: Yeah, that kind of fits together.

Karen: What's more, I hope to become one of Mr. Bower's student assistants next year.

Mr. Skaggs: Really? What does that mean?

Karen: Mr. Bower usually selects student assistants who help with the beginning classes instead of going to study hall. I think I would really like to do that and I could find out if I would like to become a technology education teacher!

Mr. Skaggs: I bet you would make a good teacher. I was impressed with your comments about the bar code readers this morning.

Karen: I always like to learn about new things. I guess that is why I have enjoyed my technology education classes so much.

Mr. Bower: We do have a dynamic area to teach. It's always changing. Ms. Sheen, are you anxious to get your own teaching job?

Ms. Sheen: Yes, I certainly am. I have enjoyed the student teaching

experience very much. I have certainly learned more these past few months than I ever expected.

Mr. Skaggs: You're lucky to have a recent college education because when I was in college, we just didn't learn about computers and lasers and robots and things like that.

Ms. Sheen: That may be true, but I still have a lot to learn.

Mr. Skaggs: You don't have to answer this if you don't want to, but did the college prepare you to be an advisor for a student organization?

Ms. Sheen: Well, yes and no. I understand next year they are adding it to the curriculum but all we did was talk about TSA in a methods class. Probably the best preparation was as a member of TECA.

Mr. Skaggs: TECA?

Ms. Sheen: Yes, that stands for Technology Education College Association. Do you know about that organization?

Mr. Skaggs: Well, when I was in college, we had an industrial arts club. Is that the same thing with a new name?

Ms. Sheen: Maybe it is. Was your group affiliated with organizations at other universities?

Mr. Skaggs: I don't think so. Oh yes, I think we did get together with a club from a neighboring university once.

Ms. Sheen: Maybe there is some relationship between the two, but TECA is a pre-professional, national organization affiliated with ITEA.

Mr. Skaggs: Tell me more about TECA.

Ms. Sheen: Well, it operates much the same way the TSA does on the secondary level. We have a local chapter in the technology department. We sponsor professional activities such as guest speakers and field trips, do community service activities, and usually have a lab activity to make products to sell as a fund raising project. We also participate in the state Technology Education Association conference, and we usually send several members to the International Technology Education Association conference.

Mr. Skaggs: It sounds like that takes a lot of your time.

Ms. Sheen: It does, but it certainly is worth it. We learn to know each other so much better, and now as I look back, those experiences really did help me get involved with the TSA during my student teaching experience. And now that I'm almost finished student teaching, I can see that a student organization is essential if one wants to have a top notch technology education program.

Mr. Skaggs: But how does TECA make you a better teacher?

Ms. Sheen: We get to rub shoulders with the best! We attend state, regional, and national conferences. There are so many outstanding role models — especially our faculty advisor — he's really great. We often go to his house for officer meetings and at least once for the whole chapter — it's almost like being in a family. I feel like I have a great big support group. And, I can assure you I'll be active in ITEA for the same reason! (Mr. Bower enters the coffee shop and joins in the dialogue.)

Mr. Skaggs: How was your meeting?

Mr. Bower: It went pretty well, but I now have a lot more work to do.

Mr. Skaggs: What do you mean?

Mr. Bower: Next year, I am supposed to organize a special interest session on how to start a TSA chapter.

Ms. Sheen: Oh, you will be good at that.

Karen: Great, I will be glad to help.

Mr. Skaggs: After talking with these two young ladies, I don't believe I can wait until next year.

Mr. Bower: They are remarkable young people aren't they?

Mr. Skaggs: They sure are. Could you three come to Supreme High School next September to help me get a new TSA chapter started?

Mr. Bower: Sure.

Karen: I'd love to.

Ms. Sheen: I can't promise to come because I don't know where I'll be teaching next September.

Mr. Skaggs: I understand. But if you take a teaching position within a hundred miles, please give me a call. I'm sure you would have a lot of influence on my students.

Mr. Bower: You can count on us. Just let us know when you want us to come. Here is the phone number for the State Advisor, if you want to request some information.
(Lanny gives John the telephone number for the TSA state advisor so he can request an advisor's manual and promotional information. Another TSA chapter is born!)

SUMMARY

Most technology education teachers have yet to realize the potential student organizations have for providing vitality to their program. The activities of a well run student organization can not only motivate students, but offer them the chance to plan, organize, develop friends, travel, lead, become responsible, and learn more about technology at the same time.

Just as Mr. Skaggs says in the scenario, "I don't believe I can wait until next year," all teachers should make plans to revitalize or establish a student organization immediately. It is clearly worth it!

The author is grateful to the following former members of TSA or TECA who contributed ideas for the scenario: Adam Zakarian, Alec Barrows, Kathleen Barrows, Karen Daugherty, Steven Reed, Diane LaFountain, and Kellie Shenefiel.

CHAPTER TWO

TECHNOLOGY STUDENTS NEED A STUDENT ORGANIZATION

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"The profession has spent years of preparation and operation focusing an undue amount of attention on things with too little emphasis on people."

(Don Maley, 1973, p. 8)

Sub-Topics:

- Developing the "Whole Student"
- Basic Skills Students Need
- Seeking Self-Actualization
- Building Students Self-Image
- Benefits of Technology Student Organizations

Much of the time undergraduate students spend preparing to be technology education teachers is used in learning the technical content and developing a level of knowledge and skill about the technical areas they will teach. When undergraduate students are asked what they will do upon graduation, they often say: "I will teach technology education." While it may not be their actual intent, the indication is that what is taught is *content*. In reality, however, this person will be teaching young *people*. The particular content or area of responsibility is in technology education, but all too often the emphasis in teaching also becomes content rather than teaching the *whole student*.

The undergraduate teacher education student also takes courses in psychology and human development, so some emphasis is placed on the development of the learner — recognizing that the content will,

in fact, be delivered to a real person. This person has many needs and at times while at school, will have less interest in school than in many other activities. It may be helpful for the experienced, as well as the new, teacher to reflect on what is really important for individual students at particular times in their lives. Indeed, learning the content of the course may not be the most important thing at that point in life. Also, the teacher may need to stop and remember the real reason they are teaching is to develop students to their greatest potential. It would not be a great tragedy if a particular student did not learn the content of a given day or even an entire course when compared to the importance of developing that student to become a successful, productive citizen. Perhaps the best a teacher could ever do would be to assist each student to become all that he or she can become.

Teachers need to be concerned about teaching the whole student and helping them to feel good about themselves, to achieve success, and to become productive, happy citizens. Student organizations help meet these kinds of needs of students, help accomplish the goals of schools, and help teachers (advisors) to accomplish their goals and realize the satisfactions for which they decided to become teachers.

This chapter will focus on the *whole student*. It will describe the purposes of education and identify basic and educational needs of students that need to be met so they can learn to live in, work in, and cope with the rapid changes of a technological society. Throughout the chapter are descriptions of contributions technology student organizations make to help students develop a positive self-concept and meet other personal needs while accomplishing the purposes of a good education.

DEVELOPING THE "WHOLE STUDENT"

Why Teachers Teach

Why do people decide to become teachers? Why choose to teach technology education? For many, it is because they enjoy working with tools and materials and want to help other people learn to enjoy it as they do. The typical college student will take classes in professional education — in philosophy and purposes of education, theories of learning, psychology of human development and methods of delivering content. In the technology department, the teacher-to-be will get additional professional courses to learn the philosophy and purposes specific to the discipline of technology education, along with curriculum develop-

ment, teaching methods, and laboratory management. The majority of the courses in the technology department attempt to provide current information and experience in the various technology areas so the future teacher knows how and why various technologies are used in society. Many times, students become very concerned with learning how to manipulate the tools and materials so they gain a measure of skill. They want to be able to do it and do it right, and they want to be able to pass it on to their future students effectively, and especially without being embarrassed because they don't know how to do it expertly. After all, many people believe teachers should be good craftspersons themselves if they expect to teach others effectively.

While in college, most of these students will indicate they place the greatest emphasis on learning the technical information and gaining skills in working with tools and materials. This is not surprising since, in most cases, it was the reason they wanted to become teachers in the first place. It is understandable, too, because most of the courses where they learn the techniques and technical information, are taught not for the purpose of preparing future teachers, but preparing students for industry or business careers.

During the first year of teaching, these new teachers often find out they know more than they gave themselves credit for knowing. They suddenly realize the students they are working with are not at the same level as college students. Their students know about as much as they did when in junior high and high school, but many have much less motivation and interest in learning than when the teachers were the same age. Thus, while as teachers, they will spend much time preparing for classes and getting equipment and materials ready to go, they really do know a lot more than the students, so their technical knowledge and skill is generally more than adequate. Where they have difficulty is finding a way to present the information to students that promotes interest in the topic.

Experienced teachers have found techniques that seem to work best for them, that are effective with students, and present information so the students will accomplish what is expected of them. They don't have the anxiety of first year teachers and have learned to manage time better, so the amount of time spent in preparation becomes more reasonable. Still, they have more than enough to do. Besides all the extra duties and meetings, they need to repair and maintain equipment and be sure supplies and audiovisual materials are ordered in time to have them when needed. In addition, there are still a lot of things to learn. There are always new products and new items of equipment to

learn about, different ways to do a particular process or technique, and new technologies that should be learned so they can be added to the curriculum.

Both new and enthusiastic, experienced teachers are so busy with the normal routine that they often don't have the opportunity or take the time to reflect on what they are doing and why they are doing it. They get very involved with teaching the content and trying to get students to be technically competent, but is this what the student really needs? Just as the future teacher did while in college, the new and the experienced teachers become *content and skill* oriented, as if their sole purpose in teaching is to impart the *content and skill* of technology. Perhaps this interest was the original reason they decided to become teachers, but are they doing what really needs to be accomplished to best meet the needs of students? Are they doing what society wants, needs, and expects? Are they helping students to be able to adapt?

What is the responsibility of technology teachers regarding the total education of the student? Are they only responsible for the content and skills related to technology, or is it more than that? Teachers need to remind themselves that they are first responsible to teach the *whole student*, . . .and then to teach the content of the discipline.

TEACHERS DO NOT TEACH CONTENT. TEACHERS TEACH STUDENTS.

Teaching involves much more than delivering content to a group of students. It requires getting to know individual students to determine what is important to them at that particular time in their lives. It involves helping them to determine who they are and who they want to become. It means to help students to be successful, to become happy productive citizens in our society, to help them to *be all they can be*. Teaching involves the development of the *whole student*!

Reaching the *Whole Student* in School

Developing the *whole student* refers to the total development of that person. Maley has written extensively about the whole student. In the 31st Yearbook (Maley & Starkweather, 1982), Dr. Maley devotes an entire chapter to this concept. He proposes that to involve the whole student in school, teachers must consider:

1. The sensory system for seeing, hearing, smelling, tasting, and touching.
2. The physical motor control and the coordination of the mental, biological, and physical units within the individual.
3. The psychological, emotional, and personality factors related to the learning process.
4. The developmental tasks of the learner.
5. The development and integration of global strategies that provide for a maximum involvement design. (p. 249)

Jennings (1984) wrote specifically about the affective development of students, which involves the formation and expression of feelings and emotions. He identifies this area as an essential element of the development of the *whole student* and a necessary function of the school.

> Schools have a responsibility to transmit the culture to each new generation. That includes the development of basic communication and social skills which permit the person to function in daily life. Beyond those expectations, schools play a major role in guiding and promoting the development of the whole person—one who can realize his or her full potential for becoming a worthy and contributing member of society. (p. 17)

So what is the purpose of education? These authors suggest that the responsibility of education is for the total development of the student. While teachers are responsible for given content areas, it has been suggested in previous paragraphs that teaching is more than content. What is the primary purpose of education?

BASIC SKILLS STUDENTS NEED

Purposes of Education

While formal education in school is understood to be the predominant system of educating young people in America, there isn't common agreement as to what that education should include or the methods for obtaining it. Throughout the history of education, various pressures have been placed on schools to help solve societal concerns. As our country has progressed through eras of predominantly an agricultural society, to industrial and now to the technology and the information age, the expectations of people in society for what schools achieve has gradually changed as well. There is a greater need now, for example,

to assist all students to understand the technological society in which they live and develop the ability to adapt to rapid technological changes.

One of the expectations or purposes of education that has not changed, however, is that of helping all students to achieve to their maximum potential and make a positive contribution to society. All of the content that is taught, the variety of teaching techniques used to motivate students and to make learning most effective, plus everything else that teachers do with students, is done with the intent that it will result in the students becoming productive, successful, and happy citizens.

To accomplish their goals as teachers and the purposes of education, new as well as experienced teachers must be always mindful of the functions and purposes of the total educational system in the society in which it exists. In the United States, this would imply the need to understand the functions and purposes of education in this country. In the publication *Goals for Americans*, the introduction indicates the paramount goal of the United States is to guard the rights of the individual, to ensure his development, and to enlarge his opportunity. (President's Commission on National Goals, 1961)

Maley quotes Gardner's discussion of *National Goals in Education* (cited in Maley, 1973): "Our deepest convictions impel us to foster individual fulfillment. We wish each one to achieve the promise that is in him. We wish each one to be worthy of a free society, and capable of strengthening a free society" (p. 4). Maley adds emphasis to this statement and the need for teachers in technology education to do their part within the total educational system. He reminds teachers that as they choose content and method, to remember they are teaching the *whole student*, which includes the key phrases: "individual fulfillment — to achieve the promise that is in him — to be worthy of a free society — and the individual's capability of strengthening a free society" (1973, p. 4).

The reports on excellence in education have refocused the need to provide instruction which considers the whole student. This means much more than teaching content in class, it means providing information in such a way that students will not only learn the content but also the skills to transfer that learning to new situations. The report of the National Commission on Excellence in Education entitled *A Nation at Risk* identified some of the problems and weaknesses of education in America. This report stressed the public expectation for what happens in education. It emphasized *excellence in education* is needed in our society:

> . . .for it will then be prepared through the education and skill of its people to respond to the challenge of a rapidly changing world. . .our goal must be to develop the talents of all to their fullest. Attaining that goal requires that we expect and assist all students to work to the limits of their capabilities (National Commission on Excellence in Education, 1983, pp. 12-13).

The function of the high school as it is generally understood is described in the text *Education and Schooling in America.* (Gutek, 1988)

> As a multifunctional institution serving a widely diverse adolescent population, the comprehensive American public high school (1) provides a general education for all students, (2) prepares some students for college entry, (3) prepares some students for jobs, and (4) acts as an agency for civic, social, and personal development and integration. In the vast majority of communities, the comprehensive high school strives to satisfy the needs of all youth of secondary school age. The curricular pattern in most comprehensive high schools is to (1) enroll all students in a common core of general education courses so that individuals of varying interests and career goals have the opportunity for common association and learning; (2) provide parallel curricular tracks such as the college preparatory, industrial-vocational, commercial, general, and, in rural areas, the agricultural, to satisfy the special needs of students; and (3) provide elective courses to permit students to exercise freedom of choice in satisfying particular interests. Comprehensive in a social as well as an educational sense, the comprehensive high school brings students of varying social, economic, religious, racial, and ethnic backgrounds together in a single institution. The important principle regarding the comprehensive high school is to avoid segregating students on either academic or nonacademic grounds into separate, specialized schools. (p. 221)

The role and function of the high school has been subject to conflicting interpretations in American society. Gutek (1988) says: "It is difficult to specify the general goals of American secondary education because of these varied voices that plead for the satisfaction of their special interests" (p. 221). The varied voices referred to include the current *Back to Basics* advocates that argue the high school should be a strictly academic institution that emphasizes the learning of academic skills and subjects; others who de-emphasize the academic role and argue that the high school should meet the personal and social needs of adolescents; and still others who want the high school to be an institution for career development and vocational preparation that will provide graduates with immediately useful and salable skills in the economic marketplace.

Gutek (1988) goes on to say that the comprehensive high school provides a range of courses designed to satisfy the general education, college preparatory, and vocational needs of students, but that: "a great

deal of learning also occurs in the extra-curricular activities" (p. 226). He continues:

> As well as being an academic institution, the comprehensive high school is also an agency for the socialization of American adolescents. Students can participate in activities such as student government, intramural and interscholastic athletics, drama, debate, the school newspaper and yearbook production, dances, and a wide range of clubs and organizations that reflect their academic and career interests. (p. 226)

The socialization purpose referred to is an important consideration. Students must learn to get along with others to be successful in their careers and to become well adjusted members of society. Some of this socialization occurs naturally as part of the atmosphere of the comprehensive high school, and teachers can assist this development by using teaching methods where students must work in groups. Another key ingredient in this socialization process can be provided by organizations that reflect students' academic and career interests, as stated above. For some students, the student organization in their area of interest provides the opportunity for them to feel a part of a group and to develop socially. Later in this chapter, former members comment on the benefits of student organizations for contributing to social values.

While there is not unanimous agreement on the purposes of the secondary school in America, it is obvious the education of students is much more than teaching content. It involves helping students to *achieve the promise that is in them*, to *develop the talents of all to their fullest*, and to *foster individual fulfillment*. Teachers are challenged to do all they can to accomplish these lofty ideals. This perhaps is the single greatest reason for technology teachers to organize and advise student organizations.

Societal Expectations of Education

Employers in business and industry that are seeking potential employees provide one important segment of what society expects from our formal educational system. The input from many people in different kinds and sizes of firms indicate they want employees who can communicate, are dependable, honest, responsible, get along well with other people, have a good attitude, are self motivators, can learn on their own and who learn quickly. They want people who can think for themselves, can calculate, can write and speak effectively, can solve problems, and have the desire to do their work well.

A recent article in *Industry Week* indicated that while employers in industry were once content to hire new workers who simply were educated in the basics — or maybe had some solid vocational training — the emphasis now is on higher-order thinking skills. Kolberg (1988), president of the National Alliance of Business, put it this way:

> In addition to the traditional "three R's," business seeks young workers with the fourth "R," *workforce readiness*. That includes thinking, reasoning, analytical, creative, and problem-solving skills — and behaviors such as reliability, responsibility, and responsiveness to change and to new work requirements. (p. 51)

Ruch and Grudman (1983) in a book directed essentially to management personnel indicate that managers need to be effective communicators, both in written and oral form. In addition, they must be able to get in front of people. They identify that employers and recruiters have, for years, been looking for employees who can communicate. Further, referring to a recent *Fortune* magazine it was reported that employers surveyed said they wanted business schools to do a better job of teaching communications skills, and that a recent conference board study of 610 major U.S. corporations showed that lack of adequate communication skills was the most common problem cited by personnel executives in their dealings with new employees. (Ruch & Grudman, 1983, p. 71)

Basic skills. These reports indicate that employers want schools to place considerable emphasis on communication; i.e., one of the basic skills. As a result of several studies and public reports on the nation's schools, school officials have made what would seem to be an appropriate response to the expectations of our society. They have increased the emphasis on the *basic skills*, often with increased graduation requirements, especially in the areas of math, science, English and foreign language. Many colleges and universities have responded too by increasing admission requirements. These respond to some of the expectations of society mentioned earlier, but there are other *basics* that must also receive considerable attention.

Cetron (1985), in *Schools of the Future*, identifies the necessity of the schools' forming school-business partnerships to ensure that "education creates good citizens as well as good employees" (p. 91). This corresponds with the expectations identified above with such characteristics as dependability, responsibility, honesty, self motivation, and good attitude. These citizenship characteristics are important, and need to be developed as part of the educational process throughout the school, not in any one class or content area.

Citizenship skills. While citizenship skills have not been identified in recent reports as one of the *basic skills*, they are critical to the development of the *whole student* and to achieve the purposes of education identified earlier. These skills can be emphasized in each class if the teacher places importance on them and provides for them in the teaching methods utilized and the way he or she personally works with students.

This is also one of the primary purposes of technology student organizations and is another reason for technology education teachers to utilize a technology student association as part of the total program. Citizenship is accomplished through TSA and TECA by participating in community service activities and learning to work cooperatively in a democratic group.

Essential skills. Learning to think for themselves, learning to learn on their own, and learning to solve problems are essential skills identified by employers and educators; and therefore must be emphasized in school. These again aren't identified as one of the recently emphasized basics, but they are recognized as very important. Goodlad (1969) summarized some of the major educational practices recommended during the decade of the sixties that suggested:

1. Learning would be directed toward "learning how to learn," toward self-sustained inquiry rather than memorization, and this inquiry would carry the student out of the confining classrooms.
2. Attention to and concern for the individual and individual differences would show through clearly.
3. Teachers would concentrate on principles of reinforcement, motivation, and transfer of training.
4. There would be vigorous, even heated, small and large group discussions with the teacher in the background.

Several of the major reports on education also emphasize some of these same purposes. For example, Boyer (1983), in *High School: A Report on Secondary Education in America*, examined the high schools of the 1980's. He found that the high schools were philosophically adrift in that they lacked a clear and vital vision of their mission. Secondary school educators had been unable to formulate broad-based common purposes and to establish educational priorities. To create a unifying philosophy, Boyer proposed four major goals for high schools — to assist students to:

1. Develop critical thinking and effective communication skills by mastering language.

2. "Learn about themselves, the human heritage," and their "interdependent world" through a core curriculum based on "consequential" and "common" human experiences.
3. Prepare "for work and further education" through an elective program that develops "individual aptitudes and interests."
4. Fulfill "social and civic obligations through school and community service." (p. 66-77)

Just a few years later, writing specifically for industrial arts (technology education), Maley (1973) indicated "the methods that rely on memorization of facts, figures, dates, and places have little place in a society where the facts, figures, names, and places change so frequently" (p. 10). He suggests that teachers utilize "methodologies and strategies that concentrate on the student's ability to 'learn how to learn,' as well as those that strengthen his or her ability to use the processes of inquiry, planning, problem solving, analyzing, evaluating, decision making, and adapting to change itself" (p. 10).

These reports include previously mentioned key phrases of: (1) critical thinking, (2) learning to learn, (3) communication skills, (4) problem solving, and (5) inquiry, rather than memorization, and introduce a new one — adapting to change. These are often referred to as higher order thinking skills.

Adapt to change. In the well-known book, *Future Shock*, Toffler (1970) indicated: "For education the lesson is clear: its prime objective must be to increase the individual's 'cope-ability' — the speed and the economy with which he (she) can adapt to continual change" (p. 357).

Teachers find it a big challenge to accomplish the many purposes of education or technology education especially, and keep abreast of the rapid changes that take place in our technological society. In this time of rapid technological change, it may help some teachers and help students more by emphasizing those things that don't change — learning to learn, learning to solve problems, learning to get along with others, and citizenship skills. The methods for accomplishing them will change but the importance of them will not likely change. No one knows what society will be like in the years ahead or especially during the lifetime of the students, but one thing that can be assured is that society will change. Education should prepare all human beings for change, with adapting skills and proper attitudes to cope with those changes.

Technological Literacy

Another of the needs identified in recent reports is for all students to become *technologically literate*. In the fall of 1983, the Carnegie Foundation released a report on secondary education (after almost three years of visiting high schools around the country). Boyer (1985), formerly U.S. Commissioner of Education and then president of the Carnegie Foundation for the Advancement of Teaching, in a presentation about that report said:

> In the Carnegie report we also call for a study of technology by all students. I do not believe that we can within the four walls of every school and within the four years of high school prepare students for every specialized occupation. But, we can and must help every student learn about the technology revolution, which will dramatically shape the lives of every student. And it's here that the industrial arts educator has a crucial role to play. (p. 6)

DeVore has done extensive research, writing, and speaking about the need for all citizens to become more technologically literate. He states:

> The need in a fully functioning democracy is intelligent, well educated, and responsible citizens. As the complexity of the society increases socially and technologically, there is a corresponding increase in the requirements for basic literacy in social and technological realms. (p. 213)

It isn't just people in the profession of technology education who are encouraging technological literacy. It has progressed and is now recognized so it is included in the evaluation criteria for accreditation of schools. The National Study of School Evaluation (1987), in the criteria for evaluating secondary school programs, included a rather lengthy section that explained the reasons for and expectations of technology education.

> Because the American culture is distinctly characterized as technological, it becomes the function of schools to provide every student with the opportunity to develop insight into the technological nature of our culture. This is what the program of technology education strives to do. It acquaints all persons with their technological environments so that they can make rational decisions about their own lives on a day-to-day basis and eagerly participate in controlling their own destinies. Technology education courses should be flexible enough to allow for a wide variety of students, interests and needs.
>
> Technology education capitalizes on the individual's native potential for reasoning and problem solving, for imagining and creating, for constructing and expressing with tools and materials. It develops content and experiences to contribute to the growth and development of human beings commensurate with their own potential. Thus,

technology education is a basic and fundamental study for all persons, regardless of educational or career goals, even if related specialized vocational programs are offered.

The secondary school technology education program is technological in nature and is designed to provide all students with an in-depth foundation for career preparation at the secondary or postsecondary levels. Students will develop consumer awareness and personal enrichment as well as occupational readiness. Students pursuing engineering and scientific careers in colleges and universities will find technology education courses beneficial. Also, students will develop transferable skills for life and further education. The program complements the middle or junior high school curriculum and offers sequential courses that build on previously learned content without repetition.

The following are major expectations commonly associated with an effective technology education program.

- Practical application of basic scientific and mathematical principles is experienced.
- Students make decisions regarding postsecondary technology careers, engineering programs or service-related fields.
- Students make decisions with regard to advanced vocational education programs.
- Students gain an in-depth understanding and appreciation for technology in our society and culture.
- Students develop basic skills in proper use of tools, machines, materials and processes.
- Students solve problems involving the tools, machines, processes, products and services of industry and technology. (p. 361)

The technology education profession has risen to the challenge and is making dramatic progress in providing technological literacy for all students. It is quickly changing from industrial arts to technology education. The curriculum is taking a much broader approach to study the large scope of industry and technology, including the impact that technological changes have on people in our society (Householder, 1988). The methods of teaching are placing a greater emphasis on developing essential skills of problem-solving, learning how to learn, and communicating effectively. Just as mathematics and science are considered necessary *basic skills*, technology education is being promoted as not beyond the basics, but rather as one of the *basics*. Posters and other promotional items include the phrase: Technology Education — the New Basic.

SEEKING SELF-ACTUALIZATION

As the profession makes dramatic strides to provide technological literacy to all students, teachers cannot forget they still are not just teaching content, they are teaching students. The emphasis on the basic and essential skills as related to technology education must also include significant emphasis in the curriculum and methods of delivery to develop citizenship skills and assist students to achieve, to *be all they can be*. It is the development of the *whole student* which is the greatest role of technology student organizations.

The concept of educating the *whole student*, to provide what students need to help them be successful and to *be all they can be*, can be described as helping students to become self-actualized persons. The term *self-actualization* is identified in psychological theory with Maslow (1962). He indicates that while it has been defined in various ways, there is a solid core of agreement that all definitions of self-actualization accept or imply: "(a) acceptance and expression of the inner core or self, i.e., actualization of these latent capacities and potentialities, 'full functioning'. . . . (p. 36).

Maslow focused on developing healthy people, a psychology that emphasized self-actualization. Sahakian (1967) explains: "Self-actualized people are well-integrated rather than conflict-ridden or anxiety-ridden. . . . Self-actualizing people cope better than other people with anxiety, conflict, sadness, frustration, hurt, and guilt" (p. 236).

This concept of self-actualization fits very well then, in what teachers strive to accomplish with students; i.e., to help them to become successful citizens and to *be all they can be*. Teachers try to help students to achieve self-actualization. In many cases, this involves finding ways to motivate students. Teachers can't make students learn, but they can provide opportunities for students to learn and help them *want* to learn and to achieve.

Havighurst (1972) is another psychologist who has written extensively and is well known for his theory of developmental tasks which must be mastered in various stages of life in order for a person to be a successful human being. He indicated that some tasks arise due to physical maturation, some from the cultural pressure of society, and others from the personal values and aspirations of the individual which are part of the personality, or self. He identified eight developmental tasks to be mastered during the period of adolescence, ages 12 to 18. Those particularly relevant to technology education and the contribution of technology student organizations include:

1. Achieving new and more mature relations with agemates of both sexes.
2. Achieving emotional independence from parents and other adults.
3. Acquiring a set of values and an ethical system as a guide to behavior — developing an ideology.
4. Desiring, accepting, and achieving socially responsible behavior. (p. 43-82)

Related to self actualization and adolescent development, Combs (1982), a respected psychologist, points to important factors that are known to influence the learning process critically. These include:

1. *Self-concept*: Students need to believe in themselves if they are to learn appropriate behaviors. Without the support provided in a good self-concept, the student cannot realize even partially his or her potential.
2. *Values*: There is a need for the learners to identify goals and behaviors they choose to reach and develop. Values are the generalized beliefs that serve as basic guidelines for this selection process. Schools can deal with some values quite readily without conflicting with what may be considered "personal" value systems. For example, valuing knowledge, skills, critical thinking, lifelong education, and good citizenship would be appropriate goals for schools to consider.
3. *Belonging and Being Cared for*: The sense of acceptance and being a part of something is essential to growth and development. Schools can readily provide opportunities for students through group and peer activities to develop feelings of belonging and being accepted. (p. 436)

According to the motivation theory of Maslow (1943), human needs are arranged hierarchically. Those needs low in the hierarchy must be largely satisfied before needs further up the hierarchy will motivate behavior. These needs, illustrated in Figure 2.1, are described in order as:

1. *Physiological needs* — those needs concerned with the basic biological functions of the human body, such as eating and sleeping.
2. *Safety needs* — those needs concerned with protecting the person from harm, both physical and psychological.
3. *Belonging needs* — the need to associate with one's own kind; social interaction, love, acceptance, group membership.

4. *Esteem (status) needs* — the need to feel important or to separate one's status from other comparable individuals' feelings of self-worth and self-importance.
5. *Self-actualization needs* — the need to reach one's ultimate goals in life; the need to fulfill one's own destiny. (p. 370-96)

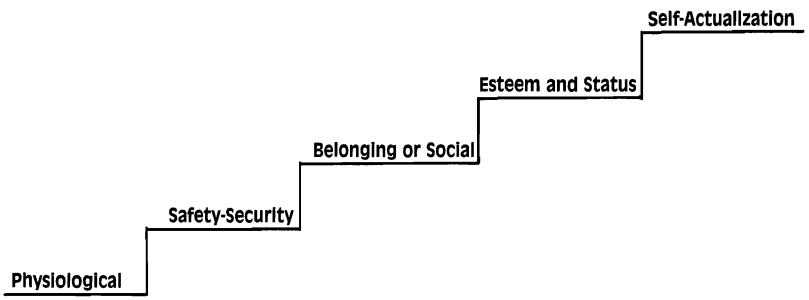

Figure 2.1: Maslow's hierarchy of human needs.

The teacher cannot have much direct impact on the physiological needs of students, other than by alerting other agencies of the need. The same is true of the safety needs except, of course, those related to the class activities. Teachers can however, have a direct impact on the student's self-image. Although this does not deal directly with content, the technology teacher uses a TSA or TECA chapter to give students social interaction and group membership — a sense of *belonging*. Students build self esteem through participation, leadership, and recognition activities. In the end, the TSA or TECA member reaches toward self-actualization, fulfillment, and maturity.

BUILDING STUDENTS' SELF-IMAGE

Is self-image important? Ziglar (1977) suggests:

> To illustrate, think about placing a 12" wide plank on the floor and then walking across it. Then place the same 12" plank between two ten story buildings and then think about walking the plank. You "see" yourself easily and safely walking the plank on the floor. You "see" yourself falling from the plank stretched between the buildings. Even though it's the same plank, we have fear at the top of a ten story building, but not when it's laying on the floor. So it's a matter of confidence that makes the difference. If we believe we can do it, we can. (p. 48)

"The starting point for both success and happiness is a healthy self image," according to Dr. Joyce Brothers, well known author, columnist, and psychologist. She says: "An individual's self concept is the core of his personality. It affects every aspect of human behavior: the ability to learn, the capacity to grow and change, the choice of friends, mates, and careers. It's no exaggeration to say that a strong positive self image is the best possible preparation for a success in life" (cited in Ziglar, 1977, p. 49).

Ziglar (1977) is a widely regarded speaker and billed as America's leading motivator, through a program of human development. He talks to all kinds of adult groups in business and professions as well as many student groups. He refers to a healthy self image as the first step on the pathway to success.

> The way to get to the top, that is to be successful, is to take the stairs, one step at a time. Assume the elevator is out of order. In taking the stairs, you take them one step at a time. The first step will be the development of a healthy self-image. The second step is the recognition of the worth and ability of other people, as well as the necessity of effectively living and working with them. The third step is a strong goal orientation. The fourth and fifth steps are that you must have the "right" mental attitude and be willing to work. . . The sixth step is that you must also have a burning desire to excel. You must have lots of "want to" - and, you must live in a free enterprise system so you can control your own destiny. (p. 27) (See Figure 2.2)

These steps point out that a positive self-image isn't the only important ingredient in becoming a successful, self-actualized person; but that it is a very important first step. When one feels good about and likes one's self, it is easier to like and be friends with others. Students who are confident of their own abilities and value themselves as persons, are not easily hurt or discouraged when something doesn't turn out just right, or when a classmate makes a disparaging, uncaring remark.

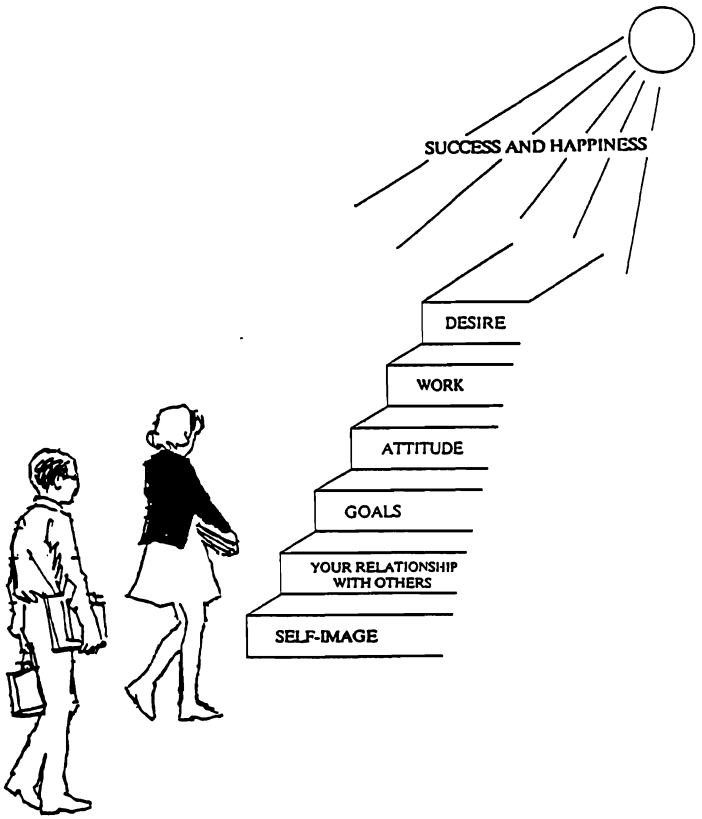

Figure 2.2: Steps to success and happiness.

Instead of retaliating or feeling depressed, they can tolerate the poor actions of others and accept disappointment without feeling they are worthless or inadequate.

A healthy self-image is especially important in dealing with the many stresses on adolescents today. There is pressure to succeed in school; to find a job in order to have spending money; peer pressure to be one of the gang and do drugs, alcohol, and sex; the pressures of divorce

and single parent families; etc. Students need to manage that stress and find ways to balance and coordinate the demands and the pressures of peers and others in society with that which comes from within, to do what's right. This is where a healthy sense of self and identity becomes valuable. Elkind (1984), a psychologist specializing in adolescence, indicates:

> An integrated sense of identity . . . means bringing together into a working whole a set of attitudes, values, and habits that can serve both self and society. The attainment of such a sense of identity is accompanied by a feeling of self-esteem, of liking and respecting oneself and being liked and respected by others. More than anything else, the attainment of a healthy sense of identity and a feeling of self-esteem gives young people a perspective, a way of looking at themselves and others, which enables them to manage the majority of stress situations. Young people with high self-esteem look at situations from a single perspective that includes both themselves and others. They look at situations from the standpoint of what it means to their self-respect and to the respect others have for them. . . . A young person with a healthy sense of identity will weigh the danger to his or her hard-won feeling of self-esteem against the feelings associated with the loss of peer approval. . . . The young person with a strong sense of identity and a feeling of self-esteem has the best chance of managing these stress situations. . . .
>
> It is important to say, too, that integrated teenagers come in any and all personality types. Some are introverted and shy, others are extroverted and fun-loving. Some are preoccupied with intellectual concerns, others primarily with matters of the heart. Despite this diversity, they all share the prime characteristics of the integrated teenager: a set of attitudes, values, and habits that enable the young person to serve self and society, and a strong sense of self-esteem. (p. 164-168)

Elkind (1984) goes on to suggest that schools and teachers can and do have an impact on individuals and their self-image. One thing he suggests is for schools to have small class sizes so teachers can spend more time with each student. He suggests that students ". . . develop a greater sense of self-worth because they see that the teacher takes time for them and their work" (p. 207).

This is one way the technology teacher makes a difference in a student's life. The teacher that is interested in the student first, will find ways to take time to show a genuine interest in the student. The great variety of technology activities available and the freedom of movement in the laboratory environment makes it possible to individualize the instruction so students can learn in a way that interests them, and the teacher can spend time with students individually. This kind of teacher also talks to students — before and after class, in the hallways, and at extracurricular activities — about things of interest to the students.

One of the reasons TSA and TECA advisors indicate they enjoy their role as advisor of the student organization is that it provides additional opportunities for them to get to know their students. Whether it is planning and working on a community service project, producing game boards for sale, assisting with the article and picture for the local newspaper, or traveling to a state or national conference — these activities provide for good interaction between student and teacher on projects of relevance and interest to the student.

As identified earlier in the steps to success, Ziglar (1977) emphasizes the importance of developing a healthy self image. He provides some good insights for teachers and how to interact with students to enhance learning and their feeling of accomplishment.

> We often hear about the middle child being different. This difference is supposed to be the result of not having the security and independence of being the oldest child, nor the affection and attention generally accorded the youngest. Generally, it is assumed that this middle child who is "different" is going to be in a negative direction, but it can just as easily be positive. If we expect the child to be a problem and reinforce them by telling them they are a problem, they will live up to that expectation. The same is true of teaching. If we expect students to do poorly, they will live "down" to that expectation. We need to let students know that we expect them to do well and they will strive to live up to that expectation. . . . We need to look for the total ability of the student, develop more patience, compassion and firmness in dealing with them, and be more analytical of what the student does and not so critical of the student. Criticize their performance - not the performer. In short, when dealing with students, give them lots of encouragement, but don't lie to them or mislead them by telling them they are doing well when they are not. Encourage them by letting them know they can do better work - that their assignment or performance is not up to their standards. When their image changes, so will their performance. . . . in short, give them something to live up to. Convince them they can - and they will. (p. 121)

He also suggests teachers treat students as important persons. To get the most from a student, he reminds teachers: "A sincere compliment is one of the most effective teaching and motivational methods in existence" (Ziglar, 1977, p. 106).

There are many examples from former students of how teachers have helped them to be successful. Most often, it is not the teacher that was the most skillful or the most knowledgeable, but the one who took time for them and made them feel important. Brown (1977), a former industrial arts teacher with many years of teaching experience, wrote in the first AIAA Monograph:

> In spite of its continuing to receive endorsement from certain quarters, the age-old notion that successful teaching depends largely, if not

> entirely, upon knowing well a certain body of subject matter has proven to be a gross misrepresentation of the process of teaching. . . . teaching is a much more involved process and requires a more far-reaching purpose than simply understanding and dispensing a body of subject matter. In other words, the idea that "if you know it, you can teach it" always has been a mistaken notion with respect to both teaching and education. (p. 16)

In a very real sense, to be really successful, teachers and advisors must make every attempt to know the students as individuals and what interests them, as well as what their problems or concerns might be. Then teachers are in a better position to help students in their developmental stages, — to boost their self-image.

BENEFITS OF TECHNOLOGY STUDENT ORGANIZATIONS

Walter Waetjen (1953), a former industrial arts (technology education) teacher and recently a university president and chair of the ITEA Advisory Council, wrote many years ago about the need for, and the contribution (technology education) can make, in shaping learner attitudes and values through peer group experiences. He noted the need to assist students to develop appropriate self-concepts, to develop social relationships, and a group identity. At that time there was no student organization available for students in this field to help accomplish the needs he identified.

After only a few years of operation of both the Technology Student Association (TSA) and the Technology Education Collegiate Association (TECA), a major research document in the technology education profession, the *Standards for Technology Education Programs* (Dugger, 1985), recognized the importance in student organizations. There are eleven standards for evaluating secondary-level technology education programs which directly address TSA. (See Chapter 11 for more information on the standards.) One of those standards highlighted the value of TSA and said: "emphasis is placed on developing leadership ability, encouraging and promoting responsibility, and developing positive social interaction through AIASA [TSA]" (p. 16).

In many other areas of the school, student organizations have long been recognized as providing valuable educational experiences for students as part of the formal educational system. Student organizations are one source of student activities reviewed by the accrediting bodies that make decisions regarding the quality of educational programs. Paraphrasing the Student Activities Program Guidelines in the

Evaluative Criteria of the National Study of School Evaluation (1987), student activities programs are designed to:

1. Help meet the leisure, recreational, social, and emotional interests and needs of all students.
2. Provide opportunities for self-directed specialization in all areas of the curriculum of particular interest to individual students.
3. Develop desirable social attitudes.
4. Development of understanding and cooperation among social and ethnic groups in the student body.
5. Increase the likelihood of carry-over to out-of-school life.
6. Development of democratic leadership and cooperative attitudes.

Social Skills

There should be no doubt as to the importance of student activities as part of the regular school program. While it may not be one of the primary responsibilities or objectives in a given class, gaining social skills is one of the values that student organization activities provide. Simply meeting people and being able to carry on a conversation with total strangers is a skill that all people need but may not have much opportunity for learning. Banquets, community service activities, promotional activities at a shopping center, state conferences, and especially national conferences provide opportunities to meet and greet new people. It is not unusual for students never to have experienced eating at a formal banquet or perhaps even eating with other than family members at a restaurant. Student organization activities provide them with some of the social skills that other people take for granted. Alumni members have indicated they appreciated when someone actually took the time to explain proper etiquette and procedures at a formal banquet or a nice restaurant.

Sense of Belonging

Everybody wants to be a *somebody*. Some students receive that personal satisfaction and reward through successes in a variety of areas. Some students work hard to get A's and achieve recognition from their teachers and parents, rewarding them for good scholarship. Others may not have the interest or the ability to achieve top grades, but they can

achieve in athletics, music, drama, journalism, or other school activities. Technology student organizations provide just the opportunity for some of these students to find their niche and to succeed and be recognized for their efforts. Perhaps their product idea is the one chosen by the group to mass produce to earn money for the local chapter; they may be the top sales person for the popcorn sale to raise money to donate to the national service project; or they are the winner of the local chapter's Metric 500 contest and have the opportunity to compete at the state level. If they get their name in the paper, or receive recognition at a school assembly, or even a pat on the back and a *good job* from their teacher and fellow students, it is a well earned and much needed recognition.

This recognition helps boost their ego and self concept, and also helps establish them as an important member of the group. Everyone likes to be recognized for their efforts; and especially during adolescence, it is important to be accepted and feel they are wanted by the other members of the group. The student organization provides the opportunity to associate with others who have common interests and goals, whom they enjoy being with, and to do things together.

Just as athletics or music may be the primary interest and reason for some students to go to school, other students may find the activities of the technology student association to be a primary factor of their interest in school. They enjoy the people they're working with; they have a sense of responsibility because they know the other students are counting on them; they may be involved in a community service project or a fund-raising effort that they enjoy and particularly want to be a part of; or they may have a particular goal to win a trophy at the state or national contest, and also look forward to the opportunity to go to state and national conferences.

Leadership

Competition, opportunity to travel, the social opportunities with members along the way and with those they meet at the state and national conferences, are benefits that some former members identify as highlights of their years in student organizations. Other alumni members have indicated their student association membership provided them opportunity to participate in leadership situations very much like those in which they are involved as adult citizens in the community. The experiences they have in a student organization can also be applied

to a democratic society when they get involved with civic and community organizations such as Jaycees, Junior League, Rotary, and the Chamber of Commerce. They work with others as members of committees, use their parliamentary procedure knowledge to make group decisions, and soon take on leadership roles in the group.

Leadership is a competence which will be needed by students in almost every role of life. Skills in leading, following, planning, cooperating, and speaking are developed through learning activities where students are permitted to make decisions democratically. Electing officers for the in-class organization or the school chapter helps each student learn to make decisions and learn the functions of leaders. When class or chapter officers plan activities, they learn to work together and involve class officers in conducting meetings using committee reports, motions, and discussions to select future activities for the group. Leaders become followers when a group decision is made. Followers become leaders when they share information and participate in the decision making process.

Alumni indicate that leadership is an ability that must be earned and learned, rather than one that just happens. Students learn that leaders don't make all the decisions, nor do they do all the work, but rather the decisions are made by all members of the group if it is operated in a democratic manner. They learn that decisions made by the group are more often accepted by the members, so they make greater effort to ensure the success of the decision.

Since leadership is earned and learned, it requires that students be given the opportunity to learn, and practice it. The methodology teachers use in teaching may foster or inhibit students to make decisions for themselves. Offering the opportunity to participate in leadership experiences in a TSA or TECA chapter is one method teachers use as an effective response to the question by Maley (1973): "What kind of a society does one educate for when the decisions are entirely in the hands of the teacher...where choice and leadership are strictly teacher functions?" (p. 8). There are benefits to the students as described by former members, plus other benefits to the teacher, program, and society.

Values

Most students may not recognize during their participation in student organizations, or perhaps even afterwards in some cases, that they have been developing values. The teacher/student organization advisor

becomes a role model as the students and teacher spend time together in planning, organizing, and carrying out various activities, particularly those involving such things as community service projects. Some people might say that schools should not be involved in developing values, but rather that this should be the domain of the parents. Others have the concern that unless the schools help develop values, many individuals will receive no assistance at all. Davis (1984) indicated that "U.S. educators must acknowledge the responsibility of the public schools for teaching of civic but not of religious values. . . . By civic values, I mean those attributes of character necessary for effective citizenship. Such values maintain the common good and assure the survival of the society" (p. 360).

Sometimes teachers are not always aware that what they do and say helps students develop a value structure. In some cases, students ask specific questions indicating they are looking for direction to determine their own value structure and to help them to make decisions that are important to them and to their future. Teachers can provide too much but also too little guidance in helping students make decisions and develop a set of values. Too much guidance can cause difficulties for them as they need to make their own decisions in the future. "Most young people do not need adults running their lives for them, but they do want and need help" (Simon, Kirschenbaum, and Howe, 1972, p. 17).

Attitude

Another value students gain is in their own feelings of self-worth and their attitude towards what they can accomplish. As Howard (1978) stated, "*The secret to learning is in the students' attitudes towards themselves and their feelings of power over their own destiny*" (p.164, italics in original). If students feel they have the opportunity to make decisions, and in fact put those decisions into practice, they find out for themselves whether they have made good decisions. In addition they discover that if they do not put forth the effort, the outcome will be less than satisfactory. They learn from their own experiences that dedicated effort and a positive attitude can lead to positive results. Dorfman and Stephan (1981) state: "People whose high expectancies are accompanied by positive affect are the most likely to work hard in order to achieve favorable outcomes. Individuals who feel good because they perform well, and who perceive that they have some responsibility for their performances are likely to work hard in the future" (p. 18).

Initiative

While students may not have realized it at the time, they often indicate later that the student organization provided them rewards for showing individual initiative. At first they may be willing to participate in a committee to carry on a fund-raising drive, but perhaps the next year they become the chairperson of the fund-raising effort. When that effort meets or exceeds the goal, they receive a great deal of personal reward in satisfaction for their effort. This kind of success often breeds success in other areas as well, so the student is more likely to initiate additional activities on his or her own.

While it may seem that college students already have a lot of initiative or they wouldn't be in college, many college students are content to go to class, do their studies, but not participate in other activities. Even those who are preparing to be teachers may be reserved and prefer to stay in the background, listening to others, rather than participating in discussions themselves. The involvement in the collegiate student organization provides the mechanism for those students to become more involved, to get to know the other people, and become more confident in their own abilities.

There are few things more satisfying to a teacher than to see a student succeed. TECA advisors (collegiate level faculty) have indicated, and it's been the personal experience of this author, that students have *found themselves* through activities in a student organization and have then gone on to become excellent teachers, and initiate student organizations in their own schools. It's gratifying to see former students now teaching and bringing their students to state and national student organization activities, — and being excited about the success of their own students. One former student, in particular, was not having great success academically as a college student and did not show much initiative anywhere except working in the laboratory. Now, after four years of teaching and great success in his classes and with the TSA activities, he reports one primary reason for his success as a teacher was due to his participation in TECA. He was a less-than-enthusiastic student and that carried into his membership in the student organization at first, but before graduation he became one of the chapter officers. He credits those experiences in the student organization with providing the motivation and giving him the confidence to do things on his own.

Similar stories are told by many former student organization members at the secondary and collegiate levels. These young people are in important stages of their development and growth and the experiences

the student organizations provide are many times the significant activities that make a difference as they try to establish their own identity and find their *niche*.

The Teacher is the Key

What is the difference between a teacher and a student organization advisor? A handbook for advisors suggests:

> It could be said that there is an integral relationship between teaching and advising, in that one function is incomplete if the other function is not performed. It is important to realize that when vocational teachers accept one role, they must accept the other. Part of the task of teaching includes the development of leadership and personal qualities in students which will enable them to obtain and retain a job. Teaching only technical information while ignoring leadership and personal development is a trait of an ineffective teacher who is shirking responsibilities. It is better that such a teacher move on to another occupation, rather than deprive students of a vital part of their education. (Vaughn, 1987, p. 11)

A good indication of the teacher being the key person for effective student learning is provided by an undergraduate student who is preparing to be a technology education teacher. This student has worked in industry for about ten years, has a family with small children, and is changing careers so he can be involved in what he now considers a most important profession — teaching. He wrote about the need for people to be involved in helping to build a better and more human world.

> How can I impact and help direct this world building activity? For me I feel teaching is the answer. Our children are the new managers in the world building endeavor. They must be taught that they are the future. It is their responsibility to use their knowledge and abilities to interact with technology and build a better world.
>
> I can be a role model for the students. I can help them experience success in their endeavors, and realize that their actions can impact the rest of the world. . . . I can show them how important technology is to the activity of world building, and how to understand and use that technology in appropriate ways. I can help them to be the best that they can possibly be. By being the best that they can be, once they assume their roles as managers in the world building process, they will have attained the knowledge, abilities, and direction to build a better and more human world for themselves and their children. (Hansen, 1988)

SUMMARY

Many people view the major function of technology education as simply related to tools, materials, and technological processes. Actually its function is human development, the development of the student. This chapter described the importance of developing the *whole student*, to assist students to reach their full potential, and the part that the technology student organizations, TSA and TECA, have in that total development.

Student organization activities put the priority on the development of people. They provide real life opportunities to solve problems, to learn about the technological society, to learn to communicate effectively, and to learn how to learn. Former members of TSA and TECA identify the value of their experiences that helped them gain important personal qualities of initiative, dependability, responsibility, tolerance of others, and citizenship. It also helped them to develop leadership and followership skills; to learn to work together cooperatively; and most importantly, to achieve an identity with others with similar interests and achieve recognition for their efforts that helped build their self-image.

Teachers, and future teachers, need to remind themselves of the purposes of education and the reason they want to teach. Experienced teachers often will comment they do not have enough time to have a student organization and that it takes too much class time to have in-class TSA meetings or other student organization activities during class time. But the teachers who are most interested in doing what is best for the individual students, — to help them achieve to their full potential, — indicate they can hardly afford *not* to provide that opportunity.

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CHAPTER THREE

BUILDING PROFESSIONALISM THROUGH STUDENT ORGANIZATIONS

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Sub-Topics:

- Historical Perspective
- Professionalism Defined
- Dimensions and Characteristics of Professionalism
- Professional Student Associations
- Professional Associations

Teaching student professionalism and leadership is a major goal of technology education student organizations. Since today's students become tomorrow's professionals, it is important to establish the essence of professionalism and discuss its relationship to both technology education student associations and professional organizations for technology education teachers.

This chapter clarifies this important relationship by first establishing a perspective and definition for professionalism followed by a discussion of six major characteristics of professionalism and their relationship to technology student associations. The chapter continues with an overview of the two technology education student associations and major technology related professional organizations. Identification of a continuum of technology related professional organizations establishes how professionalism learned in student associations creates unlimited leadership opportunities for those who choose a career in technology education.

HISTORICAL PERSPECTIVE OF PROFESSIONALISM

The concept of "professionalism," as we know it today, can be traced back to the Roman Collegia, the pre-Industrial European church system, and the Medieval Guild system hundreds of years ago in Britain and on the European continent (Elliot, 1972).

During the Medieval Period and before the Industrial Revolution, professions and "professionalism" related exclusively to the status of positions. Only the military, politics, theology, law, and select aspects of medicine were widely recognized as professions.

The rise of the European Industrial Society and the guild system, featuring student apprentices, brought skilled tradesmen and master craftsmen together to regulate and maintain control of goods and services to urban customers. With their close association, regulatory function, and mutual support and protection, these guilds paralleled in many ways the development of professional associations and professionalism as we know it (Elliot, 1972). Today the crafts or trades are not commonly acknowledged as professions; however, there are important parallels between the guild system and contemporary professions. These parallels were identified by Elliot (1972):

> The guilds were associations of specialized workers; autonomous but integrated into the structure of civil notoriety; self-governed but usually controlled by a specially recruited "elite" which on occasion developed into a small, self-perpetuating hierarchy. Each guild supervised training and recruitment for their occupation and exercised some control over performance and practice. The system was based on the assumption that the public interest was best served by ensuring quality production from proved experts. (p. 23-24)

Not surprisingly, students or apprentices in this system were expected to develop the talents and attributes of professionalism as an important component of their long, often arduous training or apprenticeship term, just as we stress its importance for students in today's society.

PROFESSIONALISM DEFINED

The Random House dictionary (Flexner, 1987) defined a professional as: "A person who belongs to one of the professions, especially one of the learned professions" (p. 1544), and professionalism as "the standing, practice, or methods of a professional, as distinguished from an amateur" (p. 1544). A closer look at the concept and meaning of professionalism reveals that social scientists have, over time, worked to

identify specific characteristics or dimensions that can be used as a framework to understand its full meaning. Identification of these elements also provides an excellent opportunity for teaching concepts of professionalism.

Ritzer, (1973) identified six major dimensions or elements of professionalism and indicated that a professional person would typically meet all six of the following criteria:

1. Possess a general systematic knowledge of the profession.
2. Have influence over others.
3. Show broad (community) rather than self interests with an emphasis on symbolic not monetary rewards.
4. Hold membership in occupational associations, have obtained advanced education, and typically involve the existence of a sponsor.
5. Be recognized by the public that (s)he is a professional.
6. Continue active involvement with the occupational field. (p. 62-63)

As professional student associations grow and expand, it is important to discuss the opportunities for developing professionalism. Just as medieval apprentices were taught skills and professional attitudes necessary to become successful in their craft, so should all students be provided the opportunities and challenges necessary for success in our increasingly complex society.

Professionalism in Student Organizations

The roots of student professionalism can be traced to Europe's early apprenticeship programs. Today professional student growth in technology education can be traced directly to the two major student organizations associated with the profession. The presence of these associations, the Technology Student Association (TSA) for K-12 students and the Technology Education Collegiate Association (TECA) for 4-year college students, bears testimony to the importance the profession has placed on the development of traits of professionalism (see Figure 3.1) with our students and pre-service teachers. There is little doubt that teaching professionalism is important and that it should start early.

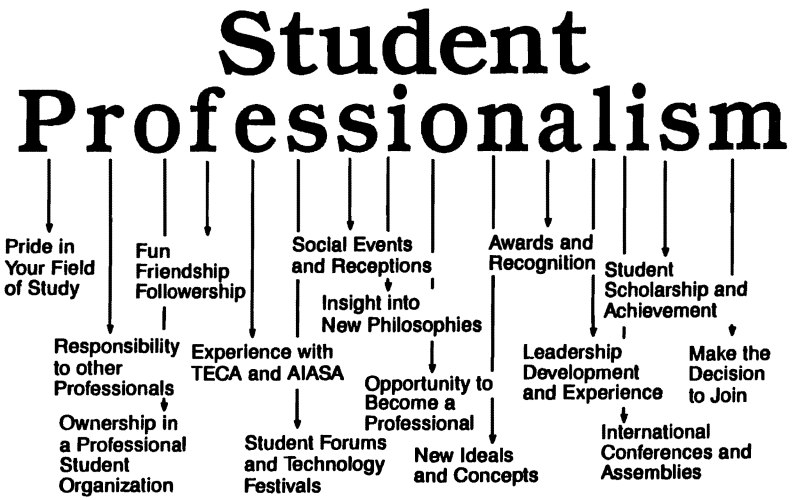

Figure 3.1: Professionalism through student organizations. (Myers, 1985)

DIMENSIONS AND CHARACTERISTICS OF PROFESSIONALISM

The six dimensions or characteristics of professionalism (Ritzer, 1973) provide an excellent way of identifying and discussing how TSA and TECA work to build professional attitudes and behavior.

Acquiring General Systematic Knowledge of the Subject Matter

A primary characteristic of professionalism and the mark of a "professional" is to be knowledgeable in the subject matter. In technology education, student organizations play a key role in ensuring that students acquire knowledge in a broad range of technology topics and learning activities. Both TSA and TECA are integral parts of the technology curriculum. Such fusion of student organization and curriculum guarantees that all students enrolled in technology education courses from middle school through grade 12 (or college when appropriate) are acquiring general, systematic knowledge of the subject matter (see Figure 3.1).

A unique aspect of emerging technology education programs of ex-

cellence is the variety of creative learning methods incorporated. Recent articles in technology education journals describing programs of excellence emphasize several characteristics in common. Each of these exemplary programs stressed:

1. Problem solving.
2. Critical thinking skills.
3. Creativity or inventiveness.
4. Student-centered research.
5. Writing skills.
6. Math and science concepts.
7. Decision making.

When this depth and breadth of knowledge is combined with creative learning approaches, it is clear that the decision to join TSA or TECA ensures that each student has enhanced his or her degree of professionalism by systematically learning about the field of technology.

Influence with Others

The ability to influence others is one definition of leadership. Technology education student associations provide unlimited opportunities for a host of leadership or "influence building" attitudes.

For example, secondary teachers are encouraged to organize student associations that start in class and involve all students (Hacker & Barden, 1987). When this occurs, every student becomes actively involved with leadership and committee functions through the day-to-day classroom and laboratory management activities. Students learn to serve in a host of association leadership positions including officer roles, committee chairs, organizers, presenters, speakers, managers and writers. Personal, organizational, and management skills are also taught. These involve the management of time, finances, and people; and the ability to use parliamentary rules to conduct meetings. The ability to communicate effectively by speaking and writing are also personal skills that influence others.

"Community" or Broad Group Interests Rather Than Self, with Emphasis on Symbolic Not Monetary Rewards

A positive attribute of student associations is their emphasis on the broader interests and contributions of the "community" of students. Within TSA and TECA, students learn the importance of group interests can be manifested by volunteering to assist on a group project, or simply helping other students succeed. Learning the importance of group rather

than self interest transfers to other situations within the school and community. For example, student groups can work together on school or community projects, such as building playground equipment or construction of a score box at a city park.

Rewards for group achievements may not be compensated monetarily; however, group and individual accomplishments may be recognized symbolically. For example, the entire student association may receive a citation for contributing their efforts toward a school or community project.

Individual symbolic recognition is often generated as a direct result of outstanding contributions performed from within the group. Leadership roles, dedication to the task, contribution of time, and commitment to association activities are typically recognized by awards, plaques, honors, citations, complimentary newspaper or newsletter articles, or TV and radio coverage. Scholarships, fellowships, grants, and other educational awards are also recognition of groups or individuals who demonstrate a commitment to the group rather than self.

This dimension of professionalism acknowledges that each person has the interest and desire to achieve individually, but that to help others and work to achieve a common goal is a mark of real professionalism. Technology education student associations do offer individual students an opportunity to earn recognition. Equally important, these associations provide educational and leadership activities that emphasize spirit, ideals, and the importance of group achievement, which is critical for success in the work place and the community.

Membership in Occupational Associations, Advanced Education, and a Mentor-Sponsor

An index of a person's professionalism is the extent of membership and active participation in professional associations. In technology education this may mean active membership in the International Technology Education Association (ITEA) and the Industrial Arts Division of the American Vocational Association (IAD-AVA). The two organizations, with their councils, associations, and committee structures, offer both students and practicing technology education teachers an impressive variety of professional activities and leadership opportunities.

Recognition by the Public that (S)He is a Professional

Professionalism frequently is a "state of mind." That is, a person is thought of as a professional (or professional in training) because of the

groups with which (s)he affiliates and the activities with which these groups are involved.

In technology education, both TSA and TECA are indirectly or directly affiliated with the International Technology Education Association. This relationship provides recognition that members of TSA or TECA are also associated with a professional association, ITEA.

The specific types of activities that members of TSA & TECA pursue is a second means of gaining recognition by the community that professionalism is a primary concern of the association. Leadership positions, such as serving in an elected office, community projects, conference participation, judging contests and events, writing newspaper articles, speaking, and committee leadership and participation all are highly visible to the community and reflect quality ways to gain professionalism and poise.

Student association members can also gain the respect and recognition of their peers and the community when they, as achievers, are recognized as recipients of awards, citations, scholarships, or winners of contests and events. There is little question that students participating in technology education associations are recognized by the community and peers as learning skills and traits of professionals. They are perceived as learning skills necessary to succeed not only in a career, but in family and community environments.

Continued Active Involvement with the Profession

An excellent beginning for teaching and learning about professionalism in technology education is through active participation in TSA & TECA. It is here that students have the opportunity to participate in many of the same type of activities as do professional teachers. In order for students to grow and develop a deep sense of responsibility and commitment, there must be truly professional teachers to serve as role models, sponsors, and members. Two major hallmarks of professionalism are: (1) continued commitment to the profession, and (2) a positive attitude and desire to remain constantly active in association business and functions.

One positive aspect of active involvement in student associations is the opportunity for students to consider the merits of becoming technology teachers. The tremendous challenges and advancement to be made in the broad field of technology and technology education create a bright and rewarding career path for college bound students.

Initial involvement in student associations can be fun and rewarding; however, the real benefits of developing specialized technology skills

and positive personality traits are best achieved when students maintain a strong association relationship, beginning with TSA then continuing with TECA and ITEA. These associations were organized to provide students the opportunity to develop technical and professional skills related to the technology field on a continuum, starting first in elementary or middle school and continuing at the secondary level. For college students choosing a technology education teaching career, TECA is the student association teaching leadership and professionalism prior to joining ITEA as a practicing professional.

This continuing relationship permits students to realize the optimum personal and technical growth, and at the same time, consider career opportunities including: teaching, supervision, or administration.

PROFESSIONAL STUDENT ASSOCIATIONS

Technology Student Association (TSA)

If one source can be identified for the genesis of professionalism and leadership development in technology education it would be TSA (formerly American Industrial Arts Student Association - AIASA). TSA is currently recognized by the United States Department of Education, many state education agencies, the American Vocational Association, the National Association of Secondary School Principals, the International Technology Education Association, and the National Coordinating Council for Volunteer Student Organizations as the official student association representing technology education students nationwide.

Mission. The stated mission of TSA is:

> To develop and carry out a program of activities and supportive services for student members. These activities are designed to develop the leadership and personal abilities of students as they relate to our industrial and technical world. This mission is accomplished through local chapters and state and national TSA Associations (AIASA Member Guide, 1983, p. 3).

Purposes. TSA has formulated two levels of purposes; general and specific. General purposes of the association are:

1. To assist state associations in the growth and development of TSA.
2. To assist state associations in the development of leadership and citizenship in social, economic, scholastic and civic activities.
3. To increase the knowledge and understanding of our industrial technological society.

4. To assist technology education students in making informed and meaningful occupational choices.

Membership. Membership in TSA is open to all students enrolled in elementary, middle school, junior high and high school technology education classes.

Benefits to Members. Members of TSA participate in activities that build professionalism and leadership abilities. These benefits include:

1. Leadership training by holding elected office at the local, state, or national levels and by working on committees and TSA chapter projects.
2. Social activities including dinners, dances, picnics, and social functions with other TSA chapters.
3. Participation in service activities and projects such as community and school improvement projects, assisting handicapped or elderly citizens, or collecting clothing, toys, or food for those in need.
4. Participation in conferences at the local, state, regional, and national conferences including service as chairperson, host, presenter or judging contests and events.
5. Exploring of career ideas and interests by taking a variety of technology classes, meeting and working with community and industry leaders, and taking field trips.
6. Competition in local, state, and national contests and competitive events such as the Metric 500 and the Bridge Building Contest.
7. Travel to state and national TSA conferences to participate in professional, social and competitive events.
8. Participation in chapter fund-raising activities such as the manufacture of toys, car washes or operation of a student managed store.
9. Acquiring management skills by accepting responsibility with the instructor in all facets of classroom and laboratory management.
10. Meeting and working with college and university TECA chapters on activities and cooperative projects.

These benefits represent examples of ways in which TSA students begin the process of developing leadership qualities and professional skills. As many of the chapter activities as possible are held in direct cooperation with TECA chapters to demonstrate to TSA students that there is a direct relationship between TSA and TECA and to provide TECA students with "real time" experiences to become familiar with TSA in preparation for their roles as teachers and TSA advisors.

Technology Education Collegiate Association (TECA)

The idea of a professional association for college students preparing for technology teaching started with college student chapters of the American Industrial Arts Association "as early as 1950" (Ray, 1979, p. 404). During the ensuing years, several name changes and extensive restructuring have occurred. The current name, Technology Education Collegiate Association (TECA) symbolizes a dynamic growing organization with (1) increasing student members and affiliated campus chapters, (2) a TECA management board, and (3) a National TECA administrative advisor.

Mission. The mission of TECA is three-fold:

1. To teach professionalism by example to pre-service technology education teachers through participation in chapter leadership activities.
2. To serve as an introductory program to ITEA.
3. To prepare pre-service teachers with experiences and skills necessary to become successful TSA advisors. (Van Dyke, 1987)

Professional Benefits to Members. Individual college student members of TECA who join ITEA (at one-half cost of regular membership) receive a variety of association benefits including (Van Dyke, 1987):

1. Publications, such as College Comment, a periodic commentary on national TECA chapter activities. Student membership in ITEA also includes a subscription to The Technology Teacher journal (eight times a year) and all ITEA publications at reduced rate or free.
2. Eligibility for local and nationally recognized TECA awards and scholarships.
3. Opportunity to compete in national contests and competitive events.
4. Technology-Link, a two-way computer network linking technology teachers nationally and internationally.
5. Opportunity to meet at local, state, regional, and international conferences to exchange ideas and information.
6. Leadership opportunities including: (a) serving in an association executive office, (b) organizing and managing committees, (c) serving as host, chairperson, or presenter for conference presentations, and (d) serving as a judge for contests and events.
7. Opportunity to be considered for the EEA Ship Award of $1,000.
8. The opportunity to work directly with local TSA chapters to gain valuable experience in preparation as a TSA advisor.

TECA college or university chapter affiliation benefits also include: (a) Certificate of Affiliation with TECA, (b) a national directory with chapter officers and advisors, (c) a handbook for TECA leaders, (d) opportunity to receive awards for outstanding members and chapter activities, and (e) The Technology Student Forum at the ITEA conference(s).

Role and Purpose of TECA. Professionalism should be a synthesis of learned skills, attitudes, and demonstrated actions acquired as part of a professional preparation program. The ITEA Board of Directors recognized that many of these characteristics of professionalism should be acquired through infusion in coursework and TECA activities as part of the pre-service teacher education programs. Therefore, the Board of Directors of ITEA has made a concerted commitment to college students in TECA, based on the premise that teachers in training have an important role in the future of technology education.

The recommended approach for the incorporation of TECA in professional pre-service preparation, represented by Figure 3.2, contains six major components. Together the six components of the TECA model represent all major functions of TECA chapters and provide an operational framework for chapter operation (Dugger, 1983).

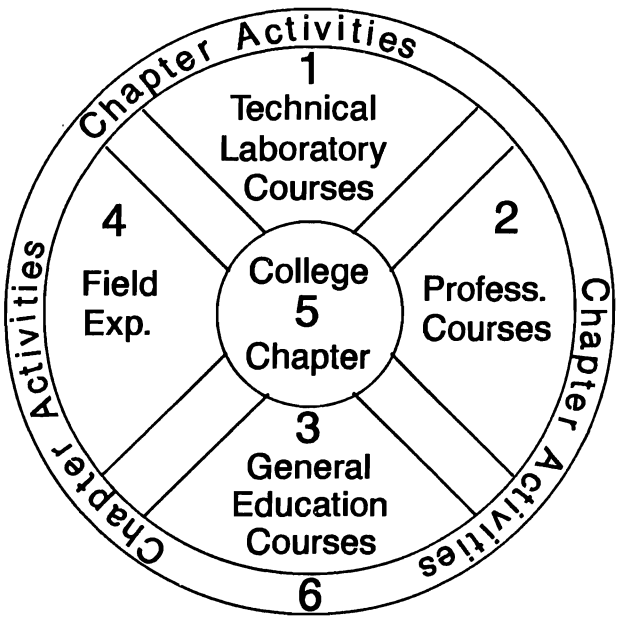

Figure 3.2: Components of a TECA model

Laboratory Coursework. In this area students plan and conduct management and leadership roles including: (1) laboratory-facility management and organization; (2) association manufacturing-planning and production; (3) laboratory teaching assistant roles; (4) mass production; (5) community service construction projects; (6) peer teaching; and (7) school service projects such as playground equipment construction.

TECA members are able to combine several areas of professional and advanced technical skill development in motivating projects, all focused on essential elements of professionalism.

Professional Coursework. Classes in foundations, methods, curriculum, classroom/laboratory management and student organizations all provide opportunity to explore fully the professional associations, councils, honoraries, and student associations in the technology-related fields. TECA students acquire systematic knowledge and information about ITEA, TSA, CTTE, CTEA, TECC, ITEA-CS, IAD-AVA, Iota Lambda Sigma, and Epsilon Pi Tau. Class members may gather information by calling or interviewing professionals in these organizations or by inviting speakers representing these organizations to speak to classes. Class members may also speak on these associations as an assignment, or write about them as a class project.

General Education Courses. Students in the core of general education classes benefit from understanding the relationship between the family of education areas. TECA members can speak about technology education and opportunities for cooperative teaching-learning.

Pre-service teachers in other fields, such as science, math, social studies, history and vocational subjects need to be informed about TECA and the new role and importance of technology education (the new basic) and technological literacy programs. TECA students can become informed of other student associations and learn how all organizations from other education areas can socialize and cooperate on service, scholarly, or fund-raising projects.

Field Experiences. Increasing numbers of colleges and universities are realizing the importance of a continuum of field experiences in the professional training of teachers. TECA campus chapters can assist in sponsoring and managing such school learning experiences that range in time from a few days to several months in length. Observations, practicums, extended and differentiated student teaching (junior and senior high levels), and visitations to schools to demonstrate new technologies, i.e., lasers, robotics, CAD, or CAM, provide practical teaching and professional skills needed for teaching. TECA chapters can also work

closely with TSA advisors and student members to sponsor leadership development conferences, workshops, demonstrations, and social activities. TECA chapter officers can arrange for students to visit campus for a workshop, followed by a sports or recreational activity planned for the afternoon or evening. This close working relationship between TSA and TECA ensures that the development of professionalism starts early and continues throughout the collegiate experience for those students choosing technology teaching as a career. It also emphasizes that there are three important professional associations - TSA, TECA and ITEA - for support, service, and professional growth opportunities within the technology education community.

Student Association Chapter. All activities revolve around the chapter. This central core forms the hub of activities. The opportunities and benefits are unlimited. Frequently, the sponsoring technology department or program personnel provides a meeting room, chapter office, study area, and storage facilities for the TECA chapter. Chapters also can acquire additional funds for other worthwhile activities such as operation of a student store or other services.

Chapter Activities. Chapter functions are the force that guides the association and creates opportunities, excitement, and challenges for professional growth of its members. The important element is that by diversifying chapter activities each member can be assured of finding interests and ways to contribute to the overall growth and excellence of the chapter. Chapter functions are varied and typically represent social, sports, fund-raising, and technical activities.

Service Activities. One of the most important service roles individual TECA members and TECA chapters can fulfill is working directly with TSA chapters. TECA members gain valuable experience in understanding how TSA chapters function in preparation for becoming TSA advisors. These key service roles were articulated by Magnone (1984, p. 2), who divided them into three levels:

1. **Local Level.** The collegiate chapter can "Adopt a School." Members assist a local teacher in starting a TSA chapter, electing officers, and planning a program of activities. Collegiate members can: (a) serve as guest speakers or conduct a technical workshop for a local TSA chapter, (b) assist an existing local chapter with the election and installation of officers, (c) visit a local TSA chapter's "Open House" and assist with the recognition of student work, (d) help prepare area students for regional, state, and national competitive events, and (e) assist local advisors by acting as chaperones for field trips.

2. **Regional Level.** The collegiate chapter can organize and sponsor a regional rally for area TSA chapters. Collegiate members can volunteer their services at regional fairs and assist fair organizers by acting as contest judges and managers.
3. **State and National Level.** Collegiate members can attend state and national TSA conferences and volunteer their services to conference planners. The collegiate chapter can design, set up, and operate a booth at state and national conferences that promotes the technology education program at their college or university.

In a recent study on collegiate student associations, Litowitz (1987) identified service functions conducted most frequently by TECA chapters within the previous two-year period. Activities ranging from high to low frequency were:

1. Served as judges or organizers of TSA competitions.
2. Manufactured toys for children.
3. Conducted a presentation or staffed a booth at a conference.
4. Participated in a neighborhood beautification project.
5. Recruited secondary students into technology education.
6. Sponsored a scholarship.
7. Conducted a live manufacturing run for third graders.

Other examples of service activities include: projects for handicapped, elderly, or homebound children and adults; campus or community transportation and escort service; and the Toys for Tots program.

Professional Activities. Events focusing on professional development range from writing an article in The College Comment, to using parliamentary procedures to conduct a TECA chapter business meeting. Activities identified by current TECA chapters include:

1. Holding office or working in a leadership position in a TECA chapter.
2. Writing articles for newspapers, newsletters, or professional technology education journals.
3. Organizing and conducting a local open house, seminar, or conference.
4. Establishing a TECA chapter foundation.
5. Acting as a chairperson, host, or presenter at state, regional, or national conferences.
6. Preparing brochures, pamphlets, and other promotional materials.
7. Running for and serving as president or other officer(s) of a local TECA chapter.

8. Serving as judges, organizers, or sponsors of TSA contests, events, or outings.
9. Organizing a scholarship or other recognition program.
10. Affiliating with other state TECA associations.
11. Attending an ITEA conference and participating as host, chairperson or special session presenter.
12. Running for national TECA office and becoming active with that organization's activities.
13. Developing a Chapter Professional Improvement plan (PIP), with chapter goals, objectives, and activity due dates.

These ideas and activities generate professionalism and increased awareness of the opportunities and challenges for professional technology teachers. It is in this area of professional activities that the maximum opportunity for individual and chapter accomplishment lies. Skills learned here transfer directly to excellence in teaching and achievement in successful TSA chapters.

Fund-Raising. The study conducted by Litowitz (1987) cited seven fund-raising activities ranked by TECA chapters ranging from the most frequently occurring to the least. They included: (1) mass production projects, (2) food sales, (3) raffles, (4) organized (and conducted) technical seminars, (5) custom production work, (6) contracted work, and (7) establishment of a memorial fund. Other documented fund-raising ideas are: operating a student run store; organizing dances, dinners, and conducting competitive events with entry fees. Fund-raising activities are often determined by local, school, or state policies and regulations and the classification of the association as nonprofit or profit making.

PROFESSIONAL ASSOCIATIONS

International Technology Education Association (ITEA)

The only international association dealing exclusively with technology education is the International Technology Education Association. ITEA is a single-discipline association established to serve teachers, administrators, supervisors, students, and others interested in technology education.

The stated mission of the ITEA is to "promote technological literacy through leadership, professional development, and services" (ITEA, 1986, p. 1). The association leadership utilizes two specific methods of

carrying out this mission: (a) a continually updated operational plan of activities, and (b) a strategic Professional Improvement Plan (PIP).

The operational plan includes the continuing, year-to-year association activities needed to sustain the organization. These tasks are accomplished by a network of operational and standing committees in cooperation with elected officers and an appointed executive director.

The Professional Improvement Plan deals with "activities which should advance the association significantly beyond the normal trend line of accomplishment provided the operational plan is maintained" (ITEA, 1987).

All tasks identified in the PIP are time specific; i.e., the objectives must be achieved within a time limit not to exceed five years, or be re-evaluated.

Goals. Four primary goals are cited in the PIP (ITEA, 1986):

1. Pursue the ideal form of technology education, to ensure the technological literacy of all people.
2. Acquire experiences and resources needed for delivering a comprehensive technology education program.
3. Exchange ideas and practices within and outside the profession to foster a positive, consistent image of technology education.
4. Benefit from corporate, legislative, affiliate, and membership support and services. (p. 1)

Benefits to Members. In recent years the ITEA leadership has been able to significantly increase services to its membership. The association currently offers an impressive list of direct benefits including:

Publications. An extensive variety of printed materials are provided, such as:

1. Curriculum guides.
2. Classroom-laboratory activity packets.
3. Yearbooks.
4. Safety guides.
5. Facility planning documents.
6. The Technology Teacher, a journal published and distributed eight times yearly to the technology profession.

Leadership Opportunities. Opportunity for professional growth is extensive in ITEA whether the individual's choice is serving in elected office, committee leadership or membership, or serving on specific boards. Currently, the association has a total of 27 standing and operating committees and several special boards and committees in

which members may participate. The diagram in Figure 3.3 and this brief narrative overview of the association's structure serve to illustrate other leadership opportunities including the board of directors positions (ITEA, 1987).

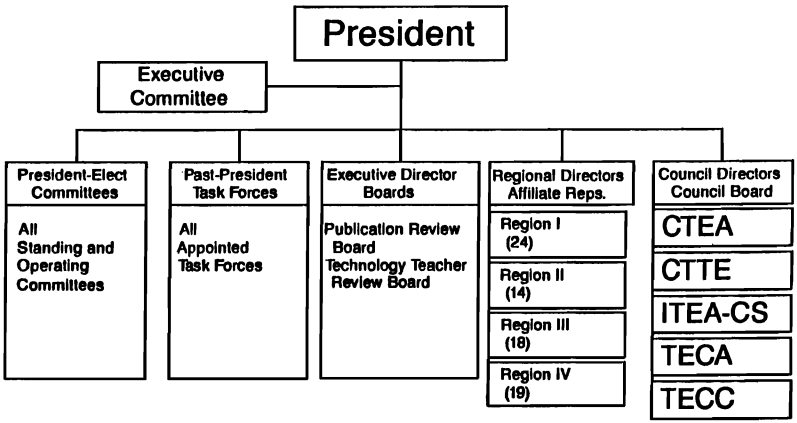

Figure 3.3: ITEA organizational chart

Recognition and Awards. Both individual and group recognitions are provided by ITEA. Two committees, Contests and Special Events, and Professional Recognition are responsible for selecting individuals or groups for awards which include:

1. Teacher of the Year.
2. Program of the Year.
3. Academy of Fellows.
4. Award of Distinction.
5. Meritorious Service Award.
6. Special Recognition Citation.
7. Distinguished SHIP Member Award.
8. Rutherford Lockette Humanitarian Award.
9. Citations for Technology Education Contests and Events.

Conferences and Leadership Events. ITEA hosts the largest conference for technology education in the world. ITEA members can choose from more than one hundred special sessions and seminars covering all aspects of technology education. The trade show held in conjunction with the international conference features exhibits of products, materials, and resources for technology professionals.

Leadership Conferences and Workshops. Offered at the international conference and at other times and geographic locations are a variety of ITEA sponsored events. These activities are designed for both individual professional growth and group achievement in technology education.

Member Communication. ITEA sponsors a computer-based electronic communications system for its members. Technology Link is an innovative method of using a computer system including a modem to communicate conveniently, efficiently, and inexpensively with anyone over the system. Members can use the system to retrieve information, as an electronic mail service, or to convey program information and ideas.

ITEA also provides its members with periodic promotional programs and personal services. Examples are reduced rate membership promotions, life insurance plans, discounts on all ITEA publications, placement services, money savings programs, and extended insurance policies.

Organizational Structure/Operation. The ITEA is governed by an elected Board of Directors whose members represent the associations, councils, and geographic regions (see Figure 3.3). Each member of the Board represents a specific group or position and is responsible for key tasks and activities within the association. They are as follows:

President. The ITEA president is responsible for the overall governing of the association. Specific responsibilities include representing ITEA nationally and internationally; presiding at Board meetings and international conferences; presenting to state, national, and international meetings; writing and publishing association information; and generally presiding over the business of the association for one year.

President-Elect. The president-elect works closely with other executive committee members and the executive director. (S)he has major responsibility for ensuring that the 27 standing and operating committees accomplish designated tasks and complete and submit timely reports of their activities.

Past-President. Specific responsibilities of the past-president center on ensuring that all special task force committees function smoothly and finish tasks in a timely manner. This person is also an executive committee member and works closely with that group and the executive director on a range of association management functions.

Executive Committee. The executive committee consists of the ITEA president, president-elect, immediate past-president, and the executive director who is an ex-officio member. This group has two primary responsibilities:

1. Propose new guidelines and procedures to the Board of Directors in the areas of (a) policy, (b) finance, and (c) professional standards.
2. Work with the executive director in the operational activities of the association consistent with policies established by the Board of Directors and the Constitution and Bylaws, (ITEA Committee Handbook, 1987, p. 23).

Executive Director. The executive director is ultimately responsible for the success of the association. (S)he, in association with the executive committee, is responsible for overall administration and leadership.

Regional Directors. The regional director concept was introduced to effectively communicate important ITEA information directly to the state (affiliate) level, and to promote association membership. The 50 states, territories, protectorates, and all foreign countries affiliated with ITEA were structured within four geographic regions as shown in Figure 3.4 (ITEA Committee Handbook, 1987). Each region is served by one regional director, who represents that region on the Board of Directors. Each director communicates with designated affiliate representatives on a regular basis via regular and electronic mail (Technology Link), telephone, and personal contact.

Region 1
Eastern
Connecticut
Deleware
District of Columbia
Florida
Georgia
Maine
Maryland
Massachusetts
New Hampshire
New Jersey
New York
North Carolina
Pennsylvania
Rhode Island
South Carolina
Vermont
Virginia
West Virginia
New Brunswick
Newfoundland
Nova Scotia
Price Edward Island
Puerto Rico
Virgin Islands

Region 2
East Central
Alabama
Illinois
Indiana
Kentucky
Louisiana
Michigan
Mississippi
Ohio
Tennessee
Ontario
Quebec

Region 3
West Central
Arkansas
Iowa
Kansas
Minnesota
Missouri
Nebraska
North Dakota
Oklahoma
South Dakota
Texas
Wisconsin
Alberta
Manitoba
Saskatchewan

Region 4
Western
Alaska
Arizona
California
Colorado
Hawaii
Idaho
Montana
Nevada
New Mexico
Oregon
Utah
Washington
Wyoming
British Columbia
Yukon
American Samoa
Guam

Figure 3.4: ITEA regions and affiliates

One major responsibility of the regional directors is to communicate ITEA news and information through periodic newsletters sent to affiliate representatives. It is the responsibility of these affiliate representatives to pass the information to ITEA members within the affiliate area. This means of communication ensures that important news on membership, legislation, workshops, seminars, publications, conferences, promotional problems, and association events reach affiliate representatives quickly and efficiently. It is the responsibility of each affiliate representative, in turn, to communicate information sent by regional directors to teachers, students and all persons associated with technology education at the local level. The regional directors and affiliate representative teams play an important role within the ITEA structure and organization, since they provide a direct communication and membership linkage between the national association and the practicing technology professionals and college (TECA) students.

Council Boards (Directors). The largest single group of ITEA board members is comprised of directors who represent each of the five ITEA affiliated councils. Each council elects a director who serves on the board and whose task it is to communicate the actions and achievements of the individual council. The five councils currently represented on the board are:

1. Technology Education Collegiate Association (TECA).
2. Council of Technology Education Associations (CTEA).
3. Council on Technology Teacher Education (CTTE).
4. Technology Education Council for Children (TECC).
5. International Technology Education Association-Council for Supervisors (ITEA-CS).

Although TECA does not have the word "council" in its name, it is represented on the board as one of the councils. The directors from these councils serve as board members, contribute information on the activities of their councils, and participate in the association business and policy decisions.

Council of Technology Education Associations (CTEA)

Mission - Purpose. Practicing teachers, supervisors, administrators, state association officers, college students, and other persons interested in technology education are likely candidates for membership in the Council of Technology Education Associations (CTEA). The council's constitution (CTEA, 1988) identifies three major purposes of the organization:

1. To provide assistance to state and affiliate associations so that they may be more effective in achieving their goals through leadership in technology education.
2. To assist members in matters of organization, supervision, and administration of programs.
3. To unite in a single council, associations from various locales for the purpose of promoting technology education (p. 1).

Early student involvement helps ensure a smooth transition into teaching careers and sustained professional involvement in state technology associations. These purposes are achieved by persons who are leaders in their respective affiliated (state) associations. Each affiliated association of ITEA will benefit from leadership development experiences in ITEA.

Council on Technology Teacher Education (CTTE)

Membership of this council, previously the American Council on Industrial Arts Teacher Education (ACIATE), is comprised of persons involved with and interested in technology teacher education. Most members are from college and university technology teacher education programs.

Mission. The stated mission of the CTTE is to provide leadership and support in the development of quality technology teacher education programs. (ACIATE, 1986, p. 1)

Goals. The council's PIP features six specific goal statements:

1. Provide input to and support for the goals of the International Technology Education Association.
2. Identify and put in operation the components and criteria for quality technology teacher education programs.
3. Develop and promote an awareness of and support for implementing quality technology teacher education programs.
4. Encourage and assist members in their professional development.
5. Stimulate research and scholarly activity that will advance quality technology teacher education.
6. Improve communication among ITEA organizations, increase council membership, improve the council's financial base and develop and update the council's long range plans (ACIATE, 1986, p. 1).

Professional Activities. The CTTE has a history of achievement within the profession. Major ongoing achievements include the publication of this yearbook series, one of which has been published each year

since 1952 (Ray, 1979). Other continuing publications include an annual *Industrial Teacher Education Directory* (Dennis, 1988), monographs, special topics papers, position papers, newsletters, and scenarios encouraging the development of quality technology teacher education. The council prepares and continuously monitors a Professional Improvement Plan (PIP) which identifies ongoing major tasks to continue the progress and achievement of its goals.

A recent and significant achievement of CTTE was the approval of the National Council for Accreditation of Teacher Education (NCATE) standards for technology teacher education programs. These standards will provide greater opportunity for program improvement and accreditation of programs that meet the standards (ITEA, 1988).

This and other activities undertaken by CTTE are evidence that anyone involved with technology teacher education would benefit greatly from the professional gains membership in the council would bring.

Technology Education Council for Children (TECC)

Mission. The mission of this council is to encourage the continued growth and support for technology education (technological literacy) for children.

Purpose. The TECC has four major purposes as outlined in the TECC Constitution (1988):

1. To define, stimulate, coordinate, and strive for the ideal form of technology education as a vital aspect of education in the elementary school.
2. To enlist and coordinate the efforts of all people contributing to the development of this program.
3. To publish materials of use and information to the profession of education, with special reference to technology education activities in elementary grades.
4. To perform any necessary acts in upholding these purposes, including the receiving, holding, and administering of funds and property (p. 1).

TECC provides its members an opportunity to join with others to support the curricular focus on technological literacy. This council offers a combination of leadership opportunities and resource information to keep its members informed and knowledgeable in this exciting component of technology education offerings.

International Technology Education Association-Council for Supervisors (ITEA-CS)

Supervisors and other professionals involved with or interested in supervision of technology education are represented within the structure of ITEA by the International Technology Education Association-Council for Supervisors.

Purposes. The council identifies four major purposes (ITEA-CS Constitution, 1988):

1. To support and further technology education.
2. To promote effective supervision and program development at the local, state, national, and international levels.
3. To provide a vehicle for exchanging ideas, programs, and legislation related to goals of technology education.
4. To provide for the personal and professional growth of the council's members (p. 1).

Professional Benefits. The ITEA-CS supports an impressive number of professional activities. Its members are generally dedicated to the improvement of the council and the profession as demonstrated by the products and services extended to the membership and the profession at large. This council has much to offer practicing professionals. It offers many opportunities for professional involvement through its extensive committee structure. Preservice teachers (TECA) also have much to gain by knowing of the council and its contributions to the profession.

Related Associations

The American Vocational Association

The American Vocational Association (AVA) provides a comprehensive association for vocational educators. One division of the AVA has as its primary purpose to "provide leadership and visibility which will foster, promote, and encourage the continual growth and development of industrial arts [technology education] programs and leadership in our educational system" (Hammer, 1987, Handbook Foreword).

Purposes. Five general purposes of the division are:

1. To develop high professional standards among the membership.
2. To define the function and scope of the Industrial Arts Division of the American Vocational Association.

3. To foster and promote the growth and development of industrial arts education in the United States.
4. To foster and promote the growth and development of industrial arts (technology education) teachers, supervisors, and teacher educators.
5. To foster, promote, and encourage professional development programs and activities for the varied interest groups within the Industrial Arts Division (Hammer, 1987, p. 1-2).

The mission and purposes of the IAD-AVA have remained stable over the past ten years; however, the division is currently in the process of an internal review regarding the impact of technology. Recent recommendations have been made to include technology education in the name of the division.

Benefits to Members. Members are eligible for several categories of services and information from the Division.

1. **Publications.** The editorial-publications committee's responsibility is to make available a variety of publications for practicing teachers. Examples of publications are *The Vocational Education Journal; The Insider*, a periodic journal insert for division members only; and the AVA yearbook.
2. **Research.** The research committee makes available results of ongoing division research projects through publications and special seminars. Research activities are judged each year by the research committee during open competition. The top research project is presented an achievement award and summarized in a division publication. Additionally, division members have access to all research being conducted and published by the American Vocational Association covering such topics as curriculum, methods, evaluation, and funding.
3. **Leadership Opportunities.** The administrative structure of IAD-AVA is organized with divisional officers consisting of the vice president of AVA, who represents the division on the AVA Board of Directors, the policy committee chairman, and division secretary. Several committees provide opportunities for professional involvement:
    1. Division planning committee.
    2. Standing committees, such as membership, program, and publications.
    3. AVA Ad-Hoc committees.
    4. IA Division Ad-Hoc committees.

The IAD-AVA is an organization with a strong stable membership

and a history of contributions to the industrial arts (technology education) profession. The ITEA and the IAD-AVA work cooperatively to ensure a strong commitment to concepts of technological literacy in our nation's schools.

Epsilon Pi Tau Honorary Fraternity

The professional fraternity honorary for education in technology, Epsilon Pi Tau (EPT), has been initiating scholastically qualified men and women since 1929. Categories of membership include undergraduate and graduate students, practicing teachers, faculty, alumni, at-large, and retired.

Mission. The primary mission of EPT is to create fellowship based on common interests that results in programs and activities which contribute to the progress and recognition of education in technology and the general community (EPT pamphlet, no date).

Purpose. The purpose of EPT is twofold: (1) promote and provide professional status for the fields which comprise education in technology, and (2) provide a medium for the professional development and recognition of individual members for their leadership and achievement.

EPT is devoted exclusively to the growth and preparation of professionalism in technology education. Students can benefit greatly from membership and continued association in this group.

Iota Lambda Sigma Honorary Fraternity

An honorary fraternity for men and women in vocational, industrial and technology education, Iota Lambda Sigma was started in 1927 to foster and exemplify the principle of service. Undergraduate and graduate students, classroom teachers, and administrators are eligible for membership.

Purpose. The organization identifies three major aims (Iota Lambda Sigma, no date):

1. To recognize persons who have achieved high standards of scholarship.
2. The recognition of a high degree of professional career preparation in the vocational, industrial, and technology fields.
3. The creation and continued close professional association between practicing and related professionals, students, supervisors, and administrators taking professional education and training in an authorized institution.

Iota Lambda Sigma Honorary is an established, well-recognized organization that combines service and scholarship activities for the professional growth and achievement of its members. It is an excellent example of an organization where college-level students receive training and experience in all elements of professionalism and personal growth.

SUMMARY

To a large extent, the future of any professional association depends on the commitment to professionalism of its members. It is frequently difficult to express adequately what professionalism is, since the concept is often described in a single dimension. One may speak of persons as being professional if they are in a specific career, belong to certain organizations, or dress a certain way. Rarely does one have a full understanding of all aspects of, or dimensions of, professionalism.

This chapter first discussed the importance of professionalism, then identified a six-dimensional model which helps define and place professionalism in perspective. Each major criterion was discussed with implications on how student associations play an important role in the quest for leadership and professional activities.

Major associations, councils, and professional organizations related to technology were also discussed in order that students, teachers, collegiate faculty, and others interested in technology education will have a resource for studying professionalism, and the major organizations available to students and practicing professionals.

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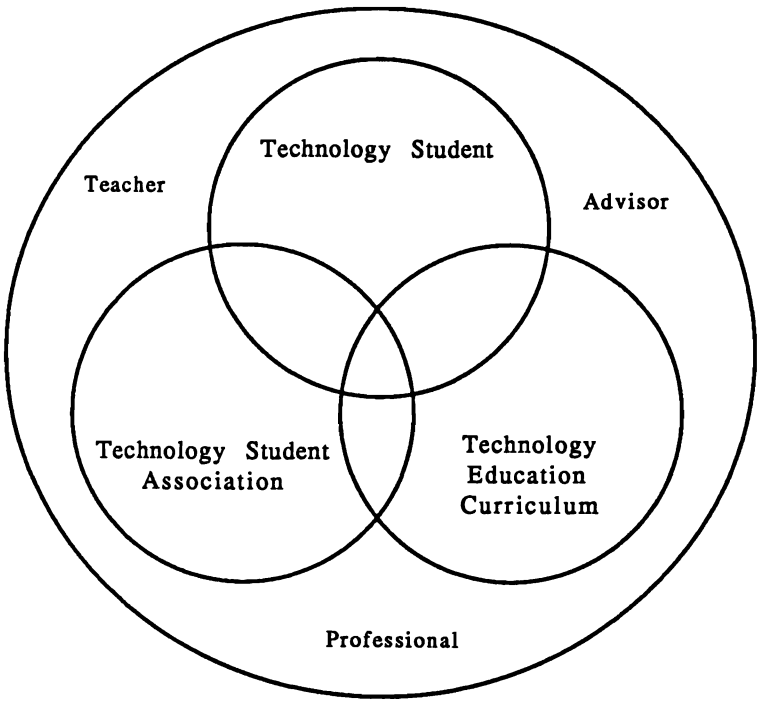
SECTION TWO

Technology Student Organizations:

WHAT

After one understands *why* technology student organizations are important, it will also help to understand more about their historical background and the relationship of technology student organizations with other student groups. In this section, the scope of student organizations in schools and colleges is presented. This is followed by an historical look at the beginning of technology student organizations to the present, for both the Technology Student Association (TSA) and the Technology Education Collegiate Association (TECA).



EDITORS' NOTES:

Throughout this yearbook, an attempt has been made to use the *current* terms, although former names have been used when referring to them in an historical context, in quotations, or official titles. For example, the term *chapter* is used instead of *club*. The term *club* generally refers to extra-curricular or after-school groups, while the term *chapter* is a more appropriate term to describe the role of student organizations as an integral part of the curriculum. The current and former names of organizations are also listed below.

CURRENT TERM	FORMER TERM
Technology Education	Industrial Arts
Technology Student Association (TSA)	American Industrial Arts Student Association (AIASA)
Technology Education Collegiate Association (TECA)	American Industrial Arts College Student Association (AIACSA)
International Technology Education Association (ITEA)	American Industrial Arts Association (AIAA)
Council on Technology Teacher Education (CTTE)	American Council on Industrial Arts Teacher Education (ACIATE)
chapter	club
student organization	student club

CHAPTER FOUR

THE SCOPE OF STUDENT ORGANIZATIONS

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Sub-Topics:

- Historical Perspective
- General Purposes
- Secondary Activities and Organizations
- Collegiate Activities and Organizations

Education is more than the experiences provided to the student in the classroom. The curriculum can be defined as all of the experiences the school provides to students. Through the curriculum, students experience the academics and activities that will prepare them for life outside of the school. Student organizations play an important role in the total educational process. This chapter provides an overview of the various organizations and activities available to students at the secondary and collegiate levels.

HISTORICAL PERSPECTIVE

Student organizations and activities are not a recent phenomenon in education. The ancient Greeks included athletics, music, oratorical contests, dramatics, honor awards, the celebration of special days, and student participation in school government as integral parts of the educational program. The rise of chivalry during the Middle Ages included training for pages in games, etiquette, riding, music, and dancing. Squires continued this education begun as pages in sports and in the aesthetic aspects of education. In the fifteenth century, Vittorino da Feltre, considered to be the first modern schoolmaster, scheduled

periods of recreation, instruction in sports and games, and student government in his school.

The British public schools were not run by the government but were actually privately operated. They reflected the interests of the ruling class in outdoor sports and politics by including games and debate in the curriculum. Student government in these schools was in reality a system of student monitors (University of the State of New York, 1967).

Student organizations and activities in the United States had their beginning in the earliest schools during the Colonial Period. The sports and games in the schools at that time were mainly copied after those in the British schools. During the Revolutionary War era and into the early nineteenth century, some schools implemented student government, literary activities (debating clubs, newspapers, and yearbooks), vocal music, and orchestra, as well as fraternal, social, and scholastic societies. From the establishment of these first schools, the history of student organizations and activities can be traced through four general stages of development.

Stage One

As the population pushed westward, student activities and organizations were largely ignored in the schools. The economic conditions of the time required intense labor from all family members. Children were in school for a few weeks or months during the winter. When schools were available, the focus was on academics. They were teacher-centered, with instruction consisting of assignments and recitation in reading, writing, arithmetic, and other academic subjects. The student activities that were available in schools at this time were generally in the private schools in the eastern part of the country.

Stage Two

As the country expanded, the educational program began to include student activities. Generally, the activities were outside of the school and not a part of the curriculum. The organizations and activities often included non-school youth and were not coached or sponsored by faculty members. The public school activities in athletics, debate, and publications were influenced by the activities in colleges and private schools. They were tolerated to the point that they did not interfere with academic studies.

Stage Three

Student activities and organizations were accepted in schools and colleges across the country at different rates. Nationally, this trend of acceptance started shortly after World War I. The educational value of sports, student council, music, drama, honor groups, clubs, and social functions was recognized. The growth in student activities paralleled the growth in secondary school enrollment because of the enactment of child labor laws and the postwar increase in wealth and leisure time.

Stage Four

Today, schools and colleges face the challenge of providing a comprehensive yet balanced student activities program. While they are an important part of the total curriculum, organizations and activities should not dominate the educational program (Robbins and Williams, 1969).

GENERAL PURPOSES

Secondary

Although the specific focus is different, the general purposes for both student activities and student organizations in the secondary schools are similar. "The Case for High School Activities," published by the National Federation of State High School Associations, lists the following benefits of activities:

1. Activities support the Academic Mission of Schools. They are not a diversion but rather an extension of a good educational program. Students who participate in activities programs tend to have higher grade-point averages, better attendance records, lower dropout rates, and fewer discipline problems than students generally.
2. Activities are Inherently Educational. Activities programs provide valuable lessons through many practical situations: teamwork, sportsmanship, winning and losing, hard work. Through participation in activities programs, students learn self-discipline, build self-confidence, and develop skills to handle competitive situations. These are qualities the public expects schools to produce in students so that they become responsible adults and productive citizens.

3. Activities Foster Success in Later Life. Participation in high school activities is often a predictor of later success: in college, in a career, and in becoming a contributing member of society (National Federation of State High School Associations, 1988, p. 1).

Participation in an activity or organization gives a student a sense of belonging. By participating in and identifying with an organization, a student is less likely to exhibit antisocial behavior. Students who exhibit antisocial behavior are more likely to drop out of school or become involved with substance abuse. The National Federation of State High School Associations reports studies from various state high school associations that indicate students who are involved in activities make better grades, have higher attendance, lower dropout rates, fewer discipline problems, and better attitudes toward self and school (National Federation of State High School Associations, 1988).

A nonprofit organization, the National Federation of State High School Associations serves state high school associations in such activity program areas as sports, speech, drama, music, and debate. These activities involve 12 million students in 20,000 high schools.

Collegiate

The general purposes for student activities and organizations at the collegiate level are summarized in the following section from one university's student organizations handbook:

1. Academic Function: Reinforcing of classroom instruction and the supplementing of academic learning — cognitive, affective, and psychomotor.
2. Social Function: Presenting the opportunity for the development of social skills.
3. Group Function: Allowing students to exercise cooperation, exchange ideas, and deliberate toward group goals.
4. Student Development Function: Facilitating students in confronting key developmental tasks, particularly in the area of moral development and values clarification.
5. Leadership and Democratic Function: Assisting students in acquiring the skills and interests to be more productive citizens in the future.
6. Campus and Community Function: Developing more significant contacts among faculty, students, and staff (James Madison University, 1986, pp. 27-28).

By participating in an activity or organization, students learn and practice skills that will transfer to life outside the college or university. Contacts made through participation in a student organization or activity often continue as a network after graduation. The network may be for social, recreational, or professional/career purposes.

Within the framework of the general purposes of an activity program and the philosophy and objectives of the school or university, each student organization has a specific focus. The variety of student organizations implemented at the local level allows a school or university to provide a comprehensive activities program that will help meet the needs of all students. The following sections describe the activities and organizations available at the secondary and collegiate levels.

SECONDARY ACTIVITIES AND ORGANIZATIONS

The student activities program must be comprehensive and fit the philosophy of the school. These are among the activities that may be included in a secondary program.

Athletics

The program at the secondary level usually consists of interscholastic and intramural athletics for both boys and girls. With the passage of Title IX of the Education Amendments of 1972, girls' athletics have rapidly expanded. (This legislation specified that no one shall be excluded, on the basis of sex, from participation in any educational program or activity that receives federal financial assistance.) Examples of athletics at the secondary level are football, basketball, soccer, baseball, softball, track and field, cross country, volleyball, tennis, golf, wrestling, gymnastics, and swimming. In most communities, the athletic program is the most visible part of the student activities program.

In most states, a state high school athletic association governs the interscholastic athletic program at the secondary level. Membership is usually voluntary. The state association formulates eligibility rules, sponsors tournaments, registers officials, and generally promotes high school athletics in the state (Iowa High School Athletic Association, 1988). The state associations are affiliated with the National Federation of State High School Associations.

Although separate activities, the cheerleading and pep club programs are closely associated with athletics. They build support for the athletic teams and encourage school spirit.

Fine Arts

From a historical perspective, the fine arts are possibly the oldest area in the student activities program. Activities in the fine arts include music (both vocal and instrumental), dance, speech, debate, drama, and the visual arts. Often these activities are scheduled as classes during the school day. For special performances, rehearsals may be scheduled outside of the regular school day. Many schools have fine arts festivals that showcase student performances in all of these areas. For competition, state high school music and speech associations sanction contests for both groups and individuals.

Publications

The most common student publications are the school newspaper and the yearbook. Student publications include not only written material but photography and art work as well. Depending on the school, these activities may or may not be scheduled as a class during the day. There are both state and national competitions for newspapers and yearbooks.

Another student publication that is increasing in popularity is the anthology of student writing. Students may be asked to submit prose or poetry that will be reviewed for publication or to contribute to the anthology as part of a class assignment. There are local, state, and national anthologies.

Service and Recognition

At the secondary level, service projects are often conducted by students for activities and organizations already in place. For example, the student council may organize a canned food drive for a local food pantry at Thanksgiving. The TSA (Technology Student Association) may mass produce toys for gifts to a children's hospital or day care center or sponsor a Superdance to raise money for the Muscular Dystrophy Association. An athletic team or cheerleaders may sell buttons, hats, or other school spirit items with proceeds going to a charity. The local HERO (Home Economics Related Occupations) chapter may sponsor a party for children from a day care center or Headstart program. Music groups may entertain at nursing homes or congregate meal sites. In some schools, a local organization may be established strictly for school or community service projects.

To recognize students, the National Association of Secondary School Principals (NASSP) sponsors the National Honor Society. Junior and senior students are selected for their achievements in scholarship,

leadership, service, and character (Division of Student Activities, 1988). The Presidential Academic Fitness Award recognizes students who have reached and maintained gradepoint and coursework criteria. Individual schools set standards for their academic honor rolls and for their recognition awards for achievement in specific curriculum areas.

Social Activities

The types of social activities sponsored by the school depend on the values of the community in which the school is located. The homecoming dance sponsored by the student council is one example of a school social activity. Class trips, all-school parties or picnics, fund-raising events, and carnivals may also be considered social activities. Generally, social activities are sponsored by activities and organizations already operating in the school.

Special Interest

Special interest clubs and groups are organized for students who have specific interests that are not included in the other sections of the student activity program. These special interest activities have a faculty advisor and must follow the procedures and fit the philosophy of the school. Examples of special interest groups are: the Fellowship of Christian Athletes (FCA), Students Against Driving Drunk (SADD), and International Club (for promoting student exchange programs).

Competitions may also be considered special interest groups. Examples of competitions at the secondary level are: Academic Decathlon, Knowledge Masters, Future Problem Solving, Odyssey of the Mind (OM), and Junior Engineering Technical Society (JETS).

The National Committee on Contests and Activities (NCCA) of the National Association of Secondary School Principals (NASSP) publishes the *NASSP National Advisory List of Contests and Activities* (NCCA, 1988). The Council on Standards for International Educational Travel (CSIET) publishes the *Advisory List of International Educational Travel and Exchange Programs* (CSIET, 1988). Building administrators use both guides in determining the contests, activities, and travel programs in which their students may participate. Both organizations do an extensive screening process before an activity will be included in their advisory list.

Student Government

To give students the opportunity to develop leadership skills and to participate in decision-making, some form of representative student

government is almost always part of the activity program. The role of student government is determined by the philosophy of the school and the administration. In some schools, the student council makes perfunctory decisions while in others, the council has complete decision-making authority in selected areas.

The Division of Student Activities of the National Association of Secondary School Principals provides such support services as publications, audiovisual materials, and leadership seminars for students and advisors. They also sponsor special projects. For example, during a national election year, they encourage student councils to implement voter registration projects. The Century III Leaders scholarship program not only provides scholarships to state and national winners, it brings students together to discuss the political, educational, and business issues the United States will face as it enters its third century (Division of Student Activities, 1988).

Discipline Related

Among activities in the secondary schools that are based on content or subject matter are the vocational student organizations. *The Handbook on Student Organizations in Vocational Education* (Binkley and Byers, 1982) describes the nine vocational student organizations. These student organizations are recognized as part of the total vocational program. They are as follows:

1. Distributive Education Clubs of America (DECA) - marketing and distributive education.
2. Future Business Leaders of America (FBLA) - business and office programs.
3. Future Farmers of America (FFA) - vocational agriculture/agribusiness.
4. Future Homemakers of America (FHA) - consumer and homemaking courses.
5. Health Occupations Students of America (HOSA) - health occupations education.
6. Home Economics Related Occupations (HERO) - home economics related to gainful employment.
7. Office Education Association (OEA) - office education programs.
8. Technology Student Association (TSA) - technology education programs.
9. Vocational Industrial Clubs of America (VICA) - training for industrial occupations.

The Technology Student Association differs from the other eight vocational student organizations in that it enrolls students at the elementary, middle/junior high, and senior high levels (Binkley and Byers, 1982).

Subject matter activities and organizations are also available in other curriculum areas. For example, a school may sponsor a science club. If there is enough interest, a club specifically for physics may be organized. Such activities as Junior Achievement (JA) and Project Business may be integrated into the curriculum and become part of the daily class instruction. In each school, the implementation of subject matter activities and organizations usually depends on individual faculty members and student interest.

Student activities are considered such an important part of the total educational program that they are included in the evaluative criteria from the National Study of School Evaluation (NSSE). The NSSE evaluative criteria is used for regional accreditation of schools. The purpose of accreditation is the improvement of the educational program. Membership in a regional accreditation association is voluntary. The primary focus of the accreditation evaluation is to determine the extent to which the activity program meets the needs of students and fits the philosophy of the school (National Study of School Evaluation, 1987).

The NSSE student activities program section includes: activity offering (nature and organization), student participation in school governance, performances and assemblies, school publications, music activities, drama and speech activities, social life and activities, interscholastic and intramural activities, school clubs, financing student activities, and special characteristics of the student activities program.

COLLEGIATE ACTIVITIES AND ORGANIZATIONS

At the collegiate level, each college or university has an administrator responsible for the student activities program. There are different ways to organize the administration of the activities program. For example, at the University of Northern Iowa in Cedar Falls, a student organizations coordinator directs the student activities office which is located in the student union (University of Northern Iowa, 1987). At Kansas State University in Manhattan, a University Activities Board oversees the registration of university sponsored student organizations and activities. During 1987-88, 325 different organizations were registered with

the University Activities Board at Kansas State (Kansas State University, 1987). Requiring organizations and activities to register gives the college or university some control over the programs available to students. To be recognized, the organization or activity must meet the needs of students and fit the philosophy of the school. Colleges and universities have different standards and criteria for recognition.

The office of the student activities administrator is able to provide services to recognized organizations and activities. These services are usually described in a guide or handbook and may include use of university facilities, vehicles, fund-raising, financial accounting, publicity, programming, faculty advisors, and general policies. The National Association for Campus Activities (NACA), with headquarters in Columbia, South Carolina, is a professional organization that provides services to college administrators responsible for student activities programs (National Association for Campus Activities, 1988).

Many local student organizations are affiliated with state, regional and national associations. The state, regional, and national associations support local organizations by providing materials, publications, training, competitions, and conferences. The governing structure of the state, regional, and national associations offers large-scale leadership opportunities for students.

At the collegiate level, participation in student activities can do more than fill an avocational interest. Experiences can be actual career training or be an enhancement to a program of study. A comprehensive student activities program will include experiences in several categories.

Athletics

Intercollegiate athletics are perhaps the most widely recognized activity at the post-secondary level, with men's football and basketball the primary income-producing sports. Women's intercollegiate athletics grew rapidly after 1972 as a result of the passage of Title IX. The National Collegiate Athletic Association (NCAA) and the National Association for Intercollegiate Athletics (NAIA) are the national governing bodies for intercollegiate athletics.

The majority of college students who are involved in athletics are participants in the intramural program. Colleges and universities are expanding facilities to accommodate their intramural programs for both men and women. Programs include such activities as flag football, soccer, basketball, broom hockey, bowling, tennis, golf, softball, and frisbee.

Fine Arts

In most colleges and universities, the visual arts, dance, music, speech, and drama programs are located in separate departments. Often, students participate in these activities as part of a class and receive academic credit for their participation. Credit in the fine arts is sometimes a requirement for graduation. Student art exhibits, concerts (both vocal and instrumental), and theatrical productions are important parts of the cultural program offered by a college or university. Student groups often go on tour to perform for other audiences.

Publications

The most common publications on college campuses are the student newspaper and the yearbook. These activities are often part of a class for which students receive academic credit. These activities not only involve student writers and editors, but artists and photographers as well.

Another area related to publications is the production of videos. Some colleges and universities now produce a video yearbook in addition to the traditional printed volume. In some departments, students have opportunities to be involved in the production of informational brochures, slide presentations, videos, and other informational media.

Service and Recognition

At some colleges and universities, groups may be organized specifically to do service projects for the campus or community. This may also be a subgroup of an activity or organization that has another primary purpose. For example, a subgroup of students involved in the ROTC program may be responsible for the annual Toys for Tots drive. The Appalachian Committee from a campus church group could be responsible for fund-raising and organizing service projects in that part of the country.

Students have opportunities to be recognized on a campus-wide or departmental basis. Phi Beta Kappa, Mortar Board, Tomahawk, Omicron Delta Kappa, and the Key programs are examples of organizations to recognize students for academic achievement. Colleges and universities may also develop their own programs to recognize students.

There are nationally affiliated student recognition programs for specific departments and curriculum areas. These include Epsilon Pi Tau in technology education, Phi Delta Kappa in education and Tau Beta Pi in engineering. Students must meet certain standards before being selected for membership.

Social Activities

Social activities are an important part of college life. The types of activities sponsored by campus organizations are as diverse as the number of colleges and universities in the United States. The values of the college or university and the community in which it is located determine the types of social activities available to students. Fraternities and sororities are social organizations that are available on most college campuses.

Special Interest

When students and faculty members have an interest in an area that is not included in the other organizations in the student activities program, special interest groups develop. Some examples of the diverse range of special interest activities and organizations are: rodeo club, parachute club, chess club, Amnesty International, Toastmasters, Young Democrats, Young Republicans, Vietnamese Student Association, Arab Student Association, Black Student Association, and Inter-Varsity Christian Fellowship.

Student Government

Each college or university has some form of student government. The name of the governing body will vary from institution to institution. For example, at the University of Northern Iowa, it is called the UNI Student Association (UNISA). Kansas State University has the Student Governing Association (SGA). Iowa State University in Ames has the Government of the Student Body (GSB). As with the secondary level, the philosophy of the school and administration determines the role of student government. The organizational structure of student government varies from institution to institution, but generally, most student groups are represented. These student groups could be organized by college or department, housing association (including off-campus), or other structure.

Discipline Related

At the collegiate level, subject matter activities are often organized by academic departments. The specific function for the clubs and activities in each department will vary. In some cases, department organizations will be affiliated with national associations.

Many of the vocational student organizations that are available to secondary students continue at the collegiate level as pre-professional

organizations. DECA, FFA, and HOSA have collegiate level membership categories. The OEA has a separate collegiate division. At the postsecondary level, the FBLA is called Phi Beta Lambda. The TSA is separate in structure from the Technology Education Collegiate Association (TECA), although former TSA members interested in technology teacher education will find many similarities in TECA (Binkley and Byers, 1982).

SUMMARY

Student organizations and activities have been part of the educational program since the time of the ancient Greeks. The role of student organizations and activities in schools in the United States has changed over time. Today, they are considered an important part of a comprehensive educational program.

The benefits of organizations and activities at the secondary level are that they support the academic mission of the schools, they are inherently educational and they foster success in later life. At the collegiate level, student organizations and activities have academic, social, group, student development, leadership and democratic, and campus and community functions.

Student organizations and activities are part of the curriculum, which is defined as all of the experiences the school provides to students. At both the secondary and collegiate levels, student organizations and activities can be classified into eight broad categories. They are: athletics, discipline related, fine arts, publications, service and recognition, social, special interest, and student government.

There are those who believe that schools should focus only on academic preparation and that student activities can best be provided by organizations not affiliated with the schools. If all students are to be assured of having equal access to a quality educational program that will give them the skills necessary for life after graduation, student activities and organizations must continue to be part of the school curriculum. Students enter school with a wide range of interests, abilities, and experiences. The activities program must be diverse enough to meet the needs of all students while reaching the common purposes of the educational program.

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CHAPTER FIVE

HISTORY, PURPOSES, AND ACTIVITIES OF TSA

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Sub-Topics:

- History of TSA
- Purposes, Evolution, and Activities
- Organizational Structure of TSA

Although the Technology Student Association (TSA), formerly AIASA, is one of the youngest of the vocational student organizations, it already has a rich history that spans three decades. Three distinct periods may be found in TSA's history. During the period from 1958 to 1978, the American Industrial Arts Student Association (AIASA) was a sponsored activity of the American Industrial Arts Association (AIAA). In 1978, the nonprofit corporation, AIASA, Inc., was formed to oversee AIASA as a separate organization. During the decade that followed, the organization grew in size, strength, structure, and impact on students and secondary school programs. The summer of 1988 closed this third decade as AIASA reached another milestone, a change in the name of the organization to the Technology Student Association (TSA). The following sections of this chapter describe (a) AIASA's history through these three major periods up to the time the association changed its name, (b) the evolution and purposes of activities, and (c) the organizational structure of TSA.

HISTORY OF TSA

Vocational student organizations have been in existence since 1928, but it was not until the 1950's that the idea of student *clubs* began to

really catch on within the industrial arts (now Technology Education) field. (NOTE — The term *club* was originally used: the term *chapter* is the present-day term used for the local school organization.)

The First Two Decades (1958-78): Under AIAA Sponsorship

A number of the significant events, or milestones, that occurred during TSA's first two decades are depicted in Table 5.1. One of the first periodical references to industrial arts club activities is a 1957 article in *School Shop* written by an industrial arts teacher in Iowa, Rex Miller. It is reported that Miller received over 300 requests from 27 states for additional information, indicating the interest in club activity at that time (AIASA Chapter. . ., 1984). In that same year, the American Vocational Association (AVA) formed a committee to study the status of industrial arts clubs. The members of the committee were Dr. Pat Atteberry, W. A. Mayfield, Harry Thomas, and Lawrence Wiltz (Ray, 1979; Texas. . ., 1975; "The Votes. . .", 1968). Mayfield's previous efforts to form a state organization of student clubs in Texas gave him background needed to conduct the study.

During 1959-60, the American Industrial Arts Association formed an industrial arts club committee. Rex Miller, who served on this committee, recommended financial support from AIAA to create an industrial arts student organization, but this effort was unsuccessful because of financial constraints at the time (AIASA Chapter. . ., 1984). There was a recognized need within the profession for a "unifying force to obtain the (student) club benefits for more people, and extend industrial arts to more students. . ." (AIAA, 1964). In 1964, Miller was asked to chair another committee made up of himself, W. A. Mayfield, Raymond S. Ginn, and L. H. Bengtson. This committee was successful in obtaining financial support from AIAA to publish a student club handbook and other materials needed to establish a national student organization. The result of their efforts was the publication of the *AIAA Student Clubs Handbook*.

The purpose of the handbook was to "give direction, purpose, organization and an overall framework through which to carry on the club program from the local, state, and national level" (AIAA, 1964). The following year, 1965, at the 27th AIAA Conference in Tulsa, the American Industrial Arts Student Association was officially organized. Rex Miller accepted AIAA's invitation to head the organization's activities through AIAA and to work with the newly-elected national officers.

Milestones in TSA's History

1957	Rex Miller's article on student clubs in School Shop. AVA Committee formed to study status of industrial arts clubs.
1963	AIAA formed a committee to compile a handbook on industrial arts clubs.
1964	AIAA appropriated funds to start an AIAA Student Clubs organization for high school and college students.
1965	AIAA officially organized a national industrial arts club organization. The first national president for high school clubs was elected (Larry Presswood, Deer Park High School, Deer Park, TX).
1967	AIASA was formed when the high schools and the college clubs separated. W. A. Mayfield became chairperson for the AIAA committee that sponsored AIASA. First issue of AIASA Scene published by AIAA in October, 1967. AIAA provides coordinator to oversee AIASA.
1976	AIASA Board of Directors votes to incorporate AIASA in September.
1977	AIAA takes action to allow AIASA to incorporate as an independent non-profit organization in April.
1978	First Board of Directors of AIASA, Inc. elected in February. U.S. Office of Education recognized AIASA as the official vocational student organization for industrial arts students. AIASA, Inc. is created, beginning financial independence from AIAA. Ronald W. Applegate hired as first Executive Director under AIASA, Inc.
1979	AIASA holds first national conference separate from AIAA.
1981	National Standards for Industrial Arts Programs includes 11 specific Standards related to student organizations.
1985	Revised Competitive Events Handbook with 5-Year Planning Matrix published.
1988	Students vote to change name of AIASA to Technology Student Association (TSA) (June 22).

Table 5.1

A club coordinator, Ms. Wilma Schlup, was hired by AIAA in 1965-66 to work with both the college and high school clubs that made up AIASA. Two years later (67-68), the college clubs formed a separate Industrial Arts College Clubs (IACC) organization headed by Rex Miller. The AIAA Committee organization that sponsored AIASA was then chaired by W. A. Mayfield. In October of that same year, a tabloid newsletter, the *AIASA Scene*, was published by AIAA (AIASA *Chapter. . .*, 1984).

Early State Associations. TSA grew out of the pioneering efforts of a small number of states and key individuals who had the vision to see the potential that state and national associations offered the profession. Teachers in Texas were among the first to form a state organization to organize and promote student club activities. At the Texas Industrial Teachers Conference in 1955, W. A. Mayfield led discussions with a group of teachers who voted to "solicit the cooperation of regional industrial arts associations and the Texas Vocational Association toward the future promotion of student clubs on a statewide basis" (Texas. . ., 1975, p. 2). Mayfield also served on the committee that was formed to explore ways to form an organization. This committee's work led to the formation of the Texas Industrial Arts Association (TIAA). Mayfield became the first State Advisor for the Texas Industrial Arts Student Association (TIASA) when it was formed in 1958 under the sponsorship of the newly formed TIAA. In 1963 "TIASA, through the combined efforts and knowledge of W. A. Mayfield, was instrumental in the organization of the American Industrial Arts Student Association" (Texas. . ., 1975, p. 3). The first national officers of the newly formed AIASA were all students from Texas.

Another state that took an early lead in industrial arts student organizations was Louisiana. The Louisiana Association of Industrial Arts Clubs (LAIAC), chartered on March 28, 1958 as a nonprofit organization by the State of Louisiana, was comprised of local clubs with teachers as advisors. LAIAC was the first student organization to offer a college scholarship. The organization ran an awards program, conducted conferences with statewide competitive events and commercial exhibits, and provided leadership training camps for "outstanding club members" ("LAIAC. . .", 1970).

Four years (1962) after Louisiana had organized a state association, Georgia organized the Georgia Association of Industrial Arts Clubs (GAIAC), beginning with thirteen clubs. The GAIAC was formed with strong support and guidance by Raymond S. Ginn, State Consultant of Industrial Arts Education. Ginn had initially formed a committee of

teachers who were interested in club activities in 1960. This committee compiled suggestions for founding a state association and drafted a constitution and bylaws. An advisory committee made up of Berkley Ruiz, Robert Odom, Donald Parr (Univ. of Georgia), and Raymond S. Ginn was formed in 1962, and the constitution and bylaws were approved that November. This constitution was the basis of the constitution that was approved for a new organization that was formed in 1965 when GAIAC merged with the Georgia Youth Industrial Education Association. The name for the combined organization remained the GAIAC (Georgia. . . , 1981).

The Virginia Association of AIASA, the largest state association of AIASA in 1987-88, began with five chapters in 1970-71. As in Georgia, the group that provided leadership in the formation of the organization included a state supervisor, Marshall O. Tetterton, and teacher educators, Dr. William T. Reed and Rayford L. Harris. Dr. Reed served as the first state advisor, Tetterton served as Virginia AIASA Director, and Harris served as chairman of the committee that formulated the constitution (Willcox, 1980).

Early Board of Directors. The first AIASA, Inc. Board of Directors (established in the fall of 1975) followed a geographical or regional structure. The members of this board were: William P. Elrod (National Advisor), David Stewart (Region 1), Marshall O. Tetterton (Region 1), Thurman Stone (Region 2), Richard C. Brown (Region 2), David C. Walker (Region 3), Walt Wiechen (Region 3), Lawrence Foth (American Council of Industrial Arts Supervisors), Gardner Boyd, Clarence Miller (Contest Chair), Alvin Seher (Region 4), and James D. Dixon (AIAA Coordinator of Professional Services) (Jackson, 1975). In the fall of 1976 a new board was appointed, consisting of: William P. Elrod (National Advisor), Arthur Robb (AIAA Vice Pres. for Teachers), David R. Stewart (Region 1), Charles Earhart (Region 2), David Walker (Region 3), Alvin Seher (Region 4), Phyllis Greenwade (National AIASA Pres.), Roger L. Messner (National AIASA Vice Pres.), and Ronald W. Applegate (AIAA Director for Student Organizations) (Minutes, 1976). These two boards played the major role in transitioning AIASA from a sponsored program of AIAA to a separate incorporated organization.

In 1977, the AIASA Board of Directors was charged by AIAA to oversee the process of incorporating AIASA as an organization that would be legally independent of all other organizations (Ray, 1979). The following year the Board for 1977-78 prepared and submitted the *Articles of Incorporation* that created AIASA, Inc. Once AIASA became incorporated, a new board structure was implemented. Table 5.2 gives a listing of the members of the Board of Directors from the year of incorporation (1978) through 1988.

Early Coordinators and Executive Directors. Beginning in 1965, the organizational structure of AIASA began to evolve into what became the AIASA, Inc. structure discussed in a later section. Table 5.3 gives a listing of the individuals who had key leadership roles in the development of AIASA from 1965 to 1978 when the formal structures began to emerge. During 1965-66, a National Student Club Coordinator, Ms. Wilma Schlup, was employed by AIAA to work with both high school and college clubs. Ms. Schlup retained the coordinator's position until February, 1969 and worked with W. A. Mayfield, "Chairperson of AIASA", between 1967 and 1969. When AIASA was created in 1967-68, W. A. Mayfield became the Chairman of the Student Clubs Committee and, therefore, the "Chairperson of AIASA," a position which he retained until 1970-71.

AIAA Administration	AIASA Administration
1965-66	
Wilma Schlup, Student Club Coordinator	
1966-67	
Wilma Schlup, Student Club Coordinator	
1967-68	
Wilma Schlup, Student Club Coordinator	W. A. Mayfield, Chairman of AIASA
1968-69	
Wilma Schlup, Student Club Coordinator	W. A. Mayfield, Chairman of AIASA
1969-70	
Minnie Warburton, Student Club Coord. Charles J. Ross, Student Club Liaison	W. A. Mayfield, Chairman of AIASA
1970-71	
Lambert Sailer, Coordinator for AIASA	Andrew Gasperecz, Chairman of AIASA
1971-72	
Lambert Sailer, Coordinator for AIASA	Andrew Gasperecz, Chairman of AIASA
1972-73	
Howard McKinley, Coor. of Prof. Services	Andrew Gasperecz, Chairman of AIASA
1973-74	
James D. Dixon, Coor. of Prof. Services	Andrew Gasperecz, Chairman of AIASA
1974-75	
James D. Dixon, Coor. of Prof. Services	William P. Elrod, Chairman of AIASA
1975-76	
James D. Dixon, Coor. of Prof. Services	William P. Elrod, Chairman of AIASA Ronald Applegate, National Director
1976-77	
Ronald W. Applegate, Dir. of Student Org.	Ronald Applegate, National Director
1977-78	
Ronald W. Applegate, Dir. of Student Org.	Ronald Applegate, Executive Director

Table 5.3: Administrative Structure, 1965-1978

In March 1969, Ms. Minnie Warburton assumed the role of Student Club coordinator for AIAA, followed for a brief time by Charles J. Ross, Jr. in 1970. The major activities of AIASA at that time were coordinated

and managed by the AIAA High School Clubs Committee ("Minnie Warburton. . .", 1969). Andrew H. Gasperecz replaced W. A. Mayfield as chairman of this committee in 1970 and served through 1974. Gasperecz worked with three different individuals in the AIAA office during this time (Lambert Sailer, Howard McKinley, and James D. Dixon). In April, 1973 AIASA made a recommendation to the AIAA Executive Committee that the Chairman of the Industrial Arts Club Committee be titled *National Advisor, AIASA.* When William P. Elrod assumed the chairmanship of the AIAA High School Clubs Committee in 1974, he also became AIASA's first National Advisor. Elrod continued to serve in that capacity until 1981 (AIASA *Chapter Handbook*, 1984).

In 1976, Ronald W. Applegate became AIAA's Director of Student Organizations and Conference Coordinator. He also served as part-time AIASA Executive Director under AIAA until AIASA, Incorporated became legally incorporated. Applegate then became the first Executive Director under the AIASA, Incorporated Board of Directors and served in that capacity until 1985 (AIASA Chapter Handbook, 1984). During the period from May, 1985 to October, 1987, the Executive Director was Mrs. Kathryn L. Schaeffer, followed in November, 1987 by Mrs. Rosanne White who continues in this capacity as of this writing.

Impact of Federal Legislation. In 1962, even before AIASA was a full-fledged national organization, students representing industrial arts clubs participated with students from eight national vocational student organizations at Congressional hearings on the reauthorization of the Vocational Education Act of 1963, Part 14: Student Organizations. One provision of the Act required all states receiving federal funds to submit a state plan to the U.S. Commissioner of Education (*Vocational Education Act, 1963*). This state planning process provided a mechanism for promoting student organizations as a worthwhile component of the total educational program. The Vocational Education Amendments of 1968 (P.L. 90-576) greatly strengthened the planning requirements and shifted the emphasis in the direction of the junior high school. States now were able to use funds to promote AIASA and other student organizations through curriculum development and in-service activity.

Since the passage of the 1968 amendments, AIASA and the other vocational student organizations have received strong support from the National Advisory Council on Vocational Education that was created by this act. A report from the Council in 1972 concluded that vocational student organizations (VSO's) "were quietly doing more to close the relevance gap between education and the community than any other movement on the educational scene" (National Advisory. . . , 1984).

The Vocational Education Amendments of 1972 (P.L. 92-318) broadened the definition of vocational education to include industrial arts education by name. Some states were quick to include funding for industrial arts programs and transferred sponsorship for AIASA to the state educational agencies (Texas. . . , 1975). The position of industrial arts in prevocational and career education also was strengthened by the Vocational Education Amendments of 1976. With increased eligibility to receive federal funding, state departments of vocational education came to assume a greater role in program development, curriculum development, and teacher in-service activities for industrial arts. State supported in-service activities became more frequent in many states, and support for student organizations was increased, often to include assignments of state personnel to coordinate AIASA activities.

The Third Decade (1978-88): AIASA Incorporates and Expands

Creation of AIASA, Incorporated. One of the objectives of Ronald W. Applegate, when he was appointed as AIAA's Director of Student Organizations, was "to determine why a student organization such as AIASA, with a potential membership of almost 8 million students, was realizing a current membership, after 12 years of operation, of only 9,000 members" (Applegate, 1977, p. 7). Applegate consulted with executive directors and representatives of other student organizations and came to the conclusion that AIASA's status as a sponsored program was likely impeding its progress because of lack of independence and recognition. Incorporation was the logical solution.

In September 1976, the AIASA Board of Directors voted unanimously to seek incorporation. During the deliberations, six major outcomes that should be gained through the incorporation were identified:

1. Establish a legal base for operation as a separate entity.
2. Obtain tax-exempt status (502 (c) 3) for collection of dues and acceptance of donations, grants and contributions.
3. Limit liability of members of the organization.
4. Acquire recognition from the U.S. Office of Education.
5. Gain recognition from state departments of education and boards.
6. Increase membership through better promotions and organization (Minutes, 1976).

The Executive Board of AIAA received a proposal from Applegate and Don Rathbun, AIAA Executive Director, in January, 1977 for AIASA to seek incorporation. Opinions were obtained from legal counsel on

the merits and procedures regarding incorporation (Trainum, 1977). A major concern of the AIAA Executive Board, irrespective of the separation issue, was the financial aspects of AIASA's operations. The AIAA Board requested more details about the organizational structure, time lines, and financial information. On April 5, 1977 the AIASA Board of Directors presented a twenty-one page incorporation proposal in response to the AIAA Executive Board's request. The AIAA Board, chaired by President Billy Mayes (TX), subsequently passed a motion allowing AIASA to seek legal incorporation as a separate nonprofit organization. The motion that was passed allowed AIASA to incorporate immediately and directed AIASA to install the organization's Board of Directors, with full responsibility for the administration and operation of the organization. To help with the transition, AIAA agreed to provide declining financial support for a period of three years. AIAA also offered to continue to provide office space for a period of five years to help AIASA establish itself financially.

The AIAA Board motion required the approval of the AIAA High School Clubs Committee which had overseen the operation of AIASA since its inception. In addition, the AIAA House of Delegates was required to approve the action. On April 7, the High School Clubs Committee, under the chairmanship of William P. Elrod, approved the proposal. The following day the House of Delegates approved Resolution C-77-5, approving and supporting the incorporation of AIASA. This action gave the AIASA Board of Directors the authority to seek incorporation (Applegate, 1977).

That August, *Articles of Incorporation* and *Bylaws* were approved by AIAA and by the AIASA Board, making AIASA, Inc. the governing body of AIASA. In December 1977, the Board submitted the *Articles of Incorporation* and *Bylaws* to be recorded in the District of Columbia. On December 7, 1977 the House of Delegates of the American Vocational Association passed a resolution recognizing AIASA as the national student organization for industrial arts. The resolution also supported the inclusion of AIASA in state planning for vocational education. The inclusion of AIASA in state plans played an important part in states' ability and willingness to use federal funds to support AIASA activities ("AIASA recognized. . .", 1978).

On March 1, 1978 the 12th Annual AIASA Conference in Atlanta was the site of a special chartering ceremony at which seventeen state associations received their National Charters, becoming the first states to affiliate with AIASA, Incorporated (AIASA National . . ., 1978). These states were: Alabama, Arizona, Delaware, Georgia, Idaho, Kansas,

Illinois, Louisiana, New Mexico, Ohio, Oklahoma, Pennsylvania, Tennessee, Texas, Vermont, Virginia, and West Virginia. Since that time, 19 additional states have chartered. These are: Florida (1979), Minnesota (1979), Mississippi (1979), Missouri (1979), New Jersey (1979), New York (1979), North Carolina (1979), District of Columbia (1981), Nebraska (1981), New Hampshire (1981), Wyoming (1982), Iowa (1983), South Carolina (1983), Washington (1984), Arkansas (1985), Maryland (1986), Colorado (1987), Utah (1987), and Kentucky (1988) (White, 1988).

On September 14, 1978 the *Recorder of Deeds* for Washington, D.C. officially recorded AIASA, Incorporated as a legal nonprofit corporation under Section 501 (c) 3 of the Internal Revenue Code. When AIASA, Incorporated became a legal entity, it became the highest authority within AIASA, and the *Articles of Incorporation* became the governing document for AIASA, Inc. Also that year, the United States Department of Education recognized AIASA, along with eight other vocational student organizations, with an official policy statement which indicated that state and local education agencies have the responsibility for student organizations. The USDE recognized "the concept of total student development as being necessary for all vocational education students" (AIASA Chapter. . ., 1984).

Standards for Industrial Arts. The *Standards for Industrial Arts Programs Project (1978-81)*, funded by the U. S. Department of Education, had as one objective to facilitate the incorporation of AIASA into the total fabric of industrial arts education (Young, 1980). One method used to facilitate this "incorporation" was to include discussions of AIASA during the development of the standards for industrial arts programs. Local and state advisors, as well as the AIASA Board of Directors, participated with hundreds of other local, state, and national leaders in planning meetings and workshops to develop and validate standards. As a result, eleven standards that specifically referenced AIASA and/or student organizations were adopted (Dugger, Bame, & Pinder, 1981). These standards were retained when the standards were revised to become *Standards for Technology Education Programs* in 1985 (Dugger, 1985).

The process of developing these standards brought about a heightened awareness of the need for AIASA to serve a much larger role in industrial arts programs. The standards established a national concensus that the entire profession shared the responsibility for incorporating AIASA into the total fabric of industrial arts education. An example of this is the standard which indicates that teacher educators have a responsibility for providing pre-service experiences that will enable

students to be able to organize and operate AIASA chapters. Another standard indicates that local and state supervisors have a responsibility to provide inservice education related to student organizations. To put this increased emphasis into perspective, the 1954 professional book entitled, *The Supervision of Industrial Arts*, by William A. Bakamis, includes nothing about student organizations in the description of duties and responsibilities of supervisors. Wilber and Pendered's 1967 edition of *Industrial Arts in General Education,* which was used widely as a text in teacher education, makes no mention of student organizations. Maley, in *The Industrial Arts Teacher's Handbook,* cites industrial arts clubs as "an integral part of the industrial arts program" in Georgia, but provides no other treatment of student organizations (1978, p. 8).

Alumni Association

Since early in TSA's history, former members have expressed interest in providing service to the organization that gave them so much. In 1983 a group of alumni formed AIASA's first Alumni chapter ("AIASA's first . . .", 1983) at the annual conference in Houston. There was no mechanism within AIASA to form an *official* alumni association, but the interest in forming an association exceeded the limitations imposed by being *outside* the formal organizational structure. An association was formed, and officers were elected. These officers, and those who have followed, are listed in Table 5.4.

	Pres.	Vice-Pres.	Secretary	Treasurer	Reporter	Sgt. at Arms	Alumni	Advisors
1983-84	Scott Shook (OK)	Dee Hayworth (OK)	Jackie Thompson (TX)	Russ Perkins (TX)	Anne Rogers (OK)	Bradford T. Hardy (VA)	Roger Stacy (OK)	—
1984-85	Greg Sutton (OK)	Christine Finerty (CT)	Brad Flippin (OK)	Kathy Fankhauser (TX)	Anne Rogers (OK)	Charles Worley (TX)	Roger Stacy (OK)	—
1985-86	Shannon McAbee (OK)	Diane Lamphear (OK)	Eric Bush (OH)	Charles Worley (TX)	Deirdre Elrod (KS)	Scott Watkins (TX)	Roger Stacy (OK)	—
1986-87	Eric Bush (OH)	Robert Stokes (OK)	Anthony McCarthy (VA)	Brad Lambert (LA)	Brian Box (OK)	Charles Worley (TX)	Roger Stacy (OK)	—
1987-88	Charles Worley (TX)	David Latimer (GA)	Kellie Shenefiel (WV)	Brennan Hardy (TX)	Kimberly Kadryna (PA)	Mike Mongold (OK)	Robert Stokes (OK)	Greg Sutton (OK)
1988-89	Kurt Winden (OK)	Emily Wise (VA)	Kellie Shenefiel (WV)	Traci Bower (OK)	David Harrell (OK)	Anthony McCarthy (VA)	Greg Sutton (OK)	Robert Stokes (OK)

Table 5.4: AIASA Alumni Officers, 1983-89

The *alumni chapter* met at the national AIASA conference in Knoxville in June, 1984 to continue the efforts started the year before at the Houston conference. In addition to conducting a business meeting, serving in various capacities at the conference, and electing officers, the *alumni chapter* adopted a working draft of a constitution and bylaws. The Student Delegate Assembly voted to provide recognition of an alumni division, as did the AIASA, Incorporated Board of Directors a short time later. Both actions indicated support for the activities of the alumni, but stopped short of recommending a constitutional change to modify the structure of AIASA (Rogers, 1984).

In December, 1985 the Alumni Executive Committee submitted a revised constitution and bylaws for an alumni division to the AIASA Board of Directors. The committee also set a target date of the 1987 annual national conference for the chartering of the alumni division ("Alumni . . .", 1986). The constitution and bylaws established the necessary structure to operate the Alumni Division. The bylaws conveyed to the AIASA Board of Directors the authority to appoint a National Advisor to work with the elected officers of the division in a group known as the Executive Committee. This committee would provide the leadership for the division. The constitution and bylaws also provided clarity in communicating the purpose of the Alumni Division: providing service to AIASA. Correspondingly, the AIASA, Incorporated Board of Directors provided additional opportunities for alumni members to become directly involved in the actual operation of AIASA. In 1985-86, alumni served on nine standing committees of the Board: another six alumni served in 1986-87. Other activities of the alumni members centered around the annual national conferences. At the 1986 conference, for example, alumni: coordinated the general sessions; provided 40 judges for competitive events; coordinated several contests; served as time-keepers or monitors for contests; served as leaders for the delegate caucuses; provided hotel security; and assisted national officers with their conference preparations (Minutes, 1986).

The AIASA Board of Directors approved a motion at the 1987 national conference which stated that: the AIASA Board of Directors recommend to the Corporate Membership: "the Alumni become a division of AIASA with a voting member on the Board of Directors when their membership reaches 500" (Minutes, 1987). By the fall of 1987, fifteen state alumni associations had been chartered with the National Alumni Division. These were: Alabama, Connecticut, Florida, Georgia, Illinois, Kansas, Louisiana, New Jersey, North Carolina, Ohio, Oklahoma, Pennsylvania, Texas, Virginia, and West Virginia ("Be a part. . .", 1987). *The Alumni*

Division Bylaws (AIASA, 1985) permit a state to charter with the division when it has at least 10 dues-paying members, when it has established a set of bylaws that are in harmony with the division bylaws, when state officers have been elected, and when the state charter fee has been paid. The *Alumni Division Bylaws* also spell out the governance structure of the organization.

During the 1988 national conference, the TSA Board of Directors approved the formal creation of an Alumni Division that would come under the jurisdiction of the Board. At the time that the Alumni Division was officially approved, nine states were chartered nationally as official state alumni associations.

The Fourth Decade (1988-): Era of Technology Education

At the AIAA Conference (1985) in San Diego, the name of the association was changed to the International Technology Education Association (ITEA). In June, 1986, the New York Association of AIASA changed its name to the Technology Education Student Association of New York State. The Association was to be known as TESA ("New York. . .", 1986). During the fall of 1986, the *School Scene*, official newsletter of national AIASA, started carrying articles about the name change issue. The Winter issue of the *School Scene* escalated the dialog about a name change to an open discussion with the membership, with some of the *pro's* and *con's* being identified and discussed. In anticipation of a major debate about the name change at the National AIASA Conference in Baton Rouge in 1987, a *Presidential Forum* was held prior to the ITEA International Conference for student representatives and state advisors to discuss the issues. The two-day forum, led by Dr. Janet Robb, North Texas State University, was "solely intended to prepare each state to discuss the question of the name change" ("A Name. . .", 1987, p. 1). The purpose was to help the states to prepare for their own discussions about the reasons for and against changing the name, not to seek a proposal or agreements.

The name change issue surfaced at the national AIASA conference in Baton Rouge, as anticipated. After several new names had been proposed by various state delegations, a single name was selected to be voted upon. This name change proposal was rejected by the student delegates. Following the failure of the proposal, a motion was passed to set up a committee to research and select a name which would be voted upon at the 1988 national AIASA conference in Downingtown, Pennsylvania (Zakarian, 1987).

The 10th anniversary of AIASA became a celebration of a new era on June 22, 1988 at the annual AIASA conference when the student delegates voted unanimously to change the name of the association to the Technology Student Association (TSA). Four state associations had submitted proposals for the required constitutional change that was needed to change the name of the association. Immediately following the student delegate meeting, the AIASA Board of Directors met and approved the amendment to the national constitution. The legal changes in the name of AIASA, Incorporated were initiated during the fall of 1988 (Rosanne White, personal communication, August, 1988).

In August, 1988, the TSA Board of Directors developed a five-year plan to move TSA forward into the next decade (TSA Strategic Plan, 1988). The Council on Technology Teacher Education (CTTE) created a special task force to work toward the achievement of one of the primary objectives cited in the plan. This objective is for 100% of the technology teacher education programs in the United States to incorporate TSA philosophy and methodology in their professional sequence of courses. The involvement of CTTE with TSA's five-year plan signals a substantial commitment to the expansion of TSA into the total fabric of technology education.

PURPOSES, EVOLUTION AND ACTIVITIES

The purposes of TSA have evolved out of a concern for fundamental issues in education such as the relationship between the student and the teacher, students' mastery of content, and the students' personal development. The general purposes of national TSA focus on the personal, intellectual, and career development of students, as well as providing support for state associations. In addition, the *Constitution* also identifies twelve specific purposes that can be translated into objectives that the various TSA activities are designed to meet. These purposes are paraphrased below:

1. To (enable students)...to plan, organize, and carry out worthy activities and projects.
2. To explore industry and the American industrial civilization.
3. To promote high standards of craftsmanship, scholarship and safety.
4. To provide good leisure time and recreational activities and hobbies.
5. To encourage students in creative expression.

6. To develop consumer knowledge...
7. To instill desirable habits and attitudes...and...respect for the dignity of work.
8. To provide occupational information and instruction...
9. To provide exploratory experiences...to acquaint students with...occupations.
10. To assist...students...in making informed and meaningful (occupational) choices...
11. To prepare...for...advanced or highly skilled vocational and technical education programs.
12. To expose students to the responsibility of representing a large membership (AIASA *Chapter Handbook*, 1984, p. 55).

The evolution of TSA experiences parallels the evolution of the idea that student organizations can and should serve several purposes: personal development of the student, professional development of the teacher, and implementation of contemporary curricular approaches. The philosophies behind the curricular approaches have had a tremendous impact on the evolution of TSA. The dynamics of change have been felt within TSA as vividly as within the professional associations (Baker, 1976; *Mississippi*..., 1974; Oaks, 1985; South Dakota..., 1986; Willcox, 1980).

Competitive Events

Beginning in the late 1960's, the *AIASA Scene* provided a means for AIASA students (grades 7-12) to participate nationally in a computer programming contest. This contest was sanctioned by the National Association of Secondary School Principals ("Fifth Annual...," 1968). From this beginning, national contests were added in a somewhat random pattern. When AIASA became incorporated in 1978, one of the first actions of the Board of Directors was to initiate revisions of the national *Competitive Events Guidelines*. These were placed in effect at the 1979 conference in Memphis, TN. The Standing Contest Committee, under the leadership of Bobbie Andrusky (AL) and Hoyt Kenmore (AZ), was charged with revising the competitive events "to reflect the multiple goals of the industrial arts curriculum in communications, construction, manufacturing, transportation and other related areas, as well as the purposes of AIASA." ("National AIASA...," 1978, p. 3). A *Metric 500* contest was added to the other thirteen contests and awards at the 1979 conference. Sponsorship for the new contest was obtained from Pitsco Supply Company. Because of AIASA's increasing financial

independence from AIAA, it was essential that contests, awards, and other activities of AIASA be financed from sources other than membership dues alone. The inclusion of this contest also marked the beginning of a vigorous attempt by AIASA over the next decade to use competitive events to reinforce contemporary curricular approaches.

By 1984, AIASA offered 23 different competitive events, most of which were available for both junior high/middle school students (Level I) and senior high students (Level II). It was the stated objective of AIASA to "expand the competitive events program until all industrial arts content areas were highlighted" (Ray, 1979, p. 48). To facilitate this expansion, a Competitive Events Committee (CEC) was charged with the responsibility of developing a long-range plan for the expansion of the competitive events program. The CEC membership was designated by category to ensure that a broad representation of the profession was involved in the process. Members were to be: a state advisor, a member of the AIASA Board of Directors, an alumnus, a contest sponsor, the upcoming national conference chairperson, the past national conference chair-person, a chapter adviser, a student representative, and the AIASA Executive Director.

A grant was received from the Technical Foundation of America (TFA) for the committee to develop new guidelines, along with a five-year plan for phasing in and phasing out competitive events. The result of the committee's effort was a new competitive event guide which contained a matrix for a five-year cycle of developing, demonstrating, piloting, implementing, and reviewing existing and proposed competitive events (AIASA *Competitive Events Guidelines*, 1985). (The latest version of the matrix is shown in Chapter 9, Figure 9.1.) While the first five-year plan was incomplete, it established a system for monitoring and encouraging the development and improvement of competitive events in four areas of technology: communication, construction, manufacturing, and transportation—energy/power. It also included events in leadership and special recognition. Of equal importance is the fact that the plan was intended to be updated annually. The structure of the Competitive Events Committee was revised in 1987 when the Board of Directors created separate committees for communications, construction, manufacturing and transportation, with chairpersons identified for each (Minutes, 1987).

Leadership Development

The development of leadership skills is central to the purpose of TSA. Student organizations offer a unique way for students to gain a work-

ing knowledge of democratic processes that are at the very heart of our American way of life. The local TSA chapter often offers students their first experience in working on committees to accomplish tasks that they have had a voice in selecting. Chapter officers gain experience in planning and conducting activities throughout the year. It has also been necessary for TSA to provide leadership development opportunities for teachers, supervisors, and teacher educators as they have moved into leadership positions within TSA. During TSA's formative years, and to a large degree continuing through today, leaders for the movement have emerged from within the organization. In many instances, individuals have gained national prominence because of their work with TSA at the local, state, and national levels. A number of recognized national leaders in the field of technology education, particularly within the ranks of state supervisors, have openly and enthusiastically endorsed and supported TSA activities and have encouraged its growth and development (Baker, 1976; Oaks, 1985).

Conferences and Special Events

The national TSA conference provides a focal point for the culmination of a year's activities and sets the course for the coming year. Several special events and recognition programs, as well as a competitive events program, are conducted at the conferences. The locations of past national conferences have been: Philadelphia (67), Minneapolis (68), Las Vegas (69), Louisville (70), Miami (71), Dallas (72), Atlantic City (73), Seattle (74), Cincinnati (75), Des Moines (76), New Orleans (77), Atlanta (78), Memphis (79), Gatlinburg, TN (80), Tulsa (81), Norfolk (82), Houston (83), Knoxville (84), Orlando (85), Wichita (86), Baton Rouge (87), and Downingtown, PA (88). The 1989 conference in Winston Salem is the first under the TSA banner.

Recognition Programs

The *American Spirit Award* is a unique award within TSA. It was first created in 1982, with the United States Air Force being the sponsor. The national award recognizes one local TSA chapter annually for outstanding civic projects that the chapter has conducted during the year. The Air Force presents the chapter with a recognition plaque during the national conference. Four special recognition awards also are presented annually to acknowledge the highest levels of meritorious service performed on TSA's behalf. The *Distinguished Student Award* is given to recognize the contributions of a current TSA student for

his/her promotion and improvements in the American way of life that have received special recognition at the local, state or national level. The *Distinguished Service Award* is given to recognize a technology educator who has made the highest meritorious contribution to the promotion, development and improvement of TSA. The *Honorary Life Membership Award* is the highest award that TSA may bestow upon an individual in recognition of significant service to TSA for a minimum of five years. The *Outstanding Recognition Award* is given to a business or industrial representative who has made significant contributions to the improvement and promotion of TSA at the local, state or national level for a minimum of three years. This award recognizes outstanding participation at conferences, membership on committees, judging contests, and other service that contributes to the growth of TSA (AIASA *Policy Handbook*, 1984).

Service Activities

Service activities, some simple, some elaborate, have long been a part of the activities undertaken by students as part of their TSA experience. The 1984 national AIASA conference in Knoxville, TN was the site for the initiation of the first national service project. National AIASA students obligated themselves to raise funds for the Statue of Liberty restoration project ("AIASA Raises. . .," 1984). In 1987, national AIASA's 47,000 members met a fund-raising goal of $60,000 for the Muscular Dystrophy Association (MDA). AIASA President Emily Wise presented the contribution to Jerry Lewis on national television on behalf of TSA. In 1988, TSA President Adam Zakarian made a television appearance on behalf of TSA to contribute $57,000 that TSA members also had raised for MDA (Rosanne White, personal communication, August, 1988).

Fund-Raising, A National Necessity

TSA's efforts to gain a solid financial base that would allow for expansion of services and activities have met with mixed success. Several approaches have been used to build financial support, with the most direct method used being increased student membership. A second methods is receipt of royalties from supply services. Related to this is marketing materials such as student handbooks, brochures, and media. Three new sources of funds were identified in AIASA's first year of incorporation. The first was sponsorship for competitive events, mentioned previously, and the second was the creation of the Council of

AIASA Business and Industrial Leaders (CABIL). A third source of funds was from exhibitors at the national conference. Exhibits had not been appropriate prior to that time because AIASA's conference had been held in conjunction with AIAA's conference, and the exhibitors were registered for the AIAA conference. While CABIL has been discontinued, the remaining sources of funds still are being utilized. In addition, grants have been obtained for specific activities such as the revision of the *Competitive Events Handbook.*

Stereotypes Shattered: Equal Opportunity Realized

When F. Ottolino received a corporation scholarship to major in Industrial Technology at Illinois State University in 1969, the *AIASA Scene* carried a full-page article on the accomplishment. It was not the fact that Ottolino had received the scholarship, or the choice of becoming a metals teacher that made this a news event. What was unusual was that Ottolino was a female. When she completed high school she was the first girl in the school's history to major in industrial arts. In similar fashion, when she was admitted to Illinois State University (ISU), she became the first female to major in industrial technology at ISU ("Girl. . .", 1969). To put this into perspective, the Montana teacher's convention in 1969 suggested that AIASA adopt a new motto — "Building Boys into Men" ("What do. . .," 1969).

The sex role stereotype of technology education/industrial arts students being all male and predominantly white has been challenged significantly by TSA students, in the selection of leaders for state and national office. The June, 1972 issue of *AIASA Scene* carried a feature article about women industrial arts teachers and noted that none of the thirteen women who responded to a questionnaire was influenced by the "women's lib movement in her choice of work" because they had established themselves "long before women's libbers began making headlines" ("Scene . . .," 1972, p. 6). When asked why they thought there were so few women in the teaching field, the respondents indicated that the blame lay on social conditioning. One answer they posed was making industrial arts courses available to all students and removing the bias against girls taking industrial arts courses. The profession has made some progress since then.

Unlike the social circumstances and other aspects of industrial arts programs that tended to discriminate against females, opportunities for females came early in TSA's existence. The first (1967-68) National AIASA Secretary, Sherry Harrington of Madison, Kansas, had been elected president of her local chapter in its third year of existence and

was elected as the first president of the Kansas Industrial Arts Student Association. Nine years later (1976), Phyllis Greenwade of Refugio, Texas became the first female to be elected as National AIASA President. Two additional females have been elected to the national presidency, Jenny Robichaux (LA) in 1981 and Emily Wise (VA) in 1986.

In 1978, the Standards for Industrial Arts Programs Project conducted a national study to determine the status of the industrial arts program. One of the areas of investigation was the proportion of women enrolled in teacher education programs and the percentage of females enrolled in junior/senior high school industrial arts courses. Based on the data, the Standards Project staff concluded that; "...the percentages of females enrolled in industrial arts courses have increased in many of the courses reported in the Schmitt and Pelley study which was conducted in 1962-63. Also, females are enrolling in a greater variety of courses" (Dugger, 1981, p.17). The percentage of females enrolled in the AIASA schools exceeded the percentage of females in the randomly selected schools in two-thirds of the courses listed.

The previously male-dominated field has seen an increase in the percentage of females enrolled in courses, and schools with TSA chapters have done a better job than the average. Given the success of three national presidents, young women have every opportunity that young men have to aspire to the top.

ORGANIZATIONAL STRUCTURE OF TSA

TSA consists of three distinctly different entities: (1) the student members, advisors, and national officers; (2) the corporation, the legal entity that allows TSA to exist as a nonprofit, tax-exempt organization; and, (3) the alumni of the student membership. Each of these groups has unique organizational structures and histories that are described briefly in this chapter.

Local School Chapters

The backbone of TSA is the local school chapter. It is the vehicle through which members become active in the school and their state and national associations. The chapter provides a student's initial introduction to leadership development and competitive events, for it is a working model of the democratic process through which decisions are made. It illustrates and gives experience with lines of authority and how orderly change may take place within a social organization. The

TSA chapter also provides a vehicle for reinforcing the curriculum by offering exciting alternative teaching methods, such as competitive events and recognition programs.

The degree to which student organization activities are integrated into the technology education program is largely dependent upon the teacher and the climate in which the program exists. With a strong commitment on the part of the teachers and administration, a local chapter can become an organization with a well-developed program of activities and a structure that enables students to experience democratic decision making in operation. Some chapters have a sufficiently large membership to make this kind of structure a necessity. Examples of this have been published in the *School Scene*, TSA's official newsletter, since 1967. The May, 1980 issue described the Cy-Fair Senior High chapter in Cypress, Texas as the largest AIASA chapter at that time. In 1979 the chapter had 265 members; in 1980 it had 257 members and six advisors (Carlton, 1980). In 1980-81 only seven AIASA chapters had over 100 members and three had over 200 members affiliated with National AIASA. A few years later the Board of Directors implemented a membership plan called *chapter affiliation* that enabled all students enrolled in technology education at a school to become members of national TSA for a set membership fee. This was seen as a way for all students to participate fully in and benefit from TSA activities. Under this plan, it now is commonplace to find chapters with large memberships.

Once members are obtained, chapters elect officers and plan and conduct activities that usually include preparation for and participation in state and national conferences and workshops. Figure 5.1 illustrates an organizational chart that might represent a strong TSA chapter. Ideally, chapter activities fulfill the purposes of TSA, reinforce the curriculum, and provide for personal development in ways that do not exist outside the structure of TSA. A chapter's success in this regard is contingent upon many factors, not the least of which is the chapter advisor.

Chartered State Associations

The national *TSA Constitution* provides a mechanism by which state associations may be chartered as members of TSA, Incorporated. In order to obtain a charter, a state must have a constitution that is compatible with the national constitution and must have at least three local chapters that are affiliated with the state association. The state association applies for national affiliation and, if accepted, receives its charter

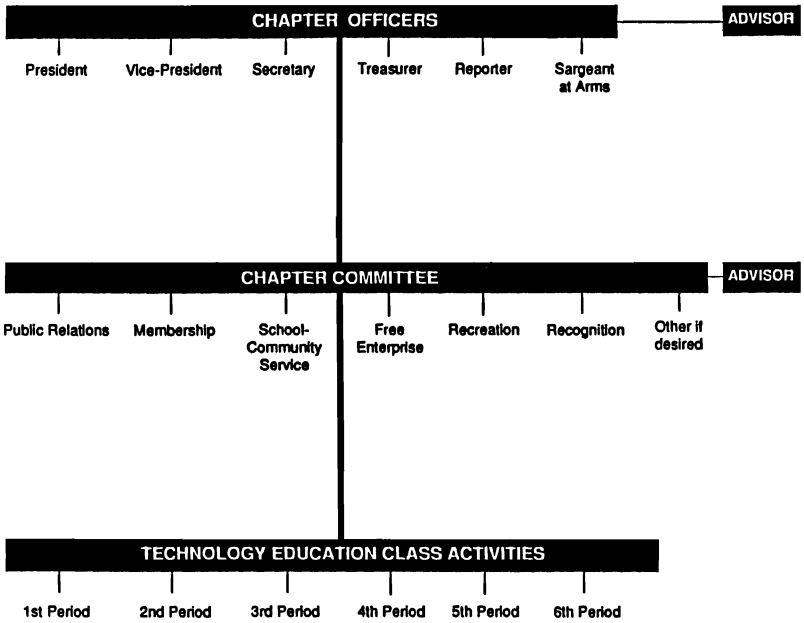

Figure 5.1: TSA chapter organizational chart

at the next national conference. State associations of technology education students have had a fundamental impact on the creation, organization, and evolution of TSA. The program of activities that is now conducted by national TSA has, in large part, grown out of successful activities first conducted by state associations. In 1969, for example, Louisiana and Texas made major contributions to the fledgling national organization when they voted to require all their state-affiliated chapters to join national AIASA as well. Louisiana's 1,196 members voted to take this position and a short time later, the 1,800 members of the Texas student organization voted almost unanimously to require their chapters to affiliate. The actions of these states spurred AIASA to gain national recognition ("AIASA Triples. . .," 1969). By 1971, AIASA was publishing articles on organizing new state associations and providing copies of the national constitution for states to use as a model for their own constitutions.

During the 1980's, the impact on state associations increased significantly, particularly in helping states organize new associations. An example of efforts made by national AIASA to aid states is the staff

development workshop that was held in October, 1979 for state supervisors of industrial arts. The U.S. Office of Education, the AIAA, the Industrial Arts Division of AVA, and AIASA jointly planned and sponsored the workshop. Topics covered at the workshop included presentations on the role of the state supervisor in AIASA, local chapter activities, and suggestions of ways to integrate AIASA into the program. At the conclusion of the workshop, the 66 participants signed a formal resolution "in recognition and support of the goals and purposes of AIASA" (Applegate, 1979, p. 2). As states have developed competitive events, leadership workshops, and curriculum materials, they have shared them with national TSA and with other states. The best ideas are continually being incorporated into national TSA. In turn, national TSA serves as a facilitator for new associations, and when needed, refers them to other associations for specific assistance.

State Association Leadership. The adult leader for state-level TSA activities is identified as the state advisor. These adult leaders are usually associated with one of three types of sponsorship: (a) state department of education sponsorship, (b) state professional association sponsorship, and (c) teacher education sponsorship. State department of education sponsorship is by far the most frequent type. States have included TSA as a recognized vocational student organization (VSO) along with the other recognized VSO's since federal legislation in the 60's included language which allowed federal vocational funds to be used to support industrial arts (now technology education) programs. State support typically has included assigning a state supervisor the responsibility of working with the state association. In addition, state funds have been made available for providing inservice training for teachers, developing curriculum materials, conducting leadership training for local and state officers, and conducting state conferences. The level of involvement of state departments ranges from (1) dedicating a major portion of staff members' time to serving as state advisor and/or corporate member, to (2) total abdication of any responsibility. In some instances where the state department has abdicated responsibility, they have allocated modest funds for the operation of a state association either to the state TSA board of directors or to a teacher education program. In other instances the abdication has been total, with no state support given for student organization activities. These are often the same states that employ no one at the state level to supervise technology education programs.

National TSA

The structure that binds state associations together is the national organization. When a state has a sufficient number of chapters, and is operating under a state constitution, a charter may be sought from TSA, Incorporated. This charter allows the state and local chapters within the state to participate in all the activities sponsored by the national organization.

Members. Just as students may join their local chapter and state association, they may join national TSA as dues-paying members. Individual membership is critical to TSA because the individual student member is the focus of everything that TSA does. The TSA organization is designed to facilitate student activities at the local (school), state, and national levels. The national *Bylaws* outline several membership categories: (a) *active members* — students enrolled in secondary-level technology/industrial arts education programs; (b) *associate members* — students enrolled in related fields; (c) *alumni members* — former active or associate TSA members who have graduated from or left school; (d) *professional members* — adults in education, business, and industry who support TSA; and (e) *honorary/honorary life* — individuals recognized for their contributions to technology education.

Student Delegate Assembly. Students from local chapters who belong to their state and national association have the opportunity to represent their chapter as delegates to the delegate assembly at the annual national conference. This assembly conducts the business portion of the association, including electing national officers, passing resolutions, and making amendments to the *Constitution and Bylaws*. The delegates are representatives of chapters in attendance at the national conference, as well as state officers and national officers. Each state receives two delegate votes for each chapter represented at the conference and one vote for each state and national officer in attendance. Amendments are made in the following way: (1) a constitutional amendment must initially be submitted to the Board of Directors 90 days prior to the annual conference by a chartered state association; (2) the Board of Directors notify state associations of the proposed amendments; (3) student delegates vote on the amendments at the annual conference; (4) and if a three-fourths majority approve, the amendment becomes effective in sixty days. Amendments to the *Bylaws* are made in a similar fashion, but several differences do exist: (a) the Board of Directors must approve the amendment before it goes to the student delegation, (b) a two-thirds majority is needed to approve the amendment, and (c) the amendment goes into effect upon adjournment of the annual meeting (AIASA *Chapter Handbook*, 1984).

Organizational Structure. The national organizational structure of TSA is shown in Figure 5.2, with the individual student members at the top of the chart and corporate members at the base. This organizational structure is described in the *Articles of Incorporation,* the students' national *Bylaws*, and the students' national *Constitution*. The *Articles of Incorporation* for AIASA, Incorporated were originally approved and modified by the corporate membership. Each affiliated state agency or organization has one individual identified as the corporate member to represent the state. The students' *Constitution* and *Bylaws* were initially approved, and may be amended by, the student delegates at the national conference, pending final approval by the Board of Directors.

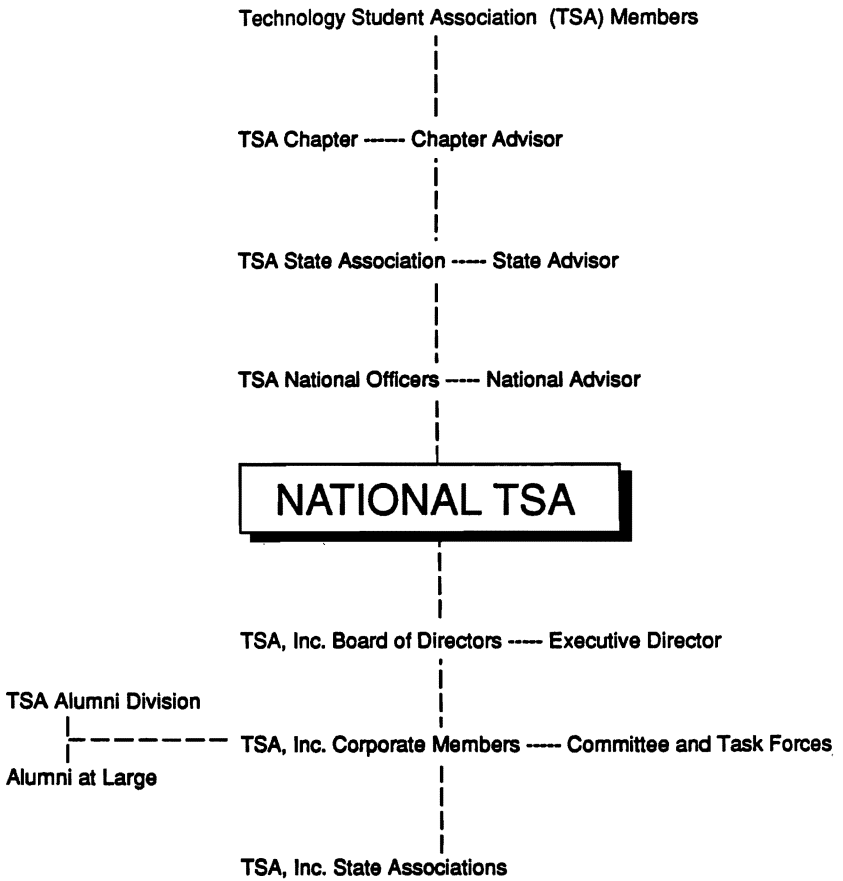

Figure 5.2: Organizational structure of TSA

National Officers. There are six elected national officers who make up the national officer team: president, vice-president, secretary, treasurer, reporter, and sergeant at arms. Candidates for national office are required to submit their applications through their state advisor who must approve their application. Candidates are given opportunities to campaign for office and to address the members attending the national conference. Elections are often *high drama* events because they are conducted by voice balloting in a fashion similar to the national political conventions. Students experience the democratic process firsthand, including the *behind the scenes* activities of campaigning for office.

National officers participate in leadership development activities during their year in office, assisted in their efforts by the National Advisor and Executive Director. The officers often represent TSA at state TSA conferences as well as at national conferences of the American Vocational Association and the International Technology Education Association. They also provide important communication linkages with national TSA and state officers and their associations. The national officers assume a major role in the selection of a national service project each year and promote the project to the state associations and individual members. The highlight for each national officer team is the national conference which they lead. The officers conduct each general session of the conference and preside over the business meeting. These experiences, in total, make up a year that these TSA students will long treasure. Table 5.5 contains a listing of each officer team since 1967.

National Advisors. The National Advisor is a technology education teacher and local TSA chapter advisor who is appointed by the Board of Directors to serve a two-year term as advisor to the national officers. In the years since this position was created only two individuals, William P. (Bill) Elrod and Barry Beuershausen, have served as National Advisors. From 1974-75 through 1979-80, Elrod served as the National Advisor. In 1981-82, Barry Beuershausen became National Advisor and continued in this capacity through 1988-89.

The National Advisor works with the national officers throughout the year they hold office. The National Advisor, in effect, becomes at times a mentor, guide, teacher, coach, counselor, critic, advocate, friend, companion, and taskmaster for the national officers. The advisor assists the officer team as they plan the sessions for the national conference. Leadership development activities for the officers are planned and implemented by the officer team and the National Advisor. One of the difficult tasks the National Advisor has is building a sense of teamwork.

This is difficult because the officers are located across the United States and are usually only able to meet a few times during the year. While all these activities are going on, the National Advisor serves as a member of the TSA Board of Directors, along with a representative of the national officers, usually the president.

Corporate Members. The *corporate member* is an individual designated to serve in TSA's legal corporate structure as the representative for the chartered state association. The selection of the corporate member is usually made by the state director or similar high-ranking state official who has responsibility for technology education programs. In some instances, the state advisor and corporate member are the same person, typically, a state supervisor. In other instances, the corporate member is a senior state supervisor or director, with a second person designated as state advisor. Teacher educators often serve as state advisors and corporate members in instances where the state department of education does not assume a direct role in the activities of student organizations. The corporate members constitute the actual membership of TSA, Incorporated. The management of the corporation is delegated to an elected Board of Directors.

Board of Directors. Beginning in 1978-79, six members of the 11 person board have been elected by and from the *corporate membership* during the national AIASA conference. Two of the six members are elected annually for three-year terms to ensure continuity on the Board. The additional five members are selected in the following manner:

1. The U.S. Dept. of Education representative for technology education.
2. The Vice-President or designate of the Industrial Arts Division of the American Vocational Association.
3. One is appointed by the TSA, Inc. Board from the Board of Directors of ITEA.
4. The national advisor for the national officers.
5. An AIASA national officer selected by the national officers to serve on the Board, usually the president.

The five appointed members have more indefinite terms of office, depending upon the appointment procedure and rotation through their sponsoring organization (USDE, IAD/AVA, ITEA, national advisor, national officer).

Officers that annually are elected within the Board of Directors include the president, vice-president and secretary/treasurer. The President of the Board also assumes the title of President of TSA, Incorporated.

Executive Director. The TSA Executive Director is a professional hired by the Board of Directors to manage the day-to-day business of the association. The Executive Director is responsible for maintaining the national office and supervising support personnel who provide a variety of services to TSA members, advisors, corporate members, state associations, the Board of Directors, the National Advisor, national officers, and members of various committees. In addition to providing a mechanism for state associations to come together to pursue common interests, national TSA provides specific management and promotion for: a national conference; a national competitive events program; publications and media for members, chapter advisors, state advisors, and others; a national awards and recognition program; a program for national officers; and a supply service for promotional materials, chapter supplies, etc. (AIASA *Member Guide*, 1983). Some of these activities are managed exclusively by the Executive Director and national TSA staff, while others are delegated to standing committees and/or the National Advisor, board members, and others.

The Executive Director is responsible for implementing the policies of the Board and manages the budget that has been approved by the Board. A great deal of initiative is required of the Executive Director because this individual often becomes a spokesperson for the association to outside groups, including other student groups, business and industry contacts, professional associations, civic groups, and the public in general. State TSA associations often call upon the Executive Director to speak at state functions and to provide assistance in implementing or improving activities of the association. The Executive Director also provides assistance in establishing new state associations.

SUMMARY

Although the student organizations have existed since 1928, it was not until the 1950's that the industrial arts field began to show much interest. A small number of key individuals such as Rex Miller, W. A. Mayfield, and Raymond Ginn brought national exposure to the potential benefits of a national student organization. State associations in Texas, Louisiana and Georgia provided early examples of how states could organize and operate organizations with large numbers of members and chapters. Many current activities of national TSA can be traced back to the early efforts of these pioneers.

The American Industrial Arts Association provided much needed support for the national organization during its infancy. AIAA provided for the daily operation of AIASA until it had matured sufficiently to support itself financially and organizationally. When the separation came in 1978, the organizational structure which was selected for the operation of the independent organization was a nonprofit corporation.

The corporation, operating under the name of AIASA, Incorporated for a decade, established an organization that provided a means for secondary-level students and teachers to be united at the local, state and national levels with a common identity.

One of the major influences that contributed to the growth and development of TSA was the inclusion of industrial arts in federal legislation for vocational education, with specific support for student organizations. A second major influence was the development of national standards that included TSA as an integral component of a quality program. Internal changes within the field, characterized by the shift from *industrial arts* to *technology education*, also contributed to the evolution of TSA. The proof of this evolution is most clearly depicted in the recent change in the name of the association.

And lastly, TSA is beginning to reap the benefits that only age and maturity can bring. A growing number of alumni who participated in AIASA in junior and senior high school are becoming active in their support for TSA. They are starting to move into the teaching ranks where they can have the most direct impact on today's TSA members.

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CHAPTER SIX

HISTORY, PURPOSES, AND ACTIVITIES OF TECA

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Sub-Topics:

- Historical Perspective
- Purpose and Goals
- Organization and Structure
- Membership and Affiliation
- Chapter Activities
- Regional Conferences
- ITEA Conference
- TECA Linkages with TSA

College/university students in pursuit of a teaching degree in technology education are the future of the profession. They are the future teachers, teacher educators, supervisors, committee members and leaders. They are a most vital component of the International Technology Education Association and all of its affiliate councils.

This chapter will provide information about the history and early years of the Technology Education Collegiate Association (TECA). The purposes, goals, and structure for TECA have been revised to reflect the importance of this group to the profession of technology education. Activities for strengthening TECA chapters and motivating future technology education teachers are suggested and described. TECA is a pre-professional association offering benefits to college/university students now and the technology education profession.

HISTORICAL PERSPECTIVE

Since 1943, students at the college/university level have been encouraged to be members of ITEA (then the American Industrial Arts Association or AIAA). At that time, the AIAA constitution set separate student dues for the Association (Ray, 1979). As early as 1950, college student *chapters* began forming and were affiliated with AIAA. By the 1950-51 school year, 16 such chapters existed and the number increased to 50 by 1955 (Ray, 1979).

Dr. Rex Miller began writing about student industrial arts clubs in 1957, and in 1967 he became the first National Advisor of the Industrial Arts College Clubs (Van Dyke, 1985). Although active during the period from 1967 to 1972, little can be found as a record of the progress made at that time (Ray, 1979).

In March, 1972 at the AIAA conference in Dallas, Texas, the college student group reorganized and became the American Industrial Arts College Student Association (AIACSA).

American Industrial Arts College Student Association

In 1972, with the reorganization of the college student group, a position as Vice-President for College Students was established as a Board position in AIAA. In January of 1973, Merle Mead of Kearney State College, Nebraska became the first person to occupy that newly established Board position. Mead was then president of AIACSA (Ray, 1979).

The dues for a college student to become a member of AIAA was one-half that of regular membership. This gave a student member all of the benefits of an AIAA professional membership except that of voting privileges. In 1975-76 there were 162 student members of AIAA. In June of 1978, there were 17 active AIACSA chapters at various colleges/universities throughout the country and 352 student AIAA members (Ray, 1979).

However, the structure and progress of AIACSA was not without its difficulties. Having a student as an AIAA Board representative was not found to be the most effective means of representation. Continuity of leadership was difficult to maintain and professional support and encouragement for AIACSA was not built into the management structure. In November of 1983, the AIAA Board of Directors placed a moratorium on the Board seat for the AIACSA President (Van Dyke, 1985).

After losing representation on the ITEA Board (formerly AIAA) the need was apparent for the restructuring of AIACSA. In 1984 the

President-Elect of ITEA, Dr. William Dugger, and the President-Elect of AIACSA, Mr. Paul Myers, began a restructuring plan. Dugger appointed a task force to develop a plan of action to rebuild AIACSA as an affiliate of ITEA. At the same time, Myers laid out the need for college students to have a place in the profession and pushed his organization to work toward that goal (Van Dyke, 1985).

Dugger (by now President of ITEA); Mr. Thomas Hughes, then President-Elect of ITEA; Dr. Kendall Starkweather, ITEA Executive Director; and Dr. Arvid Van Dyke, then Chair of the Student Organizations Committee made up the task force that developed the *AIACSA Plan for Action*. This Plan for Action was approved by the ITEA Board of Directors in November of 1984 and is presently providing the structure from which the college student organization is running (Van Dyke, 1985).

Technology Education Collegiate Association

AIACSA became the Technology Education Collegiate Association (TECA) by vote in December 1985. This name change was to reflect the technological and professional changes occurring at all levels of the ITEA organization. Dr. Arvid Van Dyke was TECA's Administrative Advisor and was extremely instrumental in turning TECA into a highly productive and active affiliate of ITEA.

PURPOSE AND GOALS

The task force, initiated by ITEA in 1984, along with the TECA leadership, helped to establish the mission and goals of the association. They are included in the TECA Constitution and in the Professional Improvement Plan (TECA, PIP, 1987) 1987-1990 that was established as a guide for the progress of TECA and in the TECA Constitution (1987).

The mission of the Technology Education Collegiate Association is to involve and motivate future technology teachers in professional and leadership development activities related to the profession. The goals for TECA are stated in the PIP as follows:

Future technology teachers involved in the Technology Education Collegiate Association will:

I. Acquire experiences and resources needed to become effective technology teachers.
II. Exchange ideas and activities within and outside the profession to foster a positive, consistent image of the technology education profession.

III. Benefit from student membership in the International Technology Education Association and professional development activities.

As stated in the Constitution (TECA, 1987):

> Section 3. The purpose of TECA is to promote leadership, fellowship, scholarship, and a philosophical foundation for future technology teachers, through college chapter coordinated activities at the campus, state, regional, and national level.
> Section 4. TECA shall serve as a pre-professional organization providing opportunities to develop the professional attitudes of future technology educators through active participation in ITEA/TECA proceedings.
> Section 5. TECA shall provide an open line of communication between chapters for exchange of ideas related to technology education and the purposes of college student associations (p. 2).

ORGANIZATION AND STRUCTURE

The organization and structure of TECA is set down by the constitution of the association. The current leadership structure of TECA consists of elected association officers, an Administrative Advisor, an ITEA Director for College Students, and a Management Board. All work cooperatively to assure TECA is a productive contributing association of the technology education profession (See Figure 6.1).

Officers of TECA

Six officers exist in TECA's leadership structure: President, President-Elect, Vice-President, Secretary, Reporter, and Treasurer. Nominations for TECA officers are accepted from any active member of ITEA/TECA (student members of ITEA) who are currently enrolled as an undergraduate in college and will also be enrolled the following year. Nominations for officers from the membership shall be limited to the potential of not more than two officers from any one institution. Each college/university TECA chapter is allowed one vote per TECA office and all officers are elected by a majority vote. Elections take place by a mail ballot following the annual ITEA conference.

The election process described above seeks to strengthen the campus chapter and give it power or influence in the association. Individual members may nominate students to run for a TECA office prior to, or during, the ITEA Conference. The conference stimulates new leaders and increases interest in TECA.

Responsibilities of each office, as written in the Constitution (1987), are as follows:

President. The President shall serve as the Chairperson of the Management Board. The President shall assist in the promotion and advancement of the Association under the direction and supervision of the TECA Administrative Advisor. The President will preside at all meetings of the TECA Management Board and will serve as general chairperson of college student activities at the annual ITEA conference. It shall be the duty of the President to prepare a complete record of correspondence and activities of this association during his/her term of office. A copy will be provided to the ITEA Headquarters, the TECA Management Board, the Administrative Advisor, and the incoming TECA President. The President is responsible for presenting the TECA Annual Plan of activities and budget for approval at the Management Board Meeting and report on association progress at the annual conference with assistance from the Secretary.

President-Elect. It shall be the duty of the President-Elect to become acquainted with the duties of the President and shall serve in the absence or disability of the President. The President-Elect shall serve as coordinator of the committees and prepare an annual report of the committees to be submitted to the Management Board at the annual ITEA Conference. This report shall be made part of the annual record compiled by the President. The President-Elect shall provide a committee progress report to the President prior to the fall ITEA Executive Board meeting. All reports of activities shall be compiled and presented to the incoming President-Elect.

Vice-President. The Vice-President shall be responsible for the annual conference planning. The Vice-President shall prepare a report on conference planning and submit it to the President prior to the fall ITEA executive Board meeting. All correspondence and activity reports shall be presented to the incoming Vice-President.

Secretary. The Secretary shall be responsible for the recording and distributing of meeting minutes and proposals by mail to the TECA Management Board. The Secretary shall also provide the Management Board and Committee chairpersons copies of any programs and incoming correspondence that pertain to their duties. The Secretary shall be responsible for keeping a complete record of all written correspondence and activity

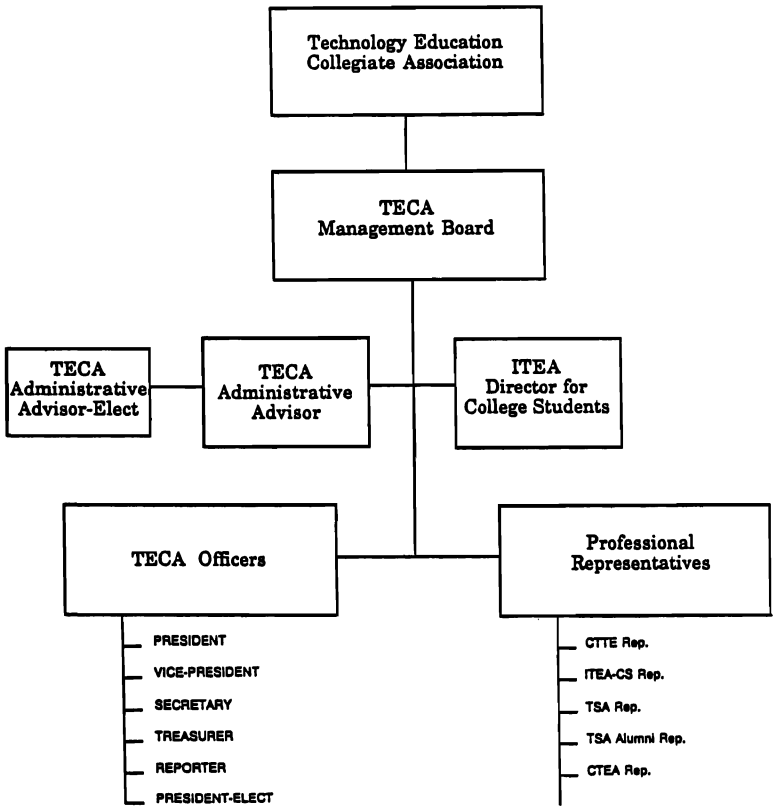

Figure 6.1: TECA organizational chart for management board.

reports pertaining to all TECA yearly endeavors. The report shall be presented to the incoming Secretary.

Reporter. The Reporter shall be responsible for reporting all activities and events of TECA to the Management Board and TECA affiliated chapters. The Reporter shall assist the TECA Administrative Advisor in the publication of the *College Comment*. Selected articles may be sent to ITEA, its councils, or affiliated state associations for reprinting.

Treasurer. The Treasurer shall be responsible for preparing a balanced income and expense budget for the association. The Treasurer will contact potential advertisers and recommend fund-raising activities to meet the financial needs of the association.

Faculty Advisor to TECA Officer

Each elected officer must have at least one faculty advisor from the institution in which they are enrolled. The faculty advisor serves in an advisory capacity. The faculty advisor should help their officer(s) obtain full support from their department and/or institution in carrying out the duties of their office. Each faculty advisor is also encouraged to attend the meetings, socials, and other activities of TECA.

Committees of TECA

Each TECA officer is responsible for and serves as the chairperson of a committee established by the association bylaws. The President serves as the chairperson of the Administrative Committee. The Administrative Committee consists of the President, President-Elect, and the Administrative Advisor. This committee serves as a consulting committee on TECA decisions.

The President-Elect serves as the chairperson of the Nominations Committee. The Nominations Committee consists of one national officer, one professional representative, and the Administrative Advisor. The Nominations Committee is responsible for making the call for officers and bringing a slate of officers to the ITEA Conference. If sufficient candidates are not brought to the ITEA Conference, then it is the responsibility of the Nominations Committee to seek officers at the ITEA Conference.

The Membership Committee is chaired by the Secretary of TECA. The Membership Committee is responsible for the recruitment of members into ITEA/TECA and recruitment of chapters into TECA affiliation. The Membership Committee shall create ideas for incentives to join ITEA/TECA and submit them to the Management Board.

The TECA Reporter serves as the chairperson of the Publications Committee. This committee is responsible for compiling material for TECA publications. The compiling of a publication involves gathering articles written by officers, affiliated chapters, professional representatives, or members of TECA. These articles are then presented to the Administrative Advisor for printing.

The Contests and Special Services Committee is chaired by the Treasurer. In addition to the Treasurer, this committee is made up of one professional representative and the Administrative Advisor. It is the responsibility of this committee to create ideas for contests and provide special services for the members of TECA. The committee works out the details prior to the event and assists the management during the event.

The Vice-President serves as the chairperson of the Regional Conference Committee. Each regional conference needs a TECA chairperson to coordinate activities for college students. This person works with the local leaders and offers assistance in planning and managing the TECA activities.

The chairperson of each committee shall be responsible for keeping the Management Board advised of all committee activities. The chairperson shall also keep an up-to-date communications and activities record to be filed with the TECA Management Board at the annual ITEA Conference (see Figure 6.2).

OFFICE	COMMITTEE RESPONSIBILITIES
PRESIDENT	Administrative Committee
PRESIDENT-ELECT	Nominations Committee
SECRETARY	Membership Committee
REPORTER	Publications Committee
TREASURER	Contests & Special Services Committee
VICE-PRESIDENT	Regional Conference Committee

Figure 6.2: TECA committee chairperson structure.

Management Board

The TECA Management Board was created as an outgrowth of the AIACSA Plan for Action. It was developed to "provide support, direction, and continuity to the college student group (Van Dyke, 1985)." The Management Board consists of the TECA officers and a representative from groups affiliated with the technology education profession. These board members are professional representatives from the Council on

Technology Teacher Education (CTTE), the Council of Supervisors (ITEA-CS), the Technology Student Association (TSA) and their Alumni Division, the Council on Technology Education Associations (CTEA), and the ITEA Director for College Students. In addition, the TECA Administrative Advisor serves as a nonvoting member of the Board. Professional representatives are appointed by their respective councils.

The Management Board is chaired by the TECA President. The Management Board meets annually at the ITEA conference and at other times when logistically and economically feasible. As much business as possible is conducted by phone, mail, or additional scheduled meetings. The TECA Administrative Advisor schedules the Management Board Meetings and serves as facilitator of Management Board Business. As stated in the TECA Constitution and TECA Bylaws (1987):

> The Management Board shall serve as the collective board of advisors which shall oversee and check all committees and events of TECA. The Management Board may suggest activities, ideas, and promote TECA, but it cannot impose any action on TECA that will affect the members of TECA without voting either by mail or at a TECA business meeting.

Administrative Advisor

According to the Constitution, the Administrative Advisor of TECA is appointed by vote of the Management Board to serve a two-year term. The Administrative Advisor is a professional member of ITEA in good standing. The Administrative Advisor is a current, or recent, faculty advisor of a TECA affiliate association. In addition, he or she must have a history of, and a current and future interest in, inspiring and motivating future/current teachers of technology education.

The Administrative Advisor is the manager and facilitator for the TECA Management Board and the TECA officers. The Administrative Advisor performs the following functions:

1. Plans or coordinates conference activities for the professional development of future technology teachers.
2. Approves expenditures of TECA funds from TECA's continuing account established by the ITEA Board of Directors.
3. Administers the affiliation and renewal process for TECA chapters.
4. Promotes membership in ITEA/TECA.
5. Prepares newsletters for the Association.
6. Assists the secretary to prepare and distribute minutes of TECA meetings.
7. Facilitates meetings of TECA officers and Management Board.

8. Obtains nominations for TECA officers and conducts elections.
9. Obtains nominations for TECA awards, conducts votes, and orders plaques (Hughes, 1986, p. 2).

An Advisor-Elect is selected by the Management Board to serve up to one year prior to assuming the position of Administrative Advisor. The Advisor-Elect is a non-voting member of the Management Board and meets all of the criteria necessary of an Administrative Advisor. The year as Advisor-Elect should be one of "shadowing" the Administrative Advisor in order to learn the structure and workings of TECA, as well as to facilitate a smooth transition at the close of an Administrative Advisor's term. After the one year as Administrative Advisor elect, this person automatically becomes the Administrative Advisor for two years and then moves on to the ITEA Board as Director for College Students.

Director for College Students

The administrative body of ITEA is its Board of Directors. The Board of Directors is made up of the following elected officers of ITEA: the President, President-Elect, the Immediate Past President, and a Director of each of the ITEA four regions and affiliate councils. The council or association directors on the Board are: the Director for College Students, Director for Elementary School Technology Education, Director for Technology Education Associations, Director for Teacher Education, and the Director for Supervisors. The administration of the affairs of ITEA is vested in its Board of Directors which is authorized to take actions necessary for the best interests for ITEA. The ITEA Board appoints an Executive Director to manage the business and office of the Association.

As a member of the ITEA Board of Directors, the Director for College Students serves as the liaison between ITEA and TECA. In other words, it is the responsibility of this Director to report the activities of TECA to the ITEA Board and to represent ITEA to TECA. The Director's first responsibility is to the ITEA Board and the whole of ITEA and TECA. In addition, the Director for College Students is the liaison to assigned activities and committees of TECA and communicates with others as required and provides periodic progress reports to the TECA Board. The Director assists in the affairs of TECA and promotes and encourages college student membership in ITEA.

MEMBERSHIP AND AFFILIATION

Chapter Affiliation Process

The process of TECA affiliation for a college/university student chapter has only one requirement: the chapter name and list of officer and faculty advisor names and addresses must be submitted to the TECA Administrative Advisor. The process is intended to encourage contact with ITEA and TECA and thereby create interest in students to join ITEA. To that end, TECA has no membership dues — college students should join the professional association that will serve them as technology teachers; i.e., ITEA.

TECA chapters help assure that students have an opportunity to pursue their pre-professional interests. TECA assures that a national network of chapter advisors and officers have the structure to share information, through a newsletter *(College Comment)* that is published three times a year, conferences, and a variety of additional correspondence.

When a college/university chapter affiliates with TECA the members gain a long list of professional benefits, some of which include:

1. The opportunity to have articles published in the *College Comment*.
2. Special mailings from ITEA and other professional organizations.
3. The eligibility for chapter members to run for officer positions in TECA.
4. The opportunity to receive TECA awards for chapter activities.
5. The opportunity to actively participate in regional and international conferences including meetings, workshops, and chapter competitions.

ITEA Student Membership

Membership in TECA is concurrent with ITEA student membership. Student membership in ITEA is open to undergraduate students in technology education. Membership is valid for one year and can be renewed at the student status as long as the student remains in pursuit of an undergraduate degree (ITEA Constitution, 1985).

ITEA student members are classified as nonvoting members. "Nonvoting members have the same rights and privileges as voting members except they may not vote or hold elective office" (ITEA Constitution, 1985). However, if a student chooses, he or she may join ITEA for full price and receive ITEA voting privileges.

Dues for an undergraduate student to become a member of ITEA are one-half the price of ITEA professional membership. Of those dues, five dollars from each membership goes directly into a TECA account and is used as TECA's operating budget. The remainder is used by ITEA to provide the benefits available to the membership. These benefits include:

1. One year's subscription to *The Technology Teacher* (TTT).
2. *Technology Education Newsletter* (TEN).
3. Group insurance opportunities.
4. Mini-conference/workshop discount rates.
5. International conference discount rates.
6. Professional interaction with leaders.
7. Access to current information about curriculum trends and critical issues.

The ITEA student membership list is used as the mailing list for all TECA information and correspondence. Being a member of an affiliated college/university TECA chapter automatically makes that student a member of TECA and that student will receive some benefits. However, most of those benefits will come via the chapter advisor or officers. ITEA student membership assures complete and direct benefit opportunities to the student.

CHAPTER ACTIVITIES

The activities of TECA chapters are as diverse and unique as each individual chapter. More often than not, the activities are uniquely different with each new set of chapter officers, members, and sponsors. However, some common *thread* can usually be found to summarize and classify these diverse TECA activities. That thread of commonality divides itself into four *strands*: technology-based activities, fundraising, community service, and professional programs.

Technology-Based Activities

Technology-based activities are those that require the students to become aware of and participate in technological developments and processes. These might include field trips to local industries, inviting technologists in to speak at a chapter meeting, setting up manufacturing production runs, or demonstrating their technological knowledge to others outside of their university department. Technology based

activities help to strengthen the chapter's ties to the student members' major area of study.

Fund-Raising

Eighty-nine percent of the TECA chapters surveyed in a 1987 study (Litowitz) held some type of fund-raising activity. Fund-raising activities are used to lend financial assistance so chapter members can attend regional, state, and international conferences, to sponsor scholarships, for service projects, for social events, etc. The study by Litowitz (1987) provided some insight into the fund-raising activities of TECA chapters. Mass production projects were found to be the most frequently used fund-raising activity. Mass production of marketable products allows the chapter members to utilize their technical expertise in an activity that is most likely unique to a technology education student association. As Litowitz (1987) points out:

> Mass production projects provide the opportunity for many students to become involved. The bulk of the work can also be completed in a concentrated block of time such as one entire afternoon or Saturday. Mass production projects also provide for a better educational experience than some other fund-raising activities (p. 10).

Food sales are the second most frequently used type of fund-raising activity with raffles running a close third. Tools and student-built products are popular items to raffle. Students print tickets, advertise the raffle, and arrange all aspects of the enterprise.

Fund-raising activities are an essential activity for TECA chapters. They provide college students good activities for use in TSA chapters after they begin teaching. Ideas for such activities are seemingly endless. However, it is important to choose activities that provide a reasonable ratio of profit to student hours needed to facilitate the activity.

Community Service

TECA chapters are professional organizations, but that does not exempt them from also being effective as a community service organization. Litowitz (1987) identified seven service activities that were conducted by TECA chapters. These were (in order of frequency):

1. Served as judges/organizers of TSA competitions.
2. Manufactured toys for children.
3. Participated in a neighborhood beautification project.
4. Sponsored a scholarship.
5. Organized a live manufacturing run for elementary school children.

Service activities serve two main purposes: (1) they provide assistance to groups in need, and (2) they add visibility, not only to the individual TECA chapter and college or university, but also to technology education as a whole.

Professional Programs

Along with technology based activities, professional programs should be key to an active TECA chapter. TECA affiliates should strive to involve and motivate future technology teachers in professional and leadership development activities. Chapter professional program activities might include sponsoring a mini-conference; presenting at a local, state, or international conference; or conducting debates on impacts of current technological developments.

The TECA chapter serves as a pre-professional association for the department at the college/university. All students in technology education should participate in TECA activities because these activities increase professionalism. A TECA banquet for faculty and students can be a professional experience that will help all students appreciate his/her profession and increase understanding of the program.

REGIONAL CONFERENCES

TECA, through its Management Board, has established a structure for conducting regional conferences (Robb, 1988). In October 1987 the TECA Management Board voted to establish a permanent position to coordinate contests and regional conferences. Dr. Thomas Wright, Ball State University, was selected to fill that position. The intent of the structure was to establish sound organization among the various conference sites.

Dividing the continental United States into regions established seven state groupings in which to hold conferences (see Figure 6.3). Conferences will not be held in each region every year. However, a goal has been set to hold a minimum of four regional conferences each year. As a general rule, TECA regional conferences are held in conjunction with other state or regional technology education conferences. For example, in 1988 TECA sponsored regional activities at the Colorado & Rocky Mountain States 4th Annual Industrial Arts/Technology Conference; the Technology Education Symposium X, St. Cloud, Minnesota; the Technology Interface VI, Muncie, Indiana; and the East Coast Regional TECA Conference, Virginia Beach, Virginia.

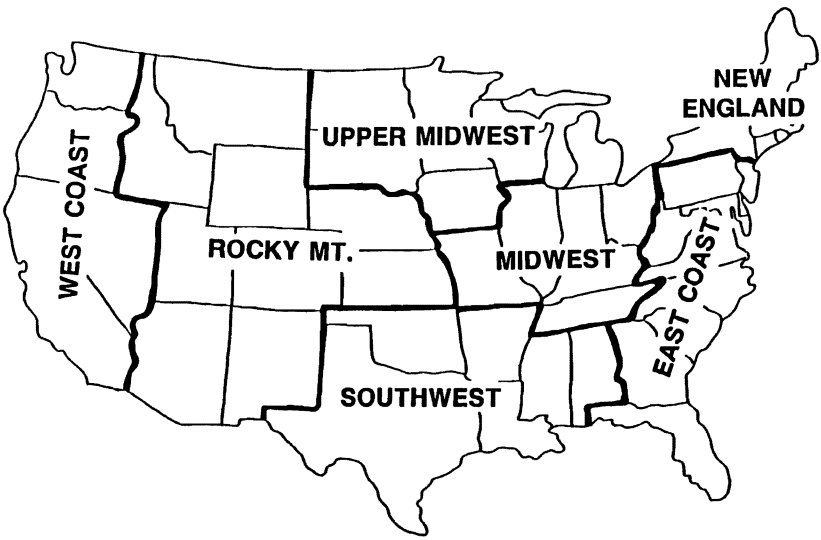

Figure 6.3: Division of the continental United States into regions for TECA regional conferences.

The regional conference coordinator is responsible for establishing sites along with organizing TECA competitive events. A site coordinator is identified for each region and that professional works closely with the TECA regional conference coordinator. Together with the TECA officers, the various programs, contests, and socials are planned for each conference.

Competitive Events

At this writing TECA sponsors three regional conference competitions: A live Manufacturing Contest (jointly sponsored by the Society of Manufacturing Engineers [SME]), a live Communication Contest, and a Technology Challenge. These are all chapter or team events and the winners from each region advance to international competition at the ITEA conference. The Manufacturing Contest is designed for teams of students from TECA affiliate chapters. The teams receive a set of engineering drawings and a bill of materials for a product. They must design, fabricate, and implement a continuous manufacturing system to produce the assigned product using only the tools on the official list and materials provided for the contest. For the Communication Contest,

teams will receive a product, service, or organization description and essential marketing information to produce a 30 second video-taped commercial. They must design the set, write the script, act out and tape the commercial. The Technology Challenge is a quiz bowl, much like College Bowl or TSA's Technology Bowl. Two teams compete by answering questions related to technology. The first person to respond to the question, answers for the team. Points are awarded for a correct answer and points deducted for an incorrect answer. The winning team continues to compete with other winning teams in the bracket until one final winner is determined.

TECA receptions or social gatherings play a large role in TECA sponsored regional conferences. This is a time for members to meet fellow members from other chapters, to share their views on technology education, and to make new friends. Regional conference receptions bring a sense of excitement and togetherness to the group and instill in college students the desire to attend other professional functions.

Regional conferences open the door for active professional participation. The expense for college students is greatly reduced because travel is within 2 or 3 states, and only 1 or 2 nights' lodging is required. A college van, reserved by the faculty advisor, can further reduce the cost of participation and increase the fellowship benefits. They create interaction among chapters and provide an opportunity to *see what the other guy's doing*. Regional conferences help establish the interest in being an active professional and the desire to attend the international conference.

ITEA CONFERENCE

The major conference each year is sponsored by the International Technology Education Association and is usually held during the 3rd week of March. The conference rotates to major cities throughout the United States. This event attracts over 2,000 teachers, administrators, and teacher educators who want to learn the latest in technology education. A trade show, with exhibits by over 100 tool, supply, and book companies, is a popular opportunity for college students from all over the world. General Sessions and Interest Sessions are numerous and permit students to see, hear, and meet the leaders in technology education.

During the ITEA conference, TECA sponsors special interest sessions, awards programs, chapter forums, socials, competitive events and

Management Board meetings. This allows TECA to play an integral part in the activities of the technology education profession. It affords students the opportunity to interact with leaders in their chosen profession and gives them a forum in which to demonstrate their leadership abilities.

All TECA activities throughout the school year culminate at the ITEA conference. Contest winners from each of the regional conferences compete at the ITEA conference. Students attend ITEA special interest and general sessions at the conference and participate as any full professional member.

A variety of awards are also presented at the ITEA conference. These include TECA awards for student leadership, collegiate distinction, chapter service, chapter advisor, improved membership, and outstanding chapter. Also presented at the ITEA conference is the EEA-SHIP Scholarship for Technology Education Undergraduate Students. EEA-SHIP is a group of educational exhibitors that attend professional conferences and exhibit their products. This is a $1000 scholarship to assist an outstanding undergraduate student with educational expenses.

TECA officer candidates are announced at the ITEA conference. This gives active TECA members the opportunity to meet the candidates and for the candidates to actively campaign. The TECA activities at the ITEA conference are planned and facilitated by the TECA officers.

TECA LINKAGES WITH TSA

The Technology Student Association (TSA) is the only student organization devoted exclusively to the needs of technology education students who are presently enrolled in, or have completed, such courses at the elementary and secondary school level. Integrating awareness of TSA activities into the college/university teacher education program is important to the pre-service preparation of teachers (Dugger & Van Dyke, 1983). Equally important is the involvement of a TECA chapter with the local school and state TSA functions.

Course Work Related to TSA

TECA activities can be integrated into teacher education course work in a number of ways. College students learning technological systems benefit from experiences with the various competitive events. A lab management course should deal with the personnel and management systems that rely on student leaders. The procedures of forming a new

association should be taught in a methods course. Many teacher education programs offer undergraduate and graduate classes for preparing new advisors.

Field Experiences

Through field experiences, practicum and course-related assignments, and student teaching, a future technology education teacher becomes aware of TSA organization and activities. College/university students are often assigned to observe a successful TSA chapter meeting, help out at local contests, and represent their university at a TSA Career Day. A university *adopt a school* program gives university students the opportunity to start a new TSA chapter, elect officers, and plan a calendar of activities.

TECA Sponsored TSA Activities

TECA chapters are often responsible for conducting technical demonstrations and workshops for TSA chapters in nearby schools. They also organize recruitment campaigns to make TSA members aware of their college/university programs in technology education (TECA Can Recruit, 1988). At the national level, TECA officers attend the annual TSA conference. There they conduct technology interest sessions for TSA members, assist in judging competitive events, and inform TSA members about TECA and its professional opportunities.

SUMMARY

TECA is an active, exciting professional organization. It plays an integral part in assuring the continued success of the technology education profession. Through the officers, advisors, directors, and a management board, TECA's organizational structure will assure its continued growth and impact. Activities of TECA are far reaching. From local chapters of TSA to the ITEA, TECA plays a part.

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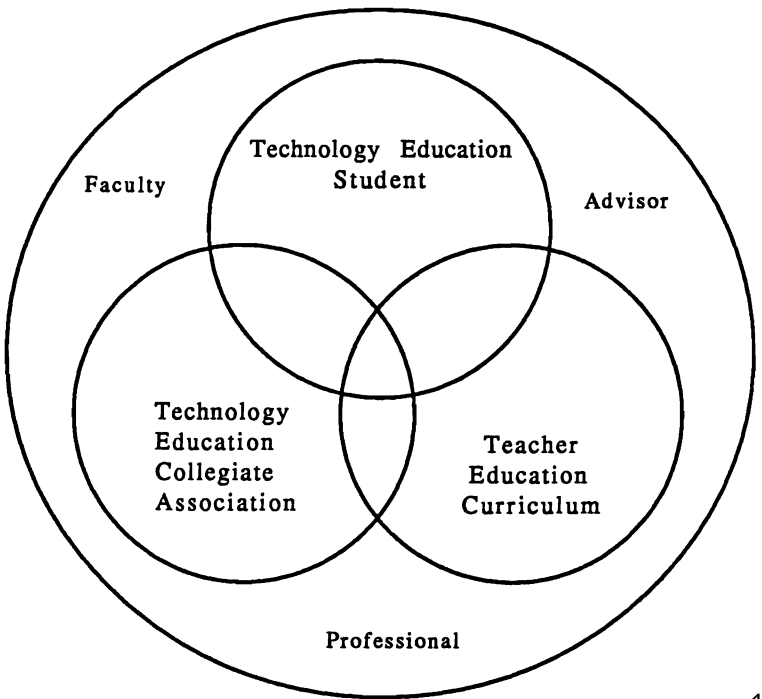
SECTION THREE

Technology Student Organizations:

HOW

The leadership for starting and managing a student organization at the secondary and post-secondary level is the responsibility of the technology education teacher or professor. TSA and TECA activities can be integrated into the curriculum and used as a delivery system for teaching technology. Competitive events provide motivation and recognition for students. TSA and TECA activities promote the program, department and profession. Research and evaluation will enable teachers to determine new directions for student associations. The teacher will be continually selecting and developing resources to improve the total technology education program.



EDITORS' NOTES:

Throughout this yearbook, an attempt has been made to use the *current* terms, although former names have been used when referring to them in an historical context, in quotations, or official titles. For example, the term *chapter* is used instead of *club*. The term *club* generally refers to extra-curricular or after-school groups, while the term *chapter* is a more appropriate term to describe the role of student organizations as an integral part of the curriculum. The current and former names of organizations are also listed below.

CURRENT TERM	FORMER TERM
Technology Education	Industrial Arts
Technology Student Association (TSA)	American Industrial Arts Student Association (AIASA)
Technology Education Collegiate Association (TECA)	American Industrial Arts College Student Association (AIACSA)
International Technology Education Association (ITEA)	American Industrial Arts Association (AIAA)
Council on Technology Teacher Education (CTTE)	American Council on Industrial Arts Teacher Education (ACIATE)
chapter	club
student organization	student club

CHAPTER SEVEN

TECHNOLOGY TEACHER'S ROLE AS ADVISOR AND LEADER

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Sub-Topics:

- Teaching Leadership
- Starting A TSA Chapter
- Planning Improvements and Activities
- Advising to Make Things Happen
- Case Studies of Successful Advisors

This chapter is not about TSA or TECA; rather, it is a chapter about teaching technology education. Since the teacher must teach leadership, he or she must first be a leader. A program of activities is a strategic plan and is needed by every organization trying to improve itself and its services to members. A system will be explained that will help teachers start and manage a student association, will make a good technology education program better, and will provide feedback to teachers who are trying to improve.

TEACHING LEADERSHIP

A major responsibility of a technology education teacher is to manage students in their pursuit of technological literacy. Teachers are prepared for this responsibility through college programs which include technological and professional courses. In order to provide leadership experiences for students, the teacher needs preparation to develop his or her own leadership. Leadership will help teachers adapt to the

changes in the technology education profession. Leadership will help students adapt to the changes in the technological society.

Leadership Development Starts in Class

Every group or organization has a set of leaders or officers who have been elected, appointed, or hired to lead the group. The teacher demonstrates leadership by involving students in the decisions and direction of the class. By describing the characteristics of leaders and explaining the benefits of leadership experiences, the teacher can show students how their TSA activities will help them in their relationships with families, with friends, in school, in college, and in later life (Ogilvie, 1988).

The following types of leadership styles need to be understood because a teacher may easily expect too much from students who are learning to lead while in school. Although the student organization is led by students, the teacher needs to lead, advise, and even control some activities. Each style of leadership may be appropriate in various circumstances for different teachers and student leaders.

Autocratic leadership style. An autocratic leader gives all the information and makes all the decisions. Planning takes place without the involvement of members and little communication occurs. Teachers use autocratic leadership when they begin to work with a class or student organization, but they must move to a more democratic style to gain the learning advantages of self-motivation and group interaction.

Democratic leadership style. This leadership style enables the teacher or student to show more consideration of others in the class or group. Democratic leaders ask questions and listen to the ideas that others express. Even though the leader allows others to use their own ideas and initiative to carry out tasks, he or she checks with co-workers to be sure tasks are being accomplished safely and legally and to offer assistance when needed.

Laissez-faire leadership style. One who uses this style may take a "hands off" approach to guiding or leading students. Experienced and highly motivated individuals may be willing and able to accept full responsibility if it is passed to them. However, in a school setting with young learners, this leadership style is not effective. Young learners may be responsible and highly motivated, but it is likely that they are not experienced enough to be able to accomplish everything alone. Just because it is called a *student* organization, it doesn't mean *only* students are involved. It is important to guide and advise the officers and committee leaders.

Training Officers for Responsibilities

Following the election of in-class or TSA chapter officers, the teacher will need to assist students in acquiring the skills necessary to perform as effective leaders. Students should be taught about leadership and be provided with experiences to help them learn and practice these skills. All officers have some duties and responsibilities in common. Every officer should:

1. Be familiar with the chapter constitution and bylaws.
2. Be familiar with the annual calendar of activities.
3. Be aware of the work and progress in the respective committees.
4. Be able to accept responsibility, work well with other members, and provide leadership to the group.
5. Know their parts in meetings, ceremonies, dinners, etc.
6. Be familiar with parliamentary procedure.

Officers should meet often and especially prior to a regular meeting. They need to develop an agenda, follow-up on planned activities, and generally communicate about progress and concerns. A teacher who meets with the executive committee of the chapter will be able to help the officers without direct involvement at the actual meeting.

The major purpose of an association meeting should be to conduct the business of the chapter. The majority of the business should be concerned with the members' efforts to carry out the program of activities. In addition to the business session, it is recommended that an educational program be presented. The program should be of interest and of educational value to the students. Remember, however, that a technology demonstration or an unusual presentation is more interesting than a lecture. Programs for meetings should be arranged by the standing committees and coordinated by officers.

Committee Procedures and Preparation

Every class or school TSA chapter should have committees. It is through these committee leaders that activities are planned and carried out. Every student should have the opportunity to participate on at least one committee. This participation encourages involvement and also provides leadership development experiences.

Standing committees are groups of members who work on specific projects all year or have a specific duty to perform sometime during the year. In most cases, the standing committees are listed in the TSA or TECA Constitution and are described in handbooks or guides. Special

committees are selected or appointed by the president after a motion is made for a special activity that is not appropriately managed by a standing committee.

A committee chairperson is appointed to lead the students who make up the committee. The chairperson is responsible for organizing the activities and giving direction to the members in carrying out the responsibilities of the committee.

Specifically, the committee chairperson should:

1. Call committee meetings when necessary.
2. Preside at committee meetings and conduct them in an orderly fashion according to parliamentary procedure.
3. Appoint a recorder who is responsible for keeping written records of issues discussed and business transacted within the committee.
4. Explain to the committee the overall task for which it is responsible.
5. Lead the committee in its discussion of the job to be done and in selecting the procedures to be used in doing the job.
6. Prepare, with the help of the recorder, a report indicating what has been done by the committee and submit it to the chapter Vice-President.
7. Make an oral report, if called upon, at the general chapter meeting concerning committee progress (Peele, 1983).

Committee members must be taught how to use small-group discussion, brainstorm for new ideas, make oral reports to membership, carry out important phases of the activity, and prepare written reports of accomplishments.

Leadership Conferences and Workshops for TSA

Leadership development conferences or workshops are offered by TSA in regions, states, and at the national convention. The officers from several chapters in a region may be invited to a college or university campus for a day of activities, workshops, and technology updates. College or university students and TECA members lead workshop sessions, manage activities, and conduct campus tours (TECA, 1988).

State leadership conferences help students pursue their individual interests in technology and TSA. During these conferences, the students may select interest sessions, attend technology updates, participate in competitive events, or campaign for a state office in TSA. In addition, social and recreational activities are usually planned.

The TSA National Conference is held in the summer soon after school

is out. Along with the students, there are advisors, counselors, teacher educators, supervisors, administrators, and business and industrial leaders in attendance at the conference. The days of the national conference are filled with competitive events, business meetings, delegate assemblies, social activities, and leadership training workshops. Guest speakers of national prominence motivate students and help them learn about and focus on their future opportunities.

Leadership Opportunities Through TECA

College/university students benefit from leadership development activities offered on campus, at state or regional conferences, and at ITEA conferences. The college Office of Student Affairs often organizes leadership workshops for officers of campus student organizations. Advisors should encourage TECA chapter officers to meet soon after their election to plan activities for the year ahead.

Regional TECA conferences are offered throughout the United States. Leaders from several states have opportunities to share concerns and develop strategies for improving campus chapters. In addition to social and competitive activities, each regional conference offers a TECA Forum where officers exchange ideas (Robb, 1988). Leadership is developed as officers plan, manage, and host special interest sessions at state and international conferences. College/university students should be encouraged to attend professional conferences by involving them in programs, travel arrangements, and recognition events. Conference participation creates enthusiasm and develops leadership.

STARTING A TSA CHAPTER

The system for starting a TSA chapter in a school can be reduced to about 4 areas which contain the most important activities for the technology teacher. These steps are outlined in Figure 11.1 (see Chapter 11).

Planning Steps

After meeting with other teachers and the school administration, all technology education teachers in a department should review resources about TSA from the state and national offices. Conferences offer materials and interest sessions about TSA or TECA. Each teacher begins to use students in the management and leadership of every class and

use the TSA materials to teach students about the organization and its activities. A few students will begin to show interest in the new organization. These interested students will be able to help teachers get the chapter organized.

Organizing Steps

Talk with a few students to obtain suggestions of a good time and date for the new group to meet. Announce the first meeting to all classes and use the bulletin board or school public address system. Prepare an agenda for the meeting so that students will receive information about TSA, its benefits, activities, and procedures for electing officers and linking up with other TSA groups in the state and nation.

The preparation of a Constitution will proceed quicker if teachers use a model from a handbook or a sample from another school. Electing the first group of officers will be easier if teachers appoint interested students to appropriate positions. This will get students involved quickly and will reduce the need for business meetings until students are ready to lead.

Activity Steps

The new officers will need help leading the class or chapter members. Teachers may duplicate materials for each officer if these have not been part of class instruction. A Calendar of Activities is a very good vehicle for involving all classes and students (see Figure 7.1). Membership procedures are flexible and can be adapted to large and small school situations. Many teachers use the Chapter Affiliation Plan (CAP) whereby all students in the technology education program affiliate with the state and national association. Individual membership requirements should be discussed so that the chapter enables all interested students to be a part of the TSA.

Continuation and Evaluation Steps

Each fall the officers and committees should review the activities of the previous year. This will help them assess the effectiveness of the TSA organization and enable them to make improvements as they plan activities for the year ahead. The officers carry out their leadership role by organizing meetings at the beginning of the school year.

DATE OF ACTIVITY	ACTIVITY, EVENT OR PROJECT	WHEN TO BEGIN WORK IN CLASS AND/OR CHAPTER	RESPONSIBLE OFFICER OR COMMITTEE
August			
16	Officers Planning Session		President
21	Print Calendar of Activities		Vice President
29	Display Posters for Hallways	August 16	All Officers
September			
3	Set up Personnel System in each Class	1st week of school	Teacher
10	First Chapter Meeting	August 16	Officers
17	Select Committees for School Chapter	August 10	Officers & Teacher
24	Meeting of Officers and Committee Chairpersons	August 10	President
October			
1	School Membership Promotion	September 24	Membership Committee
4	Safety in School Awareness Project	September 24	Service Committee
10	Chapter Meeting	August 16	President
15	Fall Rally at University in Region	1st week of school	Leadership Development Comm.
30	Affiliate Chapter with State and National AIASA	September 10	President & Teacher
November			
9	Open House for Parents and Teachers	September 24	Recognition Committee
15	Vote on Product to Make and Sell	October 10	Enterprise Committee
20	Help Classes Organize to Make Product	October 10	Teacher
December			
1 - 10	Sell or Donate Product	October 10	All Members

Figure 7.1: TSA calendar of activities for new and continuing chapters.

PLANNING IMPROVEMENTS AND ACTIVITIES

The technology teacher typically spends a great deal of time planning the curriculum and instructional materials. Lesson plans provide daily and class-by-class direction for lectures and demonstrations.

Technology learning activities (TLA's) are developed to guide students who are learning about a particular technological concept. Teachers also plan when and how students will be evaluated and when to register students for TSA competitive events.

Improvement Planning

The American Management Association technique of strategic planning has been utilized by leaders in ITEA, CTTE, TSA, and TECA. Planning consultant, Thomas Hughes, Past President of ITEA-CS, led a group of ITEA Board members in planning the first Professional Improvement Plan (PIP), dated 1981-85. The significant difference in this plan was the use of the word *improvement*. The planning process is used to advance the association upward to a point that they would not meet if they continued to carry out the yearly activities (see Figure 7.2). A professional improvement plan is more than a plan of activities. It is, in fact, a statement that describes where the leaders would like the association to be in a few short years.

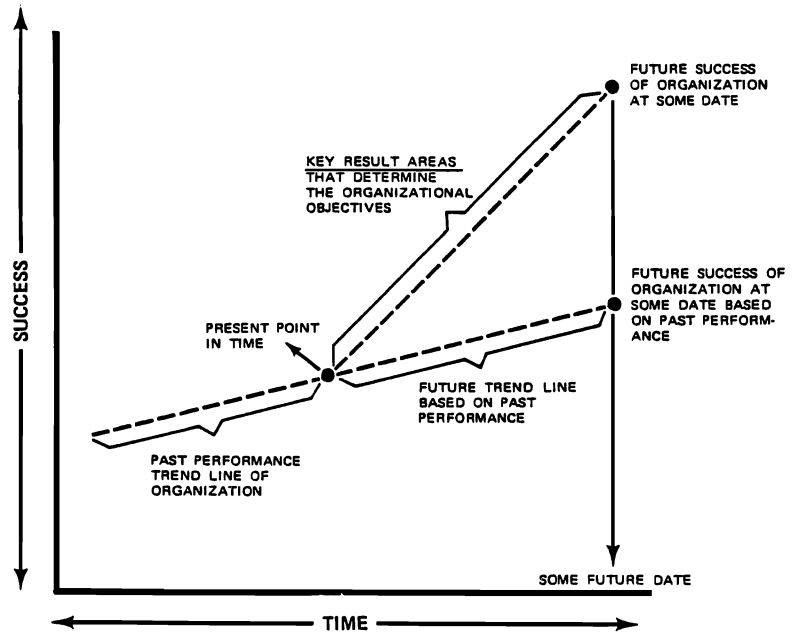

Figure 7.2: Improvement planning results in greater change.

Using the mission and goals statements from the Strategic Plan for the Technology Student Association, Inc., 1988-1994 (Hughes, 1988), the following model is proposed for leaders in a school TSA chapter:

Mission Statement

The mission of the Technology Student Association (TSA) Chapter at _____ School is to promote leadership and personal growth in all student members for a productive life in the technological world. Consistent with the chapter constitution, the policies of the school, and the interests and needs of technology students.

Goals

I. Students will have leadership training and opportunities to serve as officers and committee members.
II. Students will have contact with community resources, personnel, and facilities to gain understanding of technology.
III. Students will use problem-solving skills and creative abilities to improve the school and community.
IV. Students will use the free enterprise system in efficient and productive ways to produce a profit.
V. Students will be recognized for their achievements and participation in competitive events (p. 2).

For a TECA chapter improvement plan, the following model is proposed for leaders in a campus association:

Mission Statement

The Mission of the Technology Education Collegiate Association (TECA) at _____ college/university is to involve and motivate future technology teachers in professional and leadership development activities related to the profession (Hughes, 1986).

Goals

Future technology teachers involved in the Technology Education Collegiate Association will:

I. Acquire experiences and resources needed to become effective technology teachers.
II. Exchange ideas and activities within and outside the profession to foster a positive, consistent image of the technology education profession.
III. Benefit from student membership in the International Technology Education Association and professional development activities (p. 1).

Student Involvement in Planning

Planning the chapter activities or program of work should allow every student or member to participate. A calendar of activities is often based

on the previous year's program. Part of the total process is an evaluation of the success and appropriateness of each project or activity.

Planning is a very motivating experience for all who participate. For this reason, the opportunity to plan chapter activities or objectives should begin in each class. In-class committees may use the same titles as chapter committees. These committees can meet to suggest and discuss ideas to submit to the appropriate chapter standing committee chairperson (Peele, 1983). This system of input provides challenging ideas which may be incorporated into the chapter's program of work.

The linkage of class committees to chapter committees will be evidenced in the strategies used to implement a specific objective. Class committees provide a tremendous resource and work force to accomplish all or part of the activity/objective. Figure 7.3 illustrates the flow of ideas from class committees to chapter committees.

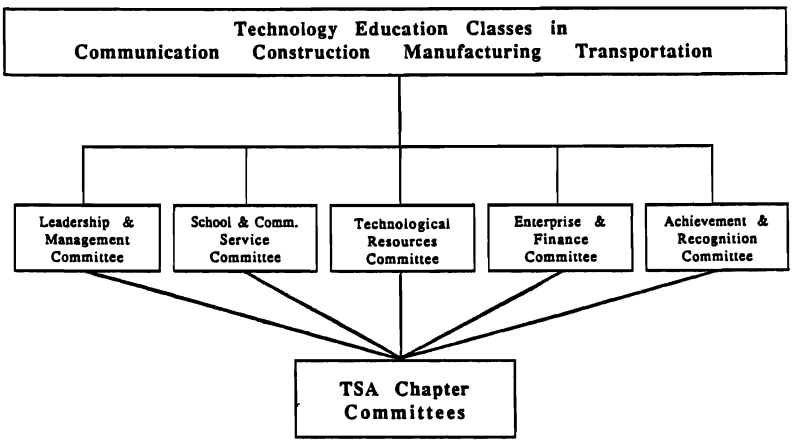

Figure 7.3: Class committees provide ideas to chapter committees and help with chapter activities.

Establishing Categories and Objectives

Each TSA chapter should select categories for the activities it will sponsor in each of several categories. Think of these as objectives that the chapter will try to achieve. In the chart on the next page, eight categories of activities are listed on the left. An objective that describes what the association would like to accomplish is presented in the right column.

Activity	Objective
Leadership Development	By June, the TSA Chapter will attend at least two conferences.
School or Community Service	By Christmas vacation, the TSA members will produce electrically powered toys for handicapped children.
Technology & Community Resources	By the end of the first semester, the TSA chapter meetings will have included at least one speaker about technology in our city.
Enterprising & Raising Funds	By Dec. 31, the chapter account will have deposits from the community sale of holiday items.
Achievement & Recognition Events	By the end of the national conference, at least three news releases will be written about students who have received awards at regional, state, and national competitive events.
Social & Recreational Activities	By the end of May, a reception will be offered for members of the Technology Advisory Committee.
Membership & Affiliation Promotion	By Sept. 30, a new member orientation meeting will be held and each member will have received a laser printed certificate.
Public Relations & Marketing	By the end of Science & Technology Education Week, a variety of student problem-solving activities will be displayed in public.

Planning the Budget

Budgeting is a process of forecasting the expenses of chapter activities and services and estimating the income available. Committees should

estimate funds needed for each activity. All chapter members will be involved in activities to help raise the money. A plan for fund-raising will enable the chapter to coordinate its efforts with other organizations in the school. Advance planning will help the chapter request support from school and community sources (Tetterton, 1975).

ADVISING TO MAKE THINGS HAPPEN

Being a technology education teacher is a complex task which influences the lives of students. Teaching is not confined to a particular location — the laboratory, the classroom, or even the school. As a leader, the teacher is an example to students in both action and words.

TSA: A Teaching Tool

The TSA activities help students to learn leadership techniques, practice communication skills, develop socially, improve attitudes toward themselves, participate in democratic citizenship, and contribute to society. All of these are vital educational experiences. Because TSA activities are an integral part of the total technology education program, all technology education teachers may be considered to be TSA advisors. Advisors become supervisors of students and help them to realize their leadership potential. The advisor helps out in the same way a teacher helps a student or group. The advisor may guide the leaders with questions or suggest procedures to be considered. By guiding and closely monitoring students in their attempts to plan, organize, and lead, the advisor uses an indirect method of helping students succeed.

Helping Students Achieve Recognition

The advisor is able to provide opportunities for students to receive recognition for their progress or accomplishments. In the classroom, the in-class TSA may create a formal awards system for major activities assigned by the teacher. A trophy, ribbon, or medallion may be used to recognize a hard-working student or the most creative idea. A student-of-the-month (or year) recognizes students who have achieved high standards in several areas.

School recognition can be provided through the public address system, school newspaper, and through a display near the office of the principal or guidance counselor. Recognition may come in the form of a thank you letter from an outside association to a student or group of

TSA members who have performed a service project. The advisor may arrange for the students to present their work to a civic group, the school board, or the PTA. Don't overlook peer recognition. Observe students at work, and listen to them talk about their activities. Use recognition to motivate, reward, and to develop a stronger self-image in a student who has not felt worthwhile or needed or valued.

Rapport With and Respect From Students

Many of the intrinsic rewards to TSA advisors result from the additional opportunities to be with students. While working with a TSA chapter, the advisor is afforded many informal opportunities to relate to young people on a personal basis. The rapport and respect gained is most rewarding and beneficial to the teacher and may never result solely from classroom contacts. When students see an advisor making the professional effort to assist students become leaders, they realize this teacher is serious about helping people succeed.

The teacher benefits from this rapport and respect in a number of ways. In the first place, the students pay more attention to what the teacher or advisor says or wants students to do. In the area of school discipline, the respect students have for the teacher helps establish good behavior, care of equipment, and quality work. This rapport can often offset negative peer pressure as student leaders demand more from the group as a whole or from a few unruly ones (Betts, 1984).

CASE STUDIES OF SUCCESSFUL ADVISORS

The following case studies provide specific and accurate information about the role of a TSA advisor. These persons reported through interviews.

TSA Advisor Case Study No. 1

Technology Teacher's Name: Mr. George Jackson
School: Northwest Jackson Junior High School
Jackson, Mississippi
College/University: Graduated from Jackson State University

Starting TSA Chapter:

Mr. Jackson organized a new TSA chapter by first introducing TSA to his technology education classes. "I used promotional materials, photos, and slides to show the benefits and recognition students in TSA receive. These really motivated them and helped them want to help organize TSA."

Benefits to Students:
"The academic and competitive events definitely help students. Another benefit is that TSA helps students grow socially. Through conferences and education trips, the students grow socially. My students have cross-cultural experiences that help them relate better to all people."

Benefits to Teacher and Program:
Mr. Jackson believes that his TSA chapter keeps him renewed and looking forward to new activities. His technology education program grows as more students see TSA members receive recognition. "As a teacher, I feel good about the program." Parents appreciated the teacher and placed trust in him as he traveled with students.

Meetings:
Although chapter meetings are held during the activity period at the school, many members use the technology education classroom before school to plan and carry out activities.

Difficult Area:
"Fund-raising is a very important part of my school program. Many students will not be able to participate in activities if the chapter does not raise the needed funds."

TSA Advisor Case Study No. 2

Technology Teacher's Name: Ms. Kathleen Barrows
School: Clifton High School
Clifton, North Carolina
College/University: Graduated from Appalachian State University

Starting TSA Chapter:
Ms. Barrows organized a chapter during her first year at Clinton High. She explained TSA and the types of activities offered. "Although students work on curriculum related TSA activities during one class period every other week, they have chapter meetings after school one day each week to work on school or community service activities and prepare for contests. To get the new school year and chapter off to a good start each fall, I let the officers from the previous year continue until new officers are elected in mid-September."

Benefits to Students:
"Leadership development is a major benefit because students have opportunities to set goals and make decisions. They achieve a sense of responsibility through activities they decide are important. By

selecting activities that relate to technology education, they discover that people need their help. The chapter members winterize homes for elderly persons and carry out other service projects."

Benefits to Teacher and Program:

Involving students in a TSA chapter makes her work easier and more enjoyable. "Students gain excitement about their accomplishments and this is motivational to me as a teacher. Although I stay behind my students and often need to push them, they soon take over and work on their own. Non-achievers achieve; dropout-prone students develop a more positive self-image." The program grows because more and more students want to enroll in the technology education courses.

Meetings:

Chapter meetings are held during an activity period and after school one day a week.

Difficult Area:

"Rules and procedures for competitive events are difficult for students to understand." Her students try to find community resource people to help them learn new information and prepare for contests. Her students spend a lot of time and hope they have interpreted the rules correctly.

TSA Advisor Case Study No. 3

Technology Teacher's Name: Mr. Bud Worley
School: Carthage High School
Carthage, Texas
College/University: Graduated from East Texas State University

Starting TSA Chapter:

Mr. Worley indicated that he graduated from Carthage High School and was a member of the chapter which is now about 25 years old. "During the second week each fall, I arrange the first meeting of the TSA chapter. The students at this meeting elect officers for the year and start planning activities for the school year. I do this so it does not become a popularity contest." The second meeting is called new member orientation. We invite parents to attend the third meeting and observe the officer installation ceremony.

Benefits to Students:

"TSA allows more students in the school to have leadership roles. They learn what it takes to be a success, and they see failure as a learning experience. The students plan activities that are fun, as well as

educational. They see industry first hand and see many parts of the country by traveling to state and national conferences."

Benefits to Teacher and Program:

"Teachers like to help students. These activities were especially enjoyable for me when I was in high school so I want my students to have the same opportunities for success." He says he has achieved mutual respect with students by having contact with them outside the classroom.

Meetings:

Meetings are held during a school activity period once per month. Evening meetings are held twice a month to prepare for activities or to hear a speaker.

Difficult Area:

"It is difficult to convince other teachers that TSA is worth the extra effort. After they once see the benefits, they become interested. The first conference my students went to was in Houston. After that, their enthusiasm kept the chapter going. They will not let us stop going."

TSA Advisor Case Study No. 4

Technology Teacher's Name: Mr. Lonald Kroeger
School: Bow Basin High School
Medicine Bow, Wyoming
College/University: Graduated from the University of Wyoming

Starting TSA Chapter:

"During my senior year in college, the university started a chapter. I enjoyed it and wanted to see how to get my students involved. My administration gave me backing and asked me for a list of things I wanted to do with the new organization." Since he teaches at a small school, he likes to say he has one-half of the school population in his chapter.

Benefits to Students:

"The students in the TSA chapter feel a lot of success through the activities we do. The committees involve all students which means they learn to work together. They feel good about themselves and seem proud when their parents come to an activity they helped organize."

Benefits to Teacher and Program:

"By working with students in the chapter, we can do a lot more than just in a class. More students are interested in my classes. When my students do well outside of school, the school itself gains recognition.

Later on, this recognition comes to the department and classroom and students feel the recognition they have earnd."

Meetings:
Short meetings are held during the 35-minute activity period. "When we have committee work to do, or need a monthly meeting, these are held after school."

Difficult Area:
"We were able to show the school board that our work as student organization advisors was as beneficial to students as coaching or other extra activities. Now we benefit financially, along with the recognition we receive."

TSA Advisor Case Study No. 5

Technology Teacher's Name: Mr. Ricky Noblett
School: Harrah High School
Harrah, Oklahoma
College/University: Graduated from East Central State University

Starting TSA Chapter:
The TSA chapter has been in operation since 1965. "We elect only three officers in the spring before school is out. Then in the fall, the other officers are elected. This has helped the group to have a fresh start and also some continuity."

Benefits to Students:
"Involvement in TSA helps students learn to take charge and achieve on their own. Some students are shy and not very talkative when they join but, before long, I can't stop them. I like to advise them and get out of their way." Mr. Noblett believes students will achieve more if we "just let the students take the ball. They will make the team achieve more than I ever could have."

Benefits to Teacher and Program:
"The TSA chapter gives me and the Technology Education Department the opportunity to enter events and prove what our programs are about. It lets my students bring home recognition because the TSA contests relate to the class content."

Meetings:
The six chapter officers meet often. Each class sends representatives to chapter meetings. That way all classes are involved through their chapter representative.

Difficult Area: "Time is very limited for students and teachers. Other teachers are often not able to work with students in TSA if they are coaching or have other jobs. It would be good if we could help each other out and share some activities between all the teachers in a school."

SUMMARY

The success of TSA and TECA depends first on the leadership qualities of the teacher or professor. Too often teachers learn about TSA after they graduate and seek employment. Too often their role as leader is learned after they begin to teach. It is imperative that teachers graduate with leadership and management skills.

A technology teacher needs broad preparation for the total role of teaching technology education. This chapter has highlighted the need for leadership instruction and experience. Through TECA activities and by involvement with TSA, college/university students receive a broader education. Planning activities, finances, and public relations are important to the success of any program. Having students participate and learn through student organizations is the primary objective.

Successful advisors document the benefits their students receive, but they report that as a teacher the benefits do not stop at the students. Better programs, better instruction, and better citizens with technological literacy is the result of a strong chapter of TSA in a technology education program.

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CHAPTER EIGHT

TEACHING TECHNOLOGY THROUGH TSA

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Sub-Topics:

- Criteria for Technology Education and TSA
- Standards for Technology Education and TSA
- Categories of TSA Activities
- Using TSA Activities to Deliver Technology Education

Many technology education teachers have discovered that the Technology Student Association is a teaching tool. It is an instructional strategy for delivering technology education in a realistic and motivating manner. Others have discovered the management benefits which TSA can provide for routine activities in the classroom as well as the technology education laboratory.

To avoid the student association becoming purely an extracurricular or "social club," the technology education teacher should use or follow certain criteria which will ensure that the activities will teach or enhance the technological literacy of students. There are many kinds of activities, most of which usually start in the technology education classroom or laboratory. These activities benefit all students and help them learn the content of the course. TSA provides a vehicle for extending learning and service activities into the school and community. Through contests and conferences, technology education teachers enable students to achieve additional learning and greater recognition for their achievements and the technology education program.

CRITERIA FOR TECHNOLOGY EDUCATION AND TSA

The International Technology Education Association (ITEA) has published a list of 10 criteria for technology education programs (ITEA, 1985). It is recommended that the program/course content at all levels be based on:

1. An organized set of concepts, processes, and systems that are uniquely technological.
2. Fundamental knowledge about the development of technology and its effect on people, the environment, and culture.
3. Instructional content drawn from one or more of the following areas:
   (a) Communication—efficiently using resources to transfer information to extend human potential
   (b) Construction—efficiently using resources to build structures or constructed works on a site.
   (c) Manufacturing—efficiently using resources to extract and convert raw/recycled materials into industrial and consumer goods.
   (d) Transportation—efficiently using resources to obtain time and place utility and to attain and maintain direct physical contact and exchange among individuals and societal units through the movement of materials/goods and people.
4. Assisting students in developing insight, understanding, and application of technological concepts, processes, and systems.
5. Applying tools, materials, machines, processes, and technical concepts safely and efficiently.
6. Developing student skills, creative abilities, positive self-concepts, and individual potentials in technology.
7. Developing student problem-solving and decision-making abilities involving human and material resources, processes, and technological systems.
8. Preparing students for lifelong learning in a technological society.
9. Activity-oriented laboratory instruction with students reinforcing abstract concepts with concrete experiences.
10. A combined emphasis on *know-how* and *ability to do* in carrying out technological work (pp 25-26).

Teaching Technology Through TSA

Activities and projects of the Technology Student Association address the criteria for technology education programs in a variety of ways. Teachers have the opportunity to manage their chapters by selecting activities that enhance the learning environment. TSA activities are action based, problem solving experiences that allow for the application of creative abilities, the development of positive self-concepts, and the realization of the individual's potential in technology. While solving problems, students make decisions involving human and material resources, processes, and technological systems. The teacher may select activities that assist in reaching the desired educational outcomes. TSA provides the structure for student involvement, allowing students and teacher to work together to achieve a common goal. The competitive events provide an instructional strategy for the teacher and motivate students to achieve to their potential. The management and organization of activities of the student association by students provides an environment that promotes leadership, problem solving and cooperation.

The Technology Student Association is best used as an integral part of the technology education delivery system in the classroom and laboratory. Through a variety of activities students are helped to:

1. Know and appreciate the importance of technology.
2. Apply tools, materials, processes, and technical concepts safely and efficiently.
3. Uncover and develop individual talents.
4. Apply problem-solving techniques.
5. Apply other school subjects.
6. Apply creative abilities.
7. Deal with forces that influence the future.
8. Adjust to the changing environment.
9. Become a wiser consumer.
10. Make informed career choices (ITEA, 1985, p. 25).

TSA contests provide competitive opportunities for students in the areas of communications, construction, manufacturing, transportation, and leadership. Students may be involved in competitive events in the classroom, between local schools, or at regional, state, and national levels. As students prepare for competition, they:

1. Are assisted in developing insight, understanding, and have an opportunity to apply technological concepts, processes, and systems.
2. Apply tools, materials, machines, processes, and technical concepts safely and efficiently.

3. Develop skills, creative abilities, positive self-concepts, and individual potentials in technology.
4. Develop problem-solving and decision-making abilities involving human and material resources, processes, and technological systems (ITEA, 1985, p. 25).

The application of technology oriented subject matter through group processes prepares the students for lifelong learning in a technological society. This is accomplished through activity-oriented laboratory activities with students reinforcing abstract concepts with concrete experiences. These experiences combine *know-how* and *ability to do* in carrying out technological work (the work of the TSA chapter) (ITEA, 1985, p. 25).

STANDARDS FOR TECHNOLOGY EDUCATION AND TSA

The Standards for Technology Education (Dugger, Bame, Pinder, 1985) deal with student leadership in eleven of the 241 standards. Those standards that address instruction directly are:

1.1 1.c) Students, including local Technology Student Association (TSA) chapter members, are involved in developing the philosophical statement (p. 11).

1.1 3.d) The philosophy encourages development of personal and leadership skills through TSA (p. 12).

2.1 1.i) Emphasis is placed upon developing leadership ability, encouraging and promoting responsibility, and developing positive social interaction through TSA (p. 16).

2.3 4. Course content includes the development of personal and leadership skills through TSA (p. 18).

7.2 1.g) Local TSA chapter activities are integrated into planned courses of study and are utilized in conducting classroom and laboratory activities (p. 41).

7.2 4. Student leadership skills are developed through a variety of curricular and extra-curricular activities (p. 4).

A TSA chapter provides a structure for the interaction of students and the educational system. The structure allows student input and evaluation of the local philosophy of technology education. The development, understanding and endorsement of the philosophical base of the instructional program involves students at the foundation level of the instructional program.

The standards clearly emphasize that a student organization is an important part of the technology education program. Leadership activities are an integral part of the in-class instructional program. The student association provides contact with the industrial and technological society, assisting young people in exploring educational and career opportunities.

CATEGORIES OF TSA ACTIVITIES

There are five major categories of activities by which TSA helps technology education students learn about and apply technology (Task Force F, 1987). These activities deliver technological content and enrich the students understanding of technology in our world. The following categories will be described:

1. Leadership and management activities
2. Technological and career resources
3. Solving school and community problems
4. Enterprise and economic projects
5. Achievement and competitive events

Leadership and Management Activities

The Technology Student Association provides students an opportunity to develop communication, organization, teamwork, and leadership skills. An individual must develop a working knowledge of the organization and the ability to organize and communicate ideas with confidence to influence and support others in a positive way. As the members of a chapter work together to accomplish common goals, they practice these skills through hands-on experience with real situations.

The technology education classroom and laboratory provide some unique opportunities for leadership development. Students are able to manage the tools, materials, and laboratory maintenance. The leaders and small groups work together to organize, direct, and provide support for learning activities that help them achieve the established learning objectives of the course. Class members are involved with nominating, electing and serving as officers. They serve as committee members and leaders. It is important that individual class member involvement be planned to provide opportunities for all students to be in leadership roles as well as to support the common effort of the group.

Beyond serving as class leaders, students also have the opportunity to serve as officers or committee chairpersons in the school TSA chapter. Some students may be motivated to become candidates for regional,

state, or national officers. The process of developing a campaign and running for an office will enhance leadership development. These would-be leaders are striving to achieve their goals. Whether they win or lose, they will enhance their own self concept and be better able to realize their potential in the future.

Technological and Career Resources

Communities where students live offer a vast resource for technological support and career information. Students are a good connection between the school and the community. Locating and researching the technological resources of a given community may start with the people that students already know. Every student knows several people in the community who are involved in some area of technology. They may be employed as craftspersons, technicians, engineers, scientists or managers of technology activities. Others may have related hobbies such as amateur radio operator, radio-controlled cars or airplanes, or building and launching model rockets. Most people are enthusiastic about their special interests and tend to motivate students with their enthusiasm.

The resource people identified by students may serve as guest speakers, provide interviews for students, arrange tours, provide information for students to present to the class, or act as mentors for special projects. Community resource people provide first-hand information about their broad or specific areas of technology. They can help students understand what careers offer and how to prepare for the future.

Solving School and Community Problems

Being of service to others is a valuable part of the Technology Student Association program of activities. Helping others enables students to understand their own personal worth. They develop positive self concepts through realistic activities that help other people and groups.

Service projects are typically selected to solve community or school problems or to make improvements. Examples include replacing sections of sidewalk, modifying appliances for elderly persons, constructing park benches or playground equipment, and making toys for a children's hospital or day care center. These provide a service to others while providing educational benefits as students apply tools, materials, machines, processes, and technical concepts safely and efficiently. The organizational activities necessary to complete a service project will be much the same as any other activity. Students will plan, organize,

and carry out the project. The size of the group needed to complete the project may vary from a small group or committee to an entire class.

Some TSA chapters carry out cooperative projects with other organizations in the school or community. The cooperating group may be a school club or civic organization. Each organization provides part of the support or service to complete the project.

These activities not only provide service to others but many times accomplish good public relations. Newspapers, radio and television news people are always looking for community interest activities to highlight. Students involved in contributing to their school or community make interesting possibilities for photographs and will almost always get recognition. Activity-type service projects lend themselves to good visual news reporting such as pictures in the newspaper and action shots on television newscasts. Young people receive recognition for their work and the technology education program is publicized.

Enterprise and Economic Projects

The enterprise activity is making a product to sell or providing a service for a profit. This activity typically requires a class or group of students to establish their own small business. Students are involved in the design and management of a profit-making enterprise involving research and development, problem solving, planning, decision making, and marketing.

Any of a full range of manufacturing and service activities is possible. Examples include mass producing products for sale before Christmas or making interfacing devices for computers. Business management concepts are necessary to operate the small business. The profit from the business venture can provide funds for the TSA chapter to support service projects and finance trips to state and national conferences. Thus the TSA chapter offers a realistic environment for students to work in an activity in which they are depended upon for the group's success.

The enterprise activity lends itself to some special public relations possibilities. An important part of any profit-making business is communicating with the potential consumers. Students will need to sell their product or service and to inform the public about the technology education program. Packaging and package inserts may be used to inform the purchaser about other aspects of technology education. Audio and video recordings may be used to reach potential customers. Posters, school newspaper, and newsletters of the PTA and technology educa-

tion department are other approaches that inform the public and provide an instructional strategy for teaching communication skills.

Achievement and Competitive Events

The Technology Student Association offers a wide variety of contests in all four areas of technology education as well as leadership. TSA contests begin as assignments at the class level and can be used to add interest to classroom requirements. The assignment can be designed to meet the requirements of the TSA contest rules, or those rules may be modified to meet the educational objectives of the course. The culminating event can be competition between individuals or groups. Judges can be selected from the school staff, parents, or community members. This is an opportunity to reward students and to increase the public's awareness of technology education.

Recognition of achievement takes many forms and need not be elaborate or expensive. Class winners may have their pictures posted along with an announcement of the contest results. A computer-generated certificate may be awarded. More elaborate awards may take the form of ribbons and trophies. Winners may be recognized by announcing the competition results over the school PA system, placing articles in the school newspaper, or PTA newsletter, or by displaying student activities and trophies in a display case visible to all students, faculty, visitors, and school administrators. The winners of these competitions may advance to regional, state, and national contests. Appropriate news releases announcing winners will recognize students and publicize the technology education program.

USING TSA ACTIVITIES TO DELIVER TECHNOLOGY EDUCATION

This section will detail selected activities that help deliver technology education content in the instructional program. Technology education teachers will find in these case studies some possibilities for use and adaptation. While the activities are grouped into general categories, in practice, one activity may accomplish two or three purposes.

Managing the Classroom and Laboratory

Managing the classroom and laboratory can be a difficult task if carried on by the technology teacher alone. The teacher is responsible for

everything that goes on in the classroom; however, students benefit greatly by sharing in management tasks as an educational activity.

Management tasks can be structured so the responsibility rests with students. The teacher establishes the structure, assists, counsels and facilitates management through a classroom technology student association. Each class in the technology education department elects officers and representatives to the chapter (school) organization. The officers appoint committees, manage laboratory maintenance, assist with daily procedures, and oversee the safe conduct of class participants. The routine tasks of taking roll, passing out instructional materials, returning evaluated assignments, or setting up audiovisual equipment are examples of involving students in classroom and laboratory management.

Daily upkeep of the technology laboratory has been a traditional student task, although often it has been a teacher-directed activity. The teacher is the responsible person, but the responsibility can be met by providing a framework for a student-directed and managed system to keep the laboratory and classroom clean, orderly, safe, and well-maintained. The level of maintenance will depend upon the level of instruction. Middle school students should not be expected to perform some machine maintenance operations, but they can be sure all computers are turned off and dust covers are in place and see that books, software, tools and supplies are stored away properly. More advanced students may be expected to maintain equipment as part of their instructional program. It should be noted that all activities must be related to the instructional objectives of the course. Every student should be involved as a leader as well as a follower at various levels of management.

The organizational charts shown in figures 8.1 and 8.2 illustrate how a technology education program may be organized to allow for maximum student involvement in the management of the laboratory and the instructional program.

Leading and managing effectively are not necessarily skills that students already possess when they come to class. An organized instructional program is necessary to provide students with the background to participate successfully in leadership activities. Leadership instruction can be divided into five units (Ogilvie, 1988, pp. iii).

1. Introduction to the Technology Student Association.
2. TSA activities.
3. Parliamentary procedure.
4. Becoming a leader.
5. Giving presentations.

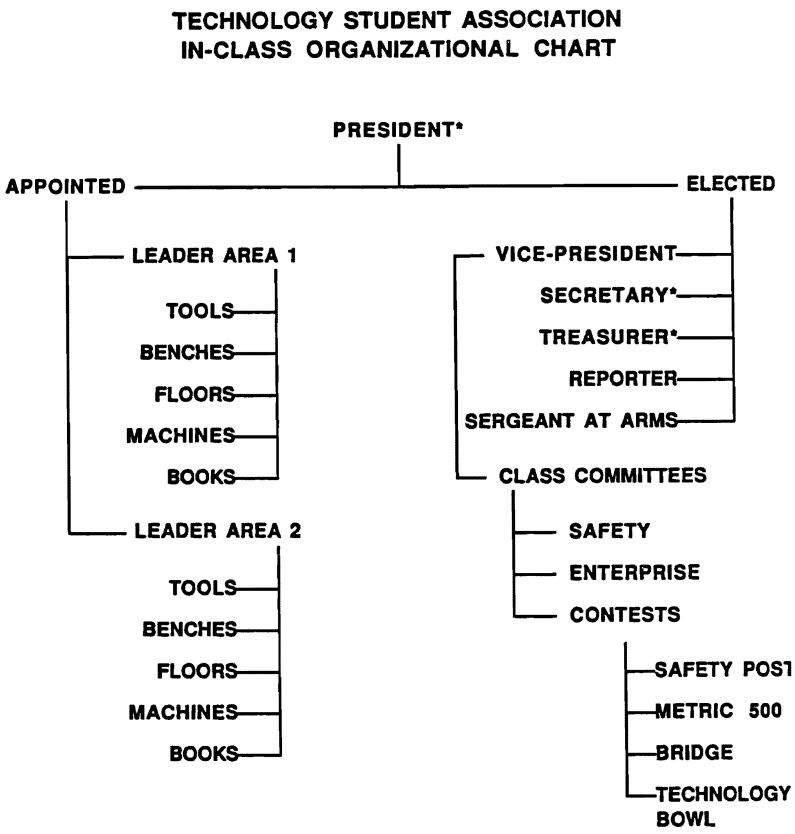

Figure 8.1: Class organizational chart for the Technology Student Association.

At first glance it may seem that the proposed units of instruction have little to do with technology. On the other hand, if students are expected to use a set of skills and a body of knowledge as learning tools, then they must be given appropriate instruction.

An Introduction to TSA is necessary to provide students the opportunity to take full advantage of leadership involvement and association activities. The more students are involved in the learning process, the better they learn. A knowledge of leadership techniques, and

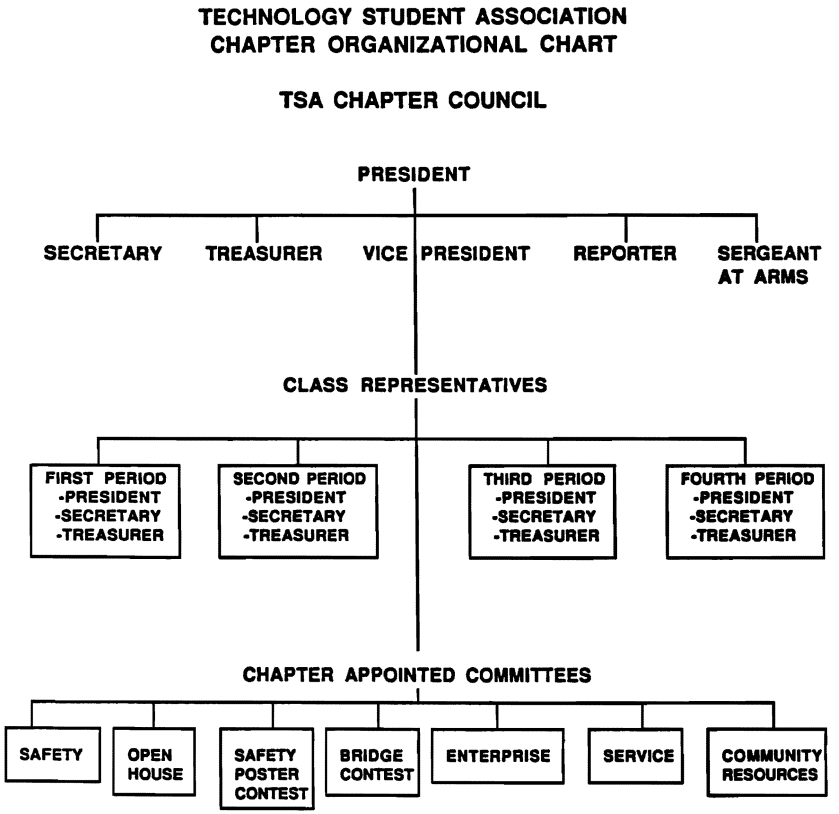

Figure 8.2: Chapter organizational chart for Technology Student Association.

democratic decision-making, plus the ability to make a presentation, are basic skills necessary to be effective in the learning process and to be a participative citizen in a democratic society. If students are to function in class management in a meaningful way, they need to understand what the organization stands for, the functions of its officers, the essentials of a good organization, and the guidelines for conducting good meetings (Ogilvie, 1988, pp. 1-30).

TSA activities provide students with practice in the skills and knowledge they are learning in their total educational program. They participate in ceremonies; they plan, manage, and carry out a program of activities that includes: professional development activities (citizenship

involvement and community resources), ways and means activities (fund-raising), safety activities, social activities, public relation/publicity activities, community/school service, and competitive events (Ogilvie, 1988, pp. 31-65).

Parliamentary procedure is a set of rules for conducting business in an orderly manner. TSA members learn the basic concepts of conducting meetings and have experience with the system that protects their rights and enables them to participate in the decision-making process. This unit of instruction provides all students with basic information and provides those who wish an opportunity for an in-depth study of parliamentary procedure (Ogilvie, 1988, pp. 67-108).

Becoming a leader is an appropriate educational goal for everyone. Everyone is a leader in some area of their life, and those who are considered leaders can always improve their skills. TSA provides situations for students to practice leadership and learn how groups function, the characteristics of leadership, how leaders conduct themselves and how they dress (Ogilvie, 1988, pp. 109-175).

Giving presentations is a basic communication skill. Communicating one-to-one or in small groups is a common activity for all people. The ability to communicate one's thoughts and to understand what others are attempting to say are important skills. TSA, when used as an integral part of the technology education program, assists young people to improve communication skills. A systematic approach to preparing, organizing, and presenting one's thoughts will assist in the development of everyday communication skills. Through cooperative learning, students practice communication techniques while sharing information about technology with others in the class, in both small and large groups (Ogilvie, 1988, pp. 176-246).

Providing Outside Resources

Resources from outside the school system are important to technology education. They can make a significant difference in the quality of education. Outside resources from local business and industry might be: speakers, tours, interviews, printed information, and display materials. To facilitate student involvement in determining what resources are available, a committee can be formed in each class. The teacher can help the committee define the class need, suggest possible contacts, and help develop an approach to be used when making the contact. The committee's responsibility is to search for possible resources to fill a need in the class. The teacher is an advisor. The major decision-making and development should be left to the students.

An example of how this might work is:

A class studying the ways that metals can be molded needed more information about powdered metal molding. One member of the community resources committee knew a person who was a member of the Society of Manufacturing Engineers. Calling the SME member as a starting point, the committee member was able to get the name of a company that made powdered metal products. The committee discussed the lead and decided to contact the company for assistance. They prepared a written statement for the student making the call to use. The telephone call explained the learning activity and asked if the company could help. The company was small and couldn't supply a speaker for the class, but they did have a video tape that explained the powdered metal process and they were willing to provide a tour of the plant. The students obtained the videotape and used it as an introduction to the tour. The tour was very informative and helped students understand the processes used as well as the work environment. While reviewing their experiences and the tour, the class was able to talk about the careers and the working environment. The class made a display of the samples of powdered metal, some finished parts, and products given to them on the tour.

A thank you letter was written to the general manager of the company by the TSA secretary. A committee report was completed and filed so another class might use the same resource in the future.

There are many benefits from a positive experience like this. As a result of this contact, company employees have served as judges for TSA contests and the general manager now serves on the local technology education advisory committee.

It should be noted that the students received several benefits in addition to learning about the subject matter. They learned that they can be self sufficient in gathering information, that industry is eager to help, and how to communicate with a business.

Solving Technological Problems

Humans use technology to solve problems and improve the quality of life. The Technology Student Association provides a framework for learning to apply technology to solve problems. Any school or community is a vast complex of problems. TSA activities combine organization, technology, and human need to make excellent learning opportunities for students in technology education.

The service committee of a TSA chapter can identify school and community problems to study. Various classes in the technology education

program can select from the list. As the potential projects are considered, each class must keep in mind that the solution must be within the scope of the course and that no financial support is available. The following examples will help explain how a Technology Student Association can provide a service to the school or community while using an existing situation as a learning activity.

A shelter for students waiting for the city bus was identified as a need by the school's national honor society. They had earned over $1000.00 toward construction materials. The city transit system was able to fund the remaining material costs. A local architect volunteered to review the design and oversee construction. This made an excellent project for a construction class. The students in the construction class decided to act as the contractor. They estimated the cost of materials and applied for a building permit in conjunction with the construction firm of a member of the technology education advisory committee. They subcontracted with a concrete-cutting company to cut the concrete walk to allow for installation of the foundation. The class worked with the architect, city building officials, and the transit system as they completed the project.

Upon completion of the shelter, the transit system organized a dedication ceremony. They invited the transit system board of directors, (made up of county commissioners and city council members), school officials, and the school's National Honor Society and Technology Student Association to share in the ceremony. Local television stations were notified and covered the dedication on local news programs.

This project is a lasting monument to a cooperative effort of school and community to improve the quality of life in one community. The TSA chapter solved a problem and used technology in a realistic way.

Another project was identified by the school administration and was selected by a middle school technology education class. Students in this school had to share hall lockers, with three students storing their books in one locker. This was a crowded situation. The space was not organized to provide for the books and supplies of three students. The project goal was to design and produce an inexpensive shelf system that could be inserted into the locker without damaging the metal parts of the locker. The class was divided into four groups of six or seven students. Each group designed and built a prototype that met the specifications. The class selected the design that solved the problem the best, was easiest to manufacture, and was least expensive. They organized for production and mass produced the locker organizer.

This activity started out to be a service project, but the results were so successful that it has become a profit-making enterprise for this chapter. The locker organizer was produced by the TSA chapter and marketed through the Distributive Education Club's school store, demonstrating another way that student organizations can cooperate for the benefit of all.

In-Class Enterprise

The enterprise ventures of technology education classes are one of the best strategies for students to experience how business uses technology to provide goods and services. Students learn that the success of an enterprise is judged by its ability to serve people's needs while making a profit.

Students in a manufacturing class may enter into a speculative venture. They may select a product to produce and sell based on a market survey and their belief that many people will buy it. The success of their effort will depend on the wisdom of their decisions (Fales, Sheets, Mervich, 1986).

A construction class may wish to build a small storage building, garden house, play house, or gazebo that is presold to a customer. This approach will have less risk but will depend on their ability to deliver a quality product that satisfies the expectation of the customer at a cost that will allow for profit.

Another group could provide a service on demand. An example of this would be engraving plastic signs for doors, desk nameplates, etc. Marketing efforts might include using a computer to generate posters. Posters could be reproduced using a thermoscreen process, allowing for multicolor design.

The structure of the Technology Student Association is easily adaptable to an organization conducive to a profit-making venture. Because TSA activities are closely tied to the classroom activities, the enterprise can be operated in the school. In most states, student organizations can buy materials and sell a product for profit. The money generated by TSA enterprise ventures can be used by the TSA chapter to support members' travel, chapter expenses, and service projects.

The production and marketing of a product is an excellent activity for any technology education class. Teachers can use the basic TSA in-class structure for the leadership/management of the venture. The leaders can appoint the necessary committees to plan and prepare for production. In most cases the preparation for production will consume a major part of the time scheduled for the activity. There are several

good manufacturing texts that will help students and teachers determine the duties of committees. The class will select a product, build a prototype, survey the potential market, finalize the design, prepare tooling, develop inspection specification and methods, design packaging and develop selling techniques.

To emphasize the importance of making a profit, the Technology Student Association in one school sponsored a contest between classes. The class that made the most profit won the contest and was rewarded with a party or some other special treat. They also offered individual awards for top sales.

Teachers find this type of enterprise experience is easy to coordinate with course objectives. Students can be counseled to choose a product that can be produced with existing equipment and supplies.

A made-to-order product fits well into a construction class. A small storage building, a gazebo, or play house have been some of the most successful endeavors. Some customers will have previously detailed designs, but in most cases they will only have an idea so students still have an opportunity to design the structure. The class will estimate the cost, develop a contract, find out about local building codes, order materials, and construct the building. Cost control is essential if the enterprise is to make a profit. The in-class TSA organization makes a good system for the construction activity. The class president becomes the general manager, the vice-president becomes the materials manager, the secretary keeps all records and important papers, the treasurer keeps track of expenditures and income, the reporter takes care of public relations and advertising, and the sergeant-at-arms is the tool and equipment manager. The TSA treasury funds the operation and provides a mechanism to manage the profit.

The third type of enterprise is one that provides a service. This is accomplished by taking orders and filling them, charging each customer for the service. This is a no-risk venture since only those materials needed to fill the orders are used (as in computer/printer cable repair or small engine tune-up). The advertising division or committee of the organization will be responsible for informing the potential market that the service is available.

The negative aspect of this type of activity is that it is hard to fit the work to the educational goals of the course. Also, orders do not come in an even flow. It has been found that this type of enterprise is best used as an extra in-class or an extra-curricular activity.

Technology Contests as Class Assignments

Using contests as a teaching strategy can make learning fun. Contests can be structured in the same manner as the national TSA competitive events. Students can progress from the in-class contest to a school-wide event and to the state and national levels. Contest subject matter need not be limited to those with competition outside the school. Students and teachers can make up their own rules to fit the learning situation. However, those contests that offer opportunity outside of the school, the rules should be the same at all levels. Three examples of in-class contests that culminate at the state and national levels are described below:

Safety Poster. As a culminating assignment to an introductory unit of safety, students can graphically design a safety poster. The assignment specifications should reflect the TSA Safety Poster Contest rules. Students are asked to illustrate a safety concept, safety situation, or safety slogan. This is an opportunity for the teacher to provide instruction in basic graphics layout. Students should be encouraged to use a variety of materials and illustration techniques. Computer graphics and desk top publishing may also be a part of the assignment.

The chapter TSA safety poster contest committee can organize the contest. They can display the posters, print score sheets, and arrange for judges and awards. This is an opportunity to involve other school or community personnel, such as the art teacher, a counselor, an administrator, or a member of the technology education advisory committee. After judging is complete, the committee will present the awards and display the posters for public viewing.

Bridge Building. A unit on local bridges, is an excellent way to study the social-economic importance of bridges in our transportation system. As students learn about the function and the age of local bridges, they will be able to see how construction techniques evolved and differ according to function and the technology of the time in which they were built.

After studying the different types of bridges, a good problem solving activity is a bridge building contest. Divide students into groups and have them design and build a model truss bridge to specifications. The assignment can follow the TSA rules for the Bridge Building Contest. This may be a short activity (3 or 4 days) and will develop high student interest. It allows the teacher to reinforce some concepts of construction

management and truss design. The activity ends with the testing of each bridge and calculating the efficiency of the design.

Awards can be presented to the winners. On the class level, it is good to present as many awards as can be justified. Categories might be first, second, and third place for efficiency, best-looking design, team effort, and quality of work. Class awards can be computer-generated certificates on colored paper. Gold seals can be purchased at a stationery store to dress up the certificates. School awards can be more selective with ribbons being given. Ribbons may be purchased from a trophy shop or they may be printed using standard graphic materials such as rub-on letters and camera-ready graphics to produce a master and printing copies using a thermoscreen method.

Technology Bowl. This class contest will help students learn more about the development of technology and other important facts. To add interest and fun, a Technology Bowl can be organized. It is an excellent way to review for a test. The technology bowl is made up of teams of three contestants. Two teams compete at a time. The team getting the right answers to the most questions wins that round. A single- or double-elimination format can be set up to determine the winner.

Questions should cover the body of knowledge of the subject being taught. The questions can be constructed by students with the teacher filling in any gaps by adding questions. After the oral contest is completed, a written test can be given to all students. The students receiving the three top scores will make up the team that represents their class. They will compete in a school contest with teams from other sections of the same subject. This will establish a qualifying system to select team members to represent the school at state and national contests.

Contests motivate learning, increase learning efficiency, and prepare students for competition throughout life. Students receive recognition for winning contests and in turn bring recognition to the technology education program. *Nothing succeeds like success.*

Presentation of Information About Technology

The presentation of information is important in all phases of technology. It informs others about technology. It sells ideas. It creates images of organizations. It records information. It communicates.

The Technology Student Association provides students with a wide range of experiences in presenting information. Through leadership activities and preparation for contests, students have the opportunity to present information through speaking, writing, graphics, displays, and models.

When people think of presenting ideas, speech is the first method that comes to mind. It is used every day. Most people can learn to use it effectively. TSA provides members the opportunity to practice and teachers the opportunity to help students be more effective. When students campaign for a class or chapter office, they must organize their thoughts and present them to the voters. A few students will campaign for state and national office, giving them additional experience.

Through the operation of the in-class and chapter TSA, students will communicate to the group by giving committee reports, by supporting ideas being considered by the group, or by being an officer of the group. A basic democratic right is to be able to have one's ideas heard. Being able to present ideas is a necessary skill in a democratic society.

Much information is passed from person to person on a one-to-one basis. TSA provides opportunities for preparation and practice for interviews. Several TSA contests such as electricity/electronics, outstanding chapter, outstanding student, manufacturing prototype, and materials processes have interviews as part of the contest.

The speech contests, such as extemporaneous and prepared speaking, are formal opportunities for presentation of speeches. Students use these same skills to share what they have learned with their classmates. The preparation for a short class presentation is an important part of the learning process. The ability to organize and present information is a basic adult-life tool and should be cultivated in all subjects at all levels of learning. Participation in TSA speech contests is a natural extension of the technology education instructional program when students are involved in speaking in class.

When people working in technical jobs are asked to list the important skills they need to be successful, they almost always put the ability to write high on the list. Writing is a basic tool. The more opportunities that students have to write, the better writers they will become. They will learn to organize their thoughts and formulate ideas that will help them retain what they have learned.

Writing is part of several TSA contests. The Electricity/Electronics Contest requires a written description of the application of the device being entered. The Outstanding TSA Chapter Contest requires a letter of application covering the year's activities. The Outstanding Student Contest asks for a resumé . The Technical Report writing contest requires students to organize their thoughts and present them in a short period of time. These writing experiences are the natural progression of in-class activities that are included in the daily lessons of technology education classes.

The TSA Chapter Record Book Contest is one that gives students a place to keep a history of what they do in their chapter through the year. The year's activities are added to the chapter's history. Each project, event, and achievement is recorded in pictures, memorabilia, and written form. The written record is worked on throughout the year by students involved in the TSA activities. This gives students writing practice and they take pride in what they do. They build a heritage, a history, and a feeling that what they do is important. They write the history of their year in technology education.

Graphics and models have had a prominent place in education for technical fields. TSA activities and contests have taken advantage of this heritage. Drafting concepts are emphasized in several competitive events. The Graphic Logo Contest allows for practice of skills in class as well as the competition on the state and national levels. Computer-Aided Drafting is a communication skill that requires both a knowledge of conventional drafting and the ability to use the computer to produce a drawing. The CAD contests in TSA allow students to demonstrate their expertise.

Displays are a way that a group of students can show what they have learned. This method of presenting information allows individuals to contribute to the group effort using their particular skills and talents. The group result is greater than that of any individual in the group; however, each individual identifies with the total result. Learning becomes a cooperative activity and through the display knowledge can be shared with other groups. The TSA Technology Processes Display Contest is an extension of an in-class learning activity.

Some states have developed a display contest that allows each TSA chapter to display its activities of the year as well as representative activities of the technology education program. These displays have become valuable in public relations. They can be set up at fairs, malls, school open house, etc.

Recognition for Achievement

When students win recognition, every effort should be made to publicize their success. The TSA reporter and the TSA public relations committee should handle news releases. They can establish a regular mailing list for such releases.

At the end of the school year, an awards ceremony is an excellent way to recognize winners from all levels of competition. The TSA chapter achievement recognition committee may organize a Technology Education Awards Night. Parents, school staff, school board members,

and selected community members can be invited. The awards presenter might be selected from the technology education advisory committee or other interested group. A well organized script and refreshments will add to the quality of the program.

Technology Learning Activities Beyond the Classroom

The TSA chapter enables technology education students to be involved in school activities representing that part of the school's total program. Being involved allows students to make their own unique contribution in the name of technology education. The activity may be service to other groups, a cooperative service project with other groups, or a cooperative enterprise venture.

A school's Technology Student Association wishing to raise a lot of money for charity may find that its goal is out of reach for the chapter members. By involving the entire school, with the chapter organizing and promoting, the goal is made attainable. The goal is reached, the entire student body has benefitted, TSA has provided leadership to the school, and technology education is recognized as a valuable educational opportunity for all students.

A group such as the drama club may need help building sets for a play. The TSA chapter can provide this service as a co-curricular or as an extracurricular activity. Students who may not have been involved in drama now have a part and those not seeing the contribution of technology to the arts now have first hand experience.

There are many opportunities for service projects in a community; too many for any one group to do. Some are too big and there is too little time to do a good job. However if two or more organizations work together, each doing a pre-agreed upon part, the task can be accomplished. An example of this: two TSA chapters worked with an FHA chapter to make Easter baskets for ninety-four residents in a nursing home. The baskets contained a potted flower, two colored eggs, and a ribbon. A team made up of members from each organization delivered the baskets to the residents' rooms.

Involving students from outside the chapter can be an important public relations tool and informs students not in technology education about the program. The DECA chapter may market an enterprise product for TSA, and both organizations can benefit.

While demonstrating how TSA helps facilitate learning in technology education, many projects have been suggested where the activities extend beyond the classroom and the school day. TSA members run for

state and national office, work on state and national committees, speak to local service clubs, raise money for national service projects, and enter state and national competitions. Members have the opportunity to travel, develop career awareness, and become self confident through activities that may not be available to them within the school setting and the limits of the school day.

Summary

The Technology Student Association provides an instructional strategy for delivering technology education in a realistic and motivating manner. TSA is an integral part of technology education. Technology teachers use TSA activities to teach leadership, develop technological and career resources, and solve school and community problems. Students experience the free enterprise system while earning money to support chapter activities and selècted service projects. TSA provides an organized program of competitive events that allows students to be rewarded for their achievements.

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CHAPTER NINE

MOTIVATING STUDENTS THROUGH COMPETITION

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Sub-Topics:

- Rationale for Competitions in Technology Education
- Competitive Events in Technology Education Today
- Technology and Competition for Tomorrow
- Motivational Theory
- Motivation and the Student
- Motivation and the Teacher or Advisor
- Motivation and the College/University Faculty Advisor

This chapter will suggest that competitive events can and should provide the natural motivation to stimulate higher levels of thinking and deliver a curriculum that will prepare the student of today for the competitive world of tomorrow. This does not suggest that competitive events are a "cure all" for education. It does suggest that competitive events can and should play a more important role as both content and process.

Since the beginning of civilization, humankind has been in competition with the environment, nature, other humans, and machines. Prehistoric man, for example, spent most waking hours competing for scarce food, clothing, and shelter. Over a period of time, technical "know how" provided relief from these daily burdens. Curiously enough, technological applications relieved the daily burdens of competing for scarce resources while the creation of competitive events in the form of recreation, commerce, intellectual, physical, and artistic contests emerged.

Competitive events can be a powerful means to enhance the technology education curriculum at both the secondary and collegiate

level. Competition, as an educational activity, can be a very unique means to motivate students to develop higher levels of understanding of our technological world. As any other activity, competitive events must be carefully selected and designed to enhance specific educational objectives.

RATIONALE FOR COMPETITIONS IN TECHNOLOGY EDUCATION

The educational value of competitive events has so much potential that their use should become an integral part of the regular curriculum. Living and working is often a matter of intense competition with nature, with the global economy, and with other humans for scarce resources, economic stability, and a peaceful existence. Most recently, machines, in the form of robots, have become a form of competition for jobs. Competition has been, and most likely will continue to be, part of the daily life of everyone. For example, Americans are very aware of their competition with natural and commercial developments to preserve the land, air, and water; international competition is fierce for trade as reflected in the balance of imports vs. exports; and a scarcity of fossil fuels has created oil wars in certain parts of our world. Preparing students to be productive members of present day society must include solving problems that are technological in nature. In addition, the solution to these problems, whether it be work or leisure, will most likely include some form of competition.

The Educational Value of Competitive Events

Research conducted by Pepitone (1980) reported that competition (as well as cooperation) is learned, not inherited. From this and the previous discussion, one could conclude that an implied obligation exists to provide all youth an opportunity to work in a competitive and cooperative setting while solving problems that are uniquely technological in nature. While sufficient evidence is available to support competition as a desirable part of the educational process, some concern exists over potential negative impacts upon youth. This includes anxiety, aggression, stress and disappointment (Brophy, 1987; Napier, 1981; Johnson, Skon, & Johnson, 1980). The arguments against competition propose that it equates to winners and losers and suggest cooperative activities as an alternative (Napier, 1981). The potential for negative impacts upon students is a very important issue for structuring competitive activities.

However, competition does not always need to pit one against another and result in winners and losers. Teachers are advised to help students prepare for competition and to emphasize the value of doing one's best, regardless of what the outcome.

Presently, most competitive events in education are conducted as extra-curricular activities. While this may be appropriate, the inclusion of competition in the regular curriculum is desirable to prepare all students to cope with their competitive environment. The technology education program is uniquely suited to contribute to this goal. First, the hands-on curriculum associated with the laboratory setting provides highly motivational activities suited for competition. Secondly, technology laboratories are uniquely equipped with tools and materials to allow students an opportunity to test their solutions or to design and construct working models.

COMPETITIVE EVENTS IN TECHNOLOGY EDUCATION TODAY

Currently, the technology education profession has numerous contests designed to enhance student learning and to promote the program. The Technology Student Association (TSA) and, most recently, the Technology Education Collegiate Association (TECA) have made considerable contributions to the development of leadership abilities and technological skills in a competitive setting at the local, regional, state, and national conferences. Today, TSA competitions have focused more upon problem-solving, creativity, and leadership. Manipulative skills have not been the primary emphasis of activity-based contests. The contest serves as a vehicle for motivating students to "apply tools, materials, machines, and technical concepts safely and efficiently" (ITEA, 1985, p. 25).

Throughout the history of the profession and prior to the formation of TSA, the most frequent of all competitive events occurred at the local level in the form of project displays. Projects were placed on exhibition to compete for ribbons and/or other forms of recognition for craftsmanship and design. In this form, competition occurred after the fact and had little to do with enhancing the learning process. While these exhibitions may have been valuable in promoting the program, they were far too narrow in scope. Also, most events of this nature failed to reflect the content of a contemporary technology education program.

The competitive events program of TSA has evolved into a series of contests reflecting the technological content drawn from the four technological systems of communication, construction, manufacturing, and transportation. The TSA Board of Directors approved the events, shown in Figure 9.1, and is creating other new events to "develop student skills, creative abilities. . . .problem-solving, and decision-making abilities involving human and material resources, processes, and technological systems" (ITEA, 1985, p. 25). The TECA contests include participation in such contests as: Live Manufacturing, Communications, and Technology Challenge.

In recent years some competition has occurred under the guidelines of design and problem-solving. Perhaps the best example of these has been the CO_2-powered vehicle. Problem-based activities have become integral parts of the curriculum but have been far too often limited in scope. For example, a recent competitive event where students were in competition to design the most efficient vehicle propelled by a CO_2 cartridge was publicized in a local newspaper. The event appeared to have outstanding educational merit; in reality, the activity was conducted primarily because of student interest. The activity focused upon building cars and neglected the real intent of enhancing the knowledge base of the technology education curriculum. In contrast, the same activity was conducted at another school but the competition became a springboard for the development of problem-solving and creative activities as well as the interface of scientific and mathematic principles as applied to transportation. In this case competitive guidelines in the form of work-sheets were developed to encourage students to explore alternative sources of energy and the use of simple machines applied to kinetic and potential energy. Solutions included social, economic, and environmental issues of transportation.

The activity changed from building race cars to systematically studying the application of the source, conversion, transmission, control and storage of energy/power as applied to principles of transportation. The surprising outcome of this competitive event was that student attention soon turned away from winning the contest and turned toward accomplishing the educational goal. When this occurred, every student became a winner in solving the problem. This contrasts with having only one winner in the previous example—whose vehicle traveled the fastest. The real reward for students was discovering a solution to a challenging technological problem. The TSA competitive event is designed to relate so closely with the technology education curriculum that teachers use the contest as an assignment for students. The contest may require students to use the library for research, to investigate

NATIONAL TSA COMPETITIVE EVENT STRUCTURE

Six-Year Plan

		1987-88 Downingtown, PA	1988-89 Winston-Salem, NC	1989-90 Corpus Christi, TX	1990-91	1991-92	1992-93
SYNERGETIC TECHNOLOGY							
Computer Applications	I		Research				
	II		Research				
Technology Bowl - Oral	I		Review			Review	
	II		Review			Review	
Technology Bowl - Written	I		Review			Review	
	II		Review			Review	
Technology Problem Solving - Spontaneous	I		Develop	Demo	Implement		
	II		Develop	Demo	Implement		
Technology Problem Solving - Demonstration	I		Develop	Demo	Implement		
	II		Develop	Demo	Implement		
Technology Process Display	I	Review			Review		
	II	Review			Review		
COMMUNICATIONS TECHNOLOGY							
Computer-Aided Design/Drafting (CADD)	I	Review			Review		
	II	Review			Review		
Engineering Problems	I		Name Merged	Review			Review
	II			Review			Review
Drawing Interpretation	I			Review	Discontinue		Review
	II			Review	Discontinue		Review
Graphic Logo (Design)	I			Review			Review
	II			Review			Review
Safety Poster	I	Review	Major Review		Review		
	II	Review		Discontinue			
Video Communications	I		Develop	Demo	Implement		
	II		Develop	Demo	Implement		
Technical Report Writing	I	Review			Review		
	II	Review			Review		
Communications Technology	I		Develop	Demo	Implement		
	II		Develop	Demo	Implement		
Research Paper (Level II only)	II		Review			Review	
CONSTRUCTION TECHNOLOGY							
Bridge Building	I	Review			Review		
	II	Review			Review		
Construction Technology	I	Major Review	Implement		Review		
	II	Major Review	Implement		Review		
Dream House	I		Review			Major Revision	
	II		Review			Major Revision	
MANUFACTURING TECHNOLOGY							
Manufacturing Prototype	I		Review			Review	
	II		Review			Review	
Material Processes	I		Review			Review	
	II		Review			Review	
Metric 500	I			Demo of Proposal			
	II			Revision			
Mass Production	I		Research				
	II		Research				
Manufacturing Technology	I		Develop	Demo	Implement		
	II		Develop	Demo	Implement		
TRANSPORTATION-POWER/ENERGY TECHNOLOGY							
Electricity/Electronics	I	Review			Review		
	II	Review			Review		
Energy Conservation	I	Discontinue					
	II	Discontinue					
Radio Control Transportation	I	Demo	Implement				
	II	Demo	Implement				
Robotics/Lasers	I		Research				
	II		Research				
Transportation Technology	I		Develop	Demo	Implement		
	II		Develop	Demo	Implement		
LEADERSHIP							
Chapter Team Competition	I		Review				
	II		Review				
Creed (Level I only)	I	Review		Major Revision	Review		
Extemporaneous Speaking	I		Review			Review	
	II		Review			Review	
Prepared Speech	I	Review			Review		
	II	Review			Review		
Record Book	I			Review			
	II			Review			
RECOGNITION							
Outstanding Advisor	I				Major Revision		
	II				Major Revision		
Outstanding Chapter	I				Major Revision		
	II				Major Revision		
Outstanding School	I				Major Revision		
	II				Major Revision		
Outstanding State	I		Review			Review	
	II		Review			Review	
Outstanding Student	I		Review			Review	
	II		Review			Review	
Number of Events (Level I/Level II)		(31/31)					

Figure 9.1: National TSA competitive event structure.

alternative solutions, and write a report depicting the processes used or solutions they have created. The contest enables students to learn more. They observe everyone's work at the local level and see new designs emerge at the state and national conferences.

Technology and Competition for Tomorrow

One must conclude that schools and colleges could do a better job of exposing students to, and preparing them for, competition. Graduates face competition in applying for employment or college/graduate school admission. Business leaders compete for sales. Managers try to increase efficiency, productivity, and quality. A person who cannot handle competition will face an uncertain future. All persons need to work hard to try to improve their situation in life.

As technology teachers make the transition into a full technology-based curriculum, they will discover that TSA contests serve as a teaching method with competition in the classroom or laboratory. Students who meet the challenge may choose to compete in regional events with other schools or travel to TSA conferences held at state or national levels. When contests are used in the instructional program, they should be designed or redesigned, to meet these considerations:

1. Be highly motivational.
2. Be a part of the regular curriculum.
3. Expand the student's ability to think in abstract terms.
4. Promote technological literacy.
5. Allow for creative solutions to technological problems.
6. Be application oriented.
7. Involve one or more areas of technology to include social, economic, and/or environmental impacts.
8. Encourage use of tools, materials, and machines.
9. Promote problem solving and critical thinking.
10. Provide structure and reinforcement for growth in cognitive, psychomotor, and affective domains of learning.
11. Place emphasis on rewards of learning rather than winning the contest.

Student contests should expand one's horizons in such a way that the activities themselves create opportunities for learning about technology. An article distributed by the International Technology Education

Association (ITEA 1987) suggests that major topics for competitive events focus upon:

1. The evolution of technology.
2. People using technology.
3. Technological systems and sub-systems.
4. People, technology, and the environment.
5. Resources of technology.
6. Controlling technology.
7. Using systems for solving problems.

In designing appropriate activities, consideration must be given to what students need to know, versus what is nice to know. To prepare students for life-long learning in a technological society, the activities should emphasize *know how* and *ability to do*. These complement their understanding of concepts, processes, and systems and assist them in present and future life (ITEA, 1985, p. 25).

Consumerism Examples

Utilizing the ITEA criteria listed above, a simple competitive event could be developed by the individual teacher around the issue of consumerism. All citizens should be able to make wise purchases and acquire technological knowledge about the safe and effective use and maintenance of those goods. Electricity, for example, is a very influential and important form of power. Yet, few people understand the source, generation, transmission, storage, control, or utilization of it. A very simple competition could be developed to find the *best* battery charger. A student may begin research by reading the advertisements found in the local newspaper or distributor's catalogs and compare the information to determine which charger is most suited for a given consumer use. The *systems approach* based on the input-process-output model would be a valuable means to structure the competitive criteria. The student could list the outputs of the chargers in terms of the ratings measured by amps, volts, watts, and time. Resources used in the production of the chargers may also be considered as a means to compare quality versus price of the machines. The winner in the *real world* is the individual selecting the lowest priced (to include operating costs) charger which is also best suited for its intended use. In the educational setting the winner is the student or group of students developing the *best* chart or criteria to determine which battery charger is most desirable and economical.

If this contest were used at the collegiate level, the students could conduct more sophisticated laboratory tests. One might report on the social, as well as environmental, issues of electrical power generation and control. Another challenge for these college/university students might be to require that they raise funds to conduct the experiment or solicit donations from retailers, wholesalers, or manufacturers.

A similar consumer activity could be conducted to determine which bicycle would be most desirable for purchase. The selection processes could include a comparison of available gear ratios of multi-speed bicycles. In each situation, students can employ simple mathematics to determine the power or gear ratio. The activity could also include human factor engineering by challenging students to develop and test gear ratios best suited for a handicapped person. Factors such as leg strength, speed, and the size of encountered hills could add a real flavor of research and development. The competitive events described above are only a starting point. The challenge for the teacher or professor is first to recognize the potential value of competition and then to be creative in identifying contests of sufficient interest and difficulty for the students. The next step is to provide the right combination of freedom and structure to allow students' natural creativity to surface.

MOTIVATIONAL THEORY

Few educational experiences can be more rewarding than to work with students who have a real quest for knowledge. In contrast, it is not uncommon for teachers to express concern regarding lack of student motivation. Teacher comments such as, *If only the students were interested in the topic,* and student comments such as *will that be on the test?* are not uncommon to the teaching/learning process. A teacher's frustration with unmotivated students can be addressed by using a technology student association. No longer are students only motivated to study for a test—they develop a competitive spirit, they want to learn, they have an internal drive to gain a competitive edge.

Motivation Defined

Psychologists have devoted a great deal of time to the study of motivation yet few can agree on one given definition or common theory. However, the most frequent attributes found in many definitions include: (1) an internal force, (2) a cause for action, and (3) a reason for selecting a given course of action. Maslow's (1964) definition of motiva-

tion is most instructive, as he is very clear about the internal cause for action: "I am motivated when I feel a desire or want or yearning or wish or lack" (Maslow, 1964, p. 22). The use of first person singular in the definition emphasizes motivation as internal. In contrast, the use of power, force, or enticement is not considered to be motivational as these become external reasons for action. Denying a privilege to students failing to complete homework, for example, is not considered a motivational tactic. This may obtain a short-term desirable result, but by Maslow's definition the student does not have the essential internal desire. The student is compelled to comply in order to avoid an undesirable situation. The best learning situation is when students learn because they have a quest or desire for intellectual growth.

Growth vs. Deficient Needs

Food, clothing and shelter are basic to life (Maslow, 1964) and, as such, must be satisfied for survival. The need for safety, belonging, love, respect, and self-esteem are most often classified as basic to human needs. When one or more of the basic needs are not met, the individual knowingly or unwittingly strives to satisfy it. While this results in an internal motivation to achieve basic needs, the efforts are directed at correcting or satisfying a deficiency. In contrast, an individual who has satisfied basic needs may be motivated by a need to grow. Maslow describes these individuals as self-actualized. The basic needs have been satisfied and their attention is directed toward learning new behaviors and gaining capability in mastering their environment. An individual seeking to develop his/her potential and functional wholeness is operating on a growth motivation in contrast to fulfilling basic needs or a deficiency in basic needs.

Perceptions of Worth

How the individual perceives the environment and situation is an important factor in describing why an individual may or may not react. Snygg and Combs (cited in Russell, 1971) suggest that an individual will behave as he/she perceives the situation or surroundings. The environment then may play a very important role in motivational theory (Brophy, 1987). The purpose of the action and intended outcome, as perceived by the individual, most likely becomes the primary motivator. The challenge for the teacher is to create an environment that students perceive as worthy of their attention. Students must perceive what is being taught as essential for their basic and/or growth needs.

Authority vs. Power, Force or Influence

Hill (1984) proposed a convincing argument that power, force, and influence are not effective motivators in the educational environment. Each is useful in maintaining control and discipline; however, they become ineffective as true motivators. The use of power, for example, requires compliance; force reduces freedom of choice; and influence relies upon external pressure rather than internal needs or desires. Hill's suggestion is to use authority as a basis for student motivation. For example, teachers have the right to give assignments, request students to follow school policy, and make decisions regarding content appropriate for the well being of all students.

Compliance will be perceived as reasonable because the teacher has the authority to carry out the tasks. It should be noted that in delivering the authority it is important that students perceive the request as authoritative rather than a show of power, force, or influence. The key is how the request is made as students must perceive it as acting in accordance with the normal duties of the teacher. Once students believe the teacher is acting solely for educational reasons, the challenge or threat is eliminated and the students can turn their energies toward growth motivation. From the students' perception they are willing to comply with the request because they will grow in their knowledge or skill. Motivation by authority is suggested as the best means to instill growth needs described earlier. This theory follows as Ausubel (cited in Russell, 1971) stated:

> Frequently the best way of motivating an unmotivated pupil is to ignore his motivational state for the time being and concentrate on teaching him as effectively as possible. Much to his surprise and to his teacher's he will learn despite his lack of motivation; and from the satisfaction of learning, he will characteristically develop the motivation to learn more. (p. 3)

Students know that a teacher has authority to impart knowledge. They will, in most situations, have little difficulty accepting the teacher's authority to do so. The key here appears to be exposing the student to lessons of sufficient interest and difficulty to first attempt the lesson and then to make some real progress toward learning. The authority figure—rather than power, force, or influence—becomes a key to developing growth needs which is described earlier as true motivation.

MOTIVATION AND THE STUDENT

In order for motivational theory to have application to the technology education program, it must be transformed into situations the teacher

or professor can reconstruct. TSA and TECA advisors use student association activities and competition to involve secondary and college students in experiences that they perceive as worthwhile and appropriate to their own well-being. Although these activities start in the classroom/laboratory, the absence of power or force becomes a motivational advantage to the advisor. Students who join a chapter do so because of an internal need or desire. They perceive that their advisor is acting solely for educational and professional reasons. Indeed, the dedication of advisors to the development of students outside the classroom is a professional responsibility.

Fluctuations in Student Motivation

Motivation theory becomes complex and does not apply equally to all individuals. Teachers should remember to expect short-term changes in a student's motivation to learn. Younger students may very well be interested in the subject one day and totally uninterested the next. This may be especially true as the adolescent goes through puberty or an emotional experience. Even a college student fluctuates between interests in college, career, and social activities. Two factors should be considered regarding the fluctuations in learning: first, simply expect some fluctuation in student motivation; second, during times when fluctuation occurs, power, force, and influence may be ineffective to reverse short-term changes in behavior. Understanding is perhaps the best course of action as sporadic changes in behavior will most likely be short term.

MOTIVATION AND THE TEACHER OR ADVISOR

Research indicates that the teacher is the most influential factor in student motivation and achievement (Brophy, 1987; Grossnickle & Thiel, 1988, p. 1; Russell, 1971, p. 80; Speece, 1986). Kourilsky and Keislar (1983) found that an enthusiastic teacher can affect the achievement of student learning. This suggests that perhaps the first step toward motivation is to light or rekindle the belief that the teacher can have a positive influence on the student. "Teachers in all grade levels have known the best motivator is to provide work that is interesting and at the appropriate level" (Potter, 1984, p. 7).

The second step is to provide up-to-date and relevant subject matter. Once the teacher projects a genuine interest in preparing the student for the future, the student will likely be motivated to grow (Brophy,

1987; Speece, 1986). Sizer (1984) reports that the most common means used as intended motivators are lures, threats, sugar lumps, and sticks. In reality they become viewed as power, force, or undue influence and, as such, are not really motivators but rather tactics to obtain compliance.

What then can a teacher, as a TSA advisor, do for effective motivation? Earlier sections of this chapter are very clear that by definition student motivation is internal. Likewise, for a teacher to become an effective motivator he/she must look within for a genuine concern for the student. Students report that they can quickly determine what kind of year it is going to be during the first few days of school (Grossnickle & Thiel, 1988, p. 10). Teachers must first accept that they are the key to the teaching/learning process. Even more important, a genuine interest in the student must be communicated early in the year and reinforced on a regular basis. Grossnickle & Thiel (1988, p. 7) and Brophy (1987) make similar suggestions for effective student motivation:

1. Assure that students understand and accept the learning goals.
2. Communicate the intended benefits of learning.
3. Reduce or eliminate obstacles to accomplish the shared goals.
4. Plan to achieve a satisfying program with both content and activities (contests & conferences).
5. Affirm and reinforce achievement by encouraging students to understand and remember stated objectives.
6. Expand student ability and potential.
7. Enhance student opportunities for success in mastering learning objectives.

Brophy (1987) contends that four essential preconditions for motivation must be in existence. First, a supportive environment must exist where students can feel comfortable taking intellectual risks without being criticized for error. Second, appropriate challenges/difficulty must be presented. Under- or over-challenging activities will result in boredom or frustration. Third, meaningful learning activities must be provided. Students must perceive their studies to be important. Fourth, motivational tactics will lose their effectiveness if they are overdone.

MOTIVATION AND THE COLLEGE/UNIVERSITY FACULTY ADVISOR

Much has been written about the influence that teachers have on students and student motivation. Not only must the skills of motivation be taught to the future technology teacher, the college student

must also experience the risks and rewards of competition before graduation. Competitive events may be used to evaluate college students' understanding of the problem-solving method. New contests can be created as required assignments, followed by demonstrations on how the new event would be motivational. College students enjoy judging contests at conferences held on their campus or at a state conference in a distant city.

The Technology Education Collegiate Association (TECA) recognizes the value of competition that relates to the college curriculum. At each regional conference, TECA operates a live contest that involves college students in activities that are motivational and challenging. These events provide opportunities for social interaction, as well as intellectual stimulation.

SUMMARY

Competitions, like cooperation, can and should play an important role as both content and process in the instructional program of technology education. Students will face competition for opportunities, education, and employment positions. TSA and TECA provide competitive events that develop leadership skills, problem-solving abilities, and self-motivation.

Individual teachers can develop competitive situations that enhance the learning situation. Many TSA and TECA contests can be integrated into the course content and motivate students to continue learning as they prepare for state and national conference participation. The teacher is the key to influencing student motivation. The teacher benefits from the internal motivation students acquire as they respond to challenges they perceive are appropriate to their future success.

It is only logical that we provide our future citizens with the knowledge base necessary to be productive members of a culture that is dominated by technology and competition. Likewise, we have a similar obligation to prepare youth to apply newly acquired knowledge of technology in their daily lives. This must include the application of technological concepts while involved in daily competition and cooperation with self and others, as well as machines and the environment.

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CHAPTER TEN

PROMOTING TECHNOLOGY EDUCATION PROGRAMS

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Sub-Topics:

- The Importance of Promoting
- The Starting Point to Promote
- Developing Promotional Strategies
- A Public Relations Plan

"Chocolate milk...89, green beans...33, paper plates...93" the computer "voice" intones the prices of items purchased at the check-out counter at the grocery store. An "electric eye" triggers the opening of a door to a public building as an individual approaches.

An educator sends a document to the State Department of Education via a facsimile machine and it is received within three minutes.

What do these scenarios have in common? Each demonstrates the use of technology in the everyday world. Technology permeates the lives of today's generation as demonstrated by those examples. Thousands of students are being provided the opportunity to become technologically literate through technology education programs. Now it is time to let the world know what technology education can and does do for young people today. A strong promotional plan can do just that! This chapter is designed to provide a framework from which the technology education teacher can develop a personalized promotional strategy and philosophy.

THE IMPORTANCE OF PROMOTING

Promotional activities and public relations campaigns have long been carried on by large corporations of the world and by local entrepreneurs. IBM, American Airlines, Toyota, and Boeing are terms that elicit common images in the minds of people across nations. Carefully planned and implemented promotional programs made this goal a reality.

In education, we have been slow to follow the example set by industry. In most cases, we have not established a promotional plan for publicizing the accomplishments of students, the programs available, and all of the good things schools have to offer today's students (Reilly, 1987). The time has come and the need is great for strategic activity. Promotional and public relations activities need to be incorporated throughout the entire school system and within every program.

One of the most important, yet usually overlooked, aspects of successful technology education programs is that of promotion. Time and time again, technology education teachers fail to understand and realize the significant role promotion and public relations should play in their program. A good promotional program within a technology education program will open doors and create positive opportunities which ordinarily would seem impossible, unreachable, and unattainable.

The justification for promoting technology education programs may be as "worldly" as seeking to provide a greater segment of the population the opportunity to become more technologically literate which in turn will provide for a more sophisticated and productive society. Or, it may be one of somewhat lesser significance: to increase the program funding in order to purchase a new robotic or laser trainer. Whatever the case, promotion must be acknowledged and treated as a key ingredient by technology education programs.

Even though a technology education program can be promoted without a student organization, many teachers have found their most valuable promotional tool to be the Technology Student Association (TSA) or Technology Education Collegiate Association (TECA) chapter. A student organization, when implemented as an integral part of the technology education curriculum, provides an excellent vehicle through which promotion may be more effectively and efficiently delivered.

A well-groomed, well-dressed, well-mannered, and well-prepared, businesslike student can truly sell the technology education program to the public. Not only do TSA and TECA stress the important characteristics of leadership development, but through the competitive event structure of TSA and TECA, students have the opportunity to

demonstrate their competence in technology-oriented areas of computer-aided drafting and design, electricity/electronics, and robotics as well as many others. Indicative of the motto "Learning to Live in a Technical World," (AIASA, 1984, p. 57), TSA places major emphasis on providing opportunities for students which will assist them in becoming a more productive and contributing member of our technological society.

THE STARTING POINT TO PROMOTE

The Technology Education Teacher as the Key Player

The key player in implementing a promotional strategy is the technology education teacher. Good students, supportive administration, up-to-date equipment, relevant curriculum, and the use of effective instructional methods facilitate the process, but the key individual upon whose shoulders the success or failure of the public relations effort rests is the teacher (Farlow, 1979). Enthusiasm for and belief in the technology education program and its objectives is emanated to others by the instructor. It is the technology education teacher who must "sell" technology education to the students through example, knowledge, and philosophy. Once the students are excited, they become key salespersons also.

Developing a Saleable Technology Education Program

The instructor must first develop a "saleable" program—one that is technology based and that incorporates TSA as an integral part of the curriculum. The time is right, more than ever before, to "sell" a program which educates for technological literacy and which provides opportunities for career exploration. Technology education is as saleable to students and the public as motherhood, hot dogs, baseball, and apple pie are to American society. As indicated in several national reports, upgrading the curriculum to be in tune with society is of utmost importance (Educational Communication Center, 1980, p. 37). Technology has permeated almost every aspect of our lives. Technology is experienced daily at the grocery store where a laser scanner "reads" the bar code on the can of green beans and feeds it into a computer equipped with a voice activator which states, in its computer voice, the price of the item. Technology allows the fisherman using a depth-finder in a boat to "read" not only the depth of the water and various obstacles

which may loom unexposed under the surface, but, most importantly, shows the fish and the depth at which they may be found. Many more examples could be given to emphasize how technology is all around us. Thus, it is imperative that educational programs be reflective of these technologies.

The Role and Image of the Technology Education Teacher

The technology education teacher may need to play the role of a change agent. Woodworking or shop is just not saleable anymore. Even something as seemingly trivial as a name is significant in establishing an appropriate image for a technology education program. Consider the difference in perception of the following comparison: "The shop teacher who teaches shop in the shop" or "the technology teacher who teaches technology in the laboratory." Or consider the sign over the door to the classroom which labels the program as "General Shop" or "Technology Education Laboratory."

The technology education teacher should also take a good look at himself/herself to determine if the image portrays someone who teaches technological concepts to others. Nice slacks, shirts, an occasional tie for males, or nice coordinates and occasional dresses for females portray this image much better than a wardrobe of jeans, coveralls, and T-shirts. And, perhaps most of all, the big key ring should be taken off the belt loop! Much to the surprise of many, a big key ring is not indicative of power. It just opens more doors. Janitors can do that. A technology education teacher is not judged by the number of doors that he/she can open but should be known for his/her leadership skills, personal technological literacy, ability to teach students, and enthusiasm for the subject matter. An attitude that demonstrates a strong belief in and commitment to the technology education program and that shows a willingness to "do what it takes" to get the job done will very quickly "rub off" onto students who will also rally for the "cause" of technology education and TSA.

In addition, the technology education teacher must organize the delivery of the instruction in an effective manner and establish a classroom/laboratory environment that is conducive to learning. The teacher should demonstrate, by example, a pride in the facility, in the equipment, and in the work being done within the technology education program.

Application of Basic Skills

Another way to make the technology education program more "saleable" is to teach basic skills and problem solving as integral parts of the curriculum. Many of the competitive events sponsored by TSA and TECA, at the state and national levels, stress these skills. For example, the student who builds and races a Metric 500 car designs and constructs the car to metric specifications, taking into consideration such factors as aerodynamics, weight, balance, and stress points which can cause the car to break during the race if the tolerances are exceeded. This eighth grade student, through participation in the Metric 500 contest, actually thinks and considers many of the same problems and relationships as an automotive engineer in the designs of an automobile.

The use of math and science skills is evident throughout the technology education curriculum. For example, math and science principles are essential in performing fluid power, electronic, and/or computer-aided drafting tasks. The same is true for the instruction associated with each of the technology education systems or clusters.

Many of the student organization competitive events, as well as the activities which comprise the curriculum, build problem-solving skills. Opportunities for applying the skills and knowledge learned in the classroom to such competitive events as Bridge Building or Drawing Interpretation are provided. Students apply problem-solving skills throughout the many steps of the hands-on project. Other activities provide opportunities for using problem-solving skills and communication skills when working with other people as in a social or work setting.

DEVELOPING PROMOTIONAL STRATEGIES

What is Going to be Sold?

Promotional strategies that are effective (whether it be in business, industry, or education) are built around the points that are most likely to convince someone to "buy into" the product/program being promoted (Branner, 1983). It is important to identify and emphasize the "selling" points associated with the technology education concept. However, the goal of a promotional strategy should not be to "sell" the technology education program per se; rather, it should focus on promoting the concept of technological literacy and career exploration as needs of all persons in today's advanced society.

The direct benefits that technology education programs make available to students become the major "selling" points and potential promotional emphases. A list of benefits expanded from the Standards for Technology Education Programs (Dugger, 1985) enumerates some ways which technology education and TSA can help the student. The students have the opportunity to:

1. Become technologically literate.
2. Develop an understanding of economic development.
3. Apply tools, materials, processes, and technical concepts safely and efficiently.
4. Identify and develop individual talents.
5. Apply problem-solving and decision-making techniques.
6. Apply other school subjects (math, science, English, etc.)
7. Communicate by making clear and relevant points.
8. Apply creative abilities.
9. Deal with forces that influence the future.
10. Adjust to the changing environment.
11. Become a wiser consumer.
12. Make informed career choices.
13. Become a leader in a technological society.
14. Develop positive self-concepts.
15. Think logically and sequentially.

Another potential sales approach might focus on the important role that technology education can play in the total education system. In many states throughout the nation, technology education is an articulated, integral part of the total education program. Technology education and TSA programs ensure quality education for students as shown by:

1. Attracting good students — students completing a technology education program have a foundation in safety, the use of equipment and materials, processes in technology, and are aware of their interests and abilities for further education.

2. Increased enrollment — young men and women who participate in technology education classes have an excellent foundation for future technical and professional careers.

3. Decrease in student dropout rate — students, through hands-on exploratory activities in the technology education program, will be better prepared to make a decision about their compatibility with various occupational areas.

4. Student Organization articulation—TSA follows the same format of goals and objectives for leadership development as the other recognized vocational student organizations. (Oklahoma . . . , 1988).

As one begins to talk to counselors, administrators, parents, and others about technology education, it is important to be able to talk as a "believer" in technology education and the benefits it offers students and society. People should be made to feel that when dollars and time are spent on technology education, it is an investment in technological literacy and career exploration.

Transforming Audiences Into Salespersons

Who are the people in your audience and when do they become the salespersons for your program? The ideal promotional scenario is one in which you can properly promote a technology education program which provides an action-based, technologically relevant curriculum to a given audience, transforming that audience into a group of salespersons for the technology education program. In many cases, this scenario exists simply because the audience is so impressed by the fact that lasers, robotics, and fiber optics technology are being taught within the public school in that given community, that it becomes the hot topic for coffee shops, grocery store checkout lines, and the exercise room at the fitness center.

Internal audience/salespersons. As earlier discussed, the technology education teacher is the key player in the promotion of the program. This is not to say that he or she must do all of the actual promotion, but the teacher must be responsible for developing the strategies and putting into place the steps to ensure that appropriate and quality promotion is accomplished (Engel, 1967, p. 148). Immediately behind (if not actually in front of) the teacher in rank order of significance as a salesperson is the technology student. These young people are the "front-line" promoters of the program because they experience the technology classes on a daily basis and have first-hand knowledge and

understanding of the technologies and leadership activities offered. And the incorporation of TSA and TECA into the program can truly excite these students, prepare them with communications skills, and provide those leadership characteristics which will enable them to be the most effective "marketing tools" for your program. Who can sell a program better than self-confident, well-groomed, knowledgeable, and enthusiastic students?

Using TSA students to tell the technology education story will cause other key persons, who are located just down the hall or across the parking lot from the technology education laboratory, to be transformed from audience to salesperson. To name a few, the principal, counselor, superintendent, school board members, finance director (or other administrators), and fellow teachers, can become enthused. And, it can be a big mistake if the school secretaries, janitors, maintenance people, cafeteria personnel, and bus drivers are overlooked.

All of these people should be made to feel they have "stock" in technology education, as well as the total school program. Because now, it is "their" technology education program which provides the young people in the community with modern, state-of-the-art, high-tech activities which produce better understanding of our technological world, and they are proud to boast or brag about it!

Think about the superintendent who attends a district or state meeting of her peers who have yet to offer a new technology education program within their school. They better get ready because she has "one up on them"—she has an exemplary program in technology which is "meeting the needs of today's students," and they do not . . . "shame, shame." And by the way, that proud superintendent also holds the key to the financial purse strings to the technology education program and can very easily slip a thousand or five in that direction, based upon the fact that technology is a good investment and a good teacher is in place to deliver it. Or, consider the school secretary who is involved in two bowling leagues, active in three community charitable groups, and related by marriage to 15 families in the district. How many persons could she "turn on" to technology education during her weekly activities?

And finally, a group of persons who permeate the community year after year as leaders and promoters are the alumni members of TSA. Armed with sound, positive experiences, these young people soon will become the "pillars of the community" and can even go as far as to form a local TSA Alumni Association. Using these persons as salespersons is not only extremely beneficial but essential.

These internal salespersons — staff, students, and alumni — should be the primary power base from which to build the promotional effort. There is little question that one can promote a good technology education program without these persons, but look at the advantages of having them on the technology education team, acting as spokespersons for the program.

To communicate information more formally with internal salespersons, one might use such simple devices as school bulletin boards (perhaps one in the teachers' lounge and one in an area in which students tend to congregate); a school newspaper or newsletter; a school handbook or brochure, which gives general information about the school and its programs and is available to potential students; and perhaps even an alumni association network for keeping in touch with former students. Effective communications with internal publics have been as simple as a printed message on the side of popcorn bags, and as complex as videotape reproductions. With a little creativity and an adequate analysis of the potential audiences and their beliefs about the school and its technology education program, the technology education teacher should have no trouble developing customized communications devices and programs (Cutlip, 1981, p. 224).

External audience/salespersons. In considering the external audience/spokespersons, our focus of attention must first be the parents of the students participating in the technology education program. One-on-one visits with parents may be enhanced with a periodic letter or newsletter which lists and describes the activities in which the son or daughter is involved (Oklahoma . . . , 1987). A technology education open house for parents will have many benefits. Classic statements from parents at a technology education open house are "I wish I could have taken something like this when I was here in school" or "Would it be possible for you to teach a night class for parents on CAD, CNC, lasers, or robotics?," or "My youngest daughter is in the third grade, and I just can't wait until she is old enough to take this class. It is so wonderful."

And what about the role of the local barber, hair stylist, banker, or auto parts dealer who has a daily captive audience, or the owner of a hamburger or sandwich shop popular with the community in promoting the technology education program? Furthermore, consider a dentist, doctor, or even a retired custodian who makes his/her daily rounds to the local conversation stop (Stanley, 1977). Exposure of these persons to technology education would be most beneficial. Additionally, key segments of the public include program advisory councils, civic clubs, local community leaders, chamber of commerce leaders, church

groups, mass media groups, state education agencies, and very importantly, your legislators.

Just as the superintendent loves the opportunity to brag about the technology education program, so can legislators have that feeling of pride and ownership when they are included in the audience which is transformed to salespersons. There are very few things in this world which sound "more sweet" than a high-powered politician who is sold on the technology education program as she addresses countless audiences and references her (your) outstanding technology education program at Somewhere Junior High or Middle School. And by the way, in most states, the needed financial assistance for new technology education program lies in the hands of the legislators.

How Can A Student Organization Be Used to Promote the Technology Education Program?

The Delivery System/Vehicle for Promotion. One of the most viable and potentially effective delivery systems for promoting technology education is through a TSA chapter. As an integral part of the instruction, a student organization can help promote technology education by making the public more aware of their activities. The visibility afforded through TSA projects and activities is extremely valuable to a promotional plan. The usefulness of a student organization should not be underestimated. TSA members will be able to tell the technology education story to potential students, board members, and community groups.

Good Attitudes Towards Work and Responsibility. Industries are crying for workers with good attitudes, good work ethics, leadership skills, and self-esteem. Student organizations help develop these kinds of characteristics in students. Opportunities for practicing leadership skills both inside and outside the classroom, allow students to learn appropriate ways to act, dress, and speak, how to take responsibility, as well as the importance of promptness, punctuality, and reliability (AVA, 1978).

Citizenship as a Promotional Tool. Communities want to know that students are learning how to be responsible citizens. Through participation in student organizations, students develop the knowledge and abilities that lead to success in the work setting as well as in the school setting: leadership qualities, cooperative abilities, critical thinking, and creativity. Student organizations can also facilitate technology education through activities that help strengthen the communication skills

of the members. As a result, students become more effective speakers and can more aptly tell others about the program in which they are involved.

Competitive Events as an Integral Part of Technology Education. Participation in TSA and TECA Competitive Events provides yet another way to bring recognition and visibility to technology education. TSA members have the opportunity to compete in numerous events at the local, state, and national levels. The competitive events listed are organized under the four technology systems which comprise the technology education curriculum. In addition, there are events which focus on leadership skills and events which provide recognition for outstanding accomplishments (TSA, 1988).

COMMUNICATION TECHNOLOGY
Computer-Aided Design/ Drafting (CADD)
Engineering Problems
Drawing Interpretation
Graphic Design Safety Poster
Technical Report Writing

CONSTRUCTION TECHNOLOGY
Bridge Building
Dream House
Construction

SYNERGETIC TECHNOLOGY
Computer Applications
Technology Bowl - Oral
Technology Bowl - Written
Research Paper
Technology Process Display

MANUFACTURING TECHNOLOGY
Materials Processes
Manufacturing Prototype
Metric 500

TRANSPORTATION TECHNOLOGY
Electricity/Electronics
Power/Energy
Radio Control Cars

RECOGNITION
Outstanding Advisor
Outstanding Student
Outstanding Chapter
Outstanding School
Outstanding State

LEADERSHIP
Chapter Team Competition
Creed
Extemporaneous Speaking
Prepared Speech
Record Book

Some events are designed for individual competition and some are designed for groups. For example, in Bridge Building, a team of two students works to perform the problem-solving and pre-engineering skills necessary to complete the project. In Chapter Team Competition, six TSA members open and close a meeting and take action on a number of business items using appropriate parliamentary procedure techniques. Learning to work cooperatively with others for common goals is a skill that young people will find invaluable throughout their per-

sonal and professional lives. These types of competitive events offer a wide variety of opportunities to the TSA student.

A PUBLIC RELATIONS PLAN

Developing the Plan

Public relations should be a major part of the activities of the TSA and TECA chapter and the overall promotional plan for the program. Incorporating ways to "sell" technology education through TSA and TECA does not just "happen." There must be a plan. In a handbook (Binkley and Byers, 1982) which discusses many student organizations, five steps are identified for making public relations a part of the student organization activities:

1. Appoint a public relations committee at the beginning of the school year to publicize your organization's activities. The reporter should be a member of this committee.
2. Give the reporter the responsibility of seeing that news stories, photos, and radio and TV news announcements are prepared and taken to local media.
3. Have the public relations committee help plan publicity for events when the calendar of activities for the year is established.
4. Beginning early in the school year, see that the public relations committee works with those responsible for planning national chapter week activities. (Science and Technology Week activities.)
5. Be sure that members understand how their personal behavior affects their organization. A skit might be prepared showing how a member's misconduct, sloppy appearance, etc., gives community members a mistaken idea about all members of the organization.

Other specific examples of promotional activities include such activities as:

1. Field trips.
2. Shopping mall exhibits.
3. Displays in store windows.
4. State capitol exhibits.
5. Speeches to civic clubs.
6. Speeches to other classes or assemblies.
7. Open house.
8. Local technology festivals.

9. TSA state conference.
10. TSA national conference.
11. National service project.
12. Fund-raisers.
13. Local service projects.
14. Orientation programs for in-coming classes.
15. Orientation programs for students new to the school.
16. Printed T-shirts.
17. Alumni banquets.

Displaying projects which demonstrate technologies learned through this program provides excellent exposure for students and technology education. Such opportunities might be available at shopping malls, in store window displays, at fair exhibits, and in various other festivals or conferences.

Paraphernalia with "Technology Education" or TSA/TECA logos are "attention-getters" within the school and the community, as well as at state and national events. Keyrings, T-shirts, hats, jackets, paperweights, desk pads, pens, pencils, and notebooks are just a few of the potential items that can help promote technology education programs.

An open house provides the perfect opportunity to "show-off" what is happening in technology education. TSA students can gain additional exposure by volunteering to serve as guides for visitors to the school. Technology education students can utilize their CAD system to prepare signs identifying each classroom in the school and perhaps, a "welcome" banner. The opportunities for promotion in the open house setting are endless and are only limited by the imagination.

Using every possible opportunity to tell people about technology education is vital to the program. Getting people who are not TSA members involved in activities is also key to maintaining support for technology education. When corporations, businesses, parents, and individuals help TSA and technology education, they are strengthening young people's understanding of industry and technology. They believe in the goal of a technologically literate society—and are working to achieve it.

An effective promotional plan requires much planning and organizing to make it successful. The technology education students and teacher should work together to develop and implement the plan. As previously emphasized, identifying the audiences to be reached is crucial and is one of the initial steps. Consideration should be given to how the various audiences could be reached.

The form in Figure 10.1 illustrates a sample form which could be used to develop a technology education promotional plan. This type of form allows the planning process to be more easily accomplished. It is left open-ended so the technology education teacher and chapter officers may expand or personalize the planning process.

FORM FOR DEVELOPING A TECHNOLOGY EDUCATION PROMOTIONAL PLAN

WHAT ARE WE GOING TO DO ABOUT TECHNOLOGY EDUCATION PROMOTION THIS YEAR?

Audience	What We Want to Tell This Audience	Means of Informing This Audience
Chapter members		
Teachers in the department		
Teachers in other departments		
Counselors		
Administrators		
School board		
Employers		
Parents		
Mayor		
Businesspersons		
Legislators		
Civic Organizations		
News People		
Prospective members		
Community resources		
Other youth organizations		
Alumni members		
Advisory council members		
School Support personnel — Bus drivers, cooks janitors, secretaries, maintenance staff		

Figure 10.1: Form for developing a technology education promotional plan.

It is important to establish the goals of the promotional plan and the activities which can lead to the accomplishment of the goals. Students

are extremely innovative in matching specific activities with promotional opportunities when given the chance to brainstorm and think creatively (Strong, 1980). It is sometimes helpful to use a school calendar to facilitate month-by-month planning. Promotional activities such as the ones previously listed can be matched to specific school or community events: school assemblies, athletic games or matches, civic club meetings, holiday celebrations, or student organization chapter meetings. A well-thought-out, customized plan for promotional activities that is conducted the entire school year will result in technology education becoming the "talk of the town" in those coffee shops, grocery stores, and exercise clubs.

SUMMARY

A famous person once said that — *sometimes it is not enough to do your best. This time you have to do what must be done.* The technology education instructor cannot stop when school lets out. Technology education must be promoted at every opportunity. Let the superintendent and fellow teachers know that students are on "ready call" to give programs about technology education to civic clubs, on radio shows, and at PTA meetings. Walking down the street sometimes affords an opportunity for subtle discussion about the "fine" technology education program or even in a barber's chair or a checkout line at the grocery store. The job of promoting technology education and the chances to share success stories about technology education students are never-ending.

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CHAPTER ELEVEN

EVALUATING THE SUCCESS OF STUDENT ORGANIZATIONS

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Sub-Topics:

- Research and Evaluation
- Standards for Technology Education
- Accreditation Criteria
- Formative Evaluation Model for Student Organizations

Student organizations in technology education, as with any other educational entity, need continual monitoring and evaluation. The basic purposes of this evaluation are to assure that students are being given the optimum opportunities derived from participating in student organization activities and to assess whether the classroom teacher or teacher educator is utilizing the student organization effectively as a teaching/learning tool. This chapter will (1) describe and compare research and evaluation efforts in technology education student organizations' strategy for evaluation, (2) discuss how the current *Standards for Technology Education* assess the quality of student organizations, (3) outline the accreditation process used by regional accrediting associations and its impact on local student organizations, and (4) present an evaluation model for student organization evaluation.

RESEARCH AND EVALUATION

Educational researchers have long debated and clarified the differences between research and evaluation. A clear delineation of what

evaluation is and how it differs from research is important to those who assess the quality of student organizations in technology education. According to Worthen and Sanders (1987) research and evaluation differ in purpose even though the same methods and techniques may be used by both. They say that "evaluation focuses on collecting specific information relevant to a particular problem, program, or product" (p. 27) while "basic research is directed toward increasing knowledge; it is research where the primary aim of the investigation is a fuller understanding of the subject matter rather than a practical application thereof" (p. 26).

Student Organizations Research Through Standards Project

A review of the literature shows that some limited basic research has been done in industrial arts/technology education student organizations. The most comprehensive research was completed in 1980 by the Standards for Industrial Arts Education Programs Project at Virginia Polytechnic Institute & State University (Virginia Tech) and reported in the publication titled *Report of Survey Data* (Dugger, Bame, Pinder, 1980). This was a federally funded contract to Virginia Tech by the U.S. Department of Education (USDE) from 1978-81 to establish a national data base for the profession. In addition to the research conducted for the data base, the project was charged to develop a set of nationally validated standards for industrial arts which were published in 1981. Also the project was contracted by USDE to develop an *AIASA Guide for Industrial Arts Programs* (Dugger, et. al., 1981).

Data Collection. The data collected in the Standards for Industrial Arts Education Programs Project included: (a) national demographic information on industrial arts secondary school teachers and student organizations and (b) data about qualitative elements which affect the total industrial arts program such as student organizations as well as facilities, content, instructional programs, philosophical views, staffing, students, and resources.

Two types of surveys were conducted to collect data. One type of survey was sent to each of the fifty state and four territorial industrial arts supervisors. They were asked to complete the survey instrument by providing actual data, if available. If this was not possible, they were asked to supply their best estimates, based on the latest information accessible.

The other survey consisted of a packet of three optically scanned survey forms, one each for selected secondary schools' principals, guidance coordinators, and industrial arts chairpersons across the

country. The surveys were directed toward generating a nationwide profile of industrial arts education in three types of schools: (a) randomly selected schools with industrial arts programs, (b) schools with AIASA (American Industrial Arts Student Association), (now the Technology Student Association (TSA), affiliated groups, and (c) schools with exemplary industrial arts programs. It was hoped that comparisons among the three samples would help identify the elements of exemplary programs, and thereby, aid in the development of Standards for Industrial Arts Programs.

Population and Samples. The universe consisted of approximately 89,000 public schools in the United States. The random sample consisted of a computerized list of 1,404 public secondary schools (grades 6-12) that offered industrial arts programs. Each principal received a packet containing the three survey forms. The principal was asked to fill out the appropriate survey, forward the other two to the guidance coordinator and industrial arts chairperson, then collect the completed forms, and return them to the project director in a pre-addressed, stamped envelope.

A sample of 342 public secondary schools with exemplary industrial arts programs was identified by state and territorial supervisors and their staff. The supervisors chose their own criteria to identify up to ten schools with exemplary programs in their states or territories. If a supervisor felt local supervisors would be better able to identify specific schools, he/she named the school divisions that had exemplary industrial arts programs. The supervisors supplied the information necessary for mailing the survey packets to the principals of the selected schools. Those principals were sent the same packet as the random sample principals.

The third sample of 572 schools, those with AIASA-affiliated student organizations, were identified from the AIASA official roster. The principals of these schools were sent the same survey packet the other principals received. Surveys were coded prior to mailing to distinguish among the three types of samples.

Survey Return Rates. Of the fifty-four surveys sent to state and territorial supervisors, fifty-three (98.1%) were returned. However, only fifty of the surveys contained usable data (three were completely blank). Of the fifty usable returns, many questions were not answered on some of the survey instruments.

In the random sample, 836 (59.5%) of the 1,404 schools responded, with 719 (51%) schools providing usable data. Ninety-five (6.8% of the

1,404) schools returned one or two of the three surveys in the set, while 608 (43.3%) returned all three surveys.

In the AIASA sample, 378 (66.1%) of the 572 schools responded with 353 (61%) schools providing usable data. Forty-nine (8.6% of the 572) schools returned one or two of the three surveys in the set, while 272 (47.6%) returned all three surveys.

Findings. The data collected through these surveys were grouped into eight sections, or chapters, which were: student organizations, philosophical views, instructional program, students, teachers, facilities, finance, and evaluation in industrial arts education. Data regarding the AIASA sample was reported throughout all eight sections. However, a specific chapter was written to report detailed findings on AIASA related data.

Regarding the status of industrial arts student organizations, the data indicated that a greater percentage of the exemplary than random sample schools had AIASA chapters. Only 14% of the industrial arts chairpersons in the random sample schools indicated that there was a student chapter in their school, while 33% of the chairpersons in the exemplary schools sample so indicated. According to the state supervisors, there were 937 student chapters in forty-three states and territories. From 1974 to 1979, there was approximately a fifty percent increase in the number of schools with student chapters cited in the three samples.

Forty percent of the supervisors reported having a staff person assigned to supervise student association chapters. The assignment tended to take approximately one-third of the staff member's time. For the teachers (advisors) organizing and running the chapters, college-level courses and state or local inservice training appeared to be the major sources of preparation for this job. However, nearly half of the chairpersons in the random sample whose schools had chapters indicated the advisors had received no training whatsoever.

Sixty-five percent of the supervisors reported that their states offered no financial support for student chapters. Where such support was offered, it usually took the form of travel expenses. At the local level, the chapters most frequently use membership dues and fund-raising to generate monies, the chairpersons reported.

Effectiveness of Student Organizations

A study of the "Influence of AIASA Clubs' Effectiveness Upon Students in an Industrial Arts Classroom" was conducted by Larry Kuskie at Kearney State College (1984). The purpose of the study was

to investigate whether students in selected schools in Nebraska and Kansas, grades 7-12, who take part in the American Industrial Arts Student Association as an integral part of the classroom learning experience will have improved exposure to leadership and followership skills, social technological values, skills, career awareness, and attitudes toward craftsmanship and safety practices, with an improved understanding of our industrial and technological culture. These were then compared to students from a traditional industrial arts class without such an organization as an integral part of the basic program and curriculum. As a major objective of the study, answers to the following questions were sought:

1. Will students involved in the AIASA youth organization receive higher scores on a measure of exposure to technological values than pupils not involved in AIASA?
2. Will students involved in the AIASA youth organization make greater gains on a measure of exposure to leadership and followership activities than students not involved in AIASA organizations?
3. Will students involved in the AIASA youth organization make greater gains on a measure of exposure to social skills that contribute to an improvement in school or community, than students not involved in AIASA?
4. Will students involved in an AIASA organization have greater gains on a measure of career awareness than students not involved in AIASA?
5. Will students involved in the AIASA youth organization receive higher scores on a measure of attitudes toward craftsmanship and safety practices than students not involved in AIASA?

Results of the findings of statistical analysis from the data collected revealed the following information:

> Responses from the American Industrial Arts Student Association (AIASA) group indicated significant differences in the amount and variety of exposure to learning experiences that increase a student's awareness of technology. Learning experiences pertained to the topics of marketing, advertising, and manufacturing and their effects upon society. The curriculum structure of an industrial arts program in conjunction with AIASA caused an increased exposure to technological values compared to students in a traditional industrial arts program. The AIASA group involved more leadership and followership activities than students from classes administered through the traditional industrial arts organization. The AIASA group was involved in more social skills activities than the students from the traditional industrial arts group. Students in the AIASA group have been exposed to more career awareness activities and experiences than students from the

traditional industrial arts group. While conducting an AIASA program, the curriculum of the industrial arts class changed from an instructor-dominated program to a curriculum that utilized media and resource people to further the educational process and enhance learning and career awareness. Students in the AIASA group were more positive in their attitudes toward craftsmanship and safety practices than the student from a traditional industrial arts class. The AIASA program had a positive reinforcement factor built into the organization that may otherwise be lacking in the curriculum of the traditional industrial arts class.

The Technology Student Association (TSA) is an important link in the balance of a sound educational program of the student. The research also suggested that the significant findings of the study in the areas of technological understanding, leadership and followership skills, social skills, career awareness, and attitudes toward craftsmanship and safety practices can support the educational importance of TSA to students, teacher educators, and administrators in the field and ensuring a sound, comprehensive education for the student. When TSA is implemented into the technology education classroom as a co-curricular program it increases the exposure and varies the experiences for students in technological understanding, leadership and followership skills, social skills, career awareness, and attitudes toward craftsmanship and safety practices. The technology education curriculum, due to incorporation of the TSA program, does have a significant effect on student learning that takes place in the technology education classroom.

Characteristics of TECA Chapters

A survey was conducted by Len Litowitz at Millersville University, on university level Technology Education College Association (TECA) chapters (1987). The goal of the survey was to try and determine characteristics of successful college student associations in the field of technology education. Other pertinent information that would be valuable to members and advisors of technology education student associations was collected. A preliminary survey instrument was drafted in February, 1987. After review and consultation with five collegiate association faculty advisors within and/or outside the field of technology education, modifications were made and a final survey instrument was developed. One faculty advisor was surveyed from each of the 41 collegiate student associations affiliated with TECA in April 1987. The purpose of the survey was to identify:

1. The characteristics of successful student associations as perceived by TECA affiliated association advisors.

2. Educational benefits that TECA affiliated associations provide for their membership.
3. Events that TECA affiliated associations participate in or sponsor.
4. Successful fund-raising events that TECA affiliated associations have implemented.
5. Successful service events that TECA affiliated associations have sponsored.

The initial mailing resulted in a return of 28 usable instruments, for a 68% response. No additional follow-up was performed. Results of the survey were as follows:

1. Less than one third of all students enrolled in teacher preparation programs actually belonged to the collegiate association at their institution.
2. Only about half of those students who belong to student associations were considered to be active members by their association advisors.
3. Student commitment was considered to be the most important characteristic (1) of a successful student association. Other high ranking characteristics included (2) meaningful activities planned, (3) faculty advisor commitment, (4.4) regular meetings planned, and (5.5) effective channels of communication.
4. Attending the state conference was the most popular participatory event among TECA affiliated student associations. Other popular participatory events included fund-raisers, social/recreational events, and attending local conferences.
5. Mass production of products was the most popular method of fund-raising among the student associations surveyed. Food sales and raffles were also popular.

In summary, limited research has been done to generate new knowledge through research about student organizations such as TSA and TECA.

Evaluation Strategies for Student Organizations

Educational evaluation of technology student organizations provides insight into the value of the organization and its impact on the student. Worthen and Sanders state that one of the purposes of evaluation is to describe a particular thing and its unique context with respect to one or more scales of value (1987, p. 30). Evaluation of a given local technology student organization chapter or a university student organization is not generalizable beyond that specific unit. Evaluation

contributes to the solution of practical problems in a student organization through the process of judging the value of the organization. The evaluator, whether it is a teacher, supervisor, or teacher educator, seeks to evaluate a student organization by describing it and its unique context with respect to one or more scales of value.

There is not concensus by current well-known educational evaluation leaders on what evaluation is and how it should be carried out. However, certain tenets on evaluation are generally accepted throughout the educational community. Probably one of the more accepted approaches to evaluation is by Scriven (1967) who first delineated between two basic types of evaluation . . . formative and summative. He stated that formative evaluation was done *during* the operation of a program, course, or activity and that it provided the evaluators with information which was useful in improving the program, course, or activity. On the other hand, summative evaluation is done when the program, course, or activity is *completed* or at its end. It provides information on the program's after-the-fact worth or merit. The audiences and uses of these two basic types of evaluation are very different . . . formative evaluation results are given to developers for improvements and revisions while summative evaluation results are usually given to the consumers or administrators. As one can readily see, both formative and summative evaluation is necessary to the successful operation of student organizations in technology education.

STANDARDS FOR TECHNOLOGY EDUCATION

In the 1980's, there have been substantive efforts to improve the quality of industrial arts/technology education programs in the United States. This has been possible primarily through nationally developed and validated standards and accreditation criteria. These Standards provide an excellent model for formative evaluation of a technology education program.

The original *Standards for Industrial Arts Programs* (1981) were developed for use in improving the quality of industrial arts education in secondary schools in the U.S. The standards were developed in 11 national workshops, with participants representing 50 states and three territories. The first four workshops were developmental in nature. Broad standards for the profession as well as specific criteria for measuring those standards were defined. The next three workshops further refined and expanded the standards. Special workshops were also held

to ensure that student organizations were an integral part of the standards, and that adequate guidelines were provided for serving special populations. Three final workshops were held to provide opportunity for professionals from widely separate geographic areas of the United States to review and validate the final draft of the standards. These persons also provided a limited field testing of the standards. In addition to the above workshops, review seminars were conducted at the AIAA (now ITEA) and AVA conferences. This process provided input into the standards from over 400 professionals who participated in the development of the standards.

The original *Standards for Industrial Arts Programs* were comparative statements written around 10 major topics or headings. Under these major topics, 235 specific quantity measures were provided. Schools could then use the standards as criteria to determine whether their program met, exceeded, or did not meet each of the specific quantity measures. Once this determination was made, persons assessing the program could prepare a summary profile and write summary comments concerning the strengths and deficiencies of the program in a school.

The *Standards for Industrial Arts Programs* were revised to *Standards for Technology Education Programs* (Dugger, et.al., 1985). This was as a result of the profession positioning itself to a philosophical base involving technology as the major curriculum organizer for the profession. As with the original standards, the revised ones were designed to be used as a guide to enhance the quality of the instructional program in technology education; to identify staff development needs; to establish appropriate ways to insure safe working conditions and practices; to identify ways of promoting the technology education program; and to point out specific deficiencies in the physical environment. An overview of these topics is as follows:

The new *Standards for Technology Education Programs* contain, 241 measurable criteria written under the same 10 major topics or headings as the old standards. These topics are philosophy, instructional program, student population served, instructional staff, administration and supervision, support systems, instructional strategies, public relations, safety and health and evaluation.

From the 241 standards which appear in the *Standards for Technology Education Programs,* there are eleven which directly address secondary school technology education student organizations. These are listed on the next page.

Philosophy

1.1 1.d) Students, including local Technology Student Association (TSA) chapter members, are involved in developing the philosophical statement. (p. 11)

1.1 3.d) The philosophy encourages development of personal and leadership skills through TSA. (p. 12)

Instructional Program

2.1 1.i) Emphasis is placed upon developing leadership ability, encouraging and promoting responsibility, and developing positive social interaction through TSA. (p. 16)

2.3 4. Course content includes the development of personal and leadership skills through TSA. (p. 18)

Instructional Staff

4.1 7. The technology teacher is prepared, through preservice/inservice education, to organize and operate a local TSA chapter. (p. 24)

Administration and Supervision

5.1 1.d) One full-time, or equivalent, state TSA advisor is provided in each state. (p. 27)

5.1 3.c) Time is provided to enable the technology teacher to organize and advise a local TSA chapter. (p. 29)

5.3 5.b) Funds are budgeted for travel, released time, and substitutes for personnel to participate in local, state and national TSA activities. (p. 30)

Support Systems

6.3 4. Budgeted funds are expended to support the operation of a local TSA chapter. (p. 38)

Instructional Strategies

7.2 1.g) Local TSA chapter activities are integrated into planned courses of study and are utilized in conducting classroom and laboratory activities. (p. 41)

Public Relations

8.1 1.a) Students promote and support technology education programs through involvement in activities, including TSA. (p. 43)

Numerous states and localities have adopted these Standards as originally written. Others have made adaptations to better reflect

individual needs and interests. There is convincing evidence that the Standards have helped technology education personnel in localities and states to assess the quality of their programs. These Standards have served as an important catalyst for program improvement. Also, the Standards have been helpful in evaluating the implementation of TSA, as well as the total program.

ACCREDITATION CRITERIA

The accreditation of schools in the United States has been an evolutionary process, beginning over a century ago with the standardization of entrance requirements among colleges. The National Study of School Evaluation (NSSE), and its antecedents, the Cooperative Study of Secondary School Standards and the National Study of Secondary School Evaluation have been concerned since 1933 with identifying the characteristics of good secondary schools and with developing means for evaluating schools (National Study of School Evaluation, 1987). The NSSE is a professional organization composed, as a corporate body, of 22 representatives of the six regional accrediting associations. These are the New England Association of Schools and Colleges, the Southern Association of Colleges and Schools, the Middle States Association of Colleges and Schools, the North Central Association of Colleges and Schools, the Northwest Association of Schools and Colleges, and the Western Association of Schools and Colleges.

Secondary School Evaluation

The primary NSSE instrument used by the six regional accreditation associations for school evaluations is the *Evaluative Criteria.* The current sixth edition of this important accreditation document was published in 1987.

In the *Evaluative Criteria, Sixth Edition,* technology education is treated as a basic and fundamental study for all persons, regardless of their educational or career goals, even if related specialized vocational programs are offered (Section 4-16, p 359-376). In this document the major categories for evaluation are: major expectations from the school's technology education program, follow-up to previous evaluations, organization for instruction in technology education, a description of the technology education offerings, components of the instructional program, facilities and equipment, the learning climate, evaluations, and judgements and recommendations made by the visiting team.

Within the section dealing with Technology Education in the *Evaluative Criteria, Sixth Edition,* there are two criteria related specifically to student organizations. These are as follows:

Part V — Components of the Instructional Program

Subheading A — Faculty: "members of the technology education faculty are prepared through preservice/inservice education to organize and operate a local (Technology Student Association) chapter."

Subheading B — Instructional Activities: "the activities of the local (Technology Student Association) chapter are an integral part of the planned courses of study and are utilized in conducting classroom and laboratory activities."

The NSSE *Evaluative Criteria, Sixth Edition,* should have a major impact on the evaluation of quality programs including student organizations in technology education.

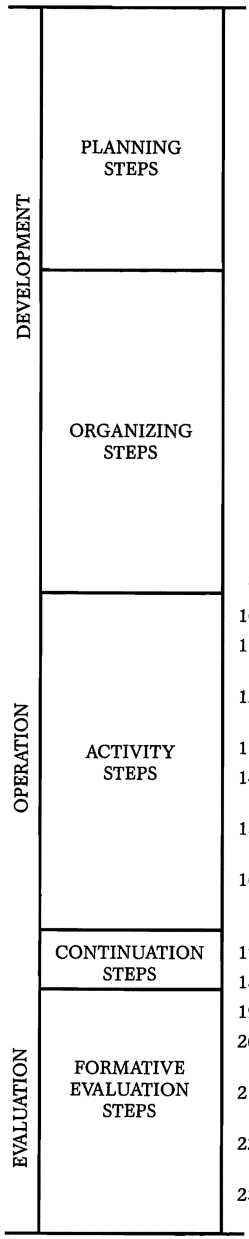
NCATE Evaluation Procedures

The National Council on Accrediting Teacher Education (NCATE) is composed of over twenty associations and agencies related to teacher education. The standards for technology teacher education will be used by institutions seeking NCATE accreditation beginning in September 1988. Standard 4.8 refers to course work and participation in TECA, as well as TSA management and evaluation. The standard states that courses/experiences are provided so that students can perform the following tasks in developing, managing, and evaluating a technology program in schools... "Establish a student association within the technology education program, including choice of type of (activities in the technology student) organization, establishing a chapter, assisting, and evaluating" (ITEA/CTTE, 1987, p. 9).

This particular standard can be achieved by pre-service course work that helps each student become knowledgeable about the establishment and operation of the Technology Student Association at the middle, junior or senior high school level. Through membership in the Technology Education Collegiate Association (TECA), each student in the teacher education program will participate in management and professional development activities. Field experiences with TSA in the public schools will help each student become knowledgeable about, and capable of, analyzing and selecting the most appropriate type of activities for a technology student organization for a given school setting.

FORMATIVE EVALUATION MODEL FOR STUDENT ORGANIZATIONS

A model for the organization, operation, and evaluation of student organizations is shown in Figure 11.1. This is an adaptation of a model found in the *AIASA Guide for Industrial Arts Programs* (Dugger, et.al, 1981, p. 15). This model can be used for both the secondary school technology student organization (TSA) or the college level technology student chapter (TECA). Note that the activities are designed to cover the full school or academic year. After a chapter is fully under operation, only the activity steps, continuation steps, and evaluation steps may be necessary; however, the constitution bylaws may need to be revised every few years. Note that the formative evaluative heading is placed at the end of the model, however, there are some specific steps which can and should occur during the regular years of the operation of a student organization. (These are steps 19-23.) As the evaluation phase begins, monitoring will be the first step. The teacher and the TSA officers look closely at the progress of the chapter as the year goes by. An excellent method of monitoring progress is through some objective instrument such as a questionnaire. See Figure 11.2 for a sample; however, teachers are encouraged to develop their own form designed specifically around their program. Also, the *Standards for Technology Education* should be used annually as an overall assessment instrument. After the monitoring and assessment steps are performed, the teacher should report the results to the chapter officers as well as to the administrators. From the results, modifications and improvements can be made to the TSA chapter activities. The instructor should be careful to recognize the many positive activities which are taking place and to keep these ongoing. This evaluation phase of each TSA chapter should be repeated as many times as necessary each year in order that the quality can be improved.



1.	Meet	with teachers (or teacher educators) to discuss how student organizations are part of the curriculum.
2.	Obtain	resources, such as TSA or TECA publications and assistance from other advisors.
3.	Teach	students to use student organization activities to develop leadership; reinforce learning through recognition; and carry out responsibilities.
4.	Manage	students in classes by giving them leadership roles in activities which teach technology education content.
5.	Announce	the first meeting of the local student organization chapter to all students, parents, and administrators.
6.	Prepare	agenda for chapter to include: (1) introduction of student organization, (2) state and national activities and services, and (3) steps to be taken for electing officers, affiliating members, and planning activities.
7.	Involve	all students and classes in organizing the new chapter.
8.	Approve	a constitution adapted from samples found in state and national publications.
9.	Elect	officers to serve the membership.
10.	Train	new officers for their role as leaders.
11.	Plan	a calendar of activities using ideas from classes, curriculum and laboratory activities.
12.	Appoint	chairpersons for committees needed to carry out planned activities.
13.	Involve	all students and classes in chapter activities.
14.	Affiliate	members with state and national student organization associations.
15.	Recognize	the new chapter by initiating a chartering ceremony.
16.	Learn	through student organization activities in classroom, laboratory, school, and community throughout the year.
17.	Review	previous year's calendar of activities.
18.	Plan	a calendar of activities for next year.
19.	Monitor	progress as the year evolves.
20.	Assess	student organization effectiveness using questionnaires (See Fig. 11.2).
21.	Report	results of your findings to student organization officers and chapter for modification or revision.
22.	Improve	the operation of the student organization based on formative evaluation.
23.	Repeat	the above four steps during the year as many times as needed to enhance student organization effectiveness.

Figure 11.1: Model for student organization development, operation, and evaluation.

Directions: In completing the rating scale, use the coding below.

5	EXCELLENT	The described situation or condition is functioning excellently.
4	VERY GOOD	The described situation or condition is functioning well.
3	GOOD	The described situation or condition is moderately extensive and functioning well.
2	FAIR	The described situation or condition is moderately extensive and functioning fairly.
1	POOR	The described situation or condition is limited in extent and functioning poorly.
M		The described situation or condition is missing but needed.
NA		Does not apply.

ORGANIZATION

_____ 1. All technology education students belong to the local TSA chapter.
_____ 2. All technology education teachers serve as chapter co-advisors, and each has a definite responsibility within the chapter operation.
_____ 3. Officer candidates are selected through a nominating committee.
_____ 4. Chapter officers function well based on training provided by the advisor.
_____ 5. A system for the maintenance and retrieval of chapter records has been developed.
_____ 6. Necessary reports are sent promptly to the State TSA Advisor.
_____ 7. TSA activities are related to class and curriculum.
_____ SUBTOTAL
_____ AVERAGE OF ABOVE SCORES

LEADERSHIP DEVELOPMENT

_____ 1. The chapter holds a new officer installation ceremony.
_____ 2. Every member is involved in chapter activities as evidenced by the assignment of at least one definite responsibility that contributes to the chapter's success or failure.
_____ 3. Leadership training, e.g., public speaking, parliamentary procedure, social skills, and communication, has been part of chapter activities.
_____ 4. Members have participated in regional, state, or national leadership conferences.
_____ 5. Members have competed or plan to compete for regional, state, or national awards.
_____ 6. Members have been candidates for regional, state, or national office.
_____ SUBTOTAL
_____ AVERAGE OF ABOVE SCORES

Figure 11.2: TSA chapter assessment questionnaire.

Figure 11.2: Continued from previous page.

PROGRAM OF ACTIVITIES

_____ 1. The chapter has a written program of activities developed by the members.

2. The chapter is planning to conduct at least one:

_____ a. leadership development activity
_____ b. school-community service activity
_____ c. social-recreational activity
_____ d. product-service enterprising activity
_____ e. industrial-community resource activity
_____ f. membership promotion activity
_____ g. public relations activity
_____ h. achievement-recognition activity

_____ 3. The chapter has a written budget based on the program of activities, including a workable plan for raising the necessary money with which to operate.

_____ SUBTOTAL
_____ AVERAGE OF ABOVE SCORES

MEETINGS

_____ 1. The chapter has the standard meeting equipment, e.g., officer symbols, framed charter, banner, and framed creed.

_____ 2. The chapter follows the suggested procedure for arranging the meeting room.

_____ 3. The Executive Committee plans and discusses the agenda before each chapter meeting.

_____ 4. The agenda for each chapter meeting is posted in advance.

_____ 5. Chapter meetings are held regularly.

_____ 6. At each chapter meeting, enough time is available to take care of chapter business.

_____ 7. Accepted parliamentary procedure is used in the conduct of each meeting.

_____ 8. The chapter has at least eighty-five percent of its members in attendance at regular meetings.

_____ SUBTOTAL
_____ AVERAGE OF ABOVE SCORES

PUBLIC RELATIONS

_____ 1. The chapter has a communication's system, e.g., newsletter or bulletin board, for keeping members informed of activities.

_____ 2. The chapter has a Public Relations Committee that works with the chapter Reporter in publicizing chapter activities.

Figure 11.2: Continued from previous page.

3. The chapter Reporter has submitted or plans to submit at least one article about chapter activities to:

_____ a. the school newspaper
_____ b. the local community newspaper
_____ c. the state TSA publication
_____ d. the national TSA publication

_____ 4. Chapter members use National Science and Technology Education Week as an opportunity to increase knowledge and awareness of TSA in the school and community.

_____ 5. The chapter officers or members visit industries, civic groups, other classes, or other schools for purposes of TSA promotion.

_____ SUBTOTAL
_____ AVERAGE OF ABOVE SCORES

Scoring the Assessment Questionnaire

There are various ways of evaluating the score which results when all points are totaled. Generally speaking, a total score below 90 would indicate that the chapter program needs improving. It may be, however, that a chapter has devoted time and effort in some areas to the exclusion of others. Scores may be high (4 and 5) in one area and low or M (missing but needed) in others. A better situation in terms of meeting overall goals of the TSA program is to develop all of the areas to a (3) level. There should be few, if any, NA (does not apply) ratings. They would be justified only when a chapter has an unusual organizational arrangement.

Rather than simply looking at a final total, it might be advisable to analyze subtotals and then look at each of these subtotal scores critically. Chapter evaluation should provide you with the answers to two important questions: What has been the most satisfactory aspect of the TSA program? In what area is there greatest need for improvement?

SUMMARY

There has been very little basic research on student organizations in technology education. Also, there appears to be minimal effort to evaluate the quality of existing technology education student organizations in the United States. By using such evaluative devices as the *Standards for Technology Education,* the *NCATE/CTTE Accreditation Guidelines,* and the *Evaluative Criteria, Sixth Edition,* substantial im-

provements can be made in the quality of student organizations nationwide. A model of the ongoing formative evaluation of a secondary or university student organization in technology education was presented to be used also as a means for assessing the overall value of a local student organization.

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CHAPTER TWELVE

SELECTING AND DEVELOPING RESOURCES

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Sub-Topics:

- Criteria for Selecting Resources
- Selecting Appropriate Resources
- Developing Resources for Technology Students
- Contracting People for Assistance
- Resources for Preparing Teachers to be Advisors

Although this chapter will describe a number of excellent resources that are readily available to teachers, it is interesting to realize that the student organization itself is a resource for technology education. TSA and TECA become teaching tools to help students learn more about technology. As a management tool, a student organization helps teachers accomplish more by allowing students to lead, select, and manage activities. As a public relations tool, a student organization brings recognition to the technology education program and "helps in the formation of desirable student attitudes"(Baker, Erickson, Good, 1985, p. 12).

This chapter will assist teachers and advisors with the task of locating, selecting, and developing materials that will enhance the technology education program by strengthening the technology student association. Consideration will be given to criteria for selecting materials from local, state, and national sources. As with other instructional materials, the teacher must often prepare the lesson guide for a specific activity or presentation. Technology education criteria will be included along with suggestions for proper use of specific resources when appropriate. Resource personnel will be described in categories having a degree of timelessness for teachers to contact.

Finally, the chapter will identify resources for preparing technology education teachers to become successful TSA advisors. Studying these college level materials will enable teachers to offer a total technology education program that prepares students to understand and use technology in a changing society which requires initiative, leadership, and human relations skills.

CRITERIA FOR SELECTING RESOURCES

Technology education teachers have numerous materials available to assist in managing a student organization. It frequently becomes the task of the TSA or TECA advisor to choose or select the most appropriate and meaningful material for the students served. The following words and brief summaries provide a list of criteria or considerations for selecting resources.

Appropriateness for Students

Are the materials written for the age or grade level and interest level of your students? Are the activities appropriate to the technology education classes offered at the school? Will the materials enhance learning and help students work cooperatively? Will the experiences create positive self-concepts and enhance the students' potential in technology? Do the materials fit within the guidelines or policies of the local school district regarding students being away from school, use of buses, travel, finances, and use of facilities?

Technological Content Considerations

Is the material based on broad concepts, processes, and systems of technology? Does the activity help students to develop insight, understanding, and applications of technology and its impact? Will students practice safety, efficiency, creativity, problem solving, and decision making? Are the activities designed to reinforce abstract concepts and emphasize *know how* and *ability to do*? (ITEA, 1986)

Some consideration must be given to the impact of technology on people, the environment, and culture (Balistreri, 1988). Closely coupled with this impact consideration is the potential for technology to be used in solving problems and helping people. It is imperative that students be given opportunities to apply their knowledge of technology in various leadership and service activities. Students with leadership

experience in technology student organizations are prepared and able to utilize these skills as they participate in or give leadership to subsequent professional and community organizations.

Source of Resource Material

Has the information being considered been tested or validated as effective for students in technology education? Are the authors or sponsors of the material qualified as professionals in technology education? Is the material endorsed by either the Board of TSA or TECA? Is the material endorsed by either the International Technology Education Association or an affiliated (state) association?

Adaptability of Resource for Future Use

Will the material or resource become outdated in less than five years? Can the material be updated by the teacher/advisor to reflect current practice? Is it permissable to duplicate the material for students' reference? Will updates be provided free or at cost?

SELECTING APPROPRIATE RESOURCES

As the various resources to be used in the formation and management of technology student organizations are reviewed and collected, it is important that the criteria for selection be considered. Specific resources will be presented in several categories with general information about their acquisition and use. Later, the development of other resources will be considered.

Handbooks and Guides

The primary source of information for managing technology student associations is the *TSA Chapter Guide* (1989) published by the corporate office of TSA. The guide contains a variety of information for technology teachers, advisors, and officers. Included are these major topics: general information and terminology, the emblem and official dress, chapter organizational details, officer duties, parliamentary procedure, activities and chapter events, and conference participation.

The *Member Guide* (Applegate, et. al., 1983) is used in the technology education classroom to introduce TSA to every student. Each page is dynamically illustrated and quickly communicates the benefits of becoming an active member. A personnel organization chart describes

the role and position of officers. Activities are highlighted in the center fold. A classroom agenda is suggested with helpful tips for students. Finally, the guide explains the state and national association structure, emblem, and conference opportunities. This student guide is sold in classroom sets of thirty so teachers will have copies for every student.

A packet of materials for starting TSA (TSA, 1988) is available for teachers who want to begin involving students in association activities at the secondary school level. It contains a number of one-page handouts to guide the teacher, to motivate students, and to inform students. Several states have developed handbooks or guides for managing student association activities at the local, regional, and state levels. These guides may be coordinated with the national publications while providing creative new approaches to certain aspects of the student association. Examples of state publications which address specific needs include the Pennsylvania guide titled: *Beginning a Local AIASA Chapter* (Alderman, 1979). This publication provides specific information to help teachers follow a series of steps to start a local TSA chapter. The publication is being revised to incorporate the information. In Connecticut, the State Department of Education published a curriculum guide for AIASA (now TSA). The publication provides several pages, including a flow chart for teachers to follow with students when starting a school chapter.

Brochures and Promotional Literature

The TSA brochure has been an effective way to provide brief and up-to-date information about the association. The brochure describes the purpose of the association and pictures show enthusiastic students enjoying conferences, contests, and technology learning activities. The brochure can be purchased in large quantities for distribution to parents and the general public. Schools will find these brochures effective handouts for an open house or at a shopping center display.

The *TSA Guide for the Technology Education Standards* (TSA, 1989) was first developed by the federally funded Standards Project. In this highly graphic publication, the purpose, goals, activities, and basic structure are presented for what is now TSA. The Standards Guide is appropriate for introducing supervisors, principals, administrators, and teachers to the benefits of TSA in a total technology education program.

The student and professional associations often distribute promotional or educational posters for display in school or community facilities. Attractive posters for science and technology week are available prior to April each year.

Audiovisual Materials

The corporate office of TSA has videotapes and transparency masters about the association. These materials are very effective for classroom use. The video presents motivating scenes of students in competitive and leadership situations (TSA, A Technical World, 1987). Teachers may obtain information about the latest videotapes by contacting the state advisor or the TSA corporate office. The transparency set (TSA Transparencies, 1989) can be used to introduce TSA to every student and every class in the Technology Education Department. Early in the school year, students learn about the importance of democratic organizations and the values obtained through participation. Videotapes and 16mm films dealing with leadership can be purchased or rented. *How To Conduct A Meeting* (Coronet Films, 1979) helps all students see the purpose for and proper use of parliamentary procedures. Other films help students prepare and give public speeches.

Competitive Event Guidelines

TSA Competitive Event Guidelines (1988) have been developed for using these activities as curriculum materials for technology education. The Competitive Events Committee (CEC) of TSA has the responsibility of researching and developing new contests which are appropriate to the technology education curriculum. This guide contains a six-year plan for developing, demonstrating, implementing, and reviewing contests. Procedures for submitting new events, stating a grievance, or suggesting a revision are also provided.

The major portion of the guide contains the general rules and registration procedures, including restrictions as to the number or level of students from individual schools. Rules for individual, group, and chapter contests are printed in a uniform format that includes criteria for coordinating and judging the event.

Affiliated state associations are encouraged to submit new competitive events to the CEC. To that end, several states have publications which provide rules for additional events they have developed. Over the years, events used in Georgia, Washington, Texas, and other states have been adopted for use as official TSA events at the national conference. Teachers and advisors will find the *TSA Competitive Events Guidelines* (1988) a useful resource for motivating students in classrooms, laboratories, and communities.

Student and Teacher Periodicals

Student members of TSA receive periodic mailings from the national and state associations. Quality articles contain helpful information for developing activities and strengthening the school chapter. The *Advisor's Update* is prepared by the national office of TSA for advisors of affiliated chapters to keep them informed of TSA changes and future opportunities.

The Technology Teacher (TTT) is a professional journal of the International Technology Education Association which is distributed to members. The TTT is an excellent source for materials that will relate to the total technology education program and the professional teacher/advisor.

Curriculum Guides and Materials

Although the Technology Student Association does not publish curriculum guides, the resources must be complementary to the technology education curriculum. The *TSA Guide for the Technology Education Standards* (TSA, 1989) is one example of the integration of technology student associations. The ITEA Professional Improvement Plan (ITEA, 1986) established an objective of making TSA one of the primary delivery systems for technology education. To that end, a resource has been developed as a guide for teaching technology education through TSA. As a teacher's resource, the guide presents lesson plans for activities in several technology-based courses including construction, communication, manufacturing, and transportation.

Several states have integrated TSA into their official state curriculum publications. Tennessee, West Virginia, Arizona, Louisiana, and other states developed curriculum guides that suggest the uses of student organizations in both content and method. In Virginia, the Technology Education Service has identified five specific contributions of integrating TSA in every course; for example, it is believed that through *in-class TSA* every student will benefit from experiences as members or leaders in a student association. The Florida State Department of Education developed lesson plans which help teachers include TSA in technology education instruction (Pryor, 1985).

Textbooks with TSA

Major publishers of textbooks for technology education have included TSA information. In *Manufacturing: A Basic Text* (Fales, Sheets, &

Mervich, 1986) the student association is presented as a leadership development activity in the instructor's guide. In *Technology In Your World* (Hacker, Barden, 1987), information is presented for making TSA a part of the program for all students and suggests ways that students learn more through competition and conference participation. Leadership personnel, chapter activities, and ideas for meetings are offered in other texts (Groneman and Feirer, 1986; Feirer & Lindbeck, 1986). Teachers will find suggestions for student organization activities in the annotated materials included with other texts (Fales, Kuetemeyer, Brusic, 1988).

Leadership Development Materials

In this category, the major resource would be publications dealing with parliamentary procedure. The most comprehensive book on democratic decision making is *Robert's Rules of Order (Roberts, 1976)*. It is available from Balfour Supply Service and local bookstores. TSA distributes a Parliamentary Procedure Card which is useful to officers when conducting meetings. Computer assisted instruction is also available on this subject.

For the advisor who is training officers to be leaders, there is a video titled *How to Conduct a Meeting* and a number of filmstrips available on democratic decision making. One excellent guide for developing leadership is titled *Learn, Grow, Become* (Ogilvie, 1988). The teacher's manual, notebook, and student manual are excellent resources in the areas of planning, instruction, careers, recognition, and positive attitudes. Pryor's (1985) instructional units contain extensive materials for helping students become leaders and officers.

In the general area of leadership development, teachers will find publications available from the Leadership Development Institute helpful in planning workshops for officers and instilling young leaders with a desire to succeed. A *Leadership Portfolio* (Reum, 1987), published by Edgewood Press, contains organizational booklets for advisors and officers of student council associations.

Supplies, Membership Items, and Clothing

For purposes of regulating quality and upholding the image of the association, the use of the TSA logo is controlled by the corporate office. The Board of Directors contracts with one or more suppliers to design, manufacture, and sell such items as: member and officer jewelry, notebooks, folders, banners, patches, ties, scarves, blazers, T-shirts, and

lab coats. By contacting the state or corporate office of TSA, the advisor can obtain a catalog or list of items which can be purchased by the students, chapter, or school.

Achievement and Recognition Materials

The TSA *Achievement Program* (Smith & Hirsh, 1983) was developed to recognize students who accomplish technology related experiences at the local, state, and national levels. The student guide contains suggested activities which involve students in career exploration, safety, leadership, and service. Teachers check off those activities performed and award bronze medallions to recognize students.

Certificates, trophies, and plaques are resources used to recognize students who have performed to their highest level. When purchased from the TSA corporate office or from a supplier such as Balfour, these materials carry the TSA emblem and are of the highest quality.

DEVELOPING RESOURCES FOR TECHNOLOGY STUDENTS

It is often necessary for technology education teachers to create new materials for a specific student association activity or content area. Teachers who develop their own curriculum materials or serve on committees for school divisions or state curriculum projects, should include student association activities and content in their efforts. TSA content may include information about the personnel structure of technology-based business and industry organizations, the importance of cooperation among people for the benefit of all, and the specific competitive events that relate to the class content. Teachers developing curriculum will find it helpful to refer to the items described as the "criteria for technology education programs" (ITEA, Technology Education: A Perspective on Implementation, 1985).

The technology student association will involve all students in a management system and help them understand technological concepts through technological field trips or speakers. Of course, TSA service projects solve problems and employ numerous technological processes, materials, and tools—both safely and efficiently. The inclusion of the TSA Achievement Program and leadership roles builds a positive self-concept and helps the individual reach higher potential in technology. Contests developed by the teacher or adapted from TSA will challenge students in their study of technology's development, impact, and opportunities for people, the environment, and culture. Student associa-

tions, as part of the curriculum, enhance learning in the affective and cognitive domains to ensure that students are prepared to understand how technology works—not just how to do it.

Teacher's Lesson Plans

Lesson plans can enhance the quality of the learning environment. The concepts, objectives, and materials that lead to an organized learning process need to be included in the daily lesson plan to assist the instructor. Leaving instruction to chance can ensure neither the necessary substance nor appropriateness. Specific student activities can be included in daily lesson plans to utilize the student organization and the learning situation. Fundamental definitions of student organizations within vocational education have included the word *integral*. If student organizations are indeed to become integral parts of the curriculum, it becomes necessary to have them included in the daily lesson plans.

Lesson plans should remind the teacher of specific content related to TSA and help teachers establish management systems to achieve greater success with student activities. Teachers should realize the resource they have in the student association by expecting TSA class officers to manage the test run of a problem solving activity. Too often the teacher does it all and leaves little for the leaders to manage. Use lesson plans to write specific objectives for officers and watch them carry on.

In a paper titled "Let Your Students Start AIASA (now TSA)" (Noblet, 1986), Noblet says "Those students are going to be working adults one day, and if we don't teach them to be leaders and get involved. . ." He believes in letting students take over and manage things. "Students, it seems, will always achieve much more than we expect if we will just give them a chance. . .get out of the way. . ." (Noblet, 1986, p. 3).

Classroom Management Materials

Students conduct class activities using the meeting management techniques learned from their participation in the association. They learn valuable leadership practices which are demonstrated and enhanced as they manage classroom situations.

Technology Tours and Speakers

Field trips and guest speakers provide great motivation to learn and reinforce concepts and impacts of technology. Field trips are a traditional and typical method of reinforcing or providing relevant, current

instruction. They must be evaluated to make certain the content is applicable and beneficial. The quality of speakers also is extremely variable; many have established track records of success or lack of success in previous presentations. Review of the speaker's resume' may provide good information from which a decision can be made. The local Chamber of Commerce may also be a source for good speakers. Use the yellow pages of the telephone book or contact local civic organizations.

Guest speakers offer benefits beyond their basic informative presentation. To ensure that things go well and that students have a positive experience, the teacher should assist them in the preparation of criteria for speakers and identify available presenters with relevant messages. A list of speakers can be obtained by asking students about their parents' employers and business associates. Sometimes it works well for the teacher to make the first contact with a speaker. Indicate that students are learning to make arrangements for guests and that students will be responsible for setting up the presentation, including inviting the guest to attend. Attention to the following will help the experience reflect positively upon the teacher, students, and program:

1. Make sure a good number of students will be attending the class or meeting.
2. Discuss key questions that students may ask during the presentation.
3. Invite the guest speaker with plenty of lead time.
4. Confirm the invitation with a letter which contains appreciation for the speaker's willingness to share experiences, the time and date of the presentation, location, parking information (if appropriate), and agenda for the meeting.
5. Arrange for a student to meet and escort guest.
6. Arrange the room to include audiovisual equipment and appropriate seating to accommodate those attending.
7. Help the leader prepare a quality introduction for the presentation.
8. Present a certificate of appreciation at the conclusion of the presentation.
9. Continue escort responsibilities until the guest has departed.
10. Follow up with a letter of appreciation.

Students, under teacher direction, can and should do all of this with good success.

Creating Public Relations Resources

Since their inception, student organizations have been active in the development of public relations experiences which enhance the visibility of the student, as well as the school program. Many times students have been very effective representatives, or examples of program quality, because the public is anxious to see students in successful roles.

Typical public relations activities may include:

1. Open house for community, family, future students, etc.
2. News articles in local newsletters and newspapers and in state, regional, or national publications, including the TSA *School Scene*, and stories in radio and TV newscasts.
3. Displays in local stores and shopping centers.
4. Guests from among community leaders, industry, school board, guidance department, and school administration office.
5. Participation in local, state, and national conferences and competitions.

Local Competitive Event Guidelines

When developing competitive events for classroom and school chapters, consideration must be given to local needs and also to the fact that students may also pursue state or national competitions. Competitive events have provided excellent motivation and opportunity for student growth.

As events are developed, it is important to consider student abilities, as well as fairness and appropriateness for each event. Expand the benefits of competitive events by including the most contemporary focus of technology education. Incorporate the application of fundamental principles, such as mathematics, science, and communication skills in the competitive activities. Problem solving must be a critical consideration as events are developed.

It is generally a good practice to select contests that have been used by teachers in other states and localities. It is best if they have been tried and appropriate revisions and adaptations made to accommodate unforeseen problems that inevitably seem to surface. A visit to a competition, such as Odyssey of the Mind (OM), Invent America, and Junior

Engineering Technical Society (JETS) provides a very valuable resource for information, assistance, and motivation.

CONTACTING PEOPLE FOR ASSISTANCE

It is exciting for most new technology education teachers to realize that many individuals have committed both time and energy to helping students and the Technology Student Association. These personnel resources will be introduced in several categories which are designed to help teachers, supervisors, and teacher educators obtain assistance and consultation.

TSA Executive Director and Staff

The corporate office of TSA is administered by an executive director who would have the most comprehensive picture of personnel available for a particular situation. Working with the director are persons responsible for membership services, publications, and conference planning. The executive director is often called upon to assist states in strengthening or expanding their programs and membership. In addition, this person works with other organizations, agencies, businesses, and industry to improve the image and financial base of the association.

State Advisors and Corporate Members

Most states have a state supervisor of technology education. The state supervisor may coordinate all services of a particular state or designate other persons to serve as state advisor for the operation of activities within that state's TSA association. The state office designates a corporate member of TSA also. The responsibilities of the corporate member relate more to the national association. The corporate member represents the state at corporate meetings and may be elected to the TSA Board of Directors. Anyone needing assistance with TSA should call or write the Technology Education Office in the State Department.

Depending upon the location and position of these state TSA leaders, the following services or consultative assistance may be requested: (1) help with starting a school chapter, (2) techniques for introducing TSA activities into classes and curriculum, (3) suggestions for planning chapter service or enterprise projects, and (4) details about conference registration and travel arrangements. State-level personnel may be invited to speak to the school board or a TSA banquet. They serve on

curriculum committees, advisory committees, and often assist teachers or supervisors in the training of new advisors or officers.

Directors of Boards and Committee Members

Other personnel resources at the national or state level include persons who serve on the TSA Board of Directors or the ITEA Student Organizations Committees of ITEA and AVA. The Board consists of persons who are committed to helping TSA grow throughout the nation. If one of these Board members is located nearby, to the need, she or he may be able to help. Board members are listed on the TSA letterhead or detailed information can be obtained from the TSA corporate office at 1914 Association Drive, Reston, Virginia 22091. There are ITEA representatives in each of the four regions of ITEA. These individuals would be willing to help at the local, state, or national levels to promote and strengthen TSA. The names of current members and representatives can be identified by contacting ITEA headquarters at 1914 Association Drive, Reston, Virginia 22091 or AVA at 1410 King St., Alexandria, Virginia 22324.

College and University Personnel

A growing number of technology teacher educators are willing and able to assist teachers with TSA. Contact can be made with the technology education department at a nearby college or university. Request names of faculty who teach professional courses such as methods, curriculum, or management. Consider inviting the TECA chapter faculty advisor or officers to assist with TSA.

The Council on Technology Teacher Education has a committee for strengthening college student associations. Although these committee members work primarily with TECA, they will welcome opportunities to assist schools and state associations of TSA. Contact ITEA Headquarters for the names of current officers in CTTE or committee members.

College/university students in TECA can provide a number of excellent services to technology teachers, TSA advisors, and technology students. Among many techniques which may be considered for involving college/university students, three are detailed as follows:

Technology Day. College students plan and manage a day of leadership and technology activities on the campus. Secondary students tour the technology education facilities and learn about technology from TECA members.

High Technology Demonstrations. College students prepare and present technology information to high school classes. Often these presentations result from a study of technology's concepts, systems, and processes in the college curriculum.

Coordinating or Judging Contests. College students may manage a competitive event for high school students. The experience of judging student problem-solving, understanding, and know-how will be especially beneficial to future technology teachers and give high school students a challenge to do their best (TECA, 1988; Barker, 1985).

TSA Alumni

The talents and services of the TSA Alumni Association have been used effectively at the TSA National Conferences. These recent graduates from high school are willing and able to help schools with TSA activities. When home from college, they may speak to classes, chapter meetings, or even help manage activities.

Community Leaders

Every community has civic and professional groups which may provide community service activities. Teachers, advisors, or officers should feel free to call the current president of such a group to request a speaker on a specific topic or to assist with a problem, such as supporting a trip for local winners or outstanding student leaders. The local Chamber of Commerce is likely to have information about clubs and officers.

In many cases, it will take time to locate personnel that are appropriate to the need. However, once the initial contact is made, the service can be arranged without difficulty.

RESOURCES FOR PREPARING TEACHERS TO BE ADVISORS

Many of the resources previously mentioned have been extremely useful and beneficial as teachers approach the task of managing a student organization. However, additional publications, materials, and activities are also available, specifically for the purpose of helping teachers become advisors of quality student-oriented programs.

Typical of the resources available are the technology publications and handbooks available from most of the states. They are accessible to those who are interested in reviewing and investigating possibilities of

providing a technology student organization within the local educational agency.

The categories of resources discussed below are primarily directed to the preparation of teachers through undergraduate or graduate classes.

College/University Course Materials

Many teacher preparation universities provide courses, or portions of courses, dealing specifically with student organizations. Typically, the college syllabus for several courses would reiterate the importance of the student organization as demonstrated by its inclusion in the course. This course would also identify practices and resources to assist in understanding the importance of student organizations and learning how to manage them (Jones, 1984).

The CTTE Yearbook series is often used as texts for teacher education. Supplementary resources would include the TSA Chapter Handbook and other student-oriented publications presented earlier in this chapter.

Dugger (1985) led a group of teacher educators in the development of a monograph directed at the five teacher education programs in Virginia. The publication focused on the content and instructional strategies which were significant to AIASA (now TSA) in the secondary schools. Following this basic information, the monograph presented a model for integrating college student association activities into all areas of the preservice curriculum. This model is discussed in Chapter 3 and is still an excellent resource for determining content for a college class in methods or management of technology education. Teachers need to know the following: (1) what TSA is, (2) how to start a chapter, (3) ways to help officers and committees, (4) techniques for managing students with TSA, (5) achieving positive public relations, (6) and planning local, state, and national activities and conferences. The model depicts TSA as an excellent way for college students to gain field experiences prior to and during student teaching.

Smith (1979) and Magnone (1985) have developed individualized modules for college students or teachers to follow in learning to be TSA advisors. These resources may be distributed as part of a class assignment or used for independent study.

Clendenning (1981) developed his Berry College course syllabus using a "Student Participation Model of Competency Development." Leading up to the full-time teacher and TSA advisor's role, the first- or second-year college student takes a one-credit hour course in cogni-

tive understanding about the student association and its startup procedures. The next year the student takes a second one-credit-hour course in planning activities and decision-making procedures. In the final year, a third hour of credit is earned by observation at the Georgia State Conference and by helping local TSA chapters in the secondary schools. Participation in the campus association is considered to be a laboratory experience for the three-credit sequence.

Materials Which Guide Experiences for Pre-Service Teachers

In his report on extensive research on *Field Experience in Teacher Education*, Clark 1985 provides information which emphasizes early field experience and student teaching in the preparation of technology education teachers. The early field experience should assist the college student in "being able to understand the educational benefits of an industrial arts/technology education student club (chapter) program" (p. 18). His report recommends that future teachers "participate in various activities to gain appreciation for the role, scope, and function in the school that include: . . . student club (chapter) associated with a curriculum area, preferably an industrial arts club (chapter)" (p. 18). Full-time student-teaching experiences should include the opportunity to "work actively with students in the student club (chapter) program" (p. 23). Student teaching site-selection factors that need to be considered include "Must have active industrial arts/technology education student club (chapter)" (p. 23).

Maley (1978) prepared an inventory of behaviors for teachers. Using two teachers, two principals, and five supervisors, the final list included several items which can be achieved by teachers with technology student associations. The inventory lists 31 abilities under the "Professional and Related Teacher Behaviors." In item number 17, the following behavior is listed: "Effectively supervise club or extracurricular activities" (p. 28).

TECA Resources and Experiences

A number of colleges with technology teacher education programs have initiated TECA as their pre-professional student association. Experiences in TECA serve as resources for future teachers who will soon begin to manage their own TSA chapters.

The TECA *Handbook for Leaders and Advisors* (1989) is a primary resource for operating a successful chapter that is affiliated with ITEA.

The handbook contains information about the benefits of TECA and ITEA membership. Activities are suggested and articles are provided about TECA throughout the country.

TECA offers other literature for college/university students and faculty. The *College Comment* newsletter is distributed to all student members of ITEA and officers of TECA chapters. Articles for publication in the *College Comment* are submitted to the TECA Administrative Advisor and addressed to ITEA.

Stemple (1987) compiled a guide to *Fund-Raising: Ideas That Work*. This publication contains a list of nearly 100 activities which can be used to finance professional and leadership activities of the campus TECA chapter. In addition to the list, several detailed articles report on successful techniques used at twelve colleges and universities. TECA membership is a wonderful resource for building professionalism in tomorrow's technology teachers.

SUMMARY

Materials are available currently from a wide variety of sources to assist in the development and enhancement of student organizations within the local education agency. Many organizations have committed their resources to the furthering and advancement of the benefits and involvement of student organizations. Current literature, such as curriculum guides and textbooks, includes student organizations as an integral part of the technology education content.

Many of today's teachers are developing resources for managing student organizations. These materials should help students understand the cultural and social impact that technology has had on our world.

Universities are offering courses, and portions of courses, dedicated specifically to the purpose of making student organizations an integral part of the instruction process. All of these activities provide valuable resources to those who have elected to investigate and/or incorporate this most worthwhile component in their program.

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CONSTITUTION

Technology Student Association

Approved June, 1988

ARTICLE I — NAME

Section 1. The official name of this organization shall be the Technology Student Association and may be referred to as "TSA."

ARTICLE II — PURPOSES

Section 1. The general purposes of this organization are:

(1) To assist State Associations in the growth and development of TSA;
(2) To assist State Associations in the development of leadership and citizenship in social, economic, scholastic and civic activities;
(3) To increase the knowledge and understanding of our industrial technological society;
(4) To assist technology education students in the making of informed and meaningful occupational choices.

Section 2. The specific purposes of this organization are:

(1) To develop, through group action, the ability of members to plan together, organize and carry out worthy activities and projects.
(2) To explore technology and the American technological civilization.
(3) To promote high standards of craftsmanship, scholarship and safety.
(4) To provide good leisure time and recreational activities and hobbies.
(5) To encourage students in creative expression.
(6) To develop consumer knowledge in students.
(7) To instill desirable habits and attitudes toward the American way of life in students and foster a deep respect for the dignity of work.
(8) To provide occupational information and instruction pertaining to a broad range of occupations, including training requisites, working conditions, salaries or wages and other relevant information.

(9) To provide exploratory experiences in shops, laboratories and observations in business or industry to acquaint students with jobs in the occupations.
(10) To assist in providing guidance and counseling for students enrolled in technology education programs in making informed and meaningful choices in selected occupational fields.
(11) To prepare individuals for enrollment in advanced or highly skilled vocational and technical education programs.
(12) To expose students to the responsibility of representing a large membership.

ARTICLE III — ORGANIZATION

Section 1. The Technology Student Association is an organization of state associations, each operating in accordance with a charter granted by TSA, Incorporated.

Section 2. Each chartered association of TSA, Incorporated will be responsible for all operational activities within that state or geographic unit under the direction of the state supervisor of technology education or an appointed representative.

Section 3. The administration of TSA interests will be vested in the Board of Directors of TSA, Incorporated.

ARTICLE IV — MEMBERSHIP

Section 1. Membership in TSA shall be through chartered state associations. An association will consist of TSA chapters within a state, territory or equivalent geographic unit. Each chapter will consist of individual members as described in the Bylaws.

Section 2. A state association may be chartered as a member of TSA, Incorporated, upon approval of the Board of Directors of TSA, Incorporated.

Section 3. A state association shall use its full state name before the acronymn TSA when identifying itself as a chartered state association of TSA.

ARTICLE V — VOTING

Section 1. Member associations shall exercise their voting privileges through voting delegates at the annual meeting of TSA. Apportionment of the number of voting delegates shall be determined annually as described in the Bylaws.

ARTICLE VI — MEETINGS

Section 1. A national TSA conference will be held each year with the time and place to be designated by the TSA, Incorporated Board of Directors.

Section 2. Parliamentary procedure for all meetings of TSA will be governed by *Robert's Rules of Order, Newly Revised.*

ARTICLE VII — NATIONAL OFFICERS

Section 1. Officers of TSA shall be elected by majority vote of the voting delegates at the national TSA conference and will consist of a President, Vice-President, Secretary, Treasurer, Sergeant-at-Arms and Reporter as described in the Bylaws.

Section 2. Individuals elected as national officers at the annual meeting will hold office until the close of the next annual meeting.

ARTICLE VIII — FINANCES

Section 1. Chartered associations will be responsible for national dues as determined by the board of Directors of TSA, Incorporated.

Section 2. The TSA, Incorporated Board of Directors will manage TSA finances and will furnish an annual report to each chartered association.

ARTICLE IX — EMBLEM AND COLORS

Section 1. (Emblem is under development)

Section 2. The colors of TSA shall be scarlet (red), white and blue.

A. Scarlet (red) — represents the strength and determination of the technology education students and teachers to obtain their goal.
B. White — represents the high standards, morals, and religious beliefs we hold.

C. Blue (navy) — represents the sincerity of the technology education students and teachers in obtaining a greater knowledge of our technical world.

ARTICLE X — MOTTO AND CREED

Section 1. The motto of the Technology Student Association will be: "Learning to Live in a Technical World."

Section 2. The creed of the Technology Student Association will be: "I believe that Technology Education holds an important place in my life in the technical world. I believe there is a need for the development of good attitudes concerning work, tools, material, experimentation and processes of industry.

"Guided by my teachers, artisans from industry and my own initiative, I will strive to do my best in making my school, community, state and nation better places in which to live.

"I will accept the responsibilities that are mine. I will accept the theories that are supported by proper evidence. I will explore on my own for safer, more effective methods of working and living.

"I will strive to develop a cooperative attitude and will exercise tact and respect for other individuals.

"Through the work of my hands and mind, I will express my ideas to the best of my ability.

"I will make it my goal to do better each day the task before me and to be steadfast in my belief in my God and my fellow Americans."

ARTICLE XI — AMENDMENTS

Section 1. To amend this constitution, a proposed amendment must be submitted in writing by the chartered association proposing the amendment to the President, TSA, Inc., at least ninety (90) days prior to the annual meeting.

Section 2. The President (Chairman) of the Board of TSA, Inc. will be responsible for notifying in writing the chartered associations and national officers of the proposed amendment at least sixty (60) days prior to the annual meeting.

Section 3. The proposed amendment must be considered and approved for ratification by a three-fourths majority of the voting delegates present at the annual meeting.

Section 4. Each chartered association will be entitled to one vote for each state officer in attendance (maximum of 6) plus two additional votes for each chapter in that state association which is in attendance at the conference.

Section 5. The President (Chairman) of the Board of TSA, Inc. will be responsible for notifying in writing the chartered associations of the ratified amendments within sixty (60) days of the annual meeting.

Section 6. The ratified amendment will become effective in sixty (60) days unless a different time period is stipulated.

BYLAWS

ARTICLE I — MEMBERSHIP

Section 1. TSA will recognize individual membership only through a chartered state association and its local chapters. A state association will consist of all TSA chapters within that state, territory or equivalent geographic unit.

Section 2. Membership eligibility will be governed by TSA and the state association. Members shall be recognized as active members, associate members, alumni members, professional members or honorary/honorary life members.

Section 3. Active members shall be students who are presently enrolled in or have been previously enrolled in technology education/industrial arts programs. An active member shall pay dues as established by the Board of Directors of TSA, Inc. and may be declared eligible to hold a national office, to participate in national competitive events or projects, to serve as a national voting delegate, or to otherwise represent their association in national TSA affairs as may be approved by their associations.

Section 4. Associate members shall be students who are enrolled in related fields of instruction with emphasis in technology education or who have been previously enrolled in technology education programs. An associate member shall pay dues as established by the Board of Directors of TSA, Inc. Associate members shall not have the right to vote or hold office.

Section 5. Alumni members shall consist of those individuals who have completed a technology education program (have been a former active or associate TSA member) and who have graduated from or left school. Alumni members shall pay dues as established by the TSA, Inc. Board of Directors. Alumni members shall not have the right to vote or hold office.

Section 6. Professional members are those persons engaged in education, business and industry, who have an interest in TSA and in the welfare of technology education. Professional members shall pay dues as established by the TSA, Inc. Board of Directors. Professional members shall not have the right to vote or hold office.

Section 7. Honorary/Honorary Life Members may be individuals who have made or are making contributions to the advancement of technology education as may be approved by the TSA executive committee, and shall be exempt from annual dues.

Section 8. Annual membership dues shall be as determined by the Board of Directors of TSA, Inc., national officers and TSA delegation. The membership year shall be September 1 to August 31.

ARTICLE II — THE TSA ADVISOR

Section 1. The TSA Advisor(s) shall be a technology education teacher(s).

Section 2. The TSA Advisor(s) shall be exempt from annual dues.

ARTICLE III — VOTING DELEGATES

Section 1. Member associations of TSA will exercise their voting privileges through voting delegates at the annual meeting of TSA.

Section 2. Each chartered association will be entitled one vote for each state officer in attendance (maximum of 6) plus two additional votes for each chapter in that state association which is in attendance at the conference.

Section 3. Sixty (60) days prior to the annual meeting of TSA, a national membership report shall be prepared to indicate the number of affiliated chapters within each state association for the purpose of determining the maximum number of votes allowed each charter association in conducting TSA business.

ARTICLE IV — NATIONAL OFFICERS

Section 1. The national officers of TSA shall consist of a: President, Vice-President, Secretary, Treasurer, Sergeant-at-Arms and Reporter. These national officers along with the TSA national advisor will be known collectively as the Executive Committee of TSA.

Section 2. Only active members of TSA will be eligible for a national office. To be eligible for a national office, a candidate must be holding or have held an elected chartered chapter or association office. Students cannot be elected to national office during their senior year. Students elected as national officers at the annual meeting may not hold a state or local TSA office concurrently with their terms as national officers.

Section 3. No individual may serve more than one term as a national officer in the same office.

Section 4. The national TSA President shall appoint a credentials committee to review all national officer candidates and their qualifications and will submit to the voting delegates a slate of all candidates declared eligible for each national office. There will be no additional nominations from the floor. All national officers shall be elected by a majority vote of all the voting delegates.

Section 5. The Executive Committee may fill by appointment any vacancy occuring in the national officers for the unexpired term, except the office of President, which shall be filled by the Vice-President.

ARTICLE V — DUTIES OF NATIONAL OFFICERS

Section 1. President: It shall be the duty of the President of TSA to preside at all meetings; to make necessary committee appointments including the designation of a committee chairperson; to develop with the Executive Committee a program of work for his/her term of office; and to make himself/herself available, as necessary, in promoting the general welfare of TSA.

Section 2. Vice-President: It shall be the duty of the Vice-President to serve in any capacity as directed by the President; to accept the responsibility of the President as occasion may demand; and to make himself/herself available, as necessary, in promoting the general welfare of TSA.

Section 3. Secretary: It shall be the duty of the Secretary to serve in any capacity as directed by the President; to record proceedings of all meetings; and to make himself/herself available, as necessary, in promoting the general welfare of TSA.

Section 4. Treasurer: It shall be the duty of the Treasurer to serve in any capacity as directed by the President; to keep records and membership reports as necessary, and to make himself/herself available, as necessary, in promoting the general welfare of TSA.

Section 5. Sergeant-at-Arms: It shall be the duty of the Sergeant-at-Arms to serve in any capacity as directed by the President; to assist in the preparation and control of the meeting place; in the event that a Parliamentarian is not appointed by the President, to assist in conducting all meetings according to parliamentary procedure as set forth by *Robert's Rules of Order, Newly Revised*; and to make himself/herself available, as necessary, in promoting the general welfare of TSA.

Section 6. Reporter: It shall be the duty of the reporter to serve in any capacity as directed by the President; to accumulate and keep up-to-date information on the history of the association; to prepare articles for publication in TSA publications, professional magazines and journals, newpapers and other news media; to contact other association members concerning new items for publication, and to make himself/herself available, as necessary, in promoting the general welfare of TSA.

ARTICLE VI — AMENDMENTS

Section 1.

(1) To amend these bylaws, the proposed amendment(s) must be presented in writing by the chartered association proposing the amendment(s) to all chartered associations of TSA and the TSA President at least ninety (90) days prior to the annual meeting.

(2) The President must then present the proposed amendment, together with the actions recommended by the Executive Committee, to the Board of Directors of TSA, Inc.

(3) If approved by the Board of Directors, the proposed amendments will be presented at the next scheduled meeting of TSA, and may be adopted by two-thirds majority approval of the voting delegates present at this annual meeting.

(4) If adopted, the amendment will take effect upon adjournment of the annual meeting in which it is presented for approval.

CONSTITUTION

Technology Education Collegiate Association

Approved, May, 1987

ARTICLE I — NAME, GOVERNING AUTHORITY, AND PURPOSES

Section 1. The name of the organization shall be the Technology Education Collegiate Association (TECA).

Section 2. TECA is a sponsored program of the International Technology Education Association, Inc., governed by this constitution and administered by the Administrative Advisor appointed by the TECA Management Board.

Section 3. The purpose of TECA is to promote leadership, fellowship, scholarship, and a philosophical foundation for future technology teachers, through college chapter coordinated activities at the campus, state, regional, and national level.

Section 4. TECA shall serve as a pre-professional organization providing opportunities to develop the professional attitudes of future technology educators through active participation in ITEA/TECA proceedings.

Section 5. TECA shall provide an open line of communication between chapters for exchange of ideas related to technology education and the purposes of college student associations.

Section 6. TECA business meetings shall be conducted according to *Robert's Rules of Order.* The President shall appoint a Parliamentarian who shall rule on all questions of order which may arise from the floor.

ARTICLE II. QUALIFICATIONS OF MEMBERS

Section 1. Membership in TECA shall be open to undergraduate and graduate collegiate students enrolled in a technology education/industrial arts program. In addition, TECA membership shall be concurrent with ITEA college student membership.

Section 2. All TECA affiliated chapters shall actively support ITEA, and its members are expected to belong to ITEA. The affiliation fee for chapters shall be set by the TECA Management Board.

Section 3. The college student membership in ITEA/TECA will last one calendar year and is set by the ITEA.

ARTICLE III. ELECTION OF OFFICERS

Section 1. The Nominations Committee shall issue a call for nominations from the affiliated chapters and membership no later than 20 weeks prior to the annual ITEA Conference. The elections will take place after the conference. In the event that insufficient candidates are obtained before the conference, the committee may also accept nominations during the ITEA Conference.

Section 2. Nominations for officers from the membership shall be limited to the potential of not more than two members from any one institution serving on the TECA Management Board simultaneously.

Section 3. Each nominee for office shall be an active member of ITEA/TECA for the current school year and will be returning to school the following year.

Section 4. All nominees shall be given two weeks after the TECA Business Meeting to complete the Candidate Verification Form to include the signature of two TECA members, the candidate's faculty advisor, and the Department Chairperson indicating full cooperation from the department and institution where they are enrolled. Along with the Candidate Verification Form, nominees may send a resume' or list of their qualifications, not to exceed one page. This shall be sent to the Administrative Advisor.

Section 5. The Administrative Advisor shall be responsible for distributing the qualifications of the candidates and ballot to each affiliated chapter. Each chapter shall have one vote per TECA office.

Section 6. All ballots must be returned by the stated deadline to the address given.

Section 7. All officers shall be elected by a majority vote. In case of a tie on the ballot, the TECA Management Board shall cast the deciding vote.

Section 8. The current TECA President shall contact each winning candidate and inform them of the election results.

Section 9. When a duly elected officer is unable to assume or carry out the responsibilities of his/her office, the TECA Management Board, in accordance with the provisions of the Constitution, shall appoint another member to that office who shall serve until the next election.

ARTICLE IV. DUTIES OF OFFICERS

Section 1. PRESIDENT

The President shall serve as the Chairperson of the Management Board. The President shall assist in the promotion and advancement of the Association under the direction and supervision of the TECA Administrative Advisor. The President will preside at all meetings of the TECA Management Board and will serve as general chairperson of college student activities at the annual ITEA Conference. It shall be the duty of the President to prepare a complete record of correspondence and activities of this association during his/her term of office, a copy will be provided to the ITEA Headquarters, the TECA Management Board, the Administrative Advisor, and the incoming TECA President. The President is responsible for presenting the TECA Annual Plan of activities and budget for approval at the Management Board Meeting and report on association progress at the annual conference with assistance from the Secretary.

Section 2. PRESIDENT-ELECT

It shall be the duty of the President-Elect to become acquainted with the duties of the President and shall serve in the absence or disability of the President. The President-Elect shall serve as coordinator of the committees and prepare an annual report of the committees to be submitted to the Management Board at the annual ITEA Conference. This report shall be made part of the annual record compiled by the President. The President-Elect shall provide a committee progress report to the President prior to the full ITEA Executive Board meeting. All reports of activities shall be compiled and presented to the incoming President-Elect.

Section 3. VICE-PRESIDENT
The Vice-President shall be responsible for the annual conference planning. The Vice-President shall prepare a report on conference planning and submit it to the President prior to the fall ITEA Executive Board meeting. All correspondence and activity reports shall be presented to the incoming Vice-President.

Section 4. SECRETARY
The Secretary shall be responsible for the recording and distributing of meeting minutes and proposals by mail to the TECA Management Board. The Secretary shall also provide the Management Board and Committee Chairpersons copies of any programs and incoming correspondence that pertain to their duties. The Secretary shall be responsible for keeping a complete record of all written correspondence and activity reports pertaining to all TECA yearly endeavors. The report shall be presented to the incoming Secretary.

Section 5. REPORTER
The Reporter shall be responsible for reporting all activities and events of TECA to the Management Board and TECA affiliated chapters. The Reporter shall assist the TECA Administrative Advisor in the publication of the *College Comment.* Selected articles may be sent to ITEA, its councils, or affiliated state associations for reprinting.

Section 6. TREASURER
The Treasurer shall be responsible for preparing a balanced income and expense budget for the association. The Treasurer will contact potential advertisers and recommend fund-raising activities to meet the financial needs of the association.

ARTICLE V. COMMITTEES

Section 1. The following standing committees shall be authorized, others may be appointed as needed:

a. Administrative
b. Nominations
c. Membership
d. Publications
e. Awards
f. Contests & Special Services
g. Regional Conferences

Section 2. Chairpersons of committees shall be appointed by the President-Elect, with the approval of the Administrative Committee, for a one year term. Members of any committee may be solicited by the chairperson of each committee.

ARTICLE VI. MANAGEMENT BOARD

Section 1. The TECA Management Board shall consist of the TECA National Officers and representatives of these associations: ITEA (Director for College Students), CTTE (Teacher Educators), ITEA-CS (Supervisors), CTEA (Association Officers), TSA (Board of Directors), and TSA Alumni Division. The Administrative Advisor also serves as a non-voting member of the Board.

Section 2. The TECA Management Board shall meet at the annual ITEA Conference and at all other times when logically and economically feasible. As much business as possible shall be conducted at the annual conference with further business conducted at future meetings scheduled by the Administrative Committee.

ARTICLE VII. DETERMINING REPRESENTATIVES ON MANAGEMENT BOARD

Section 1. The Councils of ITEA, the TSA Board of Directors, and the TSA Alumni Association shall determine and appoint a representative to work on the TECA Management Board and provide support to TECA.

Section 2. The Administrative Advisor is appointed by the TECA Management Board to serve a 2-year term on the Management Board.

Section 3. The ITEA Director for College Students is the immediate Past TECA Administrative Advisor.

ARTICLE VIII. AMENDMENTS TO THE CONSTITUTION

Section 1. Amendments to the Constitution may be initiated by the process of submitting a written proposal signed by at least two members of TECA. Upon approval by the TECA Management Board, the proposed amendments shall be submitted by mail to the active members for vote.

Section 2. Amendments to the Constitution may be initiated by the membership during a TECA Business Meeting, and then the proposed amendments shall be submitted to the members for vote.

Section 3. Amendments to the Constitution may be initiated by the TECA Officers or TECA Management Board members, and then the proposed amendments shall be submitted by mail to the members for vote.

Section 4. A two-thirds majority vote for the amendment is required in order for the amendment to become part of the Constitution.

TECA BYLAWS

"The rules contained in *Robert's Rules of Order* shall govern the Technology Education Collegiate Association in all cases to which they are applicable, and in which they are not inconsistent with the rules of order or bylaws of this society."

ELECTIONS

The Nominations Committee shall consist of one national officer, one professional representative, and the TECA Administrative Advisor who shall chair the committee.

Each elected officer shall select at least one faculty advisor from the institution where he/she is enrolled. They may choose more than one if they so wish. The Faculty Advisor shall serve in an advisory capacity along with the ITEA Student Organizations Committee. Faculty Advisors should assist the TECA officers to obtain full support from their department/institution in carrying out the duties of their office. Each Faculty Advisor(s) may, and is encouraged to, sit in on any meeting, social, or other function of TECA.

COMMITTEES

The following committees and their chairpersons shall be appointed by the President-Elect and approved by the Administrative Committee.

The chairperson of each committee shall be responsible for keeping the Management Board advised of all committee activities. The chairperson shall also keep an up-to-date communications and activities record to be filed with the TECA Management Board at the ITEA Conference.

DUTIES OF COMMITTEES

(A) ADMINISTRATIVE COMMITTEE

The Administrative Committee shall consist of the President, President-Elect and the Administrative Advisor. This committee shall serve as a consulting committee on any decisions.

(B) NOMINATIONS COMMITTEE

The Nominations Committee shall consist of one national officer, one professional representative, and the Administrative Advisor.

The Nominations Committee shall be responsible for making the call for officers and bringing a slate of officers to the ITEA Conference. If sufficient candidates are not brought to the ITEA Conference, then it is the responsibility of the Nominations Committee to seek officers at the ITEA Conference.

(C) MEMBERSHIP COMMITTEE

The Membership Committee shall be responsible for the recruitment of members into ITEA/TECA and the recruitment of chapters into TECA affiliation. The Membership Committee shall create ideas for incentives to join ITEA/TECA, and submit them to the Management Board.

(D) PUBLICATIONS COMMITTEE

The Publications Committee shall be responsible for compiling of material for TECA publications. The compiling of a publication involves gathering articles written by officers, affiliated chapters, professional members, or members of TECA. These articles should then be presented to the Administrative Advisor for printing.

(E) AWARDS COMMITTEE

The Awards Committee must consist of at least two people, one shall be an officer. The Awards Committee shall be responsible for mailing an Awards Nominations Form to each Affiliated Chapter so they might nominate eligible people for the award. The committee shall then compile the nominations and send each nominee a form so they might list their qualifications for the award. The returned forms are submitted to the Administrative Advisor. All members of TECA Management Board will have one vote for each award.

(F) CONTESTS & SPECIAL SERVICES COMMITTEE

The Contests & Special Services Committee shall consist of at least one officer, one professional member, and the Administrative Advisor. It shall be the duty of the Committee, with the help of ITEA, to create ideas for contests and provide special services for the members of TECA. The Committee shall work out the details prior to the event and assist with management during the event.

(G) REGIONAL CONFERENCE COMMITTEE

Each Regional Conference will need a TECA Chairperson to coordinate activities for college students. This person will work with the local leaders and offer assistance in planning and managing the TECA activities.

MANAGEMENT BOARD

The Management Board shall serve as the collective Board of Advisors which shall oversee and check all committees and events of TECA. The Management Board may suggest activities, ideas, and promote TECA, but it cannot impose an action on TECA that will affect the members of TECA without voting either by mail ballot or at a TECA business meeting.

The TECA Management Board shall meet at the annual ITEA Conference and at other times when logistically and economically feasible. As much business as possible shall be conducted at the annual ITEA conference with further business conducted at future meetings scheduled by the Administrative Committee.

The TECA President shall serve as the Chairperson of the TECA Management Board.

The TECA Administrative Advisor shall be appointed by the TECA Management Board to serve as a non-voting member of the Board. The administration, operation, and management of TECA shall be the responsibility of the Administrative Advisor as determined by the Management Board in accordance with the ITEA Executive Board policies. The TECA Administrative Advisor shall authorize the payment of funds from the continuing account established by ITEA Board Motion No. 4, November 1985.

The ITEA Director for College Students is the immediate past TECA Administrative Advisor who serves on the ITEA Board of Directors and is a liaison between the two groups.

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