Many vocational education, technology education, and now technology and engineering education leaders have made their mark on our profession. Their legacy is something that members of the profession enjoy and have a responsibility to continue and build upon.

This is the tenth in a series of articles entitled "The Legacy Project." The Legacy Project focuses on the lives and actions of leaders who have forged our profession into what it is today. Members of the profession owe a debt of gratitude to these leaders. One simple way to demonstrate that gratitude is to recognize these leaders and some of their accomplishments. The focus and scope of this Legacy article are Jack Wescott and Don Smith from Ball State University.


by
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Ball State University has had a national reputation for producing industrial arts and later technology education teachers for decades. The department was equally noted for producing strong teachers, administrators, and teacher educators. What ideas were working to produce these educators? Describe the characteristics of the type of educator that you desired to prepare through your undergraduate program.

The characteristics of the educator that the undergraduate program desired to prepare were derived from the following questions: (1) What are the essential qualities of a good technology education teacher? and (2) How can we assist the individual to become a good technology teacher? Although not intended to be all-inclusive, the following is a short list of characteristics that were desirable for the undergraduate program.

**Technical skills.** Possessing a technical skill set has always been a major focus of the undergraduate program, since the learning experience has always been activity/laboratory-based. For several decades prior to the early 1980s, students developed technical skills by taking coursework in unit shops such as woodworking, metals, plastics, electricity, and drafting. This was appropriate, since most of the graduates would be hired into public school programs offering courses in these areas that were taught in facilities similar to those they experienced at the collegiate level. As the profession began the transition to a technology emphasis, technical courses were implemented, with the emphasis placed on the areas of technology that included manufacturing, construction, communication, and transportation.

The unique characteristic of this revision was that teacher education faculty taught the technical courses.

**The act of teaching.** The professional sequence courses focused on the "act of teaching." The program has always recognized that prospective teachers needed to be just as knowledgeable about how to teach as what to teach. Likewise, it is critical to the success of any teacher education program that graduates were able to enter the ranks of teaching having mastered the basic skills of teaching. The professional sequence addressed such topics as teaching strategies, course planning, classroom management, and facility planning. In more recent years, a special emphasis was on placing the undergraduate student into the public schools prior to student teaching. These public school experiences would provide the prospective teacher with the opportunity to actually plan and teach a unit of instruction.

**Self-learners.** It is more important than ever before that prospective teachers are able to teach themselves. The undergraduate student should not stop learning simply because he or she graduated. This is a characteristic that has been emphasized for years at the undergraduate level. An example of this need is that the public school teachers of industrial arts and later technology education have always been faced with the challenge of remaining knowledgeable of the content they teach. The increased use of computers and other emerging technologies has forced teachers to constantly teach themselves.
Interest in students. Possessing a genuine interest in students is a key ingredient to any teaching-learning process. Alumni, as well as current and emeritus faculty, have consistently expressed a genuine interest in the program. Although showing an interest in students was covered in classroom discussions, faculty members were able to demonstrate through their actions a genuine concern for students. Faculty members were able to demonstrate their genuine interest in students by the following:

- Serving as faculty sponsors for student organizations (student competitions such as Technology Education Clubs of America).
- Serving as mentors to students interested in pursuing a career in education.
- Actively interacting with students at events such as state and national conferences, campus-wide activities, and activities sponsored by student organizations such as professional honoraries and technology clubs at the local level.
- Inviting students to collaborate on professional activities and/or research projects.
- Encouraging students to copresent with faculty members at conferences.
- Nominating and recognizing students in awards programs at the local and national levels.

Ball State was known to have a strong faculty from the early part of the last century. Who were a few of the most outstanding people who built the department before and during your administrative experiences, and what were they known for doing?

The long-term success of the teacher education program can be traced directly to the faculty. Over the years, faculty has created an outstanding record of successful teaching, scholarship, and professional service. As a group, the faculty possesses the following attributes that made it successful: (1) expertise in a content area relevant to the preparation of technology education teachers; (2) willingness to remain current in the trends and issues facing the field; (3) sincere interest in the success of students; (4) ability to effectively interact with colleagues in the department; and (5) ability to conduct and present research findings.

Faculty contributions to the field at the national level were numerous. A good example was service to the Council on Technology Teacher Education (CTTE, now CTETE), specifically the CTTE yearbook. Since the early 1970s, nine individuals served as editor or co-editor of a yearbook. Even more impressive was that 22 chapters of yearbooks were authored by Ball State faculty. Four faculty members provided leadership to the organization by serving as elected officers in the organization. Furthermore, eight graduates of the department served as editor, co-editor and/or author of a yearbook. Faculty members also made significant contributions to the Mississippi Valley Technology Teacher Education Conference by serving as invited presenters and serving as appointed members of subcommittees.

Yet another example of the faculty's contribution to our field was the Manufacturing Forum. During this time of curriculum change, it was determined that teacher education and public school teachers needed new sources of curriculum for teaching manufacturing in a laboratory setting. Thomas Wright, Donald Smith, and Richard Barella planned the publication and alternated as editors. Beginning in 1976, three issues were published each year. Distribution was by subscription for the cost of the materials.

A final example of service and scholarship at the national level was the involvement of faculty with the International Technology Education Association (ITEA/ITEEA) and its predecessor the American Industrial Arts Association (AIAA). In addition to serving as elected officers for the organizations, faculty members served as chairs of committees, committee members, presenters, and organizers of national conventions. Faculty members were mentored and encouraged to participate and make presentations at regional and state conferences. The following is a list of faculty and a brief description of their expertise:

**Teacher Education Faculty**

- Richard Barella (deceased): Professional sequence courses
- Sam Cotton (active): Career and technical education, Department Chair
- James Flowers (active): Graduate Coordinator, using and assessing technology, rapid prototyping
- Richard Henak (deceased): Constructions, professional sequence courses
- James Kirkwood (retired): Elementary school technology education, graduate seminar, graduate history
- Jake Reams (retired): Professional sequence courses
- Mary Annette Rose (active): Graduate research and statistics, environmental sustainability, energy
- Richard Seymour (active): Technology education coordinator, mentor/advisor to student organizations, elected officer in numerous professional organizations
- Ray Shackelford (retired): Materials processing, teaching methods, facility planning, teacher education coordinator, Department Chair
- Donald F. Smith (retired): Manufacturing, Department Chair, Dean
- Jack Wescott (retired): Construction, research and statistics, Department Chair, Associate Dean
- R. Thomas Wright (retired): Manufacturing, graduate curriculum, textbook author, elected officer in several professional organizations
Your tenure at the university covers many decades. How did the curriculum change over the years, what changes did that cause with the faculty, and how did your position within the university change as a result of your department’s directions?

The early 1980s were the beginning of a significant change in our profession. The change was the transition from industrial arts to technology education. As a result, the Ball State program made the decision to revisit how teachers were prepared at the undergraduate and graduate levels and also made a commitment to provide in-service education for existing teachers at the public school level.

At the undergraduate level, the technical courses made the transition from traditional unit shops such as woodworking, metal working, and drafting to the technology areas of communication, manufacturing, construction, and transportation. The teacher education faculty made the decision to teach the technical courses in the content areas of technology, since it was thought that the undergraduate students would teach as they had been taught. This was quite different from the approach of other similar institutions of higher education where teacher education students were taught technical courses by faculty in other technology programs, and their only experience with technology education was during the professional sequence (teaching methods, curriculum development, classroom management, etc.). A major challenge for several years was the renovation of facilities to meet the changing curriculum needs and new majors within the department. The program has been at its present location since the early 1950s when it housed the industrial arts department, business education, and home economics. Over the years, the building has undergone several updates and renovations to support program revisions. The reallocation of laboratory space was always a point of discussion due to fluctuations in enrollment and new technologies, especially since the facility included additional technology-based programs such as manufacturing engineering technology, graphic arts management, computer technology, and construction management. The name of the building was formally changed to the Applied Technology building in the late 1990s and continues to house the departments of Family and Consumer Sciences and Department of Technology. A major renovation of the building is currently in progress.

It was also during this transition that The Center for Implementing Technology Education (CITE) was established under the leadership of Dr. R. Thomas Wright. The Center provided public school teachers nationwide with teacher and student activity guides for public school teachers and administrators. This effort to assist public school teachers and administrators in making the transition to technology education was significant, since many of them had little or no experience with teaching and/or implementing a technology-focused program. Additionally, Ball State was instrumental in providing the leadership for writing and distributing curriculum guides for middle school and senior high schools in the State of Indiana.

Your graduate program was known for being just as strong as the undergraduate level. What type of education did a person earn who received a graduate degree from your department?

The graduate program in technology education has experienced several decades of success. Graduates had a long record of providing leadership and direction for the field at the public school level and institutions of higher education. In addition, graduates have also held key positions at state departments of education. During the 1970s, the graduate program offered a series of required core courses as well as the opportunity for students to select a limited number of electives. The required core courses included offerings in the traditional areas of advance methods, research, curriculum, history and philosophy, as well as seminar (selected topics) courses. A thesis option was also provided for students who had an interest in conducting research or expressed a desire to continue their formal education by pursuing a doctorate. Students were also given the opportunity to work closely with an advisor to select graduate courses outside of the department in an area of special interest. It should be noted that a review of course offerings for a master’s degree at similar institutions during this time period would indicate that the plan of study described above was not unique to our field. So it begs the question, if the courses in the program were not unique, why was the program so successful? There were three major factors that contributed to the success of the program.

Faculty. First and foremost is the outstanding quality of the graduate faculty in the teacher education program. Over the years, approximately 6-8 faculty members held graduate faculty status. In most cases, these members possessed expertise and experience related to a required course in the program. As a result, the faculty member took ownership in a course and spent a significant amount of time assessing the course and making revisions when needed. But being an expert in a content area was not enough. The graduate faculty members were expected to meet as a group on a regular basis and cooperatively interact to assess the program and discuss possible revisions and improvements. It was also common practice for faculty members to present their course for peer-assessment purposes. The discussions that followed were often lengthy and rigorous. Speaking as a department chair, the teacher education faculty was greatly appreciated for its cooperative efforts in responding to challenges and administrative requests in a prompt and thorough manner.

Graduate assistantships. Traditionally, the department regularly offered graduate assistantships to students who were interested
in pursuing a master’s degree. Qualified individuals were attract-
ed to the assistantships because they helped finance a graduate
degree, and it was possible for students to complete the degree
requirements in a 12-month period. As a result, 8-12 students
from across the country as well as international students formed
a cohort group that progressed through the program together.
The students who completed the exit assessment commented
that they appreciated the quality of instruction and mentoring
they received from the faculty in addition to the opportunity to in-
teract with fellow students from other states and countries. Many
of the faculty members still retain contact with former graduate
students. It was also a testament to the quality of the program
that the graduates of the master’s degree program recommend-
ed to others that they pursue their graduate studies at Ball State.

Development of an online graduate program. The development
and implementation of a graduate program that was offered
100% online was a defining moment for the graduate program
at Ball State. The 1990s began a period of declining enrollments
for face-to-face graduate education. It is difficult to determine
exactly why the graduate enrollment declined, but it appears to
be a reflection of declining undergraduate enrollments across
the nation as well as universities dropping face-to-face technol-
ogy education graduate programs. It also became an issue of
economics, as public school teachers were unable to leave their
teaching positions to pursue a graduate degree full time. The
faculty promptly recognized the problem and met as a group on
a regular basis to discuss possible options, one of which was
offering the program online. After much debate, the faculty made
the unanimous decision to offer a master’s degree in technology
education and career and technical education 100% online. It is
safe to say that several individuals expressed serious concerns
about the effects of an online delivery of the program and the
effect it would have on the quality of the graduates. As discus-
sions continued, it soon became evident that the program might
not survive if changes did not occur. To complicate things, the
faculty had little or no experience teaching online. But when the
smoke settled, the group was willing to move forward. This was
yet another example of the faculty working cooperatively as a
team to take a “leap of faith” for what was in the best interest
of the program. Under the leadership and expertise of Dr. Jim
Flowers, the faculty began to address the issue of strategies for
teaching online. The entire faculty agreed to meet as a group
with no stipend during a summer to learn about online course
organization and instructional strategies. Each faculty member
was assigned the task of developing an online delivery of the
core course that they were currently teaching face to face. The
end result of faculty efforts was the creation and implementation
of the first master’s degree in technology education program to
be offered 100% online.

Of what achievements from your department are you most
proud?

This is easy—we were most proud of the people at Ball State—
faculty, students, and alumni. We always believed and will con-
tinue to believe that our position as department chair was about
assisting faculty and students to reach their goals in the areas of
teaching, scholarship, and professional service. There was great
pleasure in attending conferences and meetings across campus
and across the nation to observe the success of the faculty, stu-
dents, and alumni. For us, accomplishments were not so much
about awards and resumes and promotions, but how we were
able to make a difference in someone’s career.

Any department chair would be proud of what was accomplished
by the faculty as a team—a team that was composed of individu-
als from different backgrounds and academic interests, yet a
group that was always willing to work together to address the
issues related to the preparation of technology education profes-
sionals and make timely decisions that were always in the best
interest of the program.

Thank you Doctors Wescott and Smith for your service to the pro-
fession and for sharing some of the highlights of your work at Ball
State University. The Legacy Project has now interviewed ten very
influential leaders. It is beneficial for current (and future) leaders to
read about the issues that existed and how they were addressed
“back in the day.” In a few months the next interview will appear in
this journal. If you have a suggestion of a leader to recognize, con-
tact the author with that person’s name and contact information.

Note: All Legacy Project articles are posted on the ITEEA website

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