



The Legacy Project

Ralph Bohn

BY
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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 third in a series of articles entitled The Legacy Project, which 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 in this issue will be on Dr. Ralph Bohn, who graciously responded to a series of questions about himself and the influence that he and others had on the vocation/technology engineering education profession. Dr. Bohn has a long and productive history with education. We thank him for his candid and informative input. He provided much more information that could not be included in this article. To read his complete input, please go to www.iteea.org/Resources/PressRoom/Legacy/Bohn.pdf.



We need to develop a national level of consciousness, recognizing that college preparation also includes secondary school programs for young people.

Ralph Bohn

AIAA/ITEA/ITEEA President 1967-1968

Place of Birth: Detroit, Michigan

Degrees:

BS in Technology (1951), Wayne State University
MA in Education (1954), Wayne State University
Ed.D. in Industrial Education (1957), Wayne State University

Occupational History:

- Detroit Public Schools – Elementary School Industrial Arts, 1950-51
- Adult Education – Refrigeration and Air Conditioning, 1948-51, 54-55
- Taught Industrial Education at Wayne State University, 1954-56
- Taught at San Jose State University, 1955-68 (Department Chair, 1961-68)

- Dean of Continuing Education at San Jose State University, 1968-92
- Senior Consultant for Extended Education for California State University System, 1992-2009
- Served as Summer Guest Faculty at: Colorado State University (1963), Arizona State University (1966), University of Puerto Rico (1967, 1974), Southern Illinois University (1970), Oregon State University (1971), Utah State University (1973), Virginia Polytechnic Institute (1973), University of Idaho (1978).
- Conducted quality assurance assessment for collegiate programs on Air Force military bases, 1988-2005, and similar assessment programs conducted by the American Council on Education (ACE) under its Military Installations Voluntary Education Review program, 1990-2010.

Married to: Mariko Tajima, now Mariko T. Bohn

Please describe California higher education industrial arts/technology education programs during the time that you were a department member and later an administrator at your university. Was California different from the other states?

Industrial arts/technology programs were very strong and were moving from a traditional to a more integrated combination of instructional programs. The traditional programs in California schools and the rest of the country consisted of woodworking, metalworking, electricity, graphic arts, automotive, general industrial arts (elementary school) and creative arts (metals, plastic, leather, and a variety of craft materials). The strengths of each program varied throughout the country. During this time the traditional methods were being challenged, and new programs were introduced to replace them—construction, manufacturing, power mechanics, and introduction of solid-state electronics. The goal of IA centered on general education, serving all the students with knowledge about the industrial world, some basic skills, and an introduction to industrial occupations—usually vocational or technical. There were some programs designed for engineering preparation, but they were in the minority (e.g., drafting). Many of the secondary school programs provided advanced courses that strengthened skills such as cabinetmaking in woodworking. The vocational programs were leaving the secondary level, especially in California, and moving to the community college. Apprenticeship programs remained about the same.

I don't think California was different from other states, other than the programs were very strong at the elementary and secondary levels. Since teacher education and all credential programs were assigned to the state universities, industrial arts programs existed on nearly all campuses and were usually quite large.

You were the President of AIAA (later ITEA, then ITEEA) when Howard Decker was the Executive Director. What problems or issues did you work on at that point in history, and what was your strategy for future success?

Howard Decker was a strong promoter and a good leader. Whenever he successfully acquired a new program or project, he passed the responsibility to others in the profession while he continued to explore other possibilities. As a result, he supported teacher educators, the elementary teacher, the student clubs, and the supervisors by keeping them involved with the progress of the association.

While I was President-Elect, the MacMillan Publication Company contacted AIAA for an article on the Association to be

published in a forthcoming ten-volume Encyclopedia of Education that covered all facets of education. Howard asked me to prepare the article. I published two articles in the encyclopedia, entitled "American Industrial Arts Association," and "Industrial Arts Education: Training of Teachers." Howard also arranged for a variety of other IA leaders to publish additional industrial-arts-related articles. IA had a prominent place in the Encyclopedia.

One of Howard's early efforts was to contact Marshall Schmitt, Specialist for Industrial Arts, U.S. Office of Education, and with his assistance, surplus funds from the Industrial Arts portion of the National Defense Education Act (NDEA Title XI) were assigned to an experimental program designed to strengthen the viability of industrial arts throughout the country. A grant was awarded. The purpose of the program was to assist state industrial arts leaders to strengthen in-service education within their states. To accomplish this goal, five one-week institutes were established to serve industrial arts leaders throughout the country. These institutes were held from August 1967 until January 1968 and were attended by state industrial arts association executive secretaries and directors. Howard Decker served as Institute Director, and I served as Associate Director. Together we planned the institutes, invited the speakers, and directed and participated in each institute.

Forty-nine of the fifty states participated. The program was very successful; it strengthened the ability of states to promote in-service education and established stronger ties between the states and AIAA. The institutes also permitted me to visit industrial arts leaders throughout the country, and I spoke at many sites prior to and after each conference, including the industrial arts association in Saskatchewan. Howard was a good promoter and kept me quite busy.

You worked with a number of other leaders in our field. Who, in your opinion, had the greatest impact on the profession, and what were their major contributions?

Don Maley from Maryland was a great leader, and his doctoral program seemed to be one of the strongest in the profession. He promoted excellence and helped develop many leaders for the profession. Don Lux and others developed a manufacturing and construction program that was a driving force at the time in bringing innovation to the industrial arts curriculum. I helped other leaders to promote this and the power mechanics programs. Other leaders who promoted industrial arts were Robert Woodward, Supervisor of IA in California (and the President of AIAA preceding my presidency) who promoted industrial arts with state publications, the industrial arts fair at the California fair, and promoted these activities throughout the state and

country; Earl Weber (president just before Robert Woodward); and Fred Kagy, who was often the person seeing that projects were completed properly (publication manager for the *Journal*, for example). I know that there are many others, but these gentlemen were all very strong leaders. I do know that I was pleased to be around so many competent people doing creative things within our profession.

When you were active with AIAA, there were many debates regarding the role of industrial arts in the public schools as well as the relationship of industrial arts to vocational education. What were your impressions regarding these rather heated debates?

I suspect the debates were more severe in other states. In California, the greatest concern was that Robert Woodward reported to the Director of Vocational Education rather than the Director of Public Education. Fortunately, he was a very strong person and essentially operated freely throughout the state. Also, the strongest vocational programs were developing in the community colleges, so we had a rather unique separation. Industrial arts was very strong at the secondary level and at the senior college level, and vocational education was strong at the community college level. Teacher education for vocational education was weak—in northern California it operated with courses through extension services from UC Berkeley, with no degree programs. Vocational teachers in need of degrees came to the IA or other departments at the State Universities. The exception was the vocational education teacher education program at UCLA, which was quite strong, but with only a limited full-time faculty. Through the strong leadership of Mel Barlow, the Department Chair, they had an excellent doctoral program and graduated a number of industrial arts leaders from California. During this time, the industrial arts programs were quite strong at the secondary level, and challenges to their inclusion were some years away.

Teacher training programs in T&E education are on the decline, and we are not preparing enough teachers to meet the demand today. Do you see this trend changing? If not, what alternatives would you suggest for preparing teachers to teach “Technology (and Engineering) Education” in public schools?

You have been active in a unique phase of higher education for the past several decades. What advice would you give current leaders in our profession who are trying to gain recognition and support in the development and implementation of responsive technology and engineering programs in the public schools?

I grouped responses to these two questions together since they are so closely related. We are faced with two current problems—finance of school programs and the push for college preparation education. Our programs require laboratories, thus making them expensive. This is coupled with the college preparation programs that concentrate on language skills, science, and mathematics.

Unfortunately, I don't have a simple answer. What is needed is a two-fold response. First, we need to build on the fact that we are not training enough engineers and need to import them from other countries, taking sought-after positions away from our graduates. Our public school programs need to help recruit students to become engineers, i.e., our programs of technology and pre-engineering. To accomplish this, we need a strong spokesperson at the national level addressing this need in a positive sense. Are we able to become political, or can we get the U.S. Department of Education to take a positive stand on this issue?

Second, as resources stop their decline and begin to reappear, can we get federal funds directed to strengthen our ability to attract young people into engineering programs, get funds assigned to build pre-engineering programs, and get support for our country to maintain leadership in this important area? At San Jose State, industrial arts changed to technology, and was then transferred to become a department in engineering. This is a logical place to begin preparing teachers, but we need to develop a national level of consciousness recognizing that college preparation also includes secondary school programs for young people, helping them become engineers.

This is not an easy task. I know our association has been working on this problem. What it needs is a breakthrough by making this project a part of the U.S. Office of Education. I recall the push for Career Education. Maybe we need one for pre-engineering education.

The Legacy Project has now interviewed three leaders who were very influential to the T&E education profession. It is very beneficial to 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, you are encouraged to contact the author.



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