

**Vo Ag Instructional Practice and the School Reform Movement
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**The Vocational Agriculture Education Model -
Notes for Nan Woodson**

Center for Performance Assessment

Milton Natusch the State Department of Education Vocational Agriculture Consultant during Vo Ag Department Head Meetings a decade ago used to say "School change is Vo Ag's friend." He detailed that as the "school reform" movement accelerated in the 1990's more of the Vo Ag educational model and instructional practices were adopted by comprehensive High Schools. The host comprehensive school was usually the larger educational unit and the Vo Ag Center is attached to it. The combined program although it shared facilities, had instructional approaches and instructional practices that differed greatly.

Currently much discussion about school reform - (professional learning communities) has focused around different educational approaches and instructional practices for all students. Key to those discussions was student engagement, creating excitement and fostering real world learning experiences. Students have expressed the desire to have "relevant meaningful instruction." This is in contrast to many "content driven" instructional models which often fails to engage students in the instructional process. Thus a reviewed focus upon the teacher's instructional practice within the established high school educational model.

Vocational Agriculture instructional practice and its educational model developed as the comprehensive high school model evolved. As early as 1850, the concept of agriculture education was found in Connecticut as a distinct study area. Connecticut's agriculture history for natural resource management wasn't that good, so a many of the early agriculture classes had to do with our mainly thin glacier soils and the desire to better agricultural practices. The Agriculture community also asked to be part of the discussions around the developing comprehensive high school in the 1880's. The concept at that time was that part of the school day that was set aside for those students who wanted to learn about agriculture industrial practices.

During the 1890's three programs were put forward in contrast to the classical Carnegie high school model - vocational medical (promoted by what we call Yale New Haven Hospital today) and vocational engineering (promoted by MIT) and vocational agriculture promoted by the Grange. All three programs wanted young people to be exposed to direct application of skill based education at the high school

level. It was anticipated that those students who experienced and was interested in medical and engineering applications would select engineering and medical fields for post secondary education. Vocational Medical and Vocational Engineering bowed to the enormous pressure to be placed upon them as both political criticism and financial implications increased both of these programs were abandoned.

Vocational agriculture supporters in 1890 turned to the Grange, an agricultural professional, a community organization that was politically supported. By 1895, VoAg was established nationwide. Of the three vocational programs proposed only the Ag model exists today and reflects high school exposure to direct industry applications at a young age. The agricultural community was distraught by the criticism of its model by Mr. Carnegie and others, and added a community leadership and citizenship component which today we call FFA (1924). Agriculture education has a long history of exposing young people to industry applications and a desire to treat the land/soil better and improve agricultural yields. These two broad goals created the educational model of responding to better industrial practices and having young people experience them early in their educational careers. It wasn't so much that farmers were opposed to post secondary education - far from it Vo Ag classes were part of the early high schools and promoters always believed that additional education was an important option. What I was able to uncover was that just like on the farm, young people needed to experience a broad range of applications to see what they liked and what they had an aptitude for. Interest has always been the backbone of this model and its success dependent upon the students the desire to learn. Science applications from the beginning were considered to be just as important to agriculture production and its technology so both courses can be found in even the earliest Vo Ag programs. Exposure to different applications (job titles) was the foundation of Vo Ag instructional practice and still is today. Vo Ag programs share two unique features that enable this to happen - Advisory input from industry directly to the teacher (we call them working groups instead of the previous "farmers" committees) and the mandate to use industry level equipment in its labs. This model was so different to Carnegie is classical approach and its foundation upon industry equipment gave rise to the "hands on," saying that it is so much a part of today's learner style conversations.

Vo Ag instructional practices appear more and more in comprehensive high schools

The school reform movement has in many ways validated the Vo Ag approach to education. In fact so many of today's educational reforms/best practices have been borrowed from

Vo Ag instructional practices - including looping - junior/senior courses, block scheduling, the use of portfolios, performance measures, competency standards, direct application teaching, work experience, community service, and a highly structured ordered (mapped) curriculum. The detailed curriculum mapping structure evolved as a direct result of safety in the "high hazard labs." Students needed to be exposed to operations, best practice/safe practice protocols before using the equipment and to use it without injury. So you have this strict almost a check off type of instructional approach which always started with the industrial application (job titles) leading to elements, exercises, skill based activities, lab practicals and performance standards. (We call them NOCTI today). Since this approach to industry application is opposite that of content education models it developed a distinct teacher training program (usually at the land grant college/university) and having industry guide but not direct the curriculum. What the early founders I'm certain didn't realize is how powerful an educational model it would be to those students who needed to touch, see, hear, or feel to making learning possible. That I believe is Vo Ag greatest strength, to make education real and relevant, from the first day of class students could see and experience the learning - no student had to guess why they were doing something. They knew immediately and I might add the consequences of that knowledge.

Vo Ag Completers and Post Secondary Education

Something further about Vo Ag model of experienced based education that we just learned two years ago, as a result of a national study Greg Kane, our State Department of Education Vo Ag consultant shared with us the data at our annual state in-service in Hartford. The Vo Ag college matriculation rate is 60 points higher than the national average of the incoming freshmen class enrolled in college study only 18% matriculate in 4 years at their college of first choice versus 78% for Vo Ag high school completers. In addition, nearly 50% graduated in a topic area that was agriculturally (or aqua-culturally) related as defined by a Vo Ag scope and sequence. It appears that the process of exposing young people to a large number of science and technology applications at a young age had a tremendous impact. This is one I am certain no one anticipated - after experiencing the 4 year scope and sequence of Vo Ag, young people knew what they wanted to do - and what careers interested them in college. We always tell parents that they (their children) would soon know what they liked and didn't like about the program and it was just as important that they know what they didn't like so they wouldn't waste time on the junior / senior sequence studying some thing that they didn't want to do. That was always a part of VoAg student choice. At the end of the student's sophomore year

they had the right to chose (with the teacher/advisor guidance) which scope and sequence to concentrate in on the last two years. School choice, flexible courses of study (depending upon interest), education as a response to direct application, and alternate measures of assessing performance are the backbone of Vo Ag education. Of all the factors above, choice was one that so angered the Agricultural community, Carnegie is strict model (Carnegie Units) lacked choice. That is what the medical and engineering post secondary schools wanted too - students exposed to choice in their fields so they would come to medical and engineering schools for college. The information from Vo Ag confirms that a century ago, they were indeed unfortunately, correct. Several recent national initiatives have investigated declining enrollment in medical and engineering schools.

Vocational Agriculture Today

Vocational Agriculture today has about 2,100 Vo Ag Centers throughout the country enrolling about 1.1 million students. About 600,000 participate in our student vocational organization FFA. The Council for Agricultural Education (<http://www.teamaged.org/councilindex.cfm>) acts a coordinating and organization role for curriculum development. The FFA foundation provides teacher training and professional development activities.