

**Comments and Components About Vocational
Agriculture Instructional Practices**

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**Notes for Douglas Reeves, Chairmen
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Sorry to be so long in sending you some information about Vo Ag Instructional Practice. Since its inception Vo Ag program developers beginning in 1850 strived to have a hybrid educational model - one that served students wishing to pursue Agriculture "Academics" and Agriculture "Production." Thus the program always contained science and production technical laboratories and were most often attached to the early "comprehensive" high school. Students would be exposed to industry applications part of the school day and attend "normal" classes the rest. Our laboratories sections were "blocked" in the 1920's to allow sufficient time to perform industry applications, something that has spread to the comprehensive host schools in the 1980's and 1990's.

When the Land Grant Colleges were established the junior/senior Vo Ag courses were aligned with their "majors" and thus often "plant science" concentrators at the Vo Ag Center went on to study "plant science" at colleges of Agriculture. The example of a first 2 + 2 program or tech prep as it is called today.

In addition to the Vo Ag program two additional vocational programs, were proposed ones that were to be also attached to the comprehensive high school host, vocational medical promoted by Sheffield Medical Institute (now Yale Hospital) and vocational engineering promoted by MIT. Political support for those programs eroded as Mr. Carnegie's high school model of classical units won the day and only the strong Agriculture communities political base (The Grange) was able to obtain the approvals necessary for Vo Ag to become established throughout the nation by 1895. Many people confuse Vo Ag with Vo Tech - another model promoted by industry and trade unions after 1910. Those were usually run and operated by State Boards and not local Boards of Education. Vo Ag founders wanted the benefit of the Carnegie model while preserving a different educational approach, one that focused on instructional responses to industry applications - the exact opposite to instructional outcomes of comprehensive high schools - the absence of practical real world applications until very recently. Vo Ag instruction comprised of the following components, in classroom instruction and practical labs out of school work

and community service leadership. From its earliest days Vo Ag wanted students who had strong mathematics and writing ready skills - as agriculture was always more than just "field work." Agriculture areas of concentration are genetics, advanced plant and animal science, agriculture engineering, technical writing and reporting and lastly public speaking. Community service and leadership skills are still important components of our vocational student organization "FFA." FFA (formerly Future Farmers of America) a key part of the Vo Ag instruction program they are focused upon career contests, self esteem exercise, program recognition, awards and citizenship - the first high school program to require community service for program completion.

The third component of Vo Ag instructional practice dealt directly with young people's career aspirations and attitudes which is called today a supervised occupational experience - originally "farm site work." Vo Ag students were expected to gain work hours in a field or work that interested them coupled with guidance from the "Vo Ag Teacher Advisor." The first two years of the Vo Ag scope and sequence was termed exploratory and exposed students to great number of industry applications from which performance measures were assessed and determined to the students choice of concentration courses in the junior and senior year. Upon graduation students obtained portfolios of their accomplishments awards and career experiences. Finally, and probably the most critical aspects of Vo Ag instructional practice was an independent teacher training program outside of early teacher colleges. Vo Ag teachers were trained by College of Agriculture and were required to have seven years of occupational experience to gain certification - many of the early Vo Ag teachers were farmers themselves who taught later in life and brought occupational experiences into the laboratory/classroom. They had instant credibility and brought meaning and experience to industry applications while instructional teacher practices focused on developing skill based activities, laboratory practicals and performance measurements. Best/safe practice, protocols and operations were the foundation of "Learning by Doing" and the insistence of industry level equipment in Vo Ag labs. No Vo Ag student ever had to wonder why they were do this or how it is connected to real life. They knew instantly.

Vocational Agriculture Classroom Management and Appearance

From its inception Vo Ag classrooms looked different and were managed differently from what would be termed a traditional academic classroom. In order to satisfy different instructional practices and assignment components such as hands on projects, extensive research was needed for classroom organization and furniture because this was quite different. To ease instruction transitions tables and

groups of students were the norm, not the straight rows of tablet chairs, typically seen in academic classrooms. It is frequently mentioned that to the academic Principal the Vo Ag high school classrooms often look like a mess, as students individually or as a group, working on projects, and changing from agribusiness projects to reading technical manuals, or working on FFA leadership records books. Thus the classroom contained a small library of reference books, materials and supplies for student projects, a research/writing corner and ongoing special topic assignments as well as a traditional lecture style capacities. The size and amount of storage to complement Vo Ag instruction was enormous up to 5 times that of the traditional classrooms namely,

- Room for small tools/supplies/safety equipment
- Room for thematic library/reference books
- Room for displays/models and manipulatives
- Room for working on projects (flat tables)
- Today room for computers and related technology
- Accommodations for traditional lecture style instruction
- Accommodations for video/media delivery.

In contrast to academic models Vo Ag classrooms could have four or five different activities occurring simultaneously. To provide time for these different instructional assignments a double period lab prep curriculum prep period separated two double period blocks of instruction usually two times/week. The traditional schedule was 3 single 45 minutes periods and two 90 minutes blocks for lab or 320 minutes. Classroom management /organization was closely linked to instructional delivery - with 45 minute periods used to prepare students for the 90 blocked practical labs or field experiences. Vo Ag teachers were usually teamed and had common prep periods so that larger labs and curricular planning was facilitated. Vo Ag teaching had 35 students per semester or 70/year.

Agriculture Production - Ag I Typical Schedule
For a Vo Ag Teacher one Semester Marking Period 1 & 2

Monday	Tuesday	Wednesday	Thursday	Friday
1- Group 1 8 Students Group 1 Class	Group 1 Lab	Group 1 Class		Group 2 Lab
2- Group 8 Students Group 2 Class	Group 2 Lab	Group 2 Class		Group 1 Lab
3- Curricular/FFA Same	Same	Same	Same	Same
4- Prep	Same	Same	Same	Same
5- Group 3 8 Students Group 3 Class	Group 3 Lab	Group 3 Class		Group 4 Lab
6- Group 4 8 Students Group 4 Class	Group 4 lab	Group 4 Class		Group 3 Lab

Each 8 students cohort 3 classes x 45 minutes 135 minutes

2 practical lab or on the water/farm experiences each week.
x 90 minutes or 180 minutes
315 minutes/week

The curricular prep period relates to the block lab practical, the lab practical value is largely determined by preparation. Group projects/individual projects were dictated by the number 8. Vo Ag Classrooms and lab consisted of 16 students or two cohorts. On the farm activities consisted of 8 students with one teacher, safety was the major concern for these high hazard industry applications. Vo Ag teachers were able to trade/exchange cohorts depending upon the unit.

Vocational Agriculture Course Grading - Assessment

For nearly a century Vo Ag educators didn't issue a grade but assessed performance - as did not meet expectations, met expectations or exceeded expectations based to a large extent on industry competencies. A portfolio of accomplishments including industrial applications, career experiences, field trips and farm work visits was part of a student's grade. In the 1980's Vo Ag courses did start giving letter grades - to satisfy quality point and grade point average requests.

Curriculum -

Highly structured with defined curricular components with stand alone "elements" "exercises," "skill based activities" "laboratory practicals" and performance of "industry applications." Vo Ag had a detailed curriculum mapping process in place in the 1930's to avoid stranded "applications" and lab practicals that had no connection to a terminal industry application.