

How Vo Ag Curriculums are Mapped and Assessed
Alternate Assessment and Student Portfolios
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The Vo Ag Model of Curriculum Alignment

As compared with traditional agriculture concentrators, Connecticut leads in establishing scope and sequences for Marine Technology and Aquaculture Science. The aquaculture sciences had been guided by a statewide advisory committee in the 1980's and more recently follows many of the guidelines developed by the World Aquaculture Society. Marine Technology has been assisted by the National Science Foundation program for Marine Advanced Technology Education or MATE for short.

Working Group Efforts

The transition of Vo Ag teachers establishing working relationships with the business community have been very positive. The 2004-05 school year saw some of the first working group meetings for both technology (Pilots Point) (Gateway Community College) and science (NMFS - Milford) (Noank Shellfish Cooperative). Other cooperative efforts have been established with C.U.R.E. and Bio Science Park here in New Haven. Working group meetings provided opportunities to review curriculum content and applications. Equipment and supply requests frequently are often generated from such group reports as well as employment needs and expectations.

Integration Efforts Between High School Grade Levels

The educational process has encouraged the fractionalization of education. No

longer viewed as a continuum of shared responsibility from one grade to another it has grown into a series of levels (grades) which often share little communication or cooperation. Some educators feel that this process was inevitable as our educational system outgrew the one room school house. Others look at the varied approach to education as local entities sought different curriculums which led to state expectations and standards in the 1970's with the first "mastery tests" of common skills and expectations. Vo Ag in the 1920's developed horizontal and vertical mapping (units) as a way to incorporate selected industrial applications in a four year "program of study."

Curriculum Mapping

A renewed national attention is being given at "integration across the grades" or curriculum mapping within several school reform reports. In the Vo Ag model such mapping what and when was defined as the scope and sequence which included exploratory, intermediate, advanced and intensive (specialization) levels. For vocational education the mapping is most tangible, if skills are absent operation and practice deficiencies appear during "performance." Academic models are less "tangible" because they contain so many "embedded" tasks - task deficiencies that can only be ascertained with the acquisition of meaningful school data.

Only when educators define all elements of instructional practice with assessment - can holes or gaps in learning be identified. Often detailed curriculum maps show instructional mistakes such as students receiving the same material four or five times, or areas where no instruction was provided (I thought others were doing it, etc).

Curriculum Map Examples

**Academic - Modified Standard
Template***

**Vo Ag 2 Year Exploratory
2 year Concentrators***

Essential Questions

Employment (Job Titles)

Content

Applications (Units)

Skills/Benchmarks

Skills (Protocols/Best Practices
Operations)

Assessments

Performance (Competency)

Activities

Activities

Misc. (optional)

FFA Record/Portfolio

School Portfolio Ext.

National Standards NOCTI

Curriculum Guides (Perkins
Legislation)

Technology (Optional)

* Getting Results with Curriculum
Mapping Heidi Jacobs 2004

* State Dept of Education
Vo Ag Curriculum Outlines

The Vo Ag system has a history of non traditional or what is often today called alternative assessment. In the early 1900's Vo Ag assessments were strictly "application based." Students were assessed as to exceeding, meeting or not meeting industrial expectations. The expectations were determined by the Vo Ag teacher and the farm committee, the agricultural community surrounding the agriculture high school program. Today that is often referred to the Vo Ag working group or committee.

Prior to 1950 vocational agriculture centers issued their own completion certificates and transcripts - in September of the senior year after the final work placement evaluation was completed. Together with the work student's portfolio - in which industry applications and lab practical write ups were placed, students gained a certificate of recognition. The unit structure of the Vo Ag course corresponded to similar applications upon which they were grouped. Therefore the unit of "forestry" contained several similar applications from estimating board feet to saw mill operations. Safety standard practices was always a big part of the course as each individual student was expected to perform the course applications. Vo Ag student assessment took into consideration that not all students would perform all applications equally well, so all units were considered in determining overall progress in the exploratory program. Students who excelled in particular units were guided to concentrate in those program areas as juniors and seniors.

During the 1970's Vo Ag centers first started to list students grades on the high school transcript as pass/fail. In the 1980's in response to grade point averages Vo Ag courses were scaled and for the first time offered cross credits to an academic subject area - mostly science and an industrial arts elective. Today Vo Ag courses are graded and included in the comprehensive high school report card/progress reports much the same as "academic" required graduation course work.

Student Portfolios/FFA

As part of the a Vo Ag Educational Program student portfolios and later FFA activities were part of the assessment process. Included here were farm visits (field trips) performance of applications (lab practicals) and FFA leadership activities such as chapter officers or community service. Students would meet with the Vo Ag teacher during the school day to review portfolio and career (FFA) leadership development activities. We call this the advisement period at Sound School.

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National Assessments

More recently 2000 performance measures/standards were connected to a national standards and validated through the Connecticut State Dept of Education. They were developed and scored by the National Occupational Competency Testing Institute located in Michigan. Industry competency certificates was always an option to be Vo Ag teacher. It required close associations with agriculture groups who sponsored the certificates or award. They were often given out at the annual Vo Ag "awards banquet" to those students who fulfilled the expectations or requirements of the certificates. The Safe Boating Certificate and HACCP certificates are examples.

All Vo Ag students take the Connecticut Career and Technical Education CTE Assessment. Vo Ag Centers test five concentration areas (student completers) which include Agriculture Mechanics (7400) Animal Science (7387) Aquaculture and Marine Related Technologies (7386) Natural Resources and Environmental

Science (7390) and Plant Science (7394). These comprehensive examinations are given in May of the senior year.