
Student Assessment and Lesson Planning

The purpose of student evaluation is to assess performance (skill attainment) and knowledge learned in the educational program. Students can be evaluated by a variety of testing and measurement methods. Measuring student growth serves several purposes in the educational process. The purposes include:

1. Monitoring student progress,
2. Reinforce desired outcomes and behaviors,
3. A review to provide structure for students,
4. An aid in career guidance,
5. Classification and placement of students,
6. An aid for curriculum/instruction improvement, and
7. An assessment of teacher effectiveness.

Evaluation can be criterion-referenced or norm-referenced. Norm-referenced measurement is the traditional manner of testing. It involves the comparison of individuals one to another. The individuals are ranked within the class or group with regard to their achievement in the course and to some variable in assigning letter grades. Criterion-referenced measurement differs from norm-referenced measurement in that each student does not compete or compare with others but is asked to master or achieve specific skills and/or concepts. Upon mastering the material, the student is said to be competent in the specified knowledge or skill area.

I. Alignment of Curriculum Objectives to Local, State, and National Standards

Initially, this meant to identify the occupation(s) for which students would be trained so appropriate knowledge and skills (outcomes or competencies) could be developed. While these Missouri competencies are still important, it is important to align curriculum to other state and national competencies, for example to the Missouri Core Academic Standards and to the National Agriculture, Food and Natural Resources Career Cluster Content Standards. Refer to the section on *Writing a Program Philosophy* and *Developing Departmental Objectives* in this handbook for assistance in developing and articulating program goals.

II. Develop, Adopt, or Modify Competencies to be Learned in the Educational Program.

An important aspect of competency-based instruction is the specification of competencies that a student is to achieve. In order to communicate and keep track of a student's progress on these competencies, a form that is called a competency profile can be used. This form basically contains a list of the competencies (tasks) for a specific program or course, along with other information, that identify the knowledge and skills that a student needs to achieve and communicates these expectations to prospective employers, parents, and other educators.

There are many uses for competency profiles. A competency profile:

1. Provides the school with a reporting system for career and technical programs that supplement the present grading system;
2. Provides parents with a record so that they can trace their child's progress on individual tasks;
3. Provides the student and educator with an individual profile of where the student stands in achieving the competencies of a course or program;
4. Assists school personnel and students in job placement
5. Provides specific information for prospective employers in the hiring of career and technical graduates;
6. Provides specific information that will help employers determine the future training needs of newly hired career and technical students;
7. Provides a career and technical program description that can assist school personnel and students in course selection; and
8. Provides schools with a public relations instrument for information relating to specific career and technical programs.
9. A **sample competency profile** can be found in chapter 5 of this handbook.

III. Prepare Measurable Learner Objectives

Measurable learner objectives (MLO) are statements of what a student should know or be able to accomplish, written in student friendly language. The teacher will need to deconstruct the competencies in order to develop these MLO's. Then the MLO's become the basis for the lesson plan for the teacher and student. With the end in mind the teacher should be able to answer the following questions about the competency.

- What should the student know, understand and be able to do?
- What is worthy of understanding?
- What enduring understandings and questions should be answered

IV. Plan and Align the Instructional Delivery Methods

Instructional materials and processes should allow students to learn what is needed to demonstrate defined outcomes. Alignment means to identify, develop, and/or adopt curriculum and instructional practices appropriate for each competency. In order to accomplish this goal a teacher needs to consider the following questions:

- How will we know if students have achieved the desired knowledge or skill?
- What will we accept as evidence of student understanding and proficiency?

These questions will drive the development of assessments that will validate student understanding of the objectives. After the appropriate formative assessment has been determined the teacher can develop a lesson plan that will accomplish the anticipated student learning.

V. Develop The Lesson Plan

When developing the lesson plan the teacher should consider the following questions:

- What enabling knowledge (facts, concepts, and principals) and skills (procedures) will students need to perform effectively and achieve the desired results?
- What activities will equip the students with the needed knowledge and skills?
- What will need to be taught and coached, and how should it best be taught in the light of the objectives?
- What materials and resources are best suited to accomplish these goals?
- Is the overall design coherent and effective?

VI. Evaluate Effectiveness of Lesson

The last and often neglected step is to evaluate the effectiveness of the lesson. This can be accomplished by various feedback from the students. The teacher should be able to evaluate the student behavior during the assessment, their final grades, and their comments when you discuss the assessment with them to determine if they got it. Those students that performed at a level of competence are ready for the next lesson, those that do not have the skills or knowledge learned will need to be re-taught. The teacher will need to have procedures in place to allow for students to revisit the lesson if needed, or have challenging and valid alternative assignments for students who did well on the assessment, and are waiting to go to the next lesson. The information learned by a valid self evaluation of the lesson assessment, should drive revisions in the lesson activities and format for next time.

VII. Student Records

Agriculture education is a total program and not a class, therefore a teacher is expected to maintain student records. In a modern agriculture program these records may be electronic or hard copies. These records should contain information about the students learning such as competency profiles, but will include the following as well:

- Records of SAEP visits and information
- Records of Leadership Activities and Goals
- Career development materials and activities

- Graduate Follow Up Information

These student records should be maintained for at least three years after a student has graduated and can be a valuable tool for student success. In addition, this information can be a great place to start when planning for a Young Farmer Chapter or Alumni Chapter.

One record that can go with a student is a student portfolio. Employers want students with critical thinking skills. One strategy to help students to become better critical thinkers is to allow them to develop and plan a student portfolio. A portfolio can be utilized for career planning, reflection on student work, to drive further inquiry by the student, and to evaluate the learning of a student. When planning for the utilization of a student portfolio, you should consider the following questions:

- First, you must decide the purpose of your portfolio. For example, the portfolios might be used to show student growth, to identify weak spots in student work, and/or to evaluate your own teaching methods.
- After deciding the purpose of the portfolio, you will need to determine how you are going to grade it. In other words, what would a student need in their portfolio for it to be considered a success and for them to earn a passing grade.
- The answer to the previous two questions helps form the answer to the third: What should be included in the portfolio? Are you going to have students put of all their work or only certain assignments? Who gets to choose?

Grading Policies and Procedures

An important aspect of student assessment and evaluation is having well defined grading policies and procedures. A teacher of agriculture must have clear policies and procedures on how students will be graded for each course in the educational program. The school districts= policies and procedures should be reviewed prior to developing the policies and procedures for the Agricultural Education program.

One of the first responsibilities in developing grading policies and procedures is to determine the items to include in determining student grades and how each item will be weighted. The following are items that have been used as a basis for determining grades:

- Tests and quizzes
- Daily work and assignments
- Projects (classroom and laboratory)
- Portfolios
- Laboratory (work habits, quality and quantity of work, and safety)
- SAEP recordbooks (accuracy, neatness, and completeness)
- Notebook (completeness, neatness, and accuracy)
- Leadership and participation

Remember that with modern grading programs, parents, your administrator, and the students themselves will be able to view your grade book. In the new age of teacher accountability, it is crucial that your grading practices be valid and communicated openly to students, parents, and administrators. One of the essential components of grading, is a valid rubric for performance events. Performance events are a suitable way to assess student skills on specific tasks. In order to drive learning, the teacher should develop legitimate and easily understood rubrics or scoring guides. The rubric should be shared with students before the performance event and should clearly communicate teacher expectations. In addition, the rubric should communicate clearly after the event what the student did well and what they did not accomplish. Rubric Star is one online resource that can be utilized to develop your rubric and can be found at rubricstar.4teachers.org. In developing your rubric, be cognizant that the descriptors accurately reflect your expectations for the students and that they are written in student friendly language.

Student Achievement

In our current data driven society student achievement is now more important than ever. Administrators and parents are looking for proof that students are being successful in the learning of concepts and skills taught in the class. With the passage of Perkins IV, there was a requirement that all completers of an educational program will prove that they have attained a technical skill. The state of Missouri, then demanded a Technical Skill Assessment for all completers of career and technical programs.

Technical Skill Assessment sites were developed at local schools, which allow students to test their knowledge and skills in the various agriculture pathways. These sites were approved by Agriculture, Food and Natural Resources of the Department of Elementary and Secondary Education. Information about becoming a MOASK site can be found at <https://dese.mo.gov/college-career-readiness/career-education/agricultural-education/news-and-updates>. Technical Skills Assessments in agriculture are now Missouri Assessment of Knowledge and Skills or MOASK assessments. These assessments will eventually allow for the development of industry recognized credentials (IRC) in agriculture.