

Curriculum Aligned to Standards Equals Success

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Introduction

In recent times officials at the local, state, and national levels have based the educational assessment process on academic standards that promote post-secondary success. These standards serve as the building blocks for an assessment that determines the requirements for promotion of students; therefore teachers must be cognizant of these standards within their classrooms and assessments. An important step toward aligning classroom instruction with such an assessment system would be the alignment of classroom assessments with the standards on which the statewide assessments are based (Wolfe, 2007).

The Arizona Agriculture Teachers Association (AATA) developed Agriscience Standards that are drawn from the Arizona Science Standards and National Agriculture, Food, and Natural Resources Career Clusters. From these standards, the AATA developed the Arizona Agriscience Curriculum. The curriculum is composed of lessons and assessments that are aligned with the Arizona Agriscience Standards. These assessments benefit the Arizona agricultural education profession, because they can be used to measure student achievement of the Arizona Agriscience Standards. In addition, the study benefits Career and Technical Education nationwide by providing a roadmap for developing a curriculum and assessments based on the national, state, or local standards (Bushong, 2007).

Methodology

The AATA Agriscience II Curriculum plan was divided into three stages: collection and organization, development, and distribution. The curriculum project was executed by two teams of committee members composed of agricultural educational professionals. In stage one, the committee collected materials (lessons, PowerPoint presentations, activities, assessments, and any other additional educational resources) from teachers around the state of Arizona. Then, these educational materials were organized into lesson plan formats similar to those of LifeKnowledge and Colorado Agriscience Curriculum.

The creation of the curriculum and reviewing of the curriculum was stage two. The AATA Curriculum Committee and volunteer professionals created the assessment tools during the development of the Agriscience Curriculum in the summer 2006. The curriculum committee was headed by a coordinator and consisted of six Arizona secondary agricultural education instructors. This committee developed the assessments and aligned each assessment with the Arizona Agriscience Standards. The curriculum and assessment tools were appraised by the curriculum review committee to make edits and provide validity. The review committee was also headed by a review coordinator and consisted of six Arizona agricultural education teachers. The review committee checked for spelling and grammar errors as well as appropriate formatting, content errors, constancy between suitability of supplementary materials, and incorporations of multiple learning styles. The enlistment of two separate groups of professionals for creation and review of the curriculum determined the assessments to be valid.

The final stage of the project was pilot testing the curriculum by the curriculum committee to check for possible problems. The assessments, lesson plans, and other instructional materials were compiled onto the Agriscience II Curriculum CD-ROM. After modifications were made to

the CD-ROM, the curriculum was distributed to Arizona Agriculture Teachers at the 2007 AATA Summer Conference.

Results

The Arizona Agriscience II Curriculum was developed by Arizona Agricultural Education Professionals as an answer to new legislation requiring state assessments to be aligned with state standards. This curriculum includes valid and reliable assessments as well as a variety of learning materials that accompany the assessments tools. These additional learning materials include: lesson plans, power points, activities, handouts, worksheets, quizzes, and other educational resources. The assessments provided a measure of the Arizona Agriscience Standards and students' ability to accomplish these standards. The study will not only serve the state of Arizona Agricultural Education, it will serve as a model for other states and Career and Technical Education Programs nationally. This curriculum demonstrates the capacity of curriculum and assessments to be developed based on national, state, or local standards by state agricultural education professionals.

Future Plans

The curriculum committee is planning to continue with the review and expansion of the curriculum. The association has asked for its professionals to tender any recommendations for the improvement of the curriculum and submission of additional materials that may help to strengthen the content. In addition, research is currently in progress to determine the reliability of assessments within the Arizona Agricultural Teachers' Association Agriscience II Curriculum.

References

- Bushong, G. (2006). Arizona's Challenge: A Process Worth Duplicating. *The Agricultural Education Magazine* 79(2).
- Wolfe, E. W., Viger, S. G., Jarvinen, D W., & Linksman, J. (2007). Validation of scores from a measure of teachers' efficacy toward standards-aligned classroom assessment. *Educational & Psychological Measurement*, 67(3), 460-474.