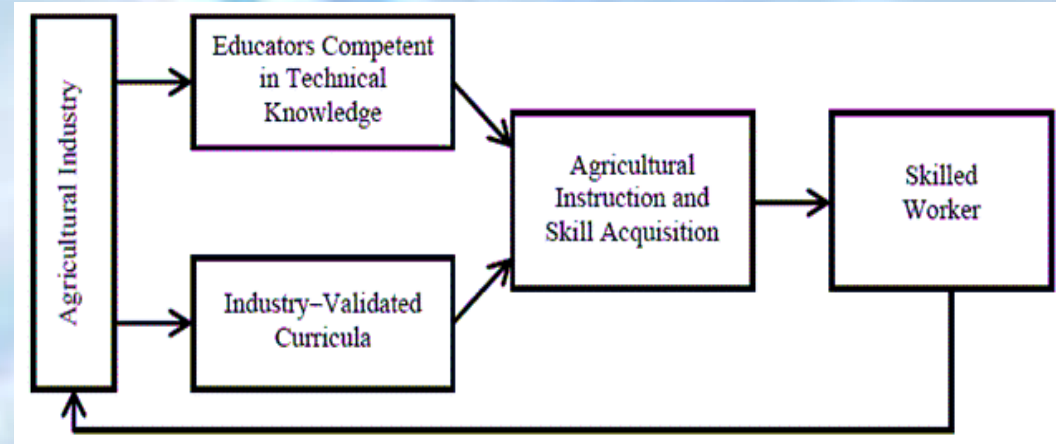


A Review of Entry-Level Technical Skills in Agricultural Power, Structures, and Technology in an Oklahoma Adopted Curriculum: A Delphi Study

Introduction

- In the mid-to-late 2000, industry and SBAE teachers were not aligned regarding technical skill acquisition (Ramsey & Edwards, 2011, 2012).
- The purpose of this study was to identify the level of agreement of agricultural power, structures, and technology (APST) technical skills being taught by selected agricultural educators in Oklahoma.

Conceptual Model



Secondary Agricultural Science as Content and Context for Teaching

Conceptual Framework

- Content based model for teaching agriculture (Roberts & Ball, 2009)
- Conceptualized agriculture as content
- Preparing skilled workers for agriculture
- Study focused on the Agricultural Instruction and Skill Acquisition.

Methodology

- Modified Delphi
- Three Rounds
- Expert Panel included Oklahoma SBAE Teachers
- Selection criteria included:
 - Participation at OYE Ag-Mech Competition
 - Taught APST courses
 - 31 panelists were identified
- Open-ended prompt: Identify technical skills taught within five APST areas featured in CIMC Curriculum

Results

R.1: Thirty percent response rate. One hundred fifty six (156) technical skills across five of the six areas. Ninety-two items were identified for round two.

R.2: One hundred percent response rate. Eighty-six items were found to garner consensus greater or equal to 70%.

R.3: One hundred percent response rate. Four items were returned to the panelists. Panelists were asked to indicate yes or no regarding the inclusion of the skills. Two items were kept for the final list of skills.

Examples of the technical skills kept included: 1) change oil in a motor, 2) perform basic carpentry skills (e.g., frame a wall), and 3) perform basic maintenance on a GMAW machine.

Conclusions

- Ag Welding/Ag Construction is the skill taught most frequently by the panelists
- CASE is not seen as a curricular resource
- Advisory committees are not used by 2/3 of the panelists.

Recommendations

- SBAE teachers should initiate advisory committees
- Professional development highlighting industry validated curriculum should be made available to SBAE teachers.
- State level, FFA CDE's should reflect industry validated curriculum.