

Supervised Agricultural Experience (SAE) Guidelines & Principles

Developed by the NASAE SAE Committee

For the National Council for Agricultural Education SAE Taskforce

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SAE / Work-based learning include strategies that allow agricultural education programs to extend beyond the classroom and into the community in order to develop industry and career-based student competencies. The SAE is a required component of a total Agricultural Education program and intended for every student. Through their involvement in the SAE program students are able to consider multiple careers and occupations, learn expected workplace behavior, develop specific skills within an industry, and are provided opportunities to apply academic and occupational skills in the workplace. Through these work-based strategies, students learn how to apply what they are learning in the classroom as they prepare to transition into the world of college and career opportunities.

Every student should receive the following through their participation in an SAE program:

- Exploration of career interests, requirements and opportunities within a chosen career pathway
- Application of classroom learning (both academic and technical) in a real world setting
- Establishment of a clear connection between education and work
- Assessment of their interests, aptitudes, and abilities while learning about the career possibilities available to them--explore possible careers
- Improvement of their post-graduation employment opportunities
- Development and practice of positive career-readiness habits and attitudes including the ability to think critically, solve problems, work in teams, and resolve issues that relate to possible careers
- Financial management and data analysis
- Understanding of entrepreneurship and the business development process
- Assessment and understanding of the expectations of the workplace
- Establishment of professional contacts for future employment
- Expansion and refinement of their technical skills
- Participation in authentic, job related tasks
- Observation of the demeanor and procedures of a workplace professional
- Development of an increased motivation/appreciation for completion of secondary education
- An understanding of the importance and variety of postsecondary education opportunities, including technical/apprenticeships, community college and other 2-year options, 4-year college programs and beyond

SAE in the Educational Setting

A Supervised Agricultural Experience is a component of the total agricultural education program and is instrumental in preparing a graduate that is career and college ready. To this extent it should not be an appendage to the program but an integral part of the program's educational delivery and an expectation of the instructor to ensure every student in the program is engaged in an SAE. To maintain a reasonable workload on the instructor it is recommended that the following considerations be given for SAE management:

- SAE supervision requires additional instructor time outside the classroom/laboratory component of the program. Because the SAE can and should occur on a year round basis some of this additional time occurs beyond the normal teaching contract. To accommodate this individualized, year-round instruction, the teacher should be provided extended contract days to facilitate supervision during summer months
- SAE is an extended, individualized instructional component that is part of the student's Career Plan of Study. Time and expertise spent in delivering this component should be valued in the teacher's performance evaluation.
- SAE can and should be considered as a source of data for evidence of student growth.
- States are encouraged to utilize student SAE documentation as a component of industry certification programs.
- States are encouraged to explore the utilization of student SAE documentation as a part of articulation agreements between secondary and post-secondary partners.
- SAE may be utilized by states to conduct performance assessment of skills for Technical Skill Attainment for Perkins data reporting. This would require development of specific performance assessments to ensure reliability and validity.
- SAE may also be considered for high school graduation credits.
- SAE documentation and the Career Plan of Study should be a graded component of agricultural coursework.

SAE for Career Exploration

The goal of education and Career and Technical Education (CTE) especially is to prepare and guide the student toward a successful, living wage career. To that extent the SAE must provide every student the opportunity to identify, research and experience careers that align to their interests. To meet this requirement the SAE should:

- Start with a career exploration component which provides the student opportunities to;
 - Conduct interest surveys that identify potential career opportunities aligned to their interests and desires.
 - Conduct in-depth research on a career interest which includes;
 - Employment outlook and variety of employment opportunities in identified career choices.
 - Educational requirements for each level of employment opportunity.
 - A shadowing experience or interview with someone employed in an identified career field.
 - Create an individual Career Plan of Study based on the career pathway of choice. This plan should include
 - A multi-year plan that includes coursework needed to prepare for a chosen career pathway including academic courses, agricultural education courses, and supporting elective courses
 - Identify an SAE/work-based learning experience in the chosen career field to include knowledge and skill development beyond the exploratory level
 - Identification of inter-curricular activities through FFA that prepare the student for career & college success
 - Identification of extra-curricular opportunities that prepare the student for career & college success
 - Identification of post-secondary educational opportunities and programs of study that provide the student access within a chosen career pathway
 - Financial planning activities which identify future costs needed to pursue a chosen career pathway

This career exploration phase of the SAE provides the foundation upon which the student can either move forward toward greater involvement in the career pathway or allows the student to determine they are not interested in this career pathway and can restart their exploration in another career pathway of interest. This ensures the continued development of the student's SAE is truly related to their career interests rather than only meeting a program requirement.

SAE Format & Parameters

An SAE should provide the student opportunities to apply knowledge and skills learned in the agricultural education classroom to real world workplace settings. Recognizing that a large number of career opportunities for students can lie outside the agricultural, food and natural resources career cluster, the instructor is encouraged to support the student's career interest by assisting him/her in identifying the knowledge and skills that reside in both the AFNR cluster and the industry cluster where a student's other career interests may lie.

To this extent the SAE should provide the opportunity for the student to master educational standards in the workplace settings. These standards include:

- AFNR technical content standards
- College and Career Readiness standards/21st Century Skills
- Core academic standards
- Other standards as identified in the Career Plan of Study

The SAE program can be provided through one or more activities aligned to the classifications listed below.

- **Exploratory** - This type of SAE is appropriate for all agricultural students. This SAE activity is designed primarily to help students become literate in agriculture and/or become aware of possible careers in the AFNR career cluster and results in the development of a plan to begin an SAE in one of the following categories (see below). The Exploratory SAE is designed to be embedded as the individual student activity of the career exploration curricular component of ANFR coursework.
- **Placement / Internship** – Placement / Internship programs involve the placement of students on farms and ranches, in agriculture, food or natural resources related businesses, in school laboratories, community facilities, or in a verified non-profit organization to provide a "learning by doing" environment. These experiences may be paid or non-paid.
- **Ownership / Entrepreneurship** - The student plans, implements, operates and assumes financial risks in a productive or service activity or agriculture, food or natural resources-related business. In these types of programs, the student owns the materials and other required inputs and keeps financial records to determine return on investments. An SAE ownership / entrepreneurship program provides students the opportunity to develop the necessary skills to become established in their own business or gain employment. A student moves from an ownership experience into a true entrepreneurship experience when he/she expands the business enterprise to include a business plan that focuses on development of new product, new production / processing processes or additional market opportunities.
- **Research** - As agriculture has become more scientific, there is a need to conduct research to discover new knowledge to meet the needs of a growing world. There are three major kinds of research SAE programs.
 - **Experimental** - An extensive activity where the student plans and conducts a major agricultural experiment using the scientific process. The purpose of the experiment is to provide students first hand experience in verifying, learning or demonstrating scientific principles in the AFNR career cluster, discovering new knowledge and using the scientific process. In an experimental SAE, there is a hypothesis, a control group, and variables are manipulated.
 - **Analytical** – The student chooses a real-world agriculture, food or natural resource-related problem that is not amenable to experimentation and designs a plan to investigate and analyze the problem. The student will gather and evaluate data from a variety of sources and then produce some type of finished product. The product may include a marketing display or marketing plan for a commodity, product or service; a series of newspaper articles; a land use plan for a

farm; a detailed landscape design for a community facility; an advertising campaign for an agribusiness, and so forth. A student-led analytical SAE is flexible enough so that it could be used in any type of agricultural class, provides valuable experience and contributes to the development of critical thinking skills.

- **Invention** – The student identifies a need in an agriculture, food or natural resource-related industry and performs research and analysis in order to solve a problem or increase efficiency by developing/adapting a new product or service to the industry. The student plans, documents and develops his/her innovation through the iterative processes of design, prototyping and testing with the goal of creating marketable product or service.
- **School-Based Enterprise** – A student-managed, entrepreneurial operation in a school setting that provides goods or services that meet the needs of an identified market. To provide for the greatest educational value to the student, the SAE should replicate the workplace environment as closely as possible. A School-Based Enterprise SAE is oftentimes cooperative in nature with management decisions made by students, while the teacher is responsible for the integration of technical content and skills. School-Based Enterprises may include, but are not limited to, cooperative livestock raising, school gardens & land labs, production greenhouses, school based agricultural research, agricultural equipment fabrication, equipment maintenance services, a school store, etc.
- **Service Learning** – A student-managed, service activity where students are involved in the development of a needs assessment, planning the goals, objectives and budget, implementation of the activity, promotion, and evaluation/reflection of a chosen project. It may be for a school, a community organization, religious institution, or non-profit organization. The student(s) are responsible for raising necessary funds for the project (if funds are needed). A project must be a stand-alone project and not part of an ongoing chapter project, or community fundraiser. The project must present a challenge that requires leadership, but also something that students can do with unskilled helpers, and within a reasonable period of time. Service Learning SAEs may be individual or a small group effort amongst students.

The expectation is that the majority of the student time in the SAE activity is outside the group instructional time of the agriculture class. Activities that are student-managed during instructional time may be considered as a student SAE. Documenting experiences and compiling portfolios verifying experiences, skills and competencies, self-reflection, analysis and enhancement of the ongoing activity are all enriched when performed in the classroom setting under the supervision of the instructor and can be considered part of the SAE program.

SAE Documentation

Each SAE activity provides a series of opportunities for progression within a student's career pathway. To provide the greatest value to each student through his/her SAE, data should be collected throughout the entire program. This data may vary dependent upon the type of SAE activity the student is engaged in but should include at minimum the following components:

- The Career Plan of Study to be reviewed with the teacher and other adult mentors
- A listing of AFNR knowledge and skills competencies mastered throughout the SAE activity
 - Aligned to the individual student's Career Plan of Study
 - Should align to content taught in the agricultural education courses but should not be limited to only that content.
- A listing of Career Readiness/21st Century Skill outcomes that have been demonstrated during the SAE.
 - The instructor, adult mentor or employer can provide validation and evaluation of the extent these outcomes have been demonstrated.
- To the extent that financial transactions occurred as a part of the SAE, a financial record should be maintained to show the following information;
 - Posting of receipts and expenses related to the SAE enterprise.
 - Historical and project cash flows of the enterprise.
 - Whole, enterprise and partial budgets of the business operation and individual components.
 - Financial statements including Income, net worth along with appropriate analysis of the documents necessary for effective business management.
 - Risk and credit management for the enterprise.
 - Other financial data as applicable to the SAE.
- Provide for the application of Personal Financial Literacy by the student. This should allow opportunity for the student to;
 - Track personal income and expenses
 - Monitor of personal assets, liabilities and net worth
 - Develop financial plans to prepare for post-secondary education costs, employment costs and other personal financial responsibilities.
- Journaling /reflection/self-evaluation of SAE experiences based on the experiential learning format. This can be utilized during the evaluation of the experience and be beneficial for the development of future activities.
- Evidence of the student actively pursuing opportunities for post-secondary education and or employment. These can include but are not limited to;
 - Applications to post-secondary institutions.
 - Scholarship and internship applications.
 - Employment opportunity research and completed job applications.
 - Resume and cover letters.
- Employer or workplace evaluations as applicable
- Industry recognized certifications as applicable
- Instructional, leadership and service experience through the agricultural education program and other organizations
- Documentation of the coaching and feedback process provided by the instructor through supervision. Completed by the instructor and attached to the student data records, portfolio, (AET/AgCN account, etc.)

SAE Supervision and Guidance

The agricultural education teacher should be involved in every student's initial planning of an SAE. A teacher's primary responsibility is to manage the educational experience and help identify the learning outcomes of the individualized program. This also includes directing the career exploration component, assisting with the identification of activities that comprise the student's experience, and ongoing/year-round guidance to ensure the student receives the greatest educational value from the experience.

The instructor's responsibility to each student SAE involves:

- Collaborating with students and adult mentors to define the knowledge and skills that the student should be mastering through the SAE.
 - Communication with adults involved in the experience to ensure that each understands the educational nature and expectations from the student engagement
 - Communicate to adults that work is incidental to the learning / training
- Attention to ensure a safe learning environment for the student that aligns to state and national youth labor and safety laws.
- Creation and utilization of documents necessary to provide a safe learning environment for the student, definition of legal responsibility for the student's well-being and compliance with all workplace and education laws, policies and guidelines.
- Coordination and communication with student employers and other supervising adults to notify all parties of their responsibilities regarding compliance with state and national youth safety laws
- Attainment of credentials for supervision of student work-based learning experiences if required by the state

Ongoing guidance and individualized supervision includes:

- Providing coaching and feedback to the student regarding college and career readiness expectations in the chosen career pathway.
- Guiding the student through self-evaluation of the experience. This evaluation should include the four phases of the experiential learning model and should include the following components.
 - The learner must be willing to be actively involved in the experience;
 - The learner must be able to reflect on the experience;
 - The learner must possess and use analytical skills to conceptualize the experience; and
 - The learner must possess decision-making and problem solving skills in order to use the new ideas gained from the experience.
- Focus of the evaluation is placed on the student gaining:
 - Real world applications of the knowledge and skills learned in their studies
 - Development and refinement of career readiness skills/21st century skills
 - Greater awareness and a regular review of their chosen career pathway and how to best prepare for the pathway outlined in the Career Plan of Study
- Supervision of the experience should be ongoing throughout the time the student is involved in an SAE activity.
 - Supervision/coaching does not have to occur only at the site of the SAE, but should include an onsite visitation if necessary and beneficial to student learning.
 - It is recommended that the student and instructor should conduct at minimum four formal supervisory/guidance sessions each calendar year which may include onsite visitations or scheduled sessions as part of the curricular component of SAE

- The student's parents/guardians should be included in this process each at least once each year either through onsite visitations, parent/teacher conferences or the enrollment process.
- Review of the student's collection of information into an approved data system in order to document knowledge and skill competency attainment, the development of College & Career Readiness skills and the Career Plan of Study.
- Assist the student in the identification of opportunities where he/she may receive additional benefits or recognition for their efforts in his/her SAE program