Planter Boxes : <http://www.aplu.org/document.doc?id=2638>

Innovative Idea

**Developing and Building Community Connections: Utilizing Grant Funding to Support Student Teachers, Cooperating Centers and Communities**

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**Introduction/need for innovation or idea**

Agricultural education at the secondary school level faces a critical teacher shortage (Kantrovich, 2007). The problem is exasperated by teachers leaving the profession early-on in their career. Engaging stakeholders to assist in delivery of the total agricultural program can be helpful in preventing teacher burnout (National FFA, n.d.). As the trend of increasing job responsibilities in agricultural education is well documented in the literature (Delnero & Montgomery, 2001; Torres, Lambert, & Lawver, 2008), teacher candidates’ ability to expand the resources available, from human resources to monetary resources, and productively engaging those resources is a critical skill set.

One of the many ways to expand both the relationships in the community and the capacity for student leadership is service-learning. Service-learning is a practical way to connect the content of a secondary agricultural education program to leadership skills developed in a career and technical student organization to apply in real world experiences, thus improving student motivation (Newcomb, McCracken, Warmbrod, & Whittington, 2004). Pugh and Bergin (2006) reported studies that addressed *motivation to learn* and *transfer of learning,* and found *motivation to learn* was positively related to *transfer*. Through service learning experiences, participants learn by doing. Unlike extracurricular voluntary service, service learning is a course based service experience that produces the best outcomes when meaningful service activities are related to course material through reflection activities such as directed writings, small group discussions and class presentations (Bringle & Hatcher, 1996).

In addition to engaging partners, having teachers learn to utilize each other as a support system would be helpful. Beyond enhancing teacher candidates’ abilities to examine, discuss and reflect pedagogical decisions, teacher education programs could investigate the Japanese approach of lesson study, where a group of teachers work together in designing and implementing lessons (Fernandez, 2002) as a way to instill this strong sense of cohort for support specific instructional areas. One particular technical area that teacher candidates have identified a lack of confidence in instructing and agricultural education professionals have identified as need for further development is agricultural mechanics (McKim, Saucier, Reynolds, 2010; Saucier, Tummons, Terry, Jr., & Schumacher, 2010). As many secondary agriculture teachers rely on the agricultural mechanics laboratory to offer students unique hands-on opportunities to develop valuable academic and vocational skills (Hubert, Ullrich, Lindner, & Murphy, 2003), it is critical that our teacher candidates have carefully designed professional development experiences in the area of agricultural mechanics.

The project engaged a series of stakeholders along an experiential and pedagogically sound continuum that began with an academic project spanning six undergraduate pre-service courses and ended with a cohort of teacher candidates prepared to teach secondary agricultural education curriculum, engage an active, community-centered agricultural education program and lead FFA members/agricultural education students in service-learning activities. Three teacher educators and one high school agricultural education instructor secured grant funding through the university’s College of Agricultural Sciences to support this project. **How it works/method**o**logy/program phases/steps**

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Upon securing funds through an internal grant process, instruction was integrated across six Agricultural and Extension Education courses taught in the fall and spring of the senior year: AEE 311- Developing Youth Leadership through Organization and Program Structure (Fall); AEE 313 - School-Based Program Planning and Instructional Development (Spring); AEE 350- Teaching Methods for Agricultural and Environmental Laboratories (Fall); AEE 412 -Methods of Teaching Agriculture and Environmental Science (Fall); AEE 413 - Program Planning and Instructional Development (Fall); and AEE 495 - Internship in Agricultural and Extension Education (Spring). Each course had specific instructional responsibilities from hands-on construction of an example [planter boxes in this case] for the student teacher, design of curriculum for project through group lesson composition, grant writing by the student teacher, implementation of the unit of instruction at their student teaching site, and ultimately engaging key stakeholders for placement of the planter boxes in the community, providing a service- learning opportunity to the secondary students in the local communities by the agricultural education program. Upon beginning their field placement/internship for student teaching, candidates were asked to complete a grant application process for funding of project. Thus, the student teachers received practice in: designing curriculum as a team, building the planter boxes, grant writing, helping their own students learn the mechanical skills necessary to build the planter boxes, and experience in completing community service. Projects such as these are valuable in building connections between agricultural education programs and the communities in which they operate. This project evidences successfully partnership between secondary and post-secondary institutions in developing opportunities for secondary student experiential learning.

**Results to date/implications**

Ten student teachers engaged over 33 unique community stakeholders/partners in placing 47 planter boxes through the work of over 79 secondary students. Teacher candidate reflective response was positive indicating excellent secondary student engagement and appreciation for application of grant acquisition/implementation skill sets. Cooperating teacher response was positive, but expressed desire to be more actively involved in project selection. Planning is underway for the second year of implementation.

**Future plans/advice to others**

The integration of this project across courses and curriculum will continue in the near future. In order to improve implementation at the cooperating center location in the spring, cooperating teachers will be involved in the future to select the hands-on construction project to utilize. In addition, potential partnership with strategic partners in private industry should be investigated to perhaps offset future materials expenses. Additionally, avenues to provide a peer review and feedback experience are being investigated.

**Costs/resources needed**

For this pilot program, internal university grant funding was secured in the amount of $2,500. The total amount was equally divided and distributed to student teacher candidates who completed application for funds. Future years will come from supply budgets and/or external strategic partners. Total cost would be dependent upon nature of project selected by cooperating teachers in future years.

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Second Abstract

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A Collaborative Experience: Partnering with a Local Agricultural Education 664 Program to Provide Teaching Opportunities for Pre-service Teacher Candidates

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