

Faculty perceptions of an innovative service-learning experience

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Introduction / Need for the Innovation or Idea

In 2013 [State] sweet potato stakeholders identified the need for increased value-added sweet potato products. At that time, the supply of processing-grade sweet potatoes exceeded their demand, resulting in excessive waste and low prices. In 2014 the Sweet Potato Innovation Challenge (SPC) was created to address stakeholder concerns while promoting service-learning, increasing undergraduate research opportunities, boosting entrepreneurship and the development of soft and hard-skills, and encouraging underrepresented demographic groups to pursue careers in agriculture, addressing multiple priority areas of the 2016-2020 National Research Agenda (Roberts, Harder, & Brashears, 2016). The SPC is divided into two phases. In Phase 1 (Fall Semester) students are introduced to the need of sweet potato producers, visit with producers to learn about sweet potato production, and begin developing novel sweet potato-containing products. At the end of that semester, the students present their concept designs to a panel of judges. Students with acceptable product ideas move to Phase 2 (Spring Semester). In Phase 2 students continue to develop their product with the guidance of a faculty mentor to create an advanced prototype that can be marketed to an industry partner.

How it Works / Methodology

At the conclusion of Fall Semester 2014 and 2015, the project evaluator conducted an end-of-semester survey of faculty who incorporated SPC into their courses. The purpose of the survey was to better understand the impact of participation in a service-learning project on faculty. The survey was administered electronically at the end of each semester. Four faculty members were invited to participate in 2014 and five faculty members were invited to participate in 2015. Three faculty members participated in 2014 and four faculty members participated in 2015, resulting in 75% and 80% response rates respectively. Survey items were based on a community-based learning survey provided by Gelmon et al. (2001). One question focused on the student and faculty roles in a service-learning course, five questions focused on the faculty members' experience and concept of community involvement, four questions focused on the influence of service to their personal and professional development, and two questions focused on future service-learning courses. The remaining questions were tailored specifically to SPC and were newly developed for the survey.

Results to Date / Implications

Although the SPC has a strong agricultural foundation, both the human and hard science disciplines were represented (Human Science = 2, Agriculture and Bio Engineering = 2, Chemistry = 1) with 329 students integrating agriculture into various educational environments. The SPC has resulted in over 50 novel innovative products with students presenting their finding at events ranging from campus research symposiums to international conferences. The majority of respondents indicated students acted as a learner and teacher rather than just a learner (71.5%)

and participated in learning activities instead of acting as a spectator (71.4%). Additionally, faculty respondents indicated shared control of the learning experience (57.1%), and that they acted as the teacher and the learner (57.2%), reflecting the definition of service-learning according to Gelmon et. al. (2001). Participants answered questions regarding personal community involvement and professional development, results are depicted in Table 1.

Table 1

<i>Faculty's Perceptions of Personal Community Involvement and Professional Development (N = 7)</i>		
Question	<i>M</i>	<i>SD</i>
I had previous community volunteer experience prior to teaching this service-learning course.	1.57	.79
I believe that the work done through this class has benefited the community.	2.43	1.27
I will volunteer in the community now that this class has finished.	2.71	.49
The community work involved in this course has deepened by understanding of community needs.	1.71	.49
I believe that as a faculty member I have a responsibility to serve my community.	1.43	.53
Performing work in the community has helped me to focus on specific areas for my scholarship	2.00	.58
Teaching a community-based learning course has resulted in a change in my teaching strategies.	2.00	.82
I found that my relationship with the students was enhanced because of the community work we performed.	2.14	1.21
Participating in the community has helped me enhance my leadership skills.	1.57	.53

Note. Responses based on a 5-point Likert-type scale with 1 = strongly agree and 5 = strongly disagree.

Future Plans / Advice to Others

Participating faculty listed time constraints, communication with community representatives, and assessment of students learning as difficulties they encountered while implementing the SPC. In an effort to mitigate these difficulties, the faculty respondents suggested the program coordinator provide (a) bi-weekly updates and reminders about SPC events for the students to attend; (b) more events for students to collaborate and mingle with fellow students from the other SPC classes; and (c) more interaction from the community partners, judges, and other professionals to provide an inside point-of-view throughout the process and better prepare the students to succeed in SPC.

Cost / Resources Needed

The SPC was originally funded by an internal seed grant awarded to the program by the Mississippi State University Extension Service. Additional funding was secured through the USDA-National Institute of Food and Agriculture Higher Education Challenge Program. Funding is used to support travel associated with on-farm visits, equipment and supplies needed for product development, and labor required to execute the daily operations of the program.

References

- Gelmon, S. B., Holland, B.A., Driscoll, A., Spring, A., Kerrigan, S. (2001). *Assessing service-learning and civic engagement: Principles and techniques*. Campus Compact, Brown University. Retrieved from <http://compact.org/resource-posts/assessing-service-learning-and-civic-engagement-principles-and-techniques/>
- Roberts, T. G., Harder, A., & Brashears, M. T. (Eds). (2016). *American Association for Agricultural Education national research agenda: 2016-2020*. Gainesville, FL: Department of Agricultural Education and Communication.