

Student Perceptions of a Regional Undergraduate Training Program in Childhood Nutrition and Health Assessment

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Introduction and Purpose

Effective agricultural education practices include techniques such as sound content delivery methods, including distance delivery (Dooley, Lindner, & Richards, 2003; Harder, Zelaya, & Roberts, 2016) and experiential learning (Baker & Robinson, 2016); mentoring (Bailey, Arnold, & Igo, 2014; Tummons, Kitchel, & Garton, 2016); and cultural relevance (Bailey et al., 2014). In light of an increased focus on complex, interdisciplinary issues, as outlined in much of the American Association for Agricultural Education's National Research Agenda: 2016-2020 (AAAE NRA), there is a need to test established agricultural education practices in these new contexts. There is also a need to create collaborative programs (e.g., institutionally and geographically) to increase resource efficiencies and program reach.

Human nutrition and health is identified as a strategic goal area for the United States Department of Agriculture (USDA) in terms of research, education, and economics (USDA, n.d.) and funding (USDA-NIFA, n.d.). This increased focus on nutrition aligns with the AAAE NRA Priority 3: Sufficient scientific and professional workforce that addresses the challenges of the 21st century (Roberts, Harder, & Brashears, 2016) as it supports research to improve educational practices to address global challenges, such as food and nutrition (Stripling & Ricketts, 2016).

The Child Health Assessment in the Pacific (CHAP) Undergraduate Summer Fellowship Program is a 12-week training program designed to build regional capacity in childhood nutrition and health assessment. It is housed in the College of Tropical Agriculture and Human Resources at the University of Hawai'i at Mānoa (UHM) and is funded by the USDA-NIFA Agriculture and Food Research Initiative. The program provides training to undergraduate students from four institutions of higher education in the Pacific. It is comprised of a didactic phase that includes a hands-on learning week and an application phase wherein students conduct a place-based field experience. Fellows are paired with a faculty mentor (1:1) for project development and implementation guidance. The purpose of this study was to evaluate CHAP by exploring fellows' perceptions of the (a) curricular experiences, (b) overall program structure, and (c) overall program value.

Conceptual Framework

The framework for this study was the Taxonomy of Learning Activities (TLA; Roberts, Stripling, & Estep, 2010). The TLA includes three primary categories of learning activities: teacher-centered, social interaction, and student-centered activities. In the didactic phase of CHAP, courses were in alignment with the TLA's teacher-centered activities (Roberts et al., 2010). Adult learners often prefer autonomous learning environments (Knowles, Holton, & Swanson, 2011), and agricultural education literature has demonstrated the potential of asynchronous, online learning (Dooley et al., 2003; Harder et al., 2016). During the hands-on learning week, the fellows came together and learned through group interactions with instructor support. This activity aligns with the TLA's social interaction activities (Roberts et al., 2010). Student-centered activities were seen in the application phase when the fellows reflected on the didactic phase and developed a field experience (Kolb, 1984). The fellows had mentor support as they sought it (Roberts et al., 2010).

Methods

Qualitative methods guided this study. The 10 participants were purposefully selected based on their status as a fellow in CHAP. Due to the regional nature of the program, an online survey was developed to collect information about specific aspects and general perceptions of the

program. Dillman, Smyth, and Christian's (2014) tailored design method was used to contact participants and collect data. Up to five points of contact were made with the participants. Eight fellows responded.

Data were analyzed using content analysis (Ary, Jacobs, & Sorenson, 2010). Each fellow was assigned an identifier (F1-F10). Credibility was established through triangulation and peer debriefing; transferability was established through purposive sampling and participant quotes; and dependability and confirmability were established through the use of a reflexive journal and an audit trail (Lincoln & Guba, 1985). The UHM Human Studies Program approved this project.

Findings

Objective one sought to explore fellows' perceptions of the curricular experiences. The fellows found the courses beneficial (F1, F3). Fellow F1 stated that the instructor "provided tons of extra resources... that made you feel like you were in a real classroom, despite both these courses being online." The fellows indicated that the courses gave them the knowledge and skills needed to be successful in their field experiences (F1, F5, F6, F7, F8), and the hands-on training week was "the highlight of the program" (F1). Fellow F3 stated, "I got to take leadership and use my own ideas to create the field experience."

Objective two explored the fellows' perceptions of CHAP's overall structure. All of the fellows (F1-F8) found their mentors to be knowledgeable, supportive, and motivating. A number of them wrote about the connection they made with their mentors (F1, F2, F3, F8). "She always remained positive and I love how even though CHAP has ended, we will still have made a connection that will last for a lifetime" (F3). The fellows also identified areas for improvement. These included better communication among the program administrators, mentors, and students (F1, F5); clarification as to the mentor role (F5, F7); and a more prominent mentor presence during the training week (F2, F8).

Objective three explored the overall program value. Fellows indicated that the program helped to create a broad network of students, faculty, professionals, government organizations, and communities that are working on health and nutrition issues in the Pacific (F3-F8). Fellows also identified that the program helped to prepare them for upper-level courses (F4, F7), graduate school (F2, F5), and a career (F2, F5). Further, the fellows were able to learn, develop, and apply technical and life-skills necessary for a career in health and nutrition in the Pacific (F1-F8).

Conclusions and Recommendations

CHAP was effective from the fellows' perspective. They experienced each of the TLA learning activity categories (Roberts et al., 2010) during the two phases of the program. This provided a blended content delivery approach, as recommended by Baker and Robinson (2016). The curricular experiences—including the courses, the hands-on learning week, and the application phase—met the educational needs of the fellows. In accordance with Dooley et al. (2003) and Harder et al. (2016), the online courses provided a positive learning experience. Although areas of improvement were identified, the most successful aspect of the program was the student-mentor pairing. Mentoring is primarily used in extension education and student teacher retention (Bailey et al., 2014; Tummons et al., 2016). This study, however, shows value in undergraduate-faculty mentoring, specifically in a highly content specialized, high-impact learning experience. In terms of overall value, CHAP facilitated the creation of a nutrition network in the Pacific and demonstrated educational (Knowles et al., 2011) and cultural relevance (Bailey et al., 2014) for the fellows. We recommend similar regionally based efforts to maximize expertise, education and training reach, and resources. The blended delivery style, structure, and regional nature of CHAP is an example of how agricultural educators can help to prepare a workforce that addresses the challenges of the 21st century.

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