

A Faculty Development Project: Creating a Community of Global Thinking Fellows

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Need for Innovation

Tomorrow's graduates in agriculture will face challenges on a global scale. Preparing them to solve these problems must be a primary goal for colleges of agriculture (National Research Council, 2009). To do so, teaching faculty must be able to teach in a way that encourages and fosters critical thinking. In 2004, higher education associations and leaders of institutional accrediting bodies identified critical thinking as one of the six major intellectual and practical skills which students should possess after obtaining their undergraduate degree (AAC&U, 2007). However, Lauer (2005) indicated faculty expressed difficulty incorporating critical thinking skills into their courses. Moreover, Stedman and Adams (2012) found faculty are not generally knowledgeable about critical thinking. When asked to answer questions related to basic concepts and understanding of critical thinking, faculty often answered these questions incorrectly indicating a lack of knowledge about the concepts of critical thinking (Stedman & Adams, 2012). A gap exists in how faculty are able to teach for critical thinking when they are not knowledgeable about those basic concepts. This project was developed to expand the knowledge and abilities of faculty to implement explicit critical thinking instructional strategies, as well as assist them with challenging their students with complex global problems.

Program Phases

This project provided instructional support for faculty through development and implementation of a Global Thinking Academy (GTA), a capstone international experience, and aiding faculty in the creation and use of scenario-based reusable learning objects (RLOs).

Phase 1 – Global Thinking Academy Planning and Development

During phase one, the project team developed modules on the following topic areas: (a) critical thinking, (b) teaching for critical thinking, (c) instructional design models, (d) scenario development, (e) digital media to enhance instruction, (f) teaching contentious subjects, (g) global food security and hunger, (h) teaching globally-relevant topics, and (i) using scenario-based RLOs to elicit critical thinking. The project team also worked with an international partner to plan the capstone international field experience and conducted a scouting trip to plan contextually appropriate experiences and make logistical arrangements. Furthermore, GTA Fellows or participants were recruited from the southern region of AAAS. A total of 18 GTA Fellows were selected through a review process conducted by the project team.

Phase 2 – Global Thinking Academy and International Experience

The GTA began with a face-to-face session and was used to establish expectations for the GTA Fellows and discuss the learning objectives of the academy. After the opening session, faculty returned home and began a 10-week program consisting of asynchronous modules. Each module was in the form of an interactive narrated presentation with supplemental material and assessments. Delivery of the modules was through the learning management system, Canvas. The culminating experience for the GTA Academy was a six-day international field experience to Belize to gather the contextual data (e.g., video, interviews) for developing the scenario-based RLOs. Project team members traveled with the participants during their international field

experience to facilitate their on-site learning and to provide support in capturing the global context for the scenario-based RLOs.

Phase 3 –Scenario-based RLO Development and Implementation

Operationally, this project used the comprehensive and detailed process provided by Wilson and Ralston (2006) for developing and using scenarios. Scenarios are similar to case studies, but much more complex and include many more decision points. This provides a much more fertile foundation for developing and using critical thinking skills. GTA Fellows worked with the project team to develop the scenario-based RLOs. Once developed, the scenario-based RLOs were peer reviewed and posted on the Global Education Lab website for the GTA Fellows to use in their courses. Fellows are required to use three RLOs in a course they are teaching and are currently in the RLO implementation phase of this project.

Results to Date

GTA Fellows mean score on the assessments for the academy modules was 84% with a minimum of 78% and a maximum of 87%. Fellows who scored below the predetermined proficient rate of 80% on individual modules were asked to review the module(s) again and retake the assessment until 80% was obtained on each module. Furthermore, initial analysis of qualitative data suggested GTA Fellows believed the academy modules were beneficial and challenging. Fellows noted the modules required them to think in a higher-order manner. The GTA Fellows also indicated they enjoyed the international experience and have gained a greater understanding of critical thinking instructional strategies as a result of the GTA. However, a few GTA Fellows felt they did not have adequate opportunities to capture their disciplinary area during the international experience. Fellows are currently being evaluated on their use of explicit critical thinking instructional strategies through scenario-based RLOs and the resulting impact of those strategies on the critical thinking abilities of their students.

Future plans and Advice to Others

Once all data have been analyzed, results will be shared on the effectiveness of the GTA. We also plan to disseminate the scenario-based RLOs and develop a best practices guide for integrating international field experiences into critical thinking curriculum.

In regard to advice for others, the project had four GTA Fellows dropout and not participate in the international field experience due to unexpected health and family issues. As a result, we recommend future projects consider designating a small number of alternates to replace individuals who withdraw for health or family issues or are dismissed for failure to complete project requirements. We also recommend health warnings specific to the destination of international experience be included in recruitment materials.

Costs/Resources Needed

The grant obtained from USDA-NIFA was \$642,779 for this project. Approximately, 32% of the direct expenses were for personnel, and 14% was domestic and foreign travel for faculty. Personnel and travel were the main expense of this project.

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