

Let's go shopping!: a research oriented, market survey ethnobotanical undergraduate curriculum. (Oral Presentation)

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Introduction

Intellectual imperatives in ethnobiology (IIE) include developing educational models that have a strong local focus, teach multidisciplinary skills, and involve students in research experiences. These overlap with the National Science Foundation's (NSF) initiatives for improving excellence in science, technology, engineering and mathematics (STEM) education for all students. Market surveys are an ideal educational model to address both the IIE and NSF educational initiatives, due to: the venues for research oriented ethnobiological education, due to: (1) markets are rich sites of ethnobiological interactions, (2) market surveys may include a range of data types (e.g., botanical, cognitive, zoological, qualitative, quantitative), (3) accessibility (e.g., urban areas, proximity to educational institution, access for students with disabilities).

Objectives

To address both the IIE and NSF educational initiatives with the development of an ethnobotanical curriculum and undergraduate research involvement project grounded in market survey research.

Methods

The research involvement and project was proposed to students in an ethnobotany class. A consensus was reached between instructor and students for the project, including hypotheses to be tested. The research team conducted food markets surveys in the local ethnic and mainstream markets over a period of one month. Student input was solicited to address improvements.

Results

Students gained experience in scientific research, including: observation and forming hypothesis, collection and analysis of data, and dissemination of results. Students practiced ethnobotanical research skills, including: developed and applied informed consent statement, produced herbarium vouchers, interacted with cultural representatives. Survey materials and hypotheses were modified during the research period to maximize our efforts. Students co-authored with instructor two publications resulting from the research involvement. The instructor gained experience with involving students in research and application of the instructor's research to an undergraduate ethnobotanical curriculum.

Conclusion

Ethnobiological imperatives in education and NSF initiatives were addressed by the development of a research oriented, market survey ethnobotanical curriculum developed with the involvement of undergraduate students. This market survey curriculum presents a model for Ethnobiological and STEM education that is adaptable to educational institutions and communities world-wide. Collaboration among users of the model and synthesis of results would provide an international look at the biocomplexity of markets systems.

Keywords: science education, ethnobiology education imperatives, STEM, student research

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