

Infusing Undergraduate Research in Social Sciences_Psychology_Evolutionary Psychology

I. Infusing Undergraduate Research in Social Sciences_Psychology_Evolutionary Psychology

- a. Furrow, R. & Hsu (2019). Concept inventories as a resource for teaching evolution. (2).

Furrow and Hsu describe a collection of tools (scales) used to measure students' understanding of concepts in evolution. Concept inventories have been developed and validated for several different concepts in evolution, including evolutionary psychology. Inventories have been used as pre-post measures.

Exposure (Knowledge & Comprehension)

Identify the basic principles of evolution as a means to answer questions related to the living conditions (e.g., food, shelter, relationships, etc.) of human and nonhuman species. { :

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used to help students understand the 'results.' For example, students will be asked to formulate a research question that might be asked, if conducting research using the Mate Value Scale.

Students will be introduced to one or two case studies. The case studies will be reviewed to help introduce specific concepts (e.g., differential parent investment) through the nature of science. For example, if the case describes common paternal and maternal parenting patterns. Students will be asked to think about why there differences may be observed between the two, from an evolutionary perspective and such differences might be supported or refuted, through research.

III. Assessing Undergraduate Research and Inquiry Activities

Each course activity: Concept inventory, Mate value Scale, and case studies are intended to help students tap into their own background knowledge about various topics. Thus, the activities are not assessed for accuracy, but rather, each activity should lead to ideas about the various concepts. One KWL chart can be completed for each activity. A (K) (W) (L) chart is a tool that students can use to organize their research when starting on a project. It helps students to synthesize what they know (K), what they want to know (W), and what they have learned (L) about a topic. The chart is completed in three stages. The (K) or 'know' is completed before and during the completion of the activity. The (W) or 'want to learn' is completed before and during the completion of the activity. Finally, the (L) or 'learned' is completed after the activities have been completed, accurate answers have been discussed, and the group has an opportunity to pose questions. Five to 10 points can be assigned to the course activities for completing the KWL charts. The completed KWL charts (e.g., KWL chart produced after students complete the 'concept inventory') can be used more than once when covering various concepts in class.

IV. Additional Resources

a. Faculty Resources:

Evolutionary Studies (Evos) at Binghamton University (State University of New York) offers many ideas about teaching evolutionary concepts, <https://www.binghamton.edu/evos/>