Collaborative Research: GP-IMPACT: I See Me! Skill-Job-Course Connection Vignettes to Increase Student Interest in Geoscience Careers

A Data Management Plan created using DMPTool

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Types of data

This proposed work is to create 31-47 short, 2-3 minute videos that link introductory-level geoscience course content to real geoscience careers and the diverse people working in them. We will study classes that are both using and not using these videos, fielding pre-post course surveys about knowledge and interest in geoscience careers, where they obtain career information, self-efficacy about ability to succeed as a scientist, stereotypes of scientists, typical grades in STEM classes, employability of geoscientists, earning potential, societal relevance of geoscience, personality fit, the importance of flexibility in a career, and stature of geoscientists. Focus groups of a sample of students from these classes will help us further probe and understand student interest in geosciences in ways surveys cannot elicit well. We will also conduct interviews with faculty teaching the study courses to understand their teaching philosophy, what career information tools they may be using, and how they keep up with changes in the landscape of geoscience careers available to their students.

Data and metadata standards

Our career videos will be given metadata tags describing course content, geoscience field, job sector, job skills to allow them to be easily searchable.

Our pre-post survey data will be stripped down to citable constructs in career interest literature, and could include constructs that result from this study, to allow social researchers to use de-identified survey data. Our pre-post survey instrument will be shared upon request.

Focus group and faculty interviews will be retained in audio and/or format, so will not be de-identifiable and cannot be shared. Notes derived from these interviews will not contain identifiers and will be shared if requested. Our focus group and faculty interview guides will be shared upon request.

Policies for access and sharing

Videos produce through this grant will be available through UNIDATA, YouTube, TeacherTube, and UNIDATA's RAMADA server. UNIDATA will make the video template and storyboard available on a cloud computing system like Google Drive or Dropbox. Pre-post survey data, as described in the previous section, will be made available through OU's SHAREOK Repository site.

We anticipate that other researchers in career interest and decision making, within and beyond geosciences, may be interested in this
data. We will produce at least a conference presentation by which other researchers may cite our data.

Policies and provisions for re-use, re-distribution

Our data will be collected through Year 3 of the proposed project, and has the greatest utility when considered in whole. Therefore we will make our data available during or soon after Year 3, as we analyze and write up our findings. No restrictions will be placed on the data; it will be made available with a creative-commons open-license. Only de-identified data can be shared, and those data shared will be linked with metadata to constructs in career interest/decision literature. Intended/foreseeable users are those in and beyond geosciences that research career interest and decisions of undergraduate students.

Plans for archiving and preservation of access

The long-term strategy for maintaining, curating, and archiving data are partly subject to YouTube, TeacherTube, and UNIDATA policies, which are at this time indefinite. We are also planning to use cloud storage such as Google Drive or Dropbox. OU's OKSHARE data policy is to retain data even if researchers leave the institution. Metadata will accompany data, as will citations by which to credit the original researchers.