Ocean Observatories Initiative (OOI) Teaching with Data Workshop June 2-4, 2017

Scope of Data Exploration activities Ways our Data Explorations use data Real world data what Data what scientist do Explorations do New discipline Understanding knowledge of what is already known generation what textbooks do Data of idealized patterns AGU Ocean Sciences 2016 crowley@Rutgers.edu

The OOI Teaching with Data project is working to provide opportunities for undergraduate students to gain data skills in working with real world data as they are increasing their

understanding of what is already known in the field of oceanography. As Kastens et al. (2015) points out there are large transition points as students move between using different kinds of data for different purposes (Fig. 1).

The scope of the Data Exploration activities developed by the *OOI Teaching with Data* Project are articulated below.

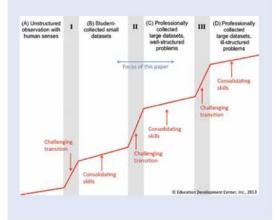
Our scope =

- Using professionally-collected data in teaching of concepts
- Visualizing data in a user-friendly and authentic way
- Enabling students to interactively engage with data in their learning to see the patterns as they are learning the why

FIGURE 1

Pathway to becoming a skilled data user.

The authors hypothesize that the pathway from child to skilled data user involves several challenging transitions; this article focuses on the transition from small, student-collected data sets to large, professionally collected data sets.



This project is sponsored by the National Science Foundation under Grant No. OCE-1550207 and OCE- 1649637.