

Data Collection (Due no later than November 4th individual contributions, course website and ePortfolio)

Each student is responsible for collecting a data set as determined in the implementation plan. The data set might include an annotated bibliography, a survey instrument and its results, a plan for and results of an experiment, questions for and transcriptions from a focus group, etc.

What should you do before collecting your data?

Talk through the implications of your plans for collecting the data. Receive feedback on your instruments and your plans for implementing them before you begin. An instrument might include key terms and databases for library research; your hypothesis, control, and variables for a scientific experiment; a set of interview questions; or a survey.

What is included in a data collection assignment?

Your assignment will include the data itself stored in a shared file so that it is accessible and available to all team members. It will also include a post on the course site and your ePortfolio with the following sections.

Section 1: Process Description

Explain what you did to collect the data AND why this specific form of data collection was chosen. Go into detail about your methods. If you conducted an interview, explain why you chose your subject, how long it took, and where the interview took place. If you conducted a survey, how many questions did you ask, how many respondents were there, how did you select them? If you conducted secondary research, what books or journals did you consult and why?

Due to the nature of my research, I worked exclusively within the confines of secondary research. This includes the compendiums written by Robert H. Mohlenbrock, with the book "Flowering Plants: Pokeweeds, Four-o'clocks, Carpetweeds, Cacti, Purslanes, Goosefoots, Pigweeds, and Pinks" being the most consulted. Mohlenbrock was the head of the biology department at Southern Illinois University Carbondale with the bulk of his research related to the native flora of Southern Illinois. However, until nonnative species are eliminated, the introduction of native species would be unsuccessful. The scope of the project we are working on is manageable within its current state and if the removal of

invasive species is at the top of the list. The habitat of southern Illinois provides the perfect conditions for common invasive species from Asia eastern Europe to flourish

When researching nonnative species, I consulted the University of Illinois Invasive species list with a particular focus placed on invasive woody plants (vines and trees). This subset of plants is of particular interest as they spread quickly and can crowd out native species very quickly. Honeysuckle, Japanese Barberry, Burning Bush, and Callery pear are the most immediately harmful invasive trees and bushes, however they are far less destructive to localized ecosystems than invasive vines. Kudzu in particular is the most directly harmful invasive, as it can climb almost any tree and choke them out. Kudzu is of Japanese origin and has spread wildly throughout the American southeast; recent reports stating that the vine has spread north through Illinois and Missouri.

With respect to the data collected, the most effective roadmap would be the removal of invasive species through physical removal (pulling weeds, burning, snipping, etc.). To ensure the protection of soil quality, it is essential to avoid the use of chemicals as they target all plant species universally despite what is claimed on the packaging. An assessment of the soil quality is critical before consulting the plant species on site and how they interact with the environment. The removal of these species should be conducted during the fall months, as the plants will be brittle and easier to remove. The planting of natives should be done within the spring during the prime growing season.

Section 2: Preliminary Analysis

Explain what you learned thus far from the data using an analytical perspective (rather than a data dump). If applicable, provide charts or graphs to help explore your findings. Provide commentary on what they mean. For example, if you conducted surveys in which several people noted they did not know that some plants have traditional uses or cultural meanings, think about what this might imply for your implementation work. You might consider possible reasons for this observation (there isn't information available near plants at the garden or plant specimens are not framed within their cultural context). What interventions might you try to address the issue? Keep in mind that your data should be tied to your proposed implementation. Be sure to consider limitations of sample size or demographics. What might be the limitations of your data? What do you need to do next to find out more while addressing those limitations?

As previously stated, the majority of my research was conducted through empirical methods; reading books, studying localized ecosystems, and consulting with field experts on sight. Due to this, most of the research I have collected cannot be graphed in the traditional sense. The sources I have drawn from are databases at Southern Illinois

University Carbondale as well as the IEPA invasive plant database. The quantitative data on plant yields at the site will be provided by IEPA field experts once plant ethnography is conducted, which will give our team the necessary information to move forward with our implementation plan. Due to the current government shutdown, employees of the IEPA cannot conduct this research, leaving our project dead in the water until further notice.

In addition to this, soil quality reports will also be needed to effectively conduct research and develop a sound plan with the site. Without contamination results, any plants planted on the site will risk failure, wasting time and money in the process. Another aspect of the project that may produce negative outcomes is the time of year. As we go into fall and winter, the ground becomes harder and cannot maintain a variety of annual plants. By waiting to break ground, we can ensure the success of the project and approach the site with data driven results. With continued communication with Jackie Joyner Kersee and outside consultants, the project roadmap will have clear, well-defined goals that can be achieved in a timely and effective manner. We will address the needs of the community, our partners, and SIUE as an institution, paving the way for more projects in the future.