This is the first supplemental document for the master’s paper entitled “Developing a Visualization Tool for Archived Social Science Research Data” by Brian Leaf. It is associated with Appendix F.
Notes: This is a demonstration of the visualization tool given to focus group participants. The first eight pages are screenshots from an actual dataset in the Odum Dataverse Network used to provide context for the visualization tool.
Notes: This shows the standard interface for selecting and manipulating a dataset. Questions in a survey can be selected, and various operations can be performed.
Notes: Additional information regarding each variable can be expanded and appears in graph form. Visualizations do not extend beyond bar charts in the Dataverse Network.
Notes: Various questions, once selected, can also have descriptive statistics applied to them. The ability to perform these functions and analyses will carry into the visualization tool.
Notes: Advanced statistical analyses can also be run from the tool. Additional options will appear as shown in the original application.
Notes: The number of analyses that can be run within the Dataverse Network are numerous.
Notes: Sometimes, the amount of information that can be inputted when running certain functions will be extensive. In terms of layout with the visualization tool, they will appear below the tool when selected.
Notes: There is an option to run Graphic Summaries, as seen in a previous screenshot.
Notes: This is the extent of data visualization in the Dataverse Network application.
Notes: This is the base state for the visualization tool. The name of the institution has been blacked out so as not to imply any association with it. In this tool, clicking is the only means of manipulation. This tool shows how decisions in the survey affect the path a user takes through the survey.
Notes: Clicking on the “Key” will result in a pop-up of the key. It can be removed by clicking anywhere on the screen.
Notes: Questions can be selected by clicking on their shapes. A red outline around the question, and a pop-up with the question text and its options will appear. The path that leads to that question will be bolded in black. Alternative paths based on how the question is answered will be bolded in blue.
Notes: Answers in the question can be selected. When selected, they are highlighted and whatever path is determined by that answer is now highlighted bold in black.
Notes: Notice how a different path is highlighted when another answer is selected instead.
Notes: To demonstrate further how dynamic this tool can be, a question with significant consequences in the survey is highlighted.
Notes: Selecting the first answer creates a bold, black path through the survey beyond the immediate question, illustrating its short term and long term impact.
Notes: Hitting the “Esc” key or clicking on that answer again will de-select it.
Notes: Selecting another answer elicits slightly different results.
Notes: The tool is reset again for that question by hitting the “Esc” key or clicking on the answer again.
Notes: Selecting another answer again elicits slightly different results.
Notes: Returning to base state to demonstrate another tool: Question selection for applying different analysis functions. Seeing the paths allows the researcher to see how the survey functions and also see what questions might be necessary to measure.
Notes: Questions are selected one at a time, and multiple questions can be selected by holding down “Ctrl” and clicking. In this demonstration, four questions will be selected randomly. While not visible in this demonstration, questions can also be de-selected by holding “Ctrl” and clicking on a selected question.
Notes: When questions are selected, they are not only highlighted with the red outline, but they will appear in the bottom of the screen labeled “Selected Variables.” This is also a feature seen in the original Dataverse Network application.
Notes: A third question is selected.
Notes: A fourth question is selected.
Notes: With these four questions selected, analysis can now be run by clicking on the drop-down menu label marked “Select function…” Variables can be compared (if applicable) by checkboxing all the institutions (the significant groups may be subsetted in different ways). When conditions have been set, the user of the tool can click on the button that says “Go.”
Notes: Returning to base state to demonstrate one final feature: Determining questions from visual paths.
Notes: Mousing over a path will reveal that it can be manipulated.
Notes: Clicking on the link will highlight the question that determines whether or not that path is taken. The answers highlighted are those that must be selected in order to achieve that path.
Notes: Return to the base state for the final screenshot of the focus group presentation.