The Shiny Database Sampler tool is an online application that allows students to take random samples of data from large databases. The Shiny Database Sampler tool was developed at Iowa State University with introductory statistics students in mind and has been implemented in Stat 104 within labs and course projects in recent semesters. The primary goal of this study is to evaluate the student experience with the Shiny Database Sampler tool through an anonymous student survey. We would like to receive student feedback on the following topics: ease of use, connection to course concepts, and interest in the data sets.

The six sections of Stat 104, coordinated by Dr. Bob Stephenson, will be assigning identical group lab assignment throughout the fall semester. During the fifth week of class, the lab assignment will include an activity that requires students to use the Shiny Database Sampler tool. This activity is in problem 2 of the attached lab assignment. After completion of the lab assignment students will be asked to fill out an anonymous survey with Likert scaled questions asking them about their user experience with the Shiny Database Sampler tool. The survey questions are also attached to this form. The students will be notified that their participation is purely voluntary and that their name, demographic and grade information will at no point be collected or used for the purposes of this case study. The anonymous survey data will then be compiled and used to analyze student experience with the tool.

Likert Scale 1 (strongly disagree) to 5 (strongly agree)

Key: + means the statement is positively worded

- means the statement is negatively worded (flipped for analysis)

* Ease of Use

+ “I found the web tool easy to use”

+ “The layout of the web tool was intuitive”

- “Using the web tool was difficult”

- “Learning to use the web tool was difficult”

* Core concepts of sampling

+ “The web tool helped me understand sampling concepts”

- “I understand sampling ideas less after using the web tool”

+ “Sampling concepts are clearer after using the web tool”

- “The web tool got in the way of sampling ideas”

* Engagement with the Census data

- “I did not enjoy working with the Census data”

- “I thought the Census data was boring”

+ “Knowing that the Census data was from real people made it more interesting”

+ “I liked analyzing the Census data”

Instructions

* This survey is anonymous; please do not put your name on this sheet.
* For each of the following statements please circle value that best reflects your opinion.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **1**  **Strongly Disagree** | **2**  **Disagree** | **3**  **Neutral** | **4**  **Agree** | **5**  **Strongly Agree** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| “I found the web tool easy to use” | | | | |
| **1** | **2** | **3** | **4** | **5** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| “The web tool helped me understand sampling concepts” | | | | |
| **1** | **2** | **3** | **4** | **5** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| “I did not enjoy working with the Census data” | | | | |
| **1** | **2** | **3** | **4** | **5** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| “The layout of the web tool was intuitive” | | | | |
| **1** | **2** | **3** | **4** | **5** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| “I understand sampling ideas less after using the web tool” | | | | |
| **1** | **2** | **3** | **4** | **5** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| “I thought the Census data was boring” | | | | |
| **1** | **2** | **3** | **4** | **5** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| “Using the web tool was difficult” | | | | |
| **1** | **2** | **3** | **4** | **5** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| “Sampling concepts are clearer after using the web tool” | | | | |
| **1** | **2** | **3** | **4** | **5** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| “Knowing that the Census data was from real people made it more interesting” | | | | |
| **1** | **2** | **3** | **4** | **5** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| “Learning to use the web tool was difficult” | | | | |
| **1** | **2** | **3** | **4** | **5** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| “The web tool got in the way of sampling ideas” | | | | |
| **1** | **2** | **3** | **4** | **5** |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| “I liked analyzing the Census data” | | | | |
| **1** | **2** | **3** | **4** | **5** |