Overview

We collect data in various forms, including Google Forms and backend data for each lab. This data is used for research and development purposes and to ensure that our labs track user progress. Our data can be used by teachers who utilize our material to ensure that their students used the labs and actively engaged with the material. In addition, our data can be used by other researchers.

Google Forms Data

# Pre-Survey

## Description

This data allows us to evaluate students’ knowledge and opinion of the topic of accessibility before the activity. Pre-surveys have only been used by RIT students, so the data only includes results from that demographic.

## Details

The pre-surveys include results from several types of questions, including multiple choice, short answer, and rating scale questions. Basic demographic information is gathered in this data, including students’ year level, major, and email. The rating scale questions are used to collect information about students’ knowledge and opinion about accessibility before completing the activity. Results from the rating scale questions for Lab 1 and Lab 3 are between the range of one and four, whereas the results for Lab 2 are between the range of one and five.

It is important to note that some pre-surveys have a different set of questions. For example, the pre-survey for Lab 2 has an additional question that Lab 1 and 3 do not have. However, Lab 1 and Lab 3 have identical questions. Lastly, it is important to note that Lab 1 has a comparatively smaller pool of data than Lab 2 and Lab 3. At this time, Labs 4 and 5 do not have any Google Forms data.

Pre-survey data is available for Labs 1-3, Groups A-C. Group A represents the group of students whose activity was only reading; Group B represents the group of students whose activity was our lab; Group C represents the group of students whose activity included our lab and additional supplementary material.

## Where to Find

IUSE-ALL > Labs > Lab# > Classroom Inclusion > Group

## Sample Link

<https://forms.gle/6KSXmb53RioZBpgUA>

# Post-Survey

## Description

This data allows us to evaluate students’ knowledge and opinion of the topic of accessibility after the activity. Post-surveys have only been used by RIT students, so the data only includes results from that demographic.

## Details

The post-surveys include results from several types of questions, including short answer and rating scale questions. Only student emails are compiled as basic demographic information, since detailed demographic information is collected in the pre-surveys. The rating scale questions are used to collect information about students’ knowledge and opinion about accessibility after having completed the respective activity. Results from the rating scale questions for Lab 1 and Lab 3 are between the range of one and four, whereas the results for Lab 2 are between the range of one and five.

It is important to note that some post-surveys have a different set of questions. For example, the post-survey for Lab 2 has additional short answer questions that Lab 1 and 3 do not have. However, Lab 1 and Lab 3 have an identical set of questions. Lastly, it is important to note that Lab 1 has a comparatively smaller pool of data than Lab 2 and Lab 3. At this time, Labs 4 and 5 do not have any Google Forms data.

Post-survey data is available for Labs 1-3, Groups A-C. Group A represents the group of students whose activity was only reading; Group B represents the group of students whose activity was our lab; Group C represents the group of students whose activity included our lab and additional supplementary material.

## Where to Find

IUSE-ALL > Labs > Lab# > Classroom Inclusion > Group

## Sample Link

<https://forms.gle/kQZut7EFczWytAm4A>

# Quiz

## Description

This data allows us to assess how well students understood the material from the activity. The questions are related to the material taught in the activity. Quizzes have only been used by RIT students, so the data only includes results from that demographic.

## Details

The quizzes include results from several types of questions, including multiple choice and multiple select questions. Only student emails are gathered as basic demographic information, since detailed demographic information is collected in the pre-surveys. The questions are related to the activity that the student completed. The quiz for Lab 1 and Lab 3 include ten questions, whereas the quiz for Lab 2 has nine questions.

It is important to note that Lab 1 has a comparatively smaller pool of data than Lab 2 and Lab 3. At this time, Labs 4 and 5 do not have any Google Forms data.

Quiz data is available for Labs 1-3, Groups A-C. Group A represents the group of students whose activity was only reading; Group B represents the group of students whose activity was our lab; Group C represents the group of students whose activity included our lab and additional supplementary material.

## Where to Find

IUSE-ALL > Labs > Lab# > Classroom Inclusion > Group

## Sample Link

<https://forms.gle/oJ4YTB6emASEsQHu5>

Backend Data

# Users

## Description

* This keeps track of the users who visit the site.

## Details

* This holds information regarding a user’s first name, and their google profile image. The userid is a serial that is automatically generated by the database upon which you can perform JOINs with the other tables in order to achieve desirable data.

## Where to Find

* New data: all\_new -> users
* Old data: all\_db -> users

# Session

## Description

* Session data is used to keep track of user sessions. Users have a session regardless of whether they are logged in with Google or not.

## Details

* This data includes the user session ID which is a serial that is automatically generated by the database, and the userid which is a foreign key for the ‘users’ table. The user session ID can be used in conjunction with other tables in order to uncover more data (for example, performing a JOIN with the userlab table in order to see each user’s stats on each lab).

## Where to Find

* New data: all\_new -> session
* Old data: all\_db -> session

# Userlab

## Description

* Used to track user progress and results on labs
* Can be used to compare/research quiz results and time spent on each section of each lab

## Details

* Includes a user’s userlab ID and user session ID which are foreign keys for the ‘users’ and ‘session’ tables respective, the labid (the id of the lab the user is currently on), quiz score, textual responses to quiz, and time spent on each section of each lab (about, reading, game, quiz, video)

## Where to Find

* ‘all\_db’ -> ‘userlab’ table
* ‘all\_new’ database -> ‘userlab’ table

# Page

## Description

* Page contains information regarding the time a user spends on a particular game page. Pages are identified by their lab number and respective page content (i.e. InaccessibleGame, etc.)

## Details

* Page contains the user’s session ID, the page ID, the page name (a descriptive name of the page), the lab ID that corresponds to the lab that the user is on, and the amount of time the user spent on the page. The page ID is the serial primary key that is automatically generated upon creation, and the user’s session ID is the foreign key that connects to the ‘session’ table.

## Where to Find

* New data: ‘all\_new’ -> ‘page’
* Old data: ‘all\_db’ -> ‘page’

# Lab1\_choice

## Description

* The Lab 1 game involves 4 boxes that a user can choose from. Lab 1 Choice contains data pertaining to the box that the user chose and whether the box was the correct choice or not.

## Details

* This data includes the choice ID, the round ID, the number of the box, and whether the box was correct or not. The choice ID is the serial primary key that is automatically generated upon instantiation, and the round ID is the foreign key associated with the ‘round’ table.

## Where to Find

* New data: ‘all\_new’ -> ‘lab1\_choice’
* Old data: ‘all\_db’ -> ‘audiocue\_choice’

# Lab1\_game

## Description

* The Lab 1 game data table consists of information about the user’s game statistics. This includes how long the user spent on the game, their final score, and the corresponding round.

## Details

* Specific information includes the game ID, the user’s session ID, the user’s final score, the round (playthrough), and the time spent playing the game. Playthrough of 0 refers to the round before repairs are made; playthrough of 1 refers to the first round where repairs are made; playthrough of 2 refers to the second round where repairs are made. The game ID is the serial primary key that is automatically generated upon creation, and the user’s session ID is the foreign key that connects to the ‘session’ table.

## Where to Find

* New data: ‘all\_new’ -> ‘lab1\_game’
* Old data: ‘all\_db’ -> ‘audiocue\_game’

# Lab1\_repair

## Description

* The Lab 1 repairs data consists of information about the repairs that the user made. This includes the updated message and color choices.

## Details

* Specifically, this data includes the repair ID, the user’s session ID, available message, unavailable message, available background color, and unavailable background color. The repair ID is the serial primary key that is automatically generated upon instantiation, and the user’s session ID is the foreign key that connects to the ‘session’ table. This information can give an insight into what the users tend to choose as the available/unavailable messages and background colors.

## Where to Find

* New data: ‘all\_new’ -> ‘lab1\_repair’
* Old data: ‘all\_db’ -> ‘audiocue\_repair’

# Lab1\_round

## Description

* The Lab 1 round data contains information about whether the hint and/or sound options were utilized by the user during the round.

## Details

* This data contains the round ID, the game ID, whether or not the user utilized the hint, and whether or not the user utilized the sound option. This data can give an insight into whether the users are using the hints depending on whether the sound option was on or not.

## Where to Find

* New data: ‘all\_new’ -> ‘lab1\_round’
* Old data: ‘all\_db’ -> ‘audiocue\_round’

# Lab2\_repair

## Description

* The Lab 2 repairs data contains information about the repairs that the user made during the game for Lab 2. This includes the color changes made to the background and each of the three circles.

## Details

* Specifically, this data includes the repair ID, the user’s session ID, the background color, the color of the correct circle, and the colors of the two incorrect circles that were chosen by the users. The repair ID is the serial primary key that is automatically generated upon instantiation, and the user’s session ID is the foreign key that connects to the ‘session’ table.

## Where to Find

* New data: all\_new -> lab2\_repair
* Old data: all\_db -> colors\_gamestats

# Lab3\_repair

## Description

* Lab 3 repair data consists of information about the alt values the user adds to the four images presented in the lab 3 game.

## Details

* This data includes the repair ID, the user’s session ID, and the alt values typed in by the users for the cat, car, burger, and cow images. The repair ID is the serial primary key that is automatically generated upon instantiation, and the user’s session ID is the foreign key that connects to the ‘session’ table.

## Where to Find

* all\_new -> lab3\_repair

# Lab4\_repair

## Description

* Lab 4 data consists of data regarding the repairs made to the game in lab 4. This includes the adjusted height and width of the button, the “skip to main” tag, and the tab index.

## Details

* This data includes the repair ID, the user’s session ID, the value of the height and width of the button, the “skip to main” tag, and the value of the tab index. The repair ID is the serial primary key that is automatically generated upon instantiation, and the user’s session ID is the foreign key that connects to the ‘session’ table.

## Where to Find

* all\_new -> lab4\_repair

# Lab5\_game

## Description

* This table consists of the user’s game statistics for Lab 5. It focuses on the questions and the users responses throughout the game activity. These include content related questions and sentence structure questions.

## Details

* This includes the gameid (a serial automatically generated by the database), the usersessionid, correct - whether the user’s answer to the game question was correct, question - what the question was, option - selectedoption - what option the user selected, options - potential answers that the user can select from.

## Where to Find

* ‘all\_new’ -> ‘lab5\_game’

# Lab5\_repair

## Description

* This records the user’s responses for the repair activities for lab 5.

## Details

* This includes repair ID (a serial automatically generated by the database), usersession ID that is a foreign key to the ‘session’ table, activity - the repair activity the user’s currently on, repair - the repair values that the user types in corresponding to the type of repair activity.

## Where to Find

* ‘all\_new’ database -> ‘lab5\_repair’