D210: Representation and Reporting

Task 1

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# Part 1: Interactive Data Dashboard

## Provide a copy of your interactive Tableau dashboard to support executive decision-making. Your dashboard must be accessible to users with colorblindness, and must include the components in *each* of the following bullet points:

#### Data integrated from both chosen data sets

#### **Four** different data representations to summarize the data or display trends

#### **Two** different interactive controls that allow the user to modify the presentation of data

#### **Two** different metrics or key performance indicators computed using data from both chosen data sets

### Provide *both* data sets that serve as the data source for the dashboard

To begin, I am once again utilizing the medical\_clean dataset that I have used in previous courses. I am using the set that I cleaned in D208, so it has a reduced number of observations (9533) due to the cleaning process. This will be uploaded as medical\_cleaned.csv.

As a secondary dataset, I am using a hospital rating dataset from Kaggle. The dataset is titled “Hospital ratings” and includes Medicare and Medicaid ratings for hospitals throughout the US. There were many extra variables beyond the variables of interest, as well as observations with missing variables. This dataset was therefore also cleaned and reduced from 4812 observations and 28 variables to 3563 observations of 10 variables. This will be provided as hosp\_gen\_info\_4.csv.

### Provide step-by-step instructions to guide users through the dashboard installation

I utilized Tablea public to create my dashboard. I will walk you through, step-by-step, how I created my dashboard. It will begin with navigation to the website, uploading and connecting to my data, creation of the specific sheets for visualizations, filters, and KPIs, and finally creating the dashboard. This will be followed by formatting the dashboards to be accessible and inclusive to viewers, for mobile and colorblind audiences.

* Navigation to Tableau
  + Open your web browser of choice (Chrome, Firefox, Edge, etc.)
  + In the search bar, enter [www.tableau.com](http://www.tableau.com)
  + From the products dropdown tab, select “Tableau Public”
  + Click the “Sign Up for Tableau Public” tab if you don’t have an account
  + Click “Sign In” if you do have an account
  + Follow the appropriate prompts to either create an account or sign in
* Creating New Dashboard/Workbook
  + On Tablea Public homepage
  + Utilize “Create” dropdown, select “Web Authoring”
    - This will open up a new dashboard/visualization
  + Connect to the data you need by uploading it from the computer
    - You will click “Upload from computer” for your first dataset upload
      * In this instance, I am uploading medical\_cleaned.csv from the file path: C:\Users\lgben\OneDrive\Desktop\MSDA\D210 - Representation and Reporting
    - After uploading you will land on “Sheet 1”
    - Navigate to the Data Source tab (lower left) to upload your next dataset
    - Click the + button to the right of “Connections”
    - Again click “Upload from computer”
      * In this instance, I am uploading hosp\_gen\_info\_4.csv from the file path: C:\Users\lgben\OneDrive\Desktop\MSDA\D210 - Representation and Reporting
    - Click “hosp\_gen\_info\_4.csv” in the upper left to select its file
    - Drag “hosp\_gen\_info\_4.csv” from files into the workspace to the right
      * Make sure not to place it on top of “medical\_cleaned.csv”, but to the right
      * This will allow us to form a relationship between the tables
      * Select “Zip” under “medical\_cleaned.csv”, keep the operator as “=”, and select “ZIP code” under “hosp\_gen\_info\_4.csv”
* Creating Visualizations
  + Navigate back to “Sheet 1”
    - As you do this, your data will be imported
    - Rename “Sheet 1” as “State Pt Count” either from right-clicking and selecting “Rename” or double clicking “Sheet 1”
    - Expand the fields under medical\_cleaned.csv by clicking the arrow to the left of “medical\_cleaned.csv” under Tables
      * Drag the “State” dimension to rows
      * Drag the “Case Order” measure to columns
        + Hover over the “Case Order” field and click the drop-down arrow
        + Change the “Measure” from Sum to Count
      * Drag the “Re Admis” dimension to “Color” in the marks tab
        + Click on “Color” in the marks tab
        + Click on “Edit Colors…”
        + On right side, click “Automatic” under “Select Color Palette”

Select “Color Blind” option

* + - * + Change “No” to a light gray
        + Change “Yes” to a dark gray
    - Drag the “State” dimension to the Filter tab
      * Keep the option “Select from list” under “List”
      * Click “OK”
      * Hover over “State” under Filter tab and click the drop-down arrow
      * Click “Show filter”
    - If desired, sort the visualization by “Count of Case Order” on X-axis
  + Create a new sheet, “Sheet 2”
    - Rename “Sheet 2” as “ReAdmis Status by Gender” either via right-clicking and selecting “Rename” or by double clicking “Sheet 2”
    - Utilize data in medical\_cleaned.csv
    - Drag “Re Admis” dimension to rows
    - Drag “Case Order” measure to “Lable” in the marks tab
      * Change the measure of “Case Order” from Sum to Count, as in the previous sheet
      * Click “Label” in the marks tab
      * Click “Edit lable”
        + Change the color of the text from black to white (or gray)
        + Click “OK”
    - Drag “Case Order” measure to “Size” in the marks tab
    - Drag “Gender” dimension to “Color” in the marks tab
      * Click “Color” in the Marks tab and select “Edit Colors…”
      * Under “Select Color Palette,” change “Automatic” to “Color Blind”
      * Make “Female” the burnt orange in the top right corner
      * Make “Male” the blue in the top left corner
      * Make “Nonbinary” the pale yellow towards the bottom right
      * “X” out of the color selections when finished
    - Change the type of visualization
      * In the Marks tab, under Marks
      * Change “Automatic” to “Bar”
    - Drag “Gender” dimension to Filters tab
      * Hover over “Gender” field in Filters tab
      * Click drop-down arrow
      * Click “Show Filter”
    - Click “Fit” along top toolbar (3rd from the right)
      * Change “Fit” from “Standard” to “Entire View”
  + Add another new sheet, “Sheet 3”
    - Rename the sheet “Initial\_days x ReAdmis” using the same method as above
    - Continuing to utilize fields available under medical\_cleaned.csv
    - Right click on “Initial days” measure
      * Duplicate the field to make a copy
      * Rename the copy “Initial Days”
        + Right click on “Initial days (copy)”, select “Rename”
        + Enter “Initial Days” into field and click “OK”
    - Drag new “Initial Days” measure up to dimension
      * This needs to be dragged above gray line separating dimensions (in blue) from measures (in green)
    - Create a binned “Initial Admission – Days”
      * Right click on “Initial Days” dimension
      * Hover over “Create >” and select “Bins…”
      * Change name field to “Initial Admission – Days”
      * Change bin size to 1
      * Click “Enter” on keyboard
    - Drag “Initial Admission – Days” dimension to columns
    - Drag “Case Order” measure to rows
      * Change “Measure” from Sum to Count as noted above
        + Click drop-down arrow
        + Hover over “Measure”
        + Click “Count”
    - Drag “Re Admis” dimension to “Color” on marks tab
      * This will have maintained the same color formatting as earlier
    - Drag “Re Admis” dimension to Filters tab
      * Keep filter as is, with “Select from list” and all boxes checked
        + Click “OK”
      * Hover over “Re Admis” dimension in Filters tab
        + Click drop-down arrow
        + Select “Show filter”
  + Add another new worksheet, “Sheet 4”
    - Rename the worksheet “ReAdmit Status by Admit Location and CompRisk”
      * Utilize method described above via right-click or double click
    - Selecting fields from medical\_cleaned.csv
    - Drag “Re Admis” dimension to “Text” on the Marks tab
    - Drag “Initial admin” dimension to “Text” on the Marks tab
    - Drag “Complication risk” dimension to “Text” on the Marks tab
    - Drag “Case Order” measure to “Size” on the Marks tab
      * Change the “Measure” from Sum to Count
        + Do this by hovering over SUM(Case Order) and clicking the drop-down
        + From the drop-down arrow, hover over “Measure”
        + From “Measure,” select Count
    - Drag “Case Order” measure to “Color” on the Marks tab
      * Once again change the “Measure” from Sum to Count by steps noted above
    - Click “Color” on the Marks tab, select “Edit Colors…”
      * Change “Palette” from Automatic to Gray
      * Check the box that says “Stepped color”
      * Change the value from “5” steps to “9”
* Creating KPIs
  + Create a new worksheet, “Sheet 5”
    - Rename the sheet “Total Patients Displayed”
      * Either double click on the sheet name, or right-click the sheet and select “Rename”
    - Selecting fields from medical\_cleaned.csv
    - Drag “Case Order” measure to “Text” in Marks tab
      * Change “Case Order” measure from Sum to Count
        + Via method described above
    - Click on “Text” in Marks tab, select “Edit Text…”
      * Highlight “<CNT(Case Order)>”
        + Change font size to 20
        + Change text color to a light blue (light blue in top row of default palette)
        + Make text **bold**
        + Center align text
        + Click “OK”
    - Hover over title, click drop-down arrow
      * Select “Edit Title…”
      * Highlight “<Sheet Name>” and replace with “Total Patients” on one line, then press “Enter” on keyboard and type “Displayed” on a second line
      * Highlight the full title and center align it
    - Along top toolbar, click “Fit”
      * Select “Entire View”
  + Create a new worksheet, “Sheet 6”
    - Rename worksheet “Hosp Rating KPI” via method discussed above
    - Expand the fields within hosp\_gen\_info\_4.csv via the arrow to the left of the table name
    - Drag “Hospital overall rating” measure to “Text” on Marks tab
    - Change measure of “Hospital overall rating” from Sum to Average
      * Click drop-down arrow
      * Hover over “Measure”
      * Select “Average”
    - Change number of decimal places value is rounding to
      * Once again click the drop-down arrow of “Hospital overall rating”
      * Select “Format Number…”
      * Change from “Automatic” to “Number”
      * Change “Decimal Places” to 2 and click outside of the editor
    - Click “Text” in the Marks tab and select “Edit Text…”
      * Change the font to match the prior KPI
        + Size 20
        + Change the font color to the blue in the top row
        + Make the text **bold**
        + Center align the text
        + Click “OK”
    - Hover over “Hosp Rating KPI” on the page and click the black drop-down arrow
      * Click “Edit Title…”
        + Change the title to “Average Hospital” on the first line, and “Rating” on the second line
        + Center align the text
        + Click “OK”
    - Along the top toolbar, select “Fit”
      * Select “Entire View”
* Creating/modifying filters
  + Creating the filters has been done throughout the process
  + 3 filters have been “created” via clicking “Show Filter” in the steps above
  + The 3 filters present are as follows:
    - State
    - Gender
    - Re Admis
  + Modifying “States” filter
    - Navigate back to “State Pt Count” sheet
      * Click drop-down arrow on filter, or right click on filter
      * Select “Multiple values (dropdown)”
    - Navigate back to “ReAdmis Status by Gender” sheet
      * Click drop-down arrow on filter, or right click on filter
      * Hover over “Customize”
      * Unselect “All”
    - Navigate back to “Initial\_days x ReAdmis” sheet
      * Click drop-down arrow on filter, or right click on filter
      * Hover over “Customize”
      * Unselect “All”
* Putting it all together (Dashboard)
  + Create a new dashboard worksheet by clicking “New Dashboard”
  + Add KPIs
    - Drag “Total Patients Displayed” onto dashboard
      * It will take up entire space currently
    - Drag “Hosp Rating KPI” and split the space vertically with “Total Patients Displayed”
  + Add visualizations
    - Drag “Initial\_days x ReAdmis” to sheet and have it take up the lower left quarter of dashboard
    - Drag “ReAdmit Status by Admit Location and CompRisk” to lower right quarter of dashboard
    - Drag “State Pt Count” to take up bottom half of “Initial\_days x ReAdmis”
    - Drag “ReAdmis Status by Gender” to take up bottom half of “ReAdmit Status by Admit Location and CompRisk”
    - Aside: when populating dashboard with visualizations, keep the filters and legends that populate
  + Formatting
    - Add dashboard title
      * Drag “Text” object to the very top of the dashboard
        + Should be the “thin line” option at very top
      * Edit Text to say “D210 Executive Dashboard - ReAdmissions”
      * Make text size 20, change color from gray to black, and center align
    - Drag up bottom borders of KPIs to allow more room of visualizations
      * KPIs should have just enough room to fully display their titles and values
    - Drag up bottom borders of top row of visualizations to allow more room of bottom visualizations
      * Space should be approximately evenly split between all four visualizations
    - Reorganize Legends and Filters
      * Bring “State” filter just about all the way to the top
        + Leave slight space above it
      * Below “State” filter, place “Gender” filter
      * Below “Gender” filter, place “Re Admis” filter
      * Leave slight space below “Re Admis filter”
      * Make sure “Count of Case Orders” is topmost legend
        + This would be after the small space under “Re Admis” filter
      * Place “Re Admis” legend under “Count of Case Orders” legend
      * Place “Gender” legend under “Re Admis” legend
      * Drag “Text” object to just above “State” filter
        + Name the text: “Filters:”
        + Keep font size 9
        + Center align the text
      * Drag “Text” object to just above “Count of Case Orders” legend
        + Name the text: “Legends:”
        + Keep the font size 9
        + Center align the text
  + Providing general instructions
    - Drag a “Text” object to the bottom right corner of the dashboard, under the legends
    - Input the following text, with similar formatting:

“Please use **only the filters** to modify the visualizations. If you have any questions, reach out to [lbenis2@wgu.edu](mailto:lbenis2@wgu.edu).

This is an executive summary dashboard showing ReAdmission rate across multiple variables. It is means to allow for exploration of questions such as, “In which state are our hospitals readmitting the most patients” or “How long are our readmission patients typically staying in the hospital?”

* + - Change the font size to 8, keep the text right aligned
    - Click on either “ReAdmit Status by Admit Location and CompRisk” or “ReAdmis Status by Gender”
      * Drag the right border slightly to the left to allow more room for our new text box
    - Delete any unused dashboard objects
      * I noted one above “Filters:” and one below my newly entered instructions
    - Right click the text instructions that have just been entered or click the drop-down arrow
      * Select “Edit height”
      * Adjust to approximately 230-245 pixels (depending on how far the right border was moved to the left)
      * This will allow full visualization of the new instructions
* Editing Mobile Layout
  + Click “Phone” under “Default”; this is located to the left of our dashboard title when viewing the desktop version we were just working on
  + Click the “lock” icon to unlock the view for editing
  + Click the “Layout” tab next to “Dashboard”
    - This is again to the top left, but under the toolbar
  + Under “Item hierarchy” in the lower left, expand “Tiled” and “Vertical”
  + Order the dashboard items/objects in the following way:
    - Text Object: D210 Executive Dashboard – ReAdmissions
    - Text Object:
      * “Please use **only the filters** to modify the visualizations. If you have any questions, reach out to [lbenis2@wgu.edu](mailto:lbenis2@wgu.edu).

This is an executive summary dashboard showing ReAdmission rate across multiple variables. It is means to allow for exploration of questions such as, “In which state are our hospitals readmitting the most patients” or “How long are our readmission patients typically staying in the hospital?”

* + - Text Object: “Filters:”
    - Filter: “State”
    - Filter: “Re Admis”
    - Filter: “Gender”
    - Text Object: “Legends:”
    - Legend: “Count of Case Order”
    - Legend: “Re Admis”
    - Legend: “Gender”
    - Sheet: “Total Patients Displayed”
    - Sheet: “Hosp Rating KPI”
    - Sheet: “Initial\_days x ReAdmis”
    - Sheet: “ReAdmit Status by Admit Location and CompRisk”
    - Sheet: “State Pt Count”
    - Sheet: “ReAdmis Status by Gender”
* Final touches
  + Modifying filters once more
    - Navigate back to the default/desktop dashboard
    - Perform the following actions for all three filters:
      * Click on drop-down arrow or right click on the filter
      * Hover over “Apply to Worksheets”
      * Select “All Using this Data Source”
  + Modifying visualization titles as needed
    - Initial\_days x ReAdmis
      * Click on drop-down arrow or right click on title
      * Select “Edit Title”
      * Change name to “Distribution of Initial Stay”
      * Click “OK”
    - State Pt Count
      * Click on drop-down arrow or right click on title
      * Select “Edit Title”
      * Change name to “Patient Counts by State”
      * Click “OK”
    - ReAdmis Status by Gender
      * Click on drop-down arrow or right click on title
      * Select “Edit Title”
      * Change name to “ReAdmission Status by Gender”
      * Click “OK”
  + Hiding all sheets
    - Right click on Dashboard 1
      * Select “Hide All Sheets”
  + Renaming Dashboard
    - Right click and select “Rename” or double click on “Dashboard 1”
    - Name it “Exec Dash – ReAdmissions”

### Provide instructions to help users navigate the dashboard

Instructions have been provided within the dashboard itself. I will once again copy them here to display what they say. They are meant to elicit the user to begin asking questions the dashboard could answer, as well as provide instruction on using only the filters provided to filter the data. The dashboard is not setup to allow the visualizations to be used as filters at this time. Instructions:

“Please use **only the filters** to modify the visualizations. If you have any questions, reach out to [lbenis2@wgu.edu](mailto:lbenis2@wgu.edu).

This is an executive summary dashboard showing ReAdmission rate across multiple variables. It is means to allow for exploration of questions such as, “In which state are our hospitals readmitting the most patients” or “How long are our readmission patients typically staying in the hospital?”

# Part 2: Storytelling with Data

## Provide a link to a Panopto multimedia presentation in which you tell a story about the data to an audience of data analytics peers. Your presentation should implement elements of effective storytelling and include *each* of the following elements:

#### An introduction of yourself and your background

#### A summary of **both** chosen data sets and the context in which they occur

#### An outline of key results from your analysis of the two data sets

#### **Two** different data representations to serve as supporting evidence for your results

##### Note: Your two data representations may come directly from your Tableau dashboard created in Part A or you may choose to use another software tool for data representation

#### A summary of actionable insights based on your results

# Part 3: Reflection Paper

## Write a reflection paper to demonstrate your understanding of data representation and reporting by doing the following:

### Explain how the purpose and function of your dashboard align with the needs outlined in the data dictionary associated with your chosen data set.

The dataset that I have chosen is the medical dataset. I have become familiar with this dataset over the course of my time in the program. One of the variables that I have used as a response variable in the past is “ReAdmis,” which is whether a patient was readmitted to the hospital or not within 30 days of their release.

The dashboard that I created looks at patient ReAdmission as a main outcome. This variable is viewed through the lenses of length of stay in the hospital, what state a patient lives in, what gender they identify as, as well as where they were admitted to the hospital from and what their level of complication risk is.

Furthermore, this dashboard aligns with the needs of the multiple stakeholders interested in the dashboard. The senior vice-president (SVP) oversees operations of all locations and would potentially have an interest in the nationwide, state level data. Likewise, the team of regional vice-presidents would have a similar interest in state level data pertaining to their region of oversight. The research vice-president (VP) would likely take an interest in the complication risk and admission location visualization, to determine what steps could be taken to reduce risk of readmission from specific sites or further research what classifies a patient as high risk. My team of peers would be able to provide feedback and areas of improvement for the future.

### Explain how the variables in the additional data set enhance the insights that can be drawn from the data set you chose from the provided options.

The secondary data set that I retrieved from Kaggle.com (Kaggle, 2017) is a dataset titled “Hospital ratings.” This dataset is approximately 5 years old and contains roughly 4000 observations of hospital ratings and Medicare survey items. The variables of interest to me for the purpose of this course were 'ZIP Code' and 'Hospital overall rating.’

ZIP Code was used to relate this dataset to the provided dataset within Tableau Public. I noted while browsing for datasets that this one contained many similar fields (State, County Name, ZIP code). With further digging I noted that many ZIP codes matched up. Although the data regarding patients in the provided dataset is fictional, the hospital ratings are real and can provide another layer to our readmission data by providing insight into hospital operations via CMS ratings.

### Explain **two** different data representations from your dashboard and how executive leaders can use them to support decision-making.

One visualization within my dashboard is a histogram of how many days a patient stayed in the hospital, colored by a patient’s readmission status. It is evident from the histogram that most patients that readmitted to the hospital tended to have a longer initial stay within the hospital. This information could be used by regional managers and strategy/operations teams to implement process improvements for patients with a stay longer than a specified number of days.

A second visualization within my dashboard is a bar chart showing how many patients from each state have been treated within our hospital system. This is again colored by a patient’s readmission status. This can inform business decisions in a few different ways. States with fewer patients may benefit from some sort of ad campaign to try and drive patients to choose us for services. Another way this may drive business decisions is to show where our hospitals are performing the best and could benefit from initiatives to maintain or improve patient retention.

### Explain **two** interactive controls in your dashboard and how *each* enables the user to modify the presentation of the data.

Within my dashboard I’ve included 3 filters that will allow a user to manipulate the data that they see on the visualization. One of these filters is a drop-down list where they can select as many or few states as they wish. This will allow regional managers or executives to view the metrics and visualizations for specific regions. They would be able to see if there is a difference in admission location, initial length of stay, hospital ratings, etc.

Another filter that I included is patient gender. This filter is a checkbox filter where they can select 0-3 of the available genders: female, male, nonbinary. Utilizing this filter will allow executives and managers to see what differences exist in initial length of stay, state of residence, and admission locations between patients of different genders within our hospital system.

### Describe how you built your dashboard to be accessible for individuals with colorblindness.

Throughout the dashboard building process, I tried to keep a focus on building for accessibility. When I built sheets that required stratifying the data using color, I always selected a color-blind palette when available. When a color-blind palette wasn’t available, such as for my treemap, I selected a 9-step gray scale to keep the color scheme in line with the already selected color-blind palette.

### Explain how **two** data representations in your presentation support the story you wanted to tell.

The story that I wanted to tell is about readmission rates of patients within our hospital system. As a system, our goal should be to reduce the presence of readmission rates and determine what we can do to drive that number down. One visualization that assists with this is again the histogram of days initially spent in the hospital. It is apparent from this visualization that individuals within our system that spend more days within the hospital are more likely to readmit. These patients would likely benefit from targeted education and follow-up.

A second visualization that supports this story of decreasing readmission rates is the visualization demonstrating readmission status based on admission location and complication risk. This again helps to paint a picture of where further targeted education could benefit patients. Overall, the largest group to readmit were those entering the hospital from the ER with a medium complexity level. The second largest readmission group were also entering the hospital from the ER, but with a high complexity level. These individuals would likely benefit from more consistent follow-up and specific care.

### Explain how you used audience analysis to adapt the message in your presentation

Audience analysis refers to the process of determining, and analyzing, who we are going to be presenting to (Pitt Dept. of Comm., n.d.). Prior to giving my presentation, I was informed that I would be presenting to a group of my peers. This is outlined in the data dictionary provided for the course and was also discussed in Dr. Kamara’s webinar on 11/13/22 (Kamara, 2022).

This prior knowledge that I am presenting to an audience of peers will allow me to adapt my message to their interests prior to presenting. Using various factors of audience analysis, such as the audience’s knowledge of the topic, their expectations, and their attitude towards the topic, I can refine my presentation.

In this situation, because this is a team of my peers (data analysts), they should have some prior knowledge of reporting and representation since we are on the same team. Furthermore, their attitude towards the topic should be that of mild interest, as most of us find delving into data quite fun. There is a strong likelihood that the size of the team is anywhere between 5-15 people, depending on the organization, and would lend itself to a more informal presentation. This setting, being a small, team meeting, would allow for more technical jargon to be used if the need arose due to the audience being a group of my peers.

### Describe how you designed your presentation for universal access by all audiences.

As I mentioned before, I wanted my dashboard to be accessible by design. Upon completing my desktop version of my dashboard, with color-blind accessible colors, I turned to improving the mobile layout. Not everybody will have a laptop or personal computer to always use, so mobile accessibility is also important. I designed the mobile layout in a similar way to the desktop version. The user will first see the title, followed by instructions, filters, and legends, before seeing KPIs and the visualizations.

### Explain **two** elements of effective storytelling that you implemented in your presentation and how *each* element was intended to engage the audience.

One element of effective storytelling that I utilized within my presentation is “Pacing” (Kamara, 2022). The pacing of my presentation was a very consistent pace. It was not too rushed, not too slow. Pauses utilized at appropriate moments allowed for the audience to digest what it was I was discussing, as well as what my visualizations were about and how they worked together to tell a story. Furthermore, at the end of the presentation I allowed time for questions if there were any. I also tried to keep the presentation within a 10-minute window, to not take up too much of my colleagues’ valuable time.

A second element of effective storytelling was utilizing a “Theme” (Roe, 2020). The theme of my story was the presence of patient readmission following a hospital stay. This theme was meant to tie each visualization utilized within the dashboard, and presentation, together. Each visualization provided information on its own, but together they help to paint a better picture. This theme was meant to allow the audience to formulate their own questions and try to determine their own hypotheses for testing.

## Acknowledge sources, using in-text citations and references, for content that is quoted, paraphrased, or summarized.

1. Center for Medicare and Medicaid Services. “Hospital Ratings.” *Kaggle*, 26 July 2017, <https://www.kaggle.com/datasets/center-for-medicare-and-medicaid/hospital-ratings>.
2. Kamara, Kessely. “Representation and Reporting – D210 Webinar.” WGU – MSDA, 13 Nov. 2022. Webinar.
3. Pitt Department of Communication. *Audience Analysis*. n.d., <https://www.comm.pitt.edu/oral-comm-lab/audience-analysis> .
4. Roe, Chris. “Storytelling 101: The 6 Elements of Every Complete Narrative.” *Pond5 Blog*, 15 Apr. 2020, <https://blog.pond5.com/6477-storytelling-101-the-6-elements-of-every-complete-narrative/>.

## Demonstrate professional communication in the content and presentation of your submission.