User study

Introduction

The purpose of this user study is to measure, how well the project visualizes visually confirmed equipment losses in the Russo-Ukrainian war in 2022. The project consists of three charts: a bubble, pie and bubble chart. The pie chart visualizes the portion of different manufacturers of equipment lost in a specified manner whereas the bar chart visualizes the numbers of specific models lost. For both charts a user can use a dropdown menu to specify the way in which equipment was lost. The bubble chart visualizes losses of models on three axis (x, y and bubble size) which can be designed next to the bubble chart. Before all charts are located settings for selecting a subset of data e.g. only tanks made by the Soviet Union and Germany or only tanks of models Challenger 2 and T-72B.

Task 1

Using the data subset settings select tanks, infantry fighting vehicles and armoured fighting vehicles except models containing the word ‘unknown’. Set the loss type for pie and bar charts as ‘damaged and abandoned’. For the bubble chart set the settings as follows: x-axis as ‘destroyed’, y-axis as ‘captured’ and bubble size as ‘losses_total’.

Question 1

Which model did Russia lose the most as ‘damaged and abandoned’? How did you come to your conclusion and how easy or difficult was it?

Question 2

How big a proportion of equipment lost as ‘damaged and abandoned’ was manufactured by Ukraine? How did you come to your conclusion and how easy or difficult was it?

Question 3

What is the model for which the number of destroyed equipment is the fourth largest and by which side? Is that same model by the same side also the second most captured model? How did you come to your conclusion and how easy or difficult was it?

Task 2

Using the data subset settings clear the selection. Then select multiple rocket launchers, self-propelled artillery and towed artillery except those manufactured by Estonia and Norway. Unselect models containing the word ‘unknown’ as well. Set the settings for the bubble chart as follows: x-axis as ‘damaged’, y-axis as ‘damaged and captured’ and bubble size as ‘destroyed’. Set the loss type for pie and bar charts as ‘abandoned’. It may take multiple seconds for the charts to update.

Question 4

Which model did Ukraine abandon the most? How did you come to your conclusion and how easy or difficult was it?

Question 5

What are the models that were damaged and captured the most? Which of these models was destroyed the most? How did you come to your conclusion and how easy or difficult was it?

Final information

What is your gender and age and how familiar are you with the Russo-Ukrainian war?