Design, Implementation, and Evaluation of US Census Bureau Performance Dashboard

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Abstract:
This research project involves the creation of a US Census Bureau prototype dashboard in the process of creating an easier and more efficient way of finding and analyzing data. A dashboard is an easy to read, real-time user interface showing a graphical presentation of the current status and historical trends of an organization’s key performance indicators to enable instantaneous and informed decisions to be made at a glance. Dashboards This dashboard has four main tabs with one overview tab. After conducting surveys, this dashboard shows that this dashboard is more user-friendly, efficient, and effective.

Reflections on the Learning Experience
After completing my research, my fundamental understanding of how research is conducted in my discipline as grown substantially. I have learned that there are many different topics and ways to conduct research in my department and there are always new opportunities to start a project. After finding a project and advisor, it is key to begin with an outline of your entire research project with dates and deadlines to keep you on track. There are multiple different methodologies to conduct your research especially with the survey techniques. I have greatly expanded my understanding of the informational resources available and how to best use these resources. During my research I went into past textbooks and a few outside resources to further my knowledge on the topic of performance dashboards. I realized that there are many sources and opinions with endless possibilities. The Library is an excellent resource for these findings with both online and offline sources.

The knowledge that I have gained regarding the fundamentals of experimental design include the general layout of a dashboard. There are four main sections of the screen with the upper left being the most important and the lower left being the least. This is all taken from previous research using an eye tracker to show the areas of a screen first and most looked at by users. I have learned to organize in class surveys which include giving speeches, handing out and collecting the surveys, analyzing the data, and finding results from the data. I learned how to interpret the results of my research project through IBM SPSS. With this program, along with Qualtrics survey maker, I was able to download and analyze data. I ran hypothesis testing to find whether or not my dashboard had usability, effectiveness, and efficiency. This knowledge that I have gained in this project will help me to further my education and help me with other classes in the future.