

## **Find your candidate: BI dashboards, Human resources students and the decision-making process**

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### **Background**

Over the past four years, the partnership between the digital scholarship librarian and the business librarian has been a productive endeavor which has enabled us to teach data visualization skills which business students can include on their resumé. Data visualization modules built by the digital scholarship librarian provided us a unique way into the classroom. Business faculty began incorporating these modules into their course materials and offering them as extra credit options. Other instructors asked us to come and speak to their classes on the uses of tools such as Power BI and how data visualization dashboards are constructed. During the time we have worked with the business school, faculty and students have proven to be our biggest supporters. With the addition of new business data programs, continued support is assured.

### **MGT 4437 Assignment**

For the past four years, we have worked with the instructor for the MGT 4437: HR Staff/Employee Relations course. We became acquainted with this instructor when she used our data scholarship services for her own research. Wanting to give her students a real-life experience, the instructor designed a simulation to provide her students with the experience of using data to make hiring decisions. Data was collected during the semester through a series of surveys covering areas such as agreeableness, conscientiousness, extraversion and openness. An interest inventory, LinkedIn peer review and LinkedIn self-review were done as well. Answers to survey questions were graded on a 1-5 scale. All data was compiled in a Google sheets document and used to build the Power BI dashboard.

The dashboard and supporting information are in a LibGuide for students to use (<https://libguides.baylor.edu/MGT4337>). During class, we demonstrate to students how the dashboard is used to make decisions on hiring prospective candidates. Afterward, students worked on completing an assignment in which they identified candidates for a recruiter or training & development specialist position.

### **Dashboard Supports the Decision-Making Process**

To facilitate the students' decision-making process, we built an interactive and online data dashboard for the two sections of MGT 4337. This dashboard provided both exploratory tools and analytical tools to make the best hiring decision. It is publicly available at <https://tinyurl.com/baylor-mgt4337>.

Then default view on the dashboard provides students with tools to explore their own individual applicant scores. These can then be compared with their group's scores and their course

section's scores. Initially, average scores for each of the twelve dimensions are compared for each section (see figure 1).



Figure 1: View of Dashboard Comparing Hiring Criteria for Each Section

Students can then drill down to compare each group within each section (see figure 2).



Figure 2: View of Dashboard Comparing Hiring Criteria for Each Group of Students

Finally, students can drill one more level down to compare each individual students' scores. In figure 3 below, you can see the fantastic learning opportunity for student 16 who assigned a score of 170 on a dimension with a maximum score of 5. This led to a helpful discussion about data errors.

## Academic BRASS

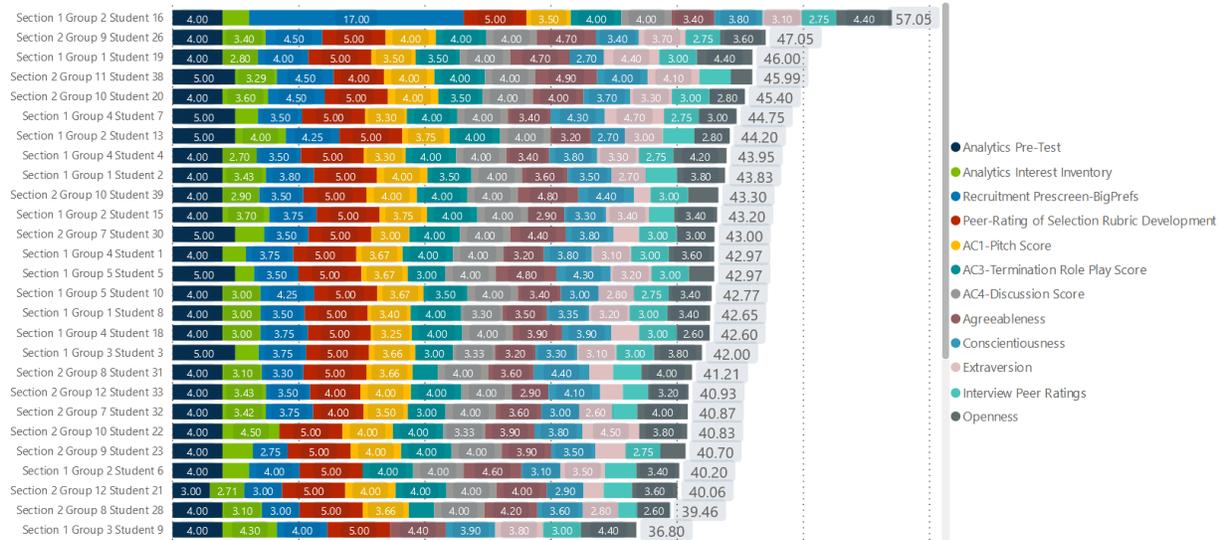


Figure 3: View of Dashboard Comparing Hiring Criteria for Each Student

The dashboard also provided the means for students to make data-driven hiring decisions. This is done by allowing students to assign weights before calculating a weighted arithmetic mean. The higher the weighted mean, the more suitable a candidate is for a particular position.

Clicking the Adjust Weights button, students can assign weights to each of the 12 dimensions (see figure 4). A weight of zero negates that dimension, so students can first select which dimensions to include and then how much weight to assign to each dimension. An indicator displays the sum of the assigned weights, which must equal 1.0.

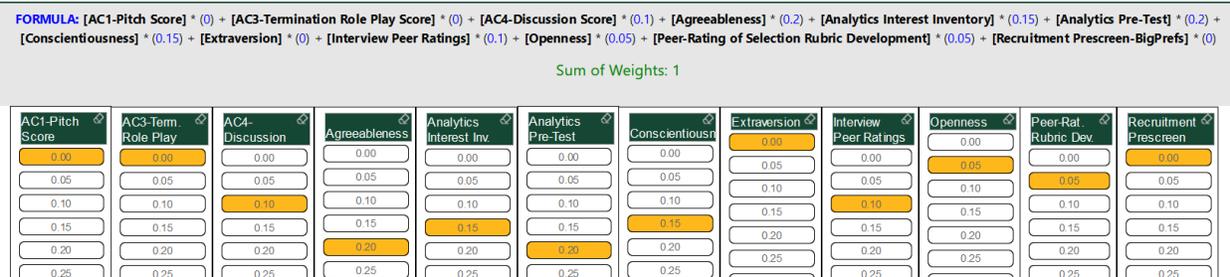


Figure 4: View of Dashboard Interface to Assign Weights for Hiring Criteria

Clicking the Return to Visuals button displays the results of the weighted mean. Students can then make sure they are drilled down to the individual level. The higher the score, the more suitable the candidate!

## Building the BI Dashboard

As assigned by the instructor, students submitted their scores directly into a Google Sheet spreadsheet. Power BI can connect directly to Google Sheets to ingest the data. Power BI contains graphic types called visuals that can be drag and dropped and then configured. The default view, for example, is a stacked bar chart visual based on the scores in the Google Sheet. More complex formulas and queries can be accomplished using an expression language named DAX (Data Analysis Expressions). DAX is more akin to Excel expressions than a true

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programming language The Power BI service was set to update twice per day, at 9am and 9pm, so changes to the Google Sheet would be automatically reflected at the next update.

Power BI is a data visualization tool developed by Microsoft. BI stands for Business Intelligence and is easily integrated into the Microsoft ecosystem, including Office, OneDrive, SharePoint, and Teams. Baylor University Libraries are heavy users of Power BI and is one of the more popular data visualization tools we provide support, alongside Tableau Desktop.