

Pennsylvania Educator Diversity Consortium

Executive Summary

Community Partner

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Background

The Pennsylvania Educator Diversity Consortium (PEDC) is a grassroots organization of individuals, organizations, agencies, and institutions that aims to increase the number of educators of color in Pennsylvania. Membership and hubs are distributed across Pennsylvania, and there are around 566 individuals in total — fulfilling roles in early childhood, PK-12, higher education, non-profit, community, and government. In the Southwest PA hub, our area of focus for this project, there are currently 152 members representing 74 organizations.

Project Description

Project Opportunity

PEDC faces a decentralization of information about demographics and educational resources within Southwest Pennsylvania. As a result, communities are often unaware of the resources available near them. Moreover, neighboring organizations with common missions end up working disjointly from each other, rather than combining their efforts and elevating their impact. PEDC members are also not able to easily assess the educational landscapes of regions to identify gaps and opportunities. Without information about outcomes and areas in need of resources, PEDC is unable to optimize their strategizing and coordinating efforts.

Project Vision

The team aims to create an interactive visualization tool on Tableau that displays demographic and educational resource data across Southwest Pennsylvania in a digestible, user-friendly format. The data is organized geographically at county and school district levels. With useful filtering features and intuitive navigation, our visualization empowers educators, policy advocates, PEDC members, and community members to understand how their regions are performing across Southwest Pennsylvania.

Project Outcomes

The team created a publicly accessible Tableau dashboard that visualizes all requested data from PEDC, including information about Counties, School Districts, Intermediate Units, and resources like libraries, philanthropic organizations, and technical centers.

The visualization is interactive and provides a centralized database about demographic information, resources, and contacts in different regions within Southwest Pennsylvania.

The team provided the visualization and a related data connection through Google Sheets, to allow for dynamic updating of the visualization when relevant data is updated. The visualization allows for future scalability to include more data or other regions in Pennsylvania.

The team also worked with PEDC to streamline the data collection and visualization processes in place. Through process recommendations, additional steps were removed from the data collection process to accelerate the data collection timeline. Feature prioritization was also created through discussions with PEDC, and PEDC will use these skills to manage future phases of this project.

Project Deliverables

The deliverable includes a Project Guide, which has all relevant information about log-ins for different accounts, as well as training material for future developers on the project.

Within the training materials, the Project Guide contains detailed instructions from the team's experience working with Tableau. The team documented step-by-step guides to create new maps and tables. The guide also contains videos explaining how to complete the most difficult aspects of Tableau development, such as visualizing Geographic data or creating Tables.

The deliverable also contains all relevant images that are used in the dashboard, to allow for consistency when additional data is visualized.

Recommendations

The team recommends that PEDC include the visualization on the PEDC website by linking the webpage or embedding it, so that PEDC members are aware of the resource. The team also recommends that PEDC create a plan for updating the data frequently, so that the resource remains relevant over time. Finally, the team recommends that PEDC frequently re-train members on using the resource, so that new members are able to learn how this resource can be used.

Student Consulting Team

Phyllis Feng served as co-developer and designer. She is a third-year student majoring in Information Systems with a minor in Human-Computer Interaction. She will be interning at JPMorgan Chase & Co. this summer and is looking toward a career in UX design.

Darius Taylor led user testing and managed community partner relationships. Darius Taylor is a fourth-year majoring in Information Systems and minoring in Cybersecurity and International Conflict.

Prina Doshi was a co-developer and led quality assurance on the project. She is a third-year majoring in Information Systems and Statistics / Machine Learning. She will be interning at Doordash as a Software Engineer this summer.