

ASSEMBLE

Executive Summary

Community Partner

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Student Consulting Team

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Background

Assemble is a Pittsburgh-based nonprofit focused on equitable STEAM education. Based in the Garfield neighborhood, it offers after-school programs, camps, and events for youth from underrepresented backgrounds. Its mission is to build confidence through making and curiosity-driven learning. The organization uses tools like Google Forms and Sheets to track participation, gather feedback, and assess program impact.

Project Description

Project Opportunity

Assemble's data tracking is fragmented and manual, making it time-consuming, error-prone, and difficult to analyze. As the organization grows, a centralized and automated reporting system has become essential.

Project Vision

Our project aimed to streamline Assemble's reporting by building a centralized dashboard. The system reduces manual work, provides real-time insights, and helps staff better understand their impact by using familiar tools while introducing scalable and low-cost enhancements.

Project Outcomes

This project improved Assemble's people, processes, and technology. Staff now use an intuitive tool to track engagement, impact, and outcomes. Automated data flow from Google Forms to cleaned Sheets cut manual work and reduced errors. The Looker Studio dashboard provides real-time, filterable views of key metrics, simplifying analysis and improving communication with stakeholders. Training materials and documentation support long-term use.

Project Deliverables

Note: Assemble has recently changed the title of the off-site program to "Assemble On The Go"

1. Google looker studio dashboard for the following surveys:
 - a. In-house All Grades
 - b. In-house K-2 Reflections
 - c. In-house Monthly Learner Reflections
 - d. Off-site All Grades
 - e. Off-site K-2 Reflections
 - f. Off-site Monthly Learner Reflections

2. Google app scripts for each of the in-house / off-site all grades result sheets with working google forms on-submit triggers
3. Documentations:
 - a. Demonstrative videos outlining key features, and manipulation guides for the dashboards, google app scripts, and trigger setup.
 - b. Feedbacks and suggestions document for future collaborators and iterations, outlining limitations, possible experimental features, and future improvements

Recommendations

To maintain the dashboard's value, Assemble should assign a team member, such as a program coordinator, to oversee updates, review functionality, and handle issues using the provided documentation. We also recommend reviewing the dashboard during regular staff meetings to identify trends, inform planning, and keep it integrated into decision-making. Lastly, Assemble should maintain a "dashboard wishlist" of future improvements, such as new visualizations or custom views, to guide future teams or interns in building on the existing system.

Student Consulting Team

Yu Fang served as the Student Tech Consultant. She is a senior majoring in Information Systems and will begin a Computer Science PhD at Vanderbilt University. She focused on designing and prototyping Middle School and Monthly Learner Reflection dashboards.

Yuting Wang served as the Student Tech Consultant. She is a junior majoring in Information Systems with a minor in Computer Science. She led the design of the K-2 Reflection Dashboard and documentation to support future dashboard use and development.

Chaeil Yun served as the Student Tech Consultant. He is a senior majoring in Information Systems and Music Performance, and will be working as a data engineer in the bay area. He focused on creating scripts, and developing the high school dashboard and data filtering.