

Harrison Middle School

Executive Summary

Community Partner

Debbie Reynolds

Student Consulting Team

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Background

Harrison Middle School is a school for children from grades 6 to 8, located at 129 Windvale Dr, Pittsburgh, Pennsylvania. The school's mission is to provide a positive culture where students are encouraged to play an active role in school community while developing independent skills needed for success. The *IKS Highlander*, a program incorporated into the curriculum at the school, improves students' career readiness through a variety of "missions" with different roles. Debbie Reynolds is our community partner. Ms. Reynolds is the lead staff member in charge of the *IKS Highlander* program. The school uses a website powered by Weebly to showcase the the *IKS Highlander* program. The school's technology infrastructure is managed by an 8-person IT support team of the school district.

Project Description

Project Opportunity

A difficulty that Harrison Middle School is currently facing is that it needs an effective method to measure the effects that the the *IKS Highlander* program has on students' career-oriented skills. Our clients want us to collect more data and design better analysis metrics to measure the effectiveness of the program. Another issue that the school is facing is that the graphs on the *IKS Highlander* Weebly page are stati. Our clients have expressed their desire to have the webpage be dynamic and be able to be updated in real-time whenever new data is added to the backend database. To be concise, what would help benefit Harrison Middle School would be to modify the pre and post surveys, visualize the data into graphs, and display the results dynamically on the school website.

Project Vision

The project vision for our team is to evaluate the effectiveness of IKS Highlander missions and develop a website that displays the results. We would improve the existing surveys, record data from pre and post surveys and visualize the data into graphs so that anyone interested in the program is able to interpret results from the visualizations. We also would like to make the website real-time and dynamic by making the graphs updated whenever new survey response is added to the backend database. The website would enable Harrison Middle school to show how IKS Highlander can help students develop career readiness and would allow the school to receive more funding to further bolster the curriculum with unique and enriching programs.

Project Outcomes

We present the analysis results through graphs on the *IKS Highlander* website. These graphs get updated automatically as new data get collected. The analysis shows that the software missions are highly related to course contents, while giving students more opportunities to develop career readiness skills. We also documented our graphing process in details and taught our community partners to create graphs on their own so that they can maintain the product by themselves even after our team pull out.

Project Deliverables

Our project deliverables consist of four parts: pre and post surveys, graphs, documentation and Weebly site. The pre and post surveys we designed for collecting mission feedback are stored in Google Survey. The graphs generated based on data we collected are in Google Sheet with each graph stored in a pivot table. The documentation for graphs is stored in a separate Google Sheet. The Weebly webpage we developed is embedded in the website for the *IKS Highlander*.

Recommendations

To continue to increase the capacity of the project, it is recommended to develop new metrics and graphs as new questions that stakeholders are interested in arise. It is also recommended to conduct more user tests with stakeholders of various roles, in order to make sure the information that stakeholders care most about get emphasized the most on the website.

Student Consulting Team

Cindi Liu served as quality assurance manager. She is a third-year student in Information Systems with a double major in Computer Science. She will be interning as a database analyst this summer and is looking toward a career in data analytics.

Elizabeth Wang served as the main point of contact between the client and the team. She is a third-year student majoring in Information Systems with no additional major or minor. She will be interning as a backend developer this summer and is looking toward a career in either software development or technical management.

Roxanne Zhang served as project manager. She is a third-year student majoring in Information Systems with a double major in Human-Computer Interaction. She will be interning as a front-end developer this summer and is looking toward a career in software development.