Design Challenge #6: Test an Idea and Collect that Data

Put your prototype to the test by determining key metrics for success and build a data collection to analyze the results. Ask others to use your prototype if applicable to see how it works.

What You'll Need:

- Digital tool and access to the internet. (optional)
- Data sheet or electronic spreadsheet
- Observe the Prototype in Action Observation Log

Quick Steps Guide

1. **Define Key Metrics**: Identify the specific criteria that will determine the success of your prototype. These could include things like functionality, usability, speed, user satisfaction, or any other relevant aspect of your solution. Refer back to your SMART goal to help identify potential measurable outcomes.
2. **Plan Data Collection**: Determine how you'll collect data to measure these key metrics. Decide what tools, methods, and resources you'll need. This could involve surveys, observations, timing tests, or any other way to gather information. Make use of digital tools if they are available. This may be a quick survey or measurable outcome depending on your innovation type.
3. **Test with Users**: If applicable, ask people to use your prototype. This could be classmates, friends, teachers, or family members. Observe how they interact with the prototype and encourage them to provide honest feedback.
4. **Collect Data**: Use your data collection tools to gather information during the testing phase. Record the results of each test or interaction. Be organized and consistent in your data collection process. This could also be observations of people using or experiencing your innovation.
5. **Analyze Results**: Once you've collected enough data, analyze it to understand how well your prototype is performing. Look for patterns, trends, and areas where the prototype may need improvement.
6. **Identify Strengths and Weaknesses**: Based on the analysis, determine the strengths and weaknesses of your prototype. What aspects of your solution are working well, and what areas need improvement?

7. **Iterate and Improve**: Use the insights from the data analysis to make improvements to your prototype. Address the weaknesses and build upon the strengths to enhance the overall performance.
8. **Finalize Design and Documentation**: Incorporate the improvements into your prototype's design. Update any documentation, diagrams, or materials that describe your solution. At this point you may begin to think about a name or brand for your prototype. Use the innovator insights notes worksheet to document your own innovation. What type is it? What career field does it impact?

Extend

Create data collections using online tools that could create digital surveys and spreadsheets. These tools can help streamline data collections and facilitate analysis to provide insight into your prototype.

Evaluate

As the students share their storyboards, determine if it is possible to scale up the project. Is it possible to build? Is it a process that could be implemented permanently or piloted? If the answers to these questions are yes, encourage students to further develop their ideas or potentially identify others who could provide feedback.
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