Basics of a Data-Informed Approach

A data-informed approach means making strategic decisions using the collection, analysis, and interpretation of data. Using a data-informed decision-making process within your implementation team allows you to be transparent and share the reasoning behind decisions. It can also bolster confidence in decisions and help gain buy-in. Data is also key to identifying and understanding the issues on campus and recognizing the best strategies to target them. Below are steps to implementing a data-informed approach. Note that throughout this entire cycle, data collection should be centered around the mission and objectives of Engage and the priorities set by the implementation team.

1. Define the goals of data collection. What are the objectives of collecting this data? What questions are you hoping to get answered? If there is no existing evidence or support for a problem you are trying to solve, gathering usable data may be the goal or first step. A good place to start is with a needs assessment to identify and understand the problems and related behaviors on campus. If you do have existing data, it is still necessary to define your objectives for further analyzing that data. For example, if existing data points to a specific issue that needs to be addressed, additional analysis can help drill down the reasons for and potential solutions to the problem. The objective may also be to track changes over time and to see what progress has been made or what still needs attention.

2. Choose data metrics and data collection methods carefully.

- Data metrics are what you measure. Select metrics that are meaningful and directly related to the objectives. Is your objective to encourage students to step in if they feel a peer is not drinking in a safe way? You may want to measure comfort level with intervening, how they feel their peers will perceive them for intervening, and in what ways they are most likely to intervene.
- Once you have defined your metrics, plan for how you will collect the data you need. There are multiple types of data collection methods that can be used (existing/archival data, surveys, focus groups, etc.), and utilizing various methods can provide a more complete picture. There is likely some existing data available from the conduct/accountability office, campus or community law enforcement, and/or enrollment management. Related to the above example, you could collect this data via a survey, host a focus group about perceptions of others' behaviors, or get self-reported alcohol use intake data from the health or counseling center. You can also utilize the MACHB survey results, Engage overview and deeper dive pre and post-test survey data and the online introductory training data. Reach out to our staff at pip@missouri.edu if you need assistance with accessing these data.
- Remember that both quantitative and qualitative data are valuable. Quantitative data are numerical, can be scored and counted, and are typically a result of closed-ended questions. Qualitative data are non-numerical, are rich in detail and description, and are usually a result of open-ended questions in surveys or from focus groups, key informant interviews, etc.
- Additionally, evaluate whether the sources of data are relevant (related to the problems you are trying to solve), consistent (gathered in the same way across time) and accurate (correct and valid).

3. Outline and implement a data collection strategy. Be mindful of who will help gather, analyze, and interpret the data - consider working with your campus office of strategic initiatives and assessment, other data collection and analysis experts, and, if necessary, consult with your campus's institutional review board (IRB). You may need to provide informed consent for any research that is done. Additionally, consider the need for incentives/inducements for participation and determine the process for acquiring and distributing them to participants. Determine how you will collect and store the data (online survey platform, written notes from a focus group, etc.) Also work with stakeholders on the design and format of any data collection methods (wording of survey questions, format of focus groups, etc.) and ensure that questions are culturally competent and equitable. Once you set your strategy and create a timeline, implement it!

4. Analyze and synthesize the data results. Once you have collected the data or pulled it together from various sources, you may need to do further analysis. This might involve disaggregating data to look at which populations are engaging in certain behaviors, synthesizing information from various sources, or comparing and contrasting data. Look for major themes and if comparing data over time, what is changing.

5. Evaluate the results and act on the findings. First, evaluate the results. Was the correct metric measured? Are there any problems with the quality of the data, or the collection method? Does something need to be changed for the future? Additionally, use the data now that you have it! Ensure that you share the data with stakeholders and use it to determine next steps. The data should also aid in strategic planning decisions. Ask, what are the potential contributing factors to the problems? Which programs/strategies could help address the problems? What are the outcomes of our current interventions? Consider what the data says about how you can improve programs and services to better meet the needs of students. Back to the original example, once you have data on students' alcohol use, you could do a social norms campaign to correct misperceptions about use and educate on protective behavioral strategies to mitigate consequences of use. Work to 'close the loop' and refer back to the original objectives of data collection; hopefully the original questions were answered, and the goals were met.

Considerations to Keep in Mind
When utilizing data, keep in mind that you should not only use data that is favorable or positive. Don't try to manipulate data just to keep it in line with your goals. Additionally, sometimes there will be uncertainty about data or it will provide conflicting information with other sources. Don't let this derail your data-informed decision-making process, and try to note when there are discrepancies or lack of validity while working to improve the metrics, collection method, etc.

While data should inform your Engage implementation team work and the decisions made, it's also important to take into account the experiences and insights of team members and students themselves. Data alone may never be able to tell the full story, so various forms of information are valuable and can add context to data or provide solutions that may not be obvious through data.

To receive data related to the bystander intervention questions from the MACHB or Campus Culture and Bystander Engagement Survey, you can submit a data request to our research team (reach out to our staff at pip@missouri.edu to get the link). To access data from the Engage overview and deeper dive pre and post-test surveys and/or the online introductory training data, reach out to our staff at pip@missouri.edu

Resources

- Assessing Community Needs and Resources - Community Tool Box - ctb.ku.edu/en/assessing-community-needs-and-resources
- Making Data Talk - National Cancer Institute - cancer.gov/publications/health-communication/making-data-talk.pdf
- Prevention With Purpose: A Strategic Planning Guide for Preventing Drug Misuse Among College Students - campusdrugprevention.gov/preventionguide