The Data Integration Cluster

Each cluster in APLU's Powered by Publics initiative is working to refine, implement, and scale innovative practices that address shared challenges among the participating institutions. This memo highlights universities in the Data Integration Cluster (a list of institutions in this cluster is at the end of this memo).

Institutions in the Data Integration Cluster have a shared interest in leveraging data to support student success initiatives. While institutions are in different stages of development in their data analytics infrastructure, they understand the need to:

- Enhance existing processes and platforms to improve the quality and availability of data;
- Increase data literacy; and
- Integrate data into strategic planning and student success initiatives to inform better transformational change.

The Data Integration Cluster spent the last year developing resources to bolster institutional understanding of their progress towards an optimized data culture, with a focus on creating a data maturity matrix.

Maturity matrices are used in higher education to identify strengths and opportunities for improvement at different levels (e.g., institutional, unit, program) or different processes (e.g., improving data literacy). Typically featuring five levels of organizational development, the matrix levels range from “initial” to “optimized.” It’s possible for an institution to be on the initial level for one goal, and closer to the optimizing level for another goal. For further details on maturity matrices, click here.

How Has the Cluster Used the Tool?
The data maturity matrix identifies essential components of a data infrastructure and assesses the use of data for advancing student success. The core areas for assessment include data collection, quality, dissemination, culture, and usefulness. A description of each level is provided for institutions to assess their development, according to the tool’s criteria. A second phase of the matrix requires institutions to describe their infrastructure in each of the core areas. This information will be synthesized and serve as a learning object for college and university leaders. Cluster team members identified key stakeholders for discussion, completed the Data Maturity Matrix with their input, and discussed the findings and opportunities as a cluster.
What’s Next for the Cluster?

The cluster is working to tackle the following remaining questions:

1. How can institutions collaborate and enhance the use of data to derive relevant information?
2. How can institutions create data-derived insights to reduce equity gaps?
3. How do institutions define data literacy and equity?
4. What are the critical metrics needed to evaluate equity and student success?

While developing and discussing the data maturity matrix, the cluster determined there is a clear need for a deeper focus on data governance, setting standard data definitions, and level-setting around the different maturity levels.

Cluster subcommittees are working together to move forward in the following areas:

- Identifying best practices for revising the data maturity matrix and helping institutions evaluate strengths and weaknesses and strategically plan to transform their data culture;
- Identifying and defining a comprehensive list of composite metrics associated with student success and equity to support evidence that informs strategic planning;
- Developing data governance procedures and resources that will improve data use on campuses, including an assessment for institutions to evaluate their own data governance structure, as well as case studies presenting different models of data governance (e.g., top-down and non-intrusive models and different political contexts).

Resources

The following resources are working drafts developed by the Data Integration Cluster:

- The Data Integration Cluster’s Data Maturity Matrix
- The Data Integration Cluster’s Definition of Data Literacy

References

The resources below are documents that the cluster subcommittees have used to frame and define the work:

Maturity Matrices

- Descriptions of Maturity Matrices and Index Levels, Select Business Solutions, 2019.
- Student Success Technologies Maturity Rubric, EDUCAUSE, Core Data Service, 2019.

Data Governance

- How to Set Up Your Data Quality Program, Parish, Brian, Reeb, Brenda, and Walery, Jim.
Data Metrics

- Beyond Retention: Building a Bridge between Research and Action, Taylor, Loralyn. 2019,
  Beyond Retention: Building a Bridge between Research and Action.
- Developing Evaluation Metrics

Institutions in the cluster:

- Texas Tech University – Cluster Lead
- George Mason University
- Ohio University
- Tennessee State University
- University of New Hampshire
- University of Rhode Island