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Powered by Publics Learning Memo: The Data Integration Cluster

By Denise Nadasen, DM and Julia Chadwick

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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 institutional effectiveness and 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 better inform transformational change.

The Data Integration Cluster has developed resources to bolster institutional understanding of their progress towards an optimized data culture, with a focus on creating a [Data Maturity Index](#) (DMI).

The index is modeled on maturity matrices, which are used in higher education to identify strengths and opportunities for improving data literacy, data use, and data management. The DMI features maturity levels ranging from 1 (developing) to 3 (emerging) to 5 (accomplished). It's expected that respondents will identify different levels in different areas. This enhances the value of the DMI to leaders who want to discern where to focus resources to support a culture of evidence. For further details on maturity matrices, click [here](#).

How Has the Cluster Used the Tool?

The [Data Maturity Index](#) identifies essential components of a data culture and assesses the use of data for advancing student success. The core areas for assessment include data governance, data collection, data quality, data dissemination, data analysis, culture and application, and evaluation. Each core area has two to four questions, resulting in a total of 21 unique items plus one overall question.

A description of the levels in each item is provided for individuals to assess the institution's maturity level based on their roles and experiences. Cluster 13 team members completed the Data Maturity Index with an expectation to discuss the findings and identify opportunities for institutions to improve

the culture of evidence as a cluster. The DMI is also currently being implemented with Cluster 14 and the Intermediaries for Scale institutions.

The first phase of the tool uses 22 questions to gauge a campus respondent's perception of the maturity of data culture on campus. In piloting the index, the Data Integration Cluster institutions generally reported positive perceptions of: their institutions' insights deriving from the data; identification of key stakeholders; students' ability to update their personal and demographic information; leaders evaluating and communication on key progress on key metrics. Across the cluster, institutions generally reported lower perceptions of: their institutions' use of meta-analytics; data governance structures and use; harmonized definitions of terms; and data-informed policy changes. Institutions reported greater institutional variance on questions dealing with procedures to ensure data quality; processes for department-specific reports; and reports being incorporated into business processes.

The second phase of the index requires institutions to describe their infrastructure in each of the core areas to inform a community of knowledge around data maturity. This phase of the index asks institutions' chief data officers or institutional researchers open-ended questions across the topic areas to inform best practices and support a community of learning that addresses barriers to an evidence-based culture. The cluster is currently completing this phase of the index and expects to complete it by Fall 2021.

Once the cluster completes the full implementation of the DMI, the information will be synthesized and serve as a learning object for college and university leaders, including those outside the 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 need for a deeper focus on data governance, setting standard data definitions, and level-setting around the different maturity levels.

Cluster subcommittees have worked together to move forward in the following areas:

- Identify best practices and learnings from the DMI, helping institutions evaluate strengths and weaknesses and strategically plan to transform their data culture;
- Identify and define a comprehensive list of composite metrics associated with student success and equity to support evidence that informs strategic planning;
- Develop 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 Maturity Index](#)
- [The Data Integration Cluster's Definition of Data Literacy](#)

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.
- [Speaking the Same Language: Building a Data Governance Program for Institutional Impact](#) Chapple, Mike. *EDUCAUSE Review*, 6 Dec. 2013, pp. 14–27.
- [The Compelling Case for Data Governance](#), Blair, Doug, et al. EDUCAUSE Research, 2015, *EDUCAUSE Working Group*.
- [How to Transform the Landscape of Analytics with Data Governance](#), Burnette, R. & Hosch, B. (2019, November 10). Session presented at the APLU Annual Meeting.

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