

The Challenges of Implementing a Data Driven Framework in K-12 Education

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Background

Data in K-12 education is especially valuable due to the various mandates from the federal and state government to collect student achievement data to improve learning outcomes. A considerable amount of money and effort has been spent to create data systems and infrastructure. However, there is a lack of research to examine the implementation of the data-driven process in schools and how educators utilized these data to inform instruction. There is also a need to include a comprehensive data profile of the students to make sound decisions.

Research Questions

- What is the current state of data system, data management and data use in K-12 education?
- How are educators using data to inform their instruction?
- Why is the current data system not meeting the needs of educators and students?
- How can data systems be improved to provide an all-inclusive view of the students in supporting a whole child approach?

Challenges



Technical

- Interoperability
- Consistency of data format and curation
- Data quality and transferability
- Infrastructure, architect and access

Knowledge and Application

- Knowledge of data management and analytics
- Data literacy and application
- Understanding of assessment design and application
- Transfer of knowledge among educators and training



Culture and Climate

- School climate of trust and respect
- Leadership to drive the process of data use
- Structure and system to allow collaboration



Next Steps

- Assess the current state of data system and technologies use in K-12 education
- Investigate the use of formative and summative assessments data in schools and the utilization of both to improve learning outcomes
- Examine the collaboration effort at schools including the school librarian's role
- Identify all components needed to support the whole child approach