

State Education Agency: Ohio Department of Education
Project Dates: January 2006 to November 2008
Amount Awarded: \$5,670,100

Ohio's Data System Vision

The Data-Driven Decisions for Academic Achievement (D3A2) project is Ohio's long-term data system initiative being designed to:

- Provide systemic access to timely, quality data and to aligned educational resources aligned to Ohio's academic content standards.
- Develop the capacity of educators and other education stakeholders to access, analyze and use data to improve instruction and student achievement.

It is a collaborative effort between the Ohio Department of Education (ODE), local education agencies, regional Information Technology Centers (ITCs), other education related entities, including some non-profit education content providers. Details of the sub-committees working on D3A2 can be found at <http://d3a2.org/committees/>.

The D3A2 will be based upon a technical infrastructure that integrates and enhances existing systems to meet the following five objectives:

1. Provide educators electronic access to education content resources aligned to Ohio's Academic Content Standards (**D3A2 Content Exchange**)
2. Provide access to a data warehouse and business intelligence tools for data analysis and decision making at the local education agency level – including teacher access to individual student data (**D3A2 Local Data Analysis**)
3. Provide an efficient and effective system for local education agencies to exchange data with ODE (**D3A2 State Required Reporting**)
4. Provide a statewide longitudinal data warehouse for research, analysis, and decision making by a variety of stakeholders (**D3A2 Statewide Longitudinal Data Analysis**)
5. Provide an automated, streamlined process to support reporting of federally required data (**D3A2 Federal Required Data Reporting**)

Current Status

1. D3A2 Content Exchange

Tools accessible through D3A2 will help educators analyze data, and then point them to resources such as lesson plans and assessments designed specifically to address the academic need identified by the data.

By December 2006, the goal is to have the infrastructure built to support:

- a. Providing teachers access to item level assessment data, the tools to interpret and understand areas needing improvement and automated links to the appropriate education content resources.
- b. Providing educators with general search capabilities to locate education content resources aligned to the Ohio's Academic Content Standards

A prototype demonstrating the above content exchange functionality has been created and was shared in January 2006 with a wide range of educators in the state to gather additional requirements.

2. D3A2 Local Data Analysis

Data warehouse models and software applications, for developing a data warehouse and business intelligence environment for access and use by local education agencies for decision making, are currently being researched. Demos and presentations by vendors occurred on January 25, 2006 and January 26, 2006 with the intent for a selection to be made in February.

Note: There will be no participation requirement for educators for the D3A2 Content Exchange or Local Data Analysis components

3. D3A2 State Required Reporting

The Education Management Information System (EMIS) is Ohio's system for collecting state required data – including student, staff, program, course and financial data- from the local education agencies. Currently, Ohio is in the midst of a transition with the EMIS as a result of a 1998 change in state legislation authorizing the reporting of personally unidentifiable student level data to the Ohio Department of Education via the use of a unique data verification code. Previously, ODE was only permitted to collect aggregate student data.

In 2002, through the use of a third-party administrator (IBM), Ohio implemented the Statewide Student Identification System (SSID) to assign unique permanent identification numbers to students. ODE began collecting unidentifiable individual student data in school year 2002-2003. While changes have been made to the EMIS to support the collection of student level data, much of the state reporting process and technologies remain unchanged from the 1990's system design. EMIS was designed to collect, process and manage aggregated student data not to manage individual student level records over time. As a result, even though ODE now has unidentifiable student level data, ODE's ability to efficiently and effectively collect, process and manage the data and its ability to perform or facilitate statewide longitudinal data analysis to improve student achievement is limited.

4. D3A2 Statewide Longitudinal Data Analysis

ODE currently has a data warehouse that contains detailed student, staff and financial data for multiple years. However, the primary focus of the data warehouse is on performance accountability data. Additionally, the data warehouse does not link students to courses to teachers and does not encompass every program area. Note: ODE is not permitted to have identifiable student information. The individual student data are collected and maintained using a unique permanent identification number.

5. D3A2 Federal Required Data Reporting

ODE 's process for compiling and reporting data to the USDOE is not streamlined and relies upon multiple disparate programs and systems.

Work to be accomplished with the Statewide Longitudinal Data System (SLDS)

The majority of the Statewide Longitudinal Grant System dollars (79%) will be focused on developing and enhancing the D3A2 State Required Reporting, D3A2 Statewide Longitudinal Data Analysis and D3A2 Federal Required Data Reporting components of the overall D3A2 project. Specifically, the following will be done:

D3A2 Statewide Required Reporting

Ohio will change the method in which data are collected and exchanged between the state and the local education agencies through the implementation of data definition and data format standards for sharing data. These standards will be based upon the School Interoperability Framework (SIF) specifications and will be required for the state data reporting. The use of SIF data specifications will replace the existing fixed length file format standards currently used for EMIS reporting. Funding from the SLDS will be used to purchase zone integration servers for state reporting and to provide consulting and technical assistance to ODE, regional Information Technology Centers and student information system vendors to implement SIF compatible reporting

Additionally, ODE will design, develop and implement a normalized relational operational database to process, manage and store the longitudinal unidentifiable student data, individual staff data, course data, program and financial data.

D3A2 Statewide Longitudinal Data Analysis

ODE will expand and enhance its data warehouse and business intelligence environment to include all program areas, facilitate longitudinal data analysis on student achievement and link students to teachers via course while ensuring appropriate and secure access to data by districts, legislators, general public, and researchers

Additionally, ODE will implement a comprehensive data dictionary to support reporting of quality data and appropriate, consistent use and representation of data

D3A2 Federal Required Data Reporting

ODE will automate and streamline the process of compiling and reporting federally required data to meet the required specifications for the Performance Based Data Management Initiative (PBDMI).

The remainder of the grant will be used for professional development for educators on how to use data for decision making and to improve student achievement and for an evaluation of the overall effectiveness of the project.

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