



U.S. Department of Education
Grant Performance Report (ED 524B)
Executive Summary

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Ohio Department of Education

Data-Driven Decisions for Academic Achievement (D3A2)

This document outlines the Ohio Department of Education's long-term data system initiative, Data-Driven Decisions for Academic Achievement (D3A2). While much of Ohio's initiative is funded by the IES Statewide Longitudinal Data System (SLDS) Grant Program, some objectives were initiated prior to the issuance of the SLDS grant and were not included in Ohio's grant proposal. The goals of Ohio's D3A2 project are to:

- Provide systemic access to timely, quality data and to educational content 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.

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

1. **D3A2 Content Exchange** - Provide educators with electronic access to education content resources aligned to Ohio's Academic Content Standards. *(not funded by the SLDS grant)*
2. **D3A2 Local Data Analysis** - 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. *(not funded by the SLDS grant)*
3. **D3A2 State Required Reporting** - Provide an efficient and effective system for local education agencies to exchange data with ODE.
4. **D3A2 Statewide Longitudinal Data Analysis** - Provide a statewide longitudinal data warehouse for research, analysis, and decision making by a variety of stakeholders
5. **D3A2 Federal Required Data Reporting** - Provide an automated, streamlined process to support reporting of federally required data.

Current Status

D3A2 Content Exchange

Fedora (Flexible Extensible Digital Object and Repository Architecture) was selected as Ohio's content exchange tool. A proof-of-concept with Fedora was completed on June 30, 2006. Refinement and further development for release 1.0 will continue through December 2006. 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. In addition to linking

content to data analysis, educators will have general search capabilities to locate education content resources aligned to the Ohio's Academic Content Standards.

D3A2 Local Data Analysis

IBM's Insight at School Education Data Warehouse solution was selected for Ohio's Local Data Analysis objective. A proof-of-concept and development environment was completed on June 30, 2006. Refinement and further development for release 1.0 will continue through December 2006. Four Ohio school districts were chosen to be pilots for the initial phase of the D3A2 statewide warehouse initiative. These districts have provided student assessment and demographic information for a three-year period that is being loaded into the initial implementation of the D3A2 statewide data warehouse. These districts are helping with stabilizing and refining the database addition, these sites will be the first to test and provide feedback to developers as they utilize system to analyze student results and needs. A second round of pilot districts will begin implementation in December 2006/January 2007. The second round of districts will help with stabilizing and refining the data routines

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

D3A2 State Required Reporting

Ohio is changing 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 state data reporting. The use of SIF data specifications will replace the existing fixed length file format standards currently used for current reporting. ODE is currently working with ESP Solutions Group to perform a gap analysis between required state reporting data elements and SIF objects. A Request for Proposal (RFP) is currently being developed for the remainder of the D3A2 State Required Reporting objectives and will be released in December 2006. The RFP will include:

- Purchasing zone integration servers for state reporting.
- Consulting and technical assistance to ODE, regional Information Technology Centers and student information system vendors to implement a SIF vertical reporting infrastructure.
- Design, development and implementation of 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 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. ODE is expanding and enhancing 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 is implementing a comprehensive data dictionary to support reporting of quality data and appropriate, consistent use and representation of data. Funding from the grant has been used to add business intelligence products and capacity to support access to the Data Warehouse.

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. ODE is automating and streamlining the process of compiling and reporting federally required data to meet the required specifications for the Performance Based Data Management Initiative (PBDMI)/EDEN. ODE has contracted, for three years using grant dollars, with a vendor to provide an Informatica resource to automate the compilation and reporting of Ohio's data to the USDOE for EDEN. Additionally, utilizing state funds, ODE hired a full time EDEN coordinator.

Lessons Learned

1. Issuance of a RFI

The Ohio Department of Education chose to issue a Request for Information (RFI) prior to the development and release of the State Required Reporting RFP. Through this process ODE was able to gather information directly from vendors within the SIF realm. ODE now has a better understanding of the multiple architectural and implementation options available.

2. Collaboration

The Ohio Department of Education took an enterprise approach when initiating the D3A2 project and made every effort to identify ways in which true value could be provided to district personnel. ODE has found that leveraging a bottom-up approach throughout the project has been extremely beneficial. ODE made a concerted effort to identify and work collaboratively with data savvy districts along with other supporting education entities to ensure not only a successful project, but also to ensure that a valuable product is delivered.