

The LEARN Prototype: Playing Well With Others ***New Mexico and Wyoming's experience***

States working together - Best Practices and Lessons learned while implementing LEARN Prototypes in Wyoming and New Mexico

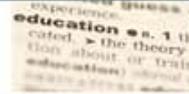
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Today's Agenda

Provide an overview of the challenges the Learning Exchange and Resource Network (LEARN) Consortium is attempting to offer resolutions to and suggested answers for

Discuss why New Mexico and Wyoming has joined the LEARN Consortium

Tour a functional LEARN prototype and some potential visualizations available via an eventual phase one implementation of LEARN



CCSSO Initiatives





Comprehensive
Information
Systems and
Research

In order to improve Learner Outcomes, our chiefs insist that education information systems must provide access to data, that is:

- Liquid
- Comparable
- Relevant
- Timely
- Accurate

Unfortunately, markets are broken, state's procurement processes are inefficient, there are few common standards, and it is difficult for states to share what they have done.

That is what LEARN is attempting to address.



New Mexico/Wyoming - Current Status

Most of all:

- Implemented fully integrated K-12 LDS in 2005
- Districts have taken ownership of the data
- Districts and Bureaus are reviewing and using data in ways that could not have been conceived five years ago
- Data has now been submitted for four full school years
- We both collect student, programs, assessment, special education, course, course instructor, course enrollment, staff and assignment records, attendance, transcript data, and discipline
- AYP logic programmed into the warehouse
- Teacher Certification data loaded into warehouse
- Highly Qualified Teacher logic programmed into warehouse
- Licensure Discrepancy logic programmed into warehouse
- Staff is tied to students, course and certification to derive Highly Qualified designations



We can:

- Calculated and Report AYP through our SLDS
- Calculated and Report HQT through our SLDS
- New Mexico can determine and Report OSEP Special Ed Indicators through our SLDS
- Develop and report the State's CSPR through our SLDS
- Submit all federally required data through EDEN/EDFacts

Our Districts are now able to:

- Review their data prior, during, and after submissions
- Submit state required data into a single data warehouse
- New Mexico can tie student to staff to financial data to begin using the data to improve student and staff performance
- Wyoming provides the e-Transcript “broker” to submit transcript to any recognized post secondary organization
- See student level statewide assessment results down to the strand and benchmark



New Mexico has. . .

Reporting :

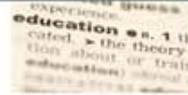
- Over 1,000 reports created
- 12 OLAP Cubes (ad-hoc reporting) have been developed
- Trend analysis reports on NMSBA data
- Over 1600 users have accessed STARS reporting since 1/06
- EDEN/EDFacts reports are automated through warehouse



New Mexico has. . .

Training:

- Over 2000 educators have registered for past 6 data conferences
- All District Administrative personnel have been trained
- Over 200 Principals have been trained
- A staff of 8 fully support and maintain the system
- PED staff are currently developing 98% of new reports in STARS



New Mexico has. . .

Data Quality:

- 50,000 errors were identified during the SY05/06 Assessment **Bio-Gird Review**. 5,000 errors could not reconcile. In SY06/07, 2000 errors were identified, and all were fixed. In SY08/09 only 23 errors were identified and fixed.
- Special Ed records have a potential of 7.8 million errors. Last year, Special Education Bureau identified and agreed to accept 32 actual errors. This translates to an error rate of but .0005%—or a data accuracy rate for Special Ed data of 99.9995% (this is approaching 6 sigma).
- Similar statistics are being developed for other data sets.



Wyoming has. . .

Wyoming Integrated Statewide Education (WISE) Data System:

- Final months of implementation
 - A system of standards and procedures set up to acquire, organize, and report education data
- Goals
 - Collect, certify, and transform school district data into standardized data sets
 - Horizontal integration and vertical reporting across Wyoming's school districts for the purposes of cleaner and more reliable data



Wyoming has. . .

Wyoming Transcription Center (WTC):

- Established in 2006
 - Secure transfer of electronic transcripts
- Managed by the school of ownership
- Data is protected using industry leading security protocols
- Submission to over 300,000 recognized educational institutions within the United States



Wyoming has. . .

Wyoming Education Fusion:

- Established in 2008
 - Secure web-based interface
- Utilizes 21st-century access, authentication, authorization and security structures
- Disseminating disaggregate information securely to appropriate stakeholders
- Aggregate information is published for public consumption



Some say we are ahead of the pack, but . . .

- Although we meet FERPA and HIPPA Guidelines we are restricted in our ability to further delineate security roles and access.
- We have not integrated our K-12 with our 13-20 data system and do not integrate with our Work Force Solutions (DOL) system
- Although we report through EDEN/Edfacts, it is still a major effort to convert from STARS to EDEN
- We have not developed individual learning plans
- We have limited professional development capabilities
- We do not collect classroom level data
- We do not have a centralized, easy to use e-transcript system
- Our electronic student backpack is limited to state reported data
- Our costs to further develop tools are skyrocketing

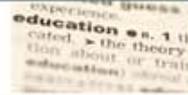
We have estimated it will cost us between \$8M – \$12M to build out our planned functionality. With annual costs of between \$2M – \$4M.



LEARN – Is a consortium of like-minded states working together to develop a set of information system design principles to deliver personalized learning plans to every student and personalized professional development plans to every educator.

LEARN is a mechanism to . . .

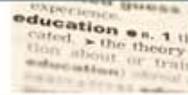
- Connect existing statewide longitudinal data systems in a secure, authenticated manner.
- Allow secured access to student record systems, information management tools, growth models, learning resources, intelligent content.
- Provide third-party application developers a common platform to develop tools to drive continuous improvement for all learners.
- Deliver personalized learning plans to every student and professional development support to every educator.
- Reduce the manual Federal reporting burden on each State by automating the submission process to USED.



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LEARN TOOLS

Centralized Data Fortress and Support Tools

Reporting Module

Student Backpack

Data Visualization Tools

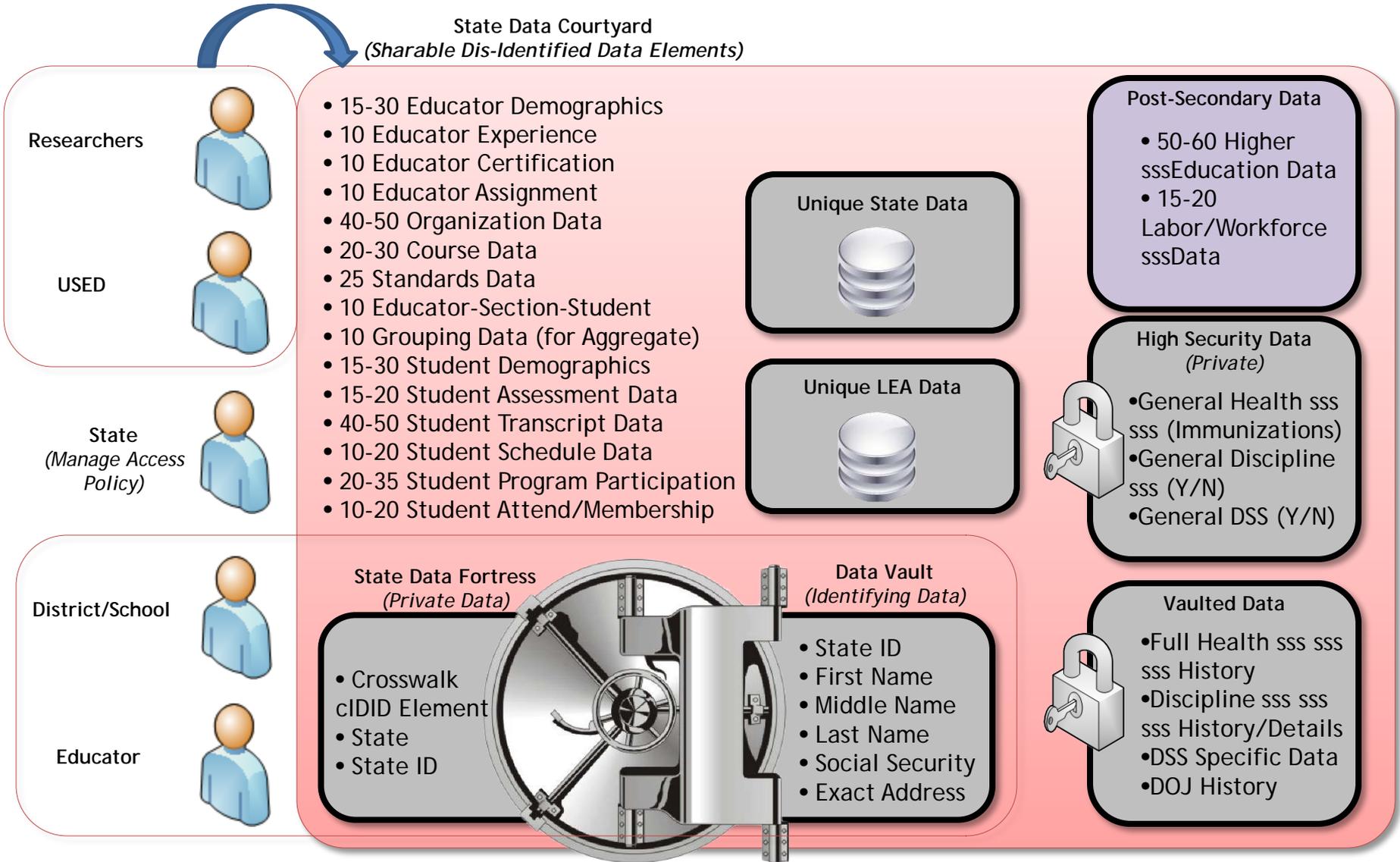
Learning Resource Exchange

Education Portal

Learning Exchange and Resource Network (LEARN)

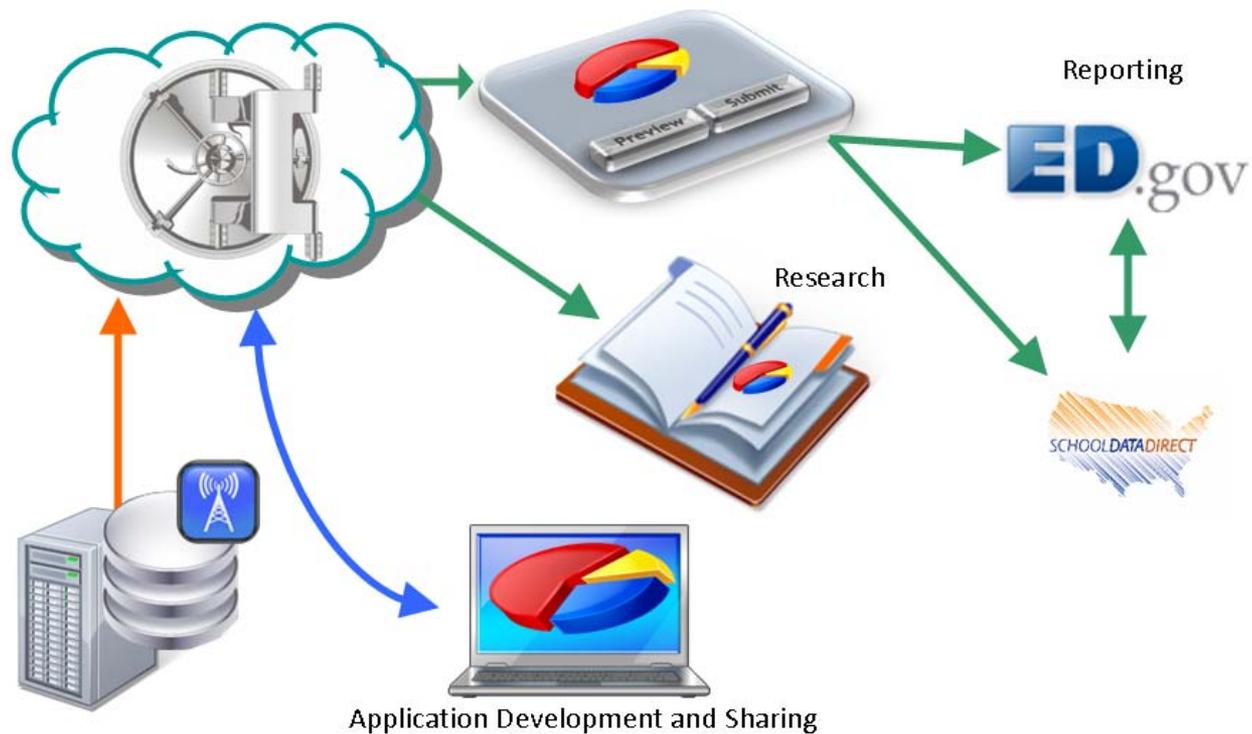


Model Data Fortress /State Data Registry (must be uniquely tailored)





Learning Exchange and Resource Network (LEARN) - Reporting Module





Learning Exchange and Resource Network (LEARN) - Learning Resource Exchange

Learning Resource Exchange is a repository of PBS's Digital Learning Library (DLL). The Exchange will provide teachers and students with a collection of thousands of high-quality digital media resources. Giving , educators and students instant access to a full range of purpose-built digital learning objects.

The screenshot shows the Teachers' Domain website. At the top, it says "teachers'domain Digital Media for the Classroom and Professional Development". Below this is a navigation bar with "User: Please sign in.", "My Folders", "My Groups", "My Profile", and a "Help" link. The main content area has a sign-in section with fields for "Sign-in Name:" and "Password:", a "Sign in" button, and a "Forgot Your Password?" link. To the right of the sign-in section is a registration area with the text "Not yet registered? Register now to download, share, and save resources. It's simple, safe, and free! [Learn More](#)" and a "Register Now" button. Below the sign-in and registration area is a search section with the text "Teachers' Domain is an extensive library of free digital media resources produced by public television, designed for classroom use and professional development. [more information](#)" and a search box with a "Search" button and a link to "Advanced Search". The "Browse:" section is divided into "By K-12 Subject:" and "Professional Development:". Under "By K-12 Subject:", there are buttons for "Arts", "English Language Arts", "Mathematics", "Science", and "Social Studies". Under "Professional Development:", there are buttons for "About TD Professional Development", "Online Courses", and "Teaching Strategies". The "Featuring:" section displays a "NOVA" video titled "Synthesizing a Steroid" with a "QuickTime Video for grades 9-12". Below the "Featuring:" section is a "What's New?" section with the text "Rate and Review Teachers' Domain resources with our new".



Learning Exchange and Resource Network (LEARN) - Four Levels of Engagement

The LEARN Consortium offers four levels of engagement from core membership to the full implementation of the digital learning library. The levels of membership are:

1. Core Membership
2. Student Back Pack
3. The Growth Model/Data Visualization Module
4. Digital Learning Library



Core Membership

Core Membership is the lowest level of engagement in the LEARN Consortium and is mandatory for any further involvement. Core membership includes the State Data Fortress, the SLDS technical linkage, a Reporting Module, a secure research interface, federal monitoring, and access to 3rd party application interfaces.

The LEARN Consortium (supported by CCSO) is responsible for:

- ✓ Establishing, staffing, and convening the LEARN Consortium
- ✓ Conducting a review of state procurement laws to ensure validity of collective state action
- ✓ Architecting and designing the requirements for the core infrastructure of the LEARN system components, including:
 - LEARN Data Fortress, Hosting and Support Services
 - State Security Admin
 - State ETL Manager
 - Federal Reporting Module
 - Security and Linkage Module
- ✓ Administering the procurement to buy, build, or adapt core infrastructure components as needed for creating the centralizing components
- ✓ Hiring and managing any vendor(s) necessary
- ✓ Coordinating with USED to initiate an Defects pilot for the submission of federal data collections with aggregate record level data
- ✓ Advocating for the adoption of standardized AYP reports by USED

Individual member states are responsible for:

- ✓ Joining the consortium and agreeing to participate by working out the technical and policy procedures for the centralizing components
- ✓ Brokering a relationship with the consortium to handle record level data
- ✓ Hiring and managing new state employees (with consortium funds) to serve as 1.) an ETL administrator and 2.) a state security administrator
- ✓ Implementing security and privacy policies and integrating them with the state data fortress
- ✓ Participating in Defects pilot

Initial Budget Figures (Based on 10 States)

\$750,000 per state



Learning Exchange and Resource Network (LEARN) - Student Back Pack

Student Backpack requires the prerequisite of core membership and is the second level of engagement in the consortium. The student backpack includes a classroom manager module, student and teacher views, and accurate dropout/graduate tracking.

<i>The LEARN Consortium (supported by CCSSO) is responsible for:</i>	<i>Individual member states are responsible for:</i>
<ul style="list-style-type: none"> ✓ Architecting and designing the student backpack details (standardized data elements) in the state data fortresses , including: <ul style="list-style-type: none"> • Classroom Manager • Transcript Module • Teacher/Student View • Dropout/Graduate Tracking ✓ Providing legal and policy coverage for ensuring that LEARN data structures comply with vetted interpretations of both HIPPA and FERPA ✓ Writing and vetting language and agreements for student transfer technology 	<ul style="list-style-type: none"> ✓ Loading student record data into the state data fortress ✓ Agreeing to collaborate and build a process to accept student data from other consortium states ✓ Providing access to LEARN to appropriate state, district, and school personnel
<i>Initial Budget Figures (Based on 10 States)</i>	<i>\$600,000 per state</i>



Learning Exchange and Resource Network (LEARN) - Growth Model and Data Visualization

The Growth Model Module requires both core membership and the student backpack. It includes a multi-state growth model visualization tool.

<i>The LEARN Consortium (supported by CCSSO) is responsible for:</i>	<i>Individual member states are responsible for:</i>
<ul style="list-style-type: none"> ✓ Drafting agreements for the multi-state growth model visualization tool ✓ Building the visualization tools to utilize the data from the LEARN infrastructure (core membership and student backpack) ✓ Convening conferences to develop, build, and enhance the multi-state growth model ✓ Displaying aggregate national, state, and district level growth visualizations through the LEARN solution 	<ul style="list-style-type: none"> ✓ Providing the appropriate assessment data to populate and drive the multi-state growth model visualization tool ✓ Work with other consortium members on growth model approaches ✓ Participating in the design conferences
<i>Initial Budget Figures (Based on 10 States)</i>	<i>\$500,000 per state</i>



Learning Exchange and Resource Network (LEARN) - Digital Learning Library

The Digital Learning Library also requires both core membership and the student backpack. The digital learning library includes a learning resource exchange, the instruction center module, and content aligned with the Common Core State Standards.

<i>The LEARN Consortium (supported by CCSO) is responsible for:</i>	<i>Individual member states are responsible for:</i>
<ul style="list-style-type: none"> ✓ Creating interfaces with selected content providers ✓ Creating standardized interfaces for any content provider ✓ Establishing a structure to allow state systems to seamlessly interface with content providers ✓ Publishing best practice documentation for Digital Rights Management (DRM) and content acquisition strategies 	<ul style="list-style-type: none"> ✓ Providing teachers, students, and parents permissioned access to the LEARN system ✓ Working with the consortium to create intelligent content delivery models
<i>Initial Budget Figures (Based on 10 States)</i>	<i>\$400,000 per state</i>



LEARN in New Mexico and Wyoming

For \$1.7 million vs. \$8 - \$12 million we will get:

- Data stores integrated
- Capability to disseminate dis-identified information
- Improved security and access
- A complete Student Back Pack
- Less evasive EDEN/EDFacts reporting
- Improved Data Visualizations including Growth Model/Dashboards/Scorecards
- NM – Centralized e-Transcript System
- WY – Statewide standard data model available to districts and postsecondary
- Learning Management System
- Digital Learning Library
- And access to the app store to share developments

A reduction in our annual operations (license and maintenance) cost from the estimate \$4M to \$1.2M.



The LEARN Prototype

- NOT a phase I
- NOT a pre-determined technology choice
- IS a real instance and not vaporware
- IS utilizing applications and services in use within states right now!
- IS an example of what is possible



Questions & Answers/Contact Info

Q & A

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