

Table Talk: Questions a State LDS Can Answer

Directions: At your table, take 5 minutes to come up with questions that a state LDS can answer for Adult Education. Be prepared to share examples of your questions. We will compile all questions and then email everyone in attendance.

What kinds of questions do we want the state LDS to answer for Adult Education?

1. _____

2. _____

3. _____

4. _____

5. _____

Additional Data Elements for Adult Ed

Directions: This is a place for you to record the elements from our brainstorm. Feel free to add elements you come up with as the training continues.

What additional elements in a state LDS would be useful for adult education?

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____

Force Field Analysis - Worksheet

**Forces
For
Change**

**Forces
Against
Change**

SLDS Model:

A vertical column of five large, hollow, right-pointing arrows. Each arrow is composed of a rectangular tail on the left and a triangular head on the right. They are intended for listing factors that support or drive change.

A vertical column of five large, hollow, left-pointing arrows. Each arrow is composed of a rectangular tail on the right and a triangular head on the left. They are intended for listing factors that resist or hinder change.

Force Field Analysis (FFA) – Directions I

For states that already have an LDS model

Directions: Use these directions to help you complete the Force Field Analysis (FFA) activity if your state already has a state LDS model.

1. On your FFA worksheet, enter the state LDS model that your state is using in the large rectangle.
2. On the left side of the rectangle, enter the **Forces For Change** in the arrows provided. Use as many arrows as needed, but you do not need to fill each arrow.
3. On the right side of the rectangle, enter the **Forces Against Change** in the arrows provided. Use as many arrows as needed, but you do not need to fill each arrow.
4. Score each statement (**Forces For Change** and **Forces Against Change**) according to magnitude.
 - a. 1 (weak) ----- 5 (strong)
5. Add up the totals on each side to get a rating **For Change** and a rating **Against Change**.
6. What does this immediately tell your team about what you can leverage in this model to use it for Adult Education?
7. What does this immediately tell your team about what challenges you will have using this model in Adult Education?
8. Now circle the element that you have the power to change.
9. If you were to change those elements, would it change the rating? If so, give the item a new score and re-calculate your total.
10. Answer the following questions:
 - a. What **Forces For Change** can we leverage as we implement this model for Adult Education?
 - b. What **Forces Against Change** will be our biggest challenges?
11. Enter your model as well as forces to leverage and your challenges into the team planning spreadsheet.

Force Field Analysis (FFA) – Directions II

For states choosing an LDS Model to Use

Directions: Use these directions to help you complete the Force Field Analysis (FFA) activity if your state does not have an LDS model, but is choosing one to use.

1. On your FFA worksheet, enter the state LDS model that your state is considering using, in the large rectangle.
2. On the left side of the rectangle, enter the **Forces For Change** in the arrows provided. Use as many arrows as needed, but you do not need to fill each arrow.
3. On the right side of the rectangle, enter the **Forces Against Change** in the arrows provided. Use as many arrows as needed, but you do not need to fill each arrow.
4. Score each statement (**Forces For Change** and **Forces Against Change**) according to magnitude.
 - a. 1 (weak) ----- 5 (strong)
5. Add up the totals on each side to get a rating **For Change** and a rating **Against Change**.
6. What does this immediately tell your team about the viability for using the state LDS model that you have selected?
7. Keeping that in mind, don't make a final decision yet. Now circle the element that you have the power to change.
8. If you were to change those elements, would it change the rating? If so, give the item a new score and re-calculate your total.
9. Now – what do the totals tell your team about the viability for using the SLDS model you have selected? Is this the model you will use? If you are unsure, you may want to conduct another FFA using a different model.
10. If this **is** the model that your state will select, answer the following questions:
 - a. What **Forces For Change** can we leverage as we implement this model?
 - b. What **Forces Against Change** will be our biggest challenges?
11. Enter your model as well as forces to leverage and your challenges into the team planning spreadsheet.

Designing a Longitudinal Data System

The Value of a State LDS

The value of a state longitudinal data system (LDS) is its ability to use granular data for analysis. By making data available from multiple sources and across multiple years, the state LDS supports research, informs policy, and improves operational day-to-day case management. The matching of individual student records across organizations is a critical part of the state LDS. Though the combination of aggregate data can be limited, the ability to combine student records with teacher and school data (Exhibit 1) gives researchers, policymakers, and practitioners a richer view of the education systems.

LDS Value is Data-Driven

- Student Data
 - ▶ Demographic, Enrollment, Assessment, Curriculum, Health/Nutrition, etc
- Teacher Data
 - ▶ Demographic, Qualifications, PD, Personnel
- School System Data
 - ▶ Finance, Organizational, District Demographics, Community Demographics

Considerations

- Specific uses
 - ▶ Research, Policy Analysis, Student case management
- Number of participating organizations
 - ▶ Many or Few
- Similarities/differences of participating organizations
 - ▶ Technical, operational and organizational
- Ability of participating organizations to collaborate
- Characteristics of data
- Available Methods for sharing data
- Data security and student privacy considerations
- Levels of data accuracy and timeliness required
- Available funding

Considerations for a State LDS

When planning the design of a state LDS, there are many variables that must be considered before moving too far along in the process. These variables relate to the purpose of the state LDS, the different players in the development of the system, the funding sources for the development, and the ways in which data will be used. These considerations have implications for the scope and scale of the state LDS, particularly related to the level of sophistication and standardization of data.

Framework for Requirements Analysis

Once these initial considerations have been addressed, the work of designing the state LDS begins. In order to design an effective, useful system, developers must conduct a requirements analysis to understand the needs of the different organizations involved, the characteristics of the system itself, and the way in which it is expected to be used. The team must ask key questions about business, nature of content, applications, structure of data, and technology to arrive at appropriate architecture. Each of these five elements represents a pillar of the state LDS, and the questions listed below demonstrate their individual importance, and the ways in which they overlap. In addition, enterprise architecture, as conceptualized by Microsoft, can be used to touch on all five elements.

Framework for Requirements Analysis

Business Architecture

What do participating organizations do (individually and together), and how they achieve their mission?

- What is our business?
- Why does our business exist? What is its mission? What does it accomplish?
- How do we do what we do? What are our core processes? Who do we serve?
- How are we organized? How do people and processes interact to do what we do?
- What are the strengths of our enterprise? What do we do well and very well?
- What are our weaknesses or failures? What have we learned from these failures?
- How will our business change in the future? What are our growth challenges?

Information Architecture

What information is needed, where does it come from, and how it is maintained?

- What information do we need?
- What decisions do we make? What information do we need to make each decision?
- What are the components of that information? How do we obtain each part?
- Where does that information originate? Who creates it? What is its quality?
- What information is needed to create the products our business produces?
- Is any of the information highly sensitive? How is that information protected?
- Is there information we do not have that could be valuable to our business?

Applications Architecture

How is information presented, used and shared within the enterprise?

- How is that information presented?
- What automated services support our business process?
- How do our applications interact and depend on one another?
- How are data presented to users?
- How do our applications link various staff within the organization? With the outside world?
- How do our applications help us transform data into information?
- How do our applications serve different groups to achieve common business objectives?
- Do we have plans for developing new applications and revising old ones to meet our goals?

Data Architecture

How are data conceptualized, understood and applied?

- What are the data components?
- What are the sources of our data?
- How are data managed? What business rules and quality assurance procedures are in place?
- Do we have a data model?
- What metadata do we maintain? Is there a system in place to manage these metadata?
- Do we have an authoritative, agency-wide data dictionary?

Technology Architecture

How is information presented, used and shared within the enterprise?

- What technology supports our data?
- What technology standards and services are used to accomplish our mission?
- What technologies are used to collect and maintain our data?
- What technologies protect our data?
- What technologies provide access to our data?
- What technology expertise is needed to support this effort?

Case Study A – Unique Identifiers

Case Study: Lack of common IDs and privacy issues

State A is working to develop a data warehouse model of a longitudinal data system. The partner agencies know that they need to coordinate their work, so that data can be examined for the same student across all agencies. They know that the easiest way to do this would be to use the same unique identifier for all students. Some agencies have access to social security numbers and plan to use those as identifiers, but not all agencies can use them due to privacy issues.

1. What is the biggest challenge facing the state?
2. What privacy issues might be associated with using social security numbers?
3. What are some alternative common IDs that the state may be able to use? What are the pros and cons of each alternative?
4. What process could the state use to resolve this challenge?

Case Study B – Limited Resources

Case Study: Limited Resources

In state B, the state LDS was primarily focused on K-12. It allowed the tracking of students from kindergarten through high school, but beyond that the student disappeared. Nevertheless, there were many conversations going on about the need for a state LDS that followed students after they finished high school or dropped and tracked their paths through the various other state agencies. The problem that the state faced was having limited resources for expanding the existing system to do this kind of tracking. Without funding, the discussion remained largely theoretical.

1. What is the biggest challenge facing the state?
2. How could the state AE agency work with the K-12 agency to find a solution?
3. How could the state use federal or outside resources to help with the solution?
4. What are some other potential solutions?

Case Study C – Interagency Communication

Case Study: Poor Interagency Coordination

Adult education is involved in the state LDS for state C, but it is mostly in name only. The adult education state director is very frustrated because she would like adult education to be more involved. She was initially approached to be included in the state LDS, but she has not been invited to the table to continue the discussion. She knows that there are conversations among “upper level” people to which she hasn’t been invited. She attributes a large part of the problem to who is involved: it is primarily people with interagency data system experience who know a lot about connecting data systems but have insufficient understanding of adult ed’s needs. Although these people have a fair amount of technical knowledge about how to connect the systems, they don’t understand the data itself and don’t always “get” how the different pieces relate or how the different agencies could use the data. (For example, K-12 can access adult ed data, but adult ed can’t access K-12 data.)

1. What is the greatest challenge facing the state director?
2. How might she leverage her relationships within the state to find a solution?
3. What approaches can she take to bring herself into the conversation?
4. What are some other unique ways in which she might be able to get a seat at the table?

Case Study D - Sustainability

Case Study: Sustainability

State D's education agency received a state LDS grant from the US Department of Education to develop a LDS and steps toward implementation. The state invited adult education, community college, and workforce agencies to join their effort.

The state agency consortium meets weekly develop a system that works for all agencies. After two months, there is turnover in community college staff and for another three months, there is no community college representation at the meetings. After six months of work, the LDS has been planned and community college representatives re-join the conversation. As the group begins developing an implementation plan, the workforce agencies become engaged in another initiative and stop coming to the meetings. They assure the team that they will help with implementation, but they don't have time to help plan right now.

1. What is the biggest challenge facing the state?
2. How can the state develop a solution?
3. What other resources can the state leverage to put the system in place?
4. What resources can the state leverage to address the issue of sustainability?
5. Are there any other unique solutions that might work?