

Professional Development for Data-Driven Decision-Making Using the ESE Data Warehouse

Professional development curriculum description

The curriculum serves the following types of users.

1. Classroom teachers
2. School administrators and data team leaders
3. District-level analysts or administrators
4. District or intra-district report authors

The curriculum enables the identified types of users to meet the following objectives.

| Topics | Objectives | User Types |
|------------------------|--|------------|
| Basic Skills | Log in and navigate Cognos Connection | All |
| | Understand data security, including which data is confidential, and what must be done to protect confidential data | All |
| | Understand what online help is available | All |
| Data Analysis Concepts | Understand why data is used to differentiate instruction to improve student performance | All |
| | Understand why data is used to analyze school performance | 2, 3 |
| | Understand why data is used to look at achievement gaps within a district | 3 |
| | Understand caveats in analyzing MCAS data in the aggregate | 2, 3, 4 |
| | Understand in depth which student level data is available for analysis | All |
| | Understand what information about performance by subject and standards is available | 1, 2, 3 |
| | Build action plans based on upon data analysis | |
| | Use evaluation and monitoring interventions | 1, 2, 3 |

| Topics | Objectives | User Types |
|-------------------------------------|--|-------------------|
| Using Predefined Reports | | |
| | Run pre-defined reports | All |
| | Know which specific reports to run to identify performance of individual students | All |
| | Know how to find results for a particular student by subject and year | 1, 2, 3 |
| | Know which specific reports to run to profile performance of a school | 2, 3 |
| | Know which specific reports to run within the data warehouse to review performance of a district | 3 |
| | Drill through on pre-defined reports | All |
| | Know which specific reports to run to identify MCAS items on which students performed poorly | 1, 2, 3 |
| | Know how to run reports to track student performance over time | 1, 2, 3 |
| | Modify report properties | All |
| Sharing Results | | |
| | Save reports to a folder | All |
| | E-mail reports | All |
| | Schedule reports | 2, 3 |
| | Print and export report data using formats such as Excel, CSV, and PDF | All |
| | Print and export analysis cube data | All |
| | Save a cube view for re-running at a later date | 2, 3 |
| Ad-hoc Analysis to Answer Questions | | |
| | Identify lowest performing student groups using PowerPlay | 2, 3 |
| | Understand which factors are available for disaggregating results and student groups | 2, 3 |
| | Disaggregate MCAS results by student groups | 2, 3 |
| | Understand how to analyze results over time | 2, 3 |
| | Filter and disaggregate data in analysis cubes | 2, 3 |
| | Use PowerPlay to access and manipulate analysis cubes | 2, 3 |
| | Use PowerPlay graphs and charts | 2, 3 |
| | Graph MCAS results (comparing district to state results) | 2, 3 |
| | Know how to nest dimensions in a cube | 2, 3 |
| | Know how to use exception highlighting to investigate patterns | 2, 3 |
| | Know how to hide selected data rows and use zero suppression in cubes | 2, 3 |

| Topics | Objectives | User Types |
|------------------------|---|-------------------|
| Advanced Customization | | |
| | Create new tabs within Cognos Connection | 3 |
| | Add links to outside resources within Cognos Connection | 3 |
| Report Creation | | |
| | Writing reports using Report Studio | 4 |
| | Understanding the Report Studio environment | 4 |
| | Exploring different report types | 4 |
| | Authoring and formatting simple reports | 4 |
| | Understanding the data warehouse report packages (including SIMS and MCAS items available within the packages) | 4 |
| | Filtering data | 4 |
| | Creating and using prompt pages | 4 |
| | Creating and using calculations | 4 |
| | Managing reports in Cognos Connection | 4 |
| | Applying conditional formatting and data suppression on reports and understanding when data suppression is necessary to maintain data confidentiality | 4 |