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| **TSDS Overview Captivate** | |
| Introduction Slide | Welcome to today’s training session. In this course we will provide an overview of the Texas Student Data System (TSDS) along with an overview of the TSDS High Level End User Process Map. |
| Slide 1 | During this course, we will provide an overview of TSDS including the TSDS Components as well as the TSDS Deployment Plan. In addition, we will cover the TSDS High Level End User Process Map from end to end with a focus on the benefits of the upfront validations through the new TSDS Client Side Validation Tool. We will also discuss the roles and responsibilities of the ESC technical champion and LEA data steward along with the roles and responsibilities of ESC TSDS PEIMS champion and the LEA TSDS PEIMS steward/coordinator. |
| Slide 2 | The only pre-requisite for this course is that each training participant must be able to log in to Project Share with a valid credential. |
| Slide 3 | At the conclusion of this training, the participant will be able to describe the TSDS vision, list the benefits of TSDS, explain the TSDS high level end user process map, and understand key TSDS roles and responsibilities. |
| Slide 4 | Before we get started, it would be helpful to review some key terms used throughout the training.  EDW (Education Data Warehouse) – This is the single data respository that feeds the PEIMS and the studentGPS® Dashboards collections.  DTU (Data Transfer Utility) – The DTU is an FTP client that transfers files stored at the LEA to the eData Manager (eDM).  eDM (eData Manager) – The portal through which LEAs can manually submit data and monitor submissions.  ETL – ETL means Extract, Transform, and Load. This refers to the process of moving data from one system to another (like SIS to ODS) and transforming the data to meet the requirements of the destination environment.  ODS (Operational Data Store) – This is the actual data warehouse in the TSDS system.  PDM (PEIMS Data Mart) – The PDM is the data mart that pulls data from the ODS and directly feeds the PEIMS application. |
| Slide 5 | DDM (Dashboard Data Mart) – The DDM is the data mart that pulls data from the ODS and directly updates the studentGPS® Dashboards.  XML Interchange File – TEA uses XML Interchange Files as the vehicle to transfer data. |
| Slide 6 | In addition to the key terms we just reviewed, here is a list of common acronyms used throughout this course.  TSDS – Texas Student Data System  PEIMS – Public Education Information Management System  TEA – Texas Education Agency  ESC – Education Service Center  LEA – Local Education Agency  SIS – Student Information System  SSIS – State-sponsored Student Information System  TCC – Texas Computer Cooperative  EDW – Education Data Warehouse  TPEIR – Texas Public Education Information Resource |
| Slide 7 | Let’s begin with the Texas Student Data System overview. |
| Slide 8 | The TSDS Vision is as follows – Reduce the data collection burden on districts and charter schools, while putting real-time performance oriented dashboards in the hands of educators to improve student achievement. |
| Slide 9 | The Texas Student Data System is a data collection and reporting system that will modernize the the PEIMS data collection process to reduce technology risk and system downtime, allowing for more system availability and ease of use; put real-time student performance data in the hands of educators to improve student achievement, and; become the one common data collection platform for TEA to reduce the data collection burden on districts and charter schools. |
| Slide 10 | How will TSDS help LEAs? studentGPS® Dashboards will help educators monitor and assess student performance; vital information is in one easy-to-use dashboard, saving teachers time and effort. TSDS offers a streamlined process to reduce LEA time and effort, and an options SSIS to reduce data management costs. The new TSDS Client-Side Validation Tool and longer loading windows in TSDS PEIMS will make it easier and faster to load clean data. |
| Slide 11 | We will now go over key components of the Texas Student Data System. |
| Slide 12 | The Texas Student Data System consists of multiple components that will improve and standardize the data collection and data management process in the state of Texas and equip educators with timely, actionable, and historical student data to drive classroom and student success. The TSDS components consist of the optional state-sponsored student information system, the Education Data Warehouse, the TSDS PEIMS application, the studentGPS® Dashboards, and TPEIR public reporting system. |
| Slide 13 | Here is an overview of the data loading process and the functions that occur within each component of the TSDS.  Client Side Validation Tool – This component is downloaded from TSDS portal and used by LEAs and ESCs to validate XML interchanges prior to loading. Errors in interchanges must be corrected in source systems and revalidated.  Data Transfer Utility – This a secure FTP file transfer client utility. It is downloaded from the TSDS portal and installed at the LEA/ESC. It facilitates On Demand and Scheduled file transfers, sends XML files to eDM, uses Service Account credentials for login and password. A user selects files to be transferred, the file name is validated, and the user can view transfer status.  eDM automatically picks up files that have been transferred by the DTU. It runs files through data validation and updates the ODS. Users can also manually upload files. Error files are generated at initial file validation and again during ETL process. Errors in interchanges must corrected in source systems and revalidated. A user can verify that the ODS has been updated by viewing status in the eDM.  PEIMS Application – A user schedules and can monitor the promotions of data from the ODS to the PEIMS Data Mart. A user specifies collection and submission (for example Fall Collection, First Submission). A user selects a Category (for example Staff) and Subcategories to be loaded (for example Employment Payroll Summary). A user can monitor the status.  Dashboard Data Mart – Data is loaded from the ODS to a staging DDM. If the load is successful, then it is moved to the production DDM for studentGPS® display. Metric calculations occur during the load of the data from the ODS to the Dashboard Data Mart. Data is automatically refreshed nightly, no user interaction is needed. The system will prevent incomplete data from being loaded.  Core Collection Data Mart – The user prepares the data to be loaded and runs and reviews TSDS reports. If data corrections are required, they must be made in the source system and the XML must be regenerated and processed. If no data corrections are required, the user can approve and finalize the submission. |
| Slide 14 | The voluntary State-sponsored student information system master contract was negotiated by TEA with TCC TxEIS and Skyward to reduce price and improve functionality for participating districts and charter schools. Both SSIS contracts deliver software as a service in which LEAs benefit from functionality improvements on an ongoing basis. Your district or charter school can begin using a new or improved feature at no extra cost as soon as it appears in the SSIS. The state negotiated SSIS contract offer a competitive, not-to-exceed price per student that benefits all sizes of districts and charter schools across the state. Additionally, since TEA negotiated the contracts, districts and charter schools do not need to go through the time-consuming process of issuing their own RFP. |
| Slide 15 | The Education Data Warehouse provides a single data repository that feeds TSDS PEIMS collections and studentGPS® Dashboards. Components of the EDW include the Operational Data Store – The ODS, the systems data store will include a wide-range of educational data from the LEAs spanning multiple years. Unique ID – This is the TSDS application for managing identification numbers. Dashboard Data Mart – The DDM is a voluntary respository for multiple years of performance data the uses information loaded by participating LEAs to the ODS to calculate performance metrics and power the optional studentGPS® Dashboards. TSDS PEIMS Data Mart – As a replacement for Edit+, the TSDS PEIMS Data Mart is a repository for PEIMS data and enables the selective loading, validation and reporting required to finalize and submit a PEIMS collection. Other data marts – TEA plans to its work consolidating its data collection systems well into the future. The goal is to reduce redundant collections and improve connections between data bases for better reportability. As needed, other data marts may be created to accommodate other programs. |
| Slide 16 | TSDS PEIMS leverages the benefits of the new TSDS platform through a redesign of the state-mandated PEIMS process. TSDS PEIMS collects public school data to help determine funding allocations, accountability ratings, and facilitate data reporting for state and federal initiatives. TSDS PEIMS is designed to improve our system capacity which will reduce technology risk (including system downtime) that was present with Edit+. |
| Slide 17 | TSDS offers the new Client-Side Validation Tool, available in the beginning of the data loading process, which will help identify data errors earlier, prior to uploading PEIMS and dashboard data to the Education Data Warehouse, ultimately enhancing data quality in the long-term. |
| Slide 18 | The studentGPS® Dashboards gives the educators a view into the whole student, providing an easy-to-understand picture of how a student is performing by combining multiple student data, such as grades, attendance, discipline, standardized test scores, program areas, and demographics, all in one place. Educators can easily see the trends and make more timely and informed decisions. |
| Slide 19 | The TSDS Core Collection is an effort to consolidate the collection of 160 separate data collection systems at TEA within TSDS to standardize the submission process and reduce redundancy between data collections. |
| Slide 20 | TPEIR is the statewide longitudinal data warehouse that combines 20 plus years of data from Texas public schools, higher education, educator certification, and the workforce. The public facing reports report analysis of students moving from PK-12 to Texas colleges and universities and in some cases return to PK-12 as teachers or administrators. TPEIR will continue to provide the public with aggregated reports on student graduation, teacher employment and certification, and higher education enrollment and graduation counts that will help parents, districts, charter schools and the public be more informed about education performance within the state of Texas. |
| Slide 21 | TEAL stands for Texas Education Agency Login. It is a single sign-on that provides users access to many TEA applications. Secure authentication ensures only authorized users can access the applications. Users must first create a TEAL identity and then request account access to the specific applications needed. |
| Slide 22 | Key to understanding TSDS is the basic architecture that flows through the TSDS Portal. All users log on to TEAL then access the TSDS Portal. From the Portal, users can move back and forth between TSDS applications. The TSDS Portal acts as the entranceway and facilitator for downstream applications including studentGPS® Dashboards. From there, users will also have access to tools such as the validation tool and TIMS. Those of you who work with Unique ID, which is already in production, have experienced this arrangement |
| Slide 23 | Now let’s take a look at the deployment plan for the Texas Student Data System. |
| Slide 24 | The TSDS implementation timeline shows the workflow of the TSDS rollout starting with the stakeholder engagement and prototyping. Next in line is the development and limited production releases. TEDS was field tested and several LPRs implemented the studentGPS® Dashboards. The Texas PEIMS and studentGPS® Dashboards will continue to deploy over the next 4 years. The 2013-2014 school year participants are part of the early adopter phase and there will be 3 other stages from 2014 to 2017, after the early adopter phase, called stages 1 through 3. As part of the early adoption phase, TEDS PEIMS will be deployed to over 610,000 students and studentGPS® Dashboards will be deployed to over 722,000 students. In stages 1 through 3, TSDS PEIMS will be deployed to approximately 1.5 million new students per year and studentGPS® Dashboards will be deployed to approximately 667,000 new students per year. |
| Slide 25 | Now let’s look at the TSDS High Level End User Process Map |
| Slide 26 | TEA has defined roles and responsibilities for the ESC Technical Champion/LEA Data Steward and ESC TSDS PEIMS Champion/LEA TSDS PEIMS Coordinator. TEA has also defined some responsibilities that will be jointly attended to by both sets of uses. The TSDS Data Approver will also play a key role. As you look at the TSDS High Level End User Process Map, you can see that the map is blocked out in 4 colors to indicate which responsibilities are mapped to each role. |
| Slide 27 | Let’s take a good look at the TSDS High Level End User Process Map from end to end. At this point let’s download the full TSDS High Level End User Process Map from Project Share. It will be easier to read if you print this out. Log in to Project Share and download this document. Click here when the TSDS High Level End User Process Map has been downloaded. |
| Slide 28 | The collection of PEIMS data is required of all LEAs by law. TEDS provides instructions regarding the submission of PEIMS data from the LEAs to the Texas Education Agency. TEDS also provides instructions regarding the submission of studentGPS® Dashboards data from those LEAs to the Texas Education Agency. |
| Slide 29 | The TEDS Standards describe the data reporting requirements; provide descriptions of data elements and the codes used to report them; detail the responsibilities of local education agencies, education service centers, and the Texas Education Agency in connection with the data collection process; and provide descriptions of the data collection requirements, including collection data element and data edit specifications. |
| Slide 30 | We are going to take a high-level look at each section of the TSDS High Level End User Process Map starting with extracting the XML interchange files from the source system and the submission to the TSDS Client Side Validation Tool. On this slide, that is the section highlighted with the orange box. |
| Slide 31 | The process begins with the XML interchange files from the source data system. The extract process that produces the XML interchange files will differentiate between LEA and by souce data vendor. Since this is different by LEA we will not be covering this in today’s training. Next, the LEA will validate the XML interchange files using the TSDS Client Side Validation Tool, at times it will be necessary to download the latest version from the TSDS Portal. Using the TSDS Client Side Validation Tool at this point in the process will be critical to reducing the number of errors downstream. The TSDS Client Side Validation Tool will be a means of saving time and effort for all the parties involved. Once you’ve checked to see that you have the latest version of the TSDS Client Side Validation Tool downloaded, you can load the files to the TSDS Client Side Validation Tool and error reports are produced. If there are errors, it is recommended that you correct the data in the source data system and re-extract the XML interchange files. If there are no data errors, the data moves forward. Note that this series of actions is blocked in purple on this slide. Looking back at the legend, this indicates that the TSDS Client Side Validation Tool will be the joint responsibility of both the LEA Data Steward and the TSDS PEIMS Steward/Coordinator at the LEA level and both the ESC Technical Champion and the ESC TSDS PEIMS Champion at the ESC level. |
| Slide 32 | Next we are going to look at the move from the TSDS Client Side Validation Tool to the TSDS DTU and eDM, the section highlighted with the orange box on this slide. |
| Slide 33 | Once the XML interchange files have passed through the TSDS Client Side Validation Tool, the data is loaded into the Operational Data Store using the Data Transfer Utility or the eData Manager. Using the DTU, the LEA can transfer files to eDM and the remainder of the processes flow automatically. The DTU transfers can be initiated manually or scheduled by the LEA. You also have the option of manually submitting XML interchange files to eDM. Note that the TSDS Client Side Validation Tool is coded purple which indicates a joint responsibility. The later series of actions is blocked out in blue. This indicates that the ESC Technical Champion, LEA Data Steward is responsible for this part of the process. |
| Slide 34 | Next we are going to look at process of the data file within the eDM. Again, this section is highlighted with the orange box on this slide. |
| Slide 35 | Once eDM has received the XML interchange files, the application runs the data through an initial set of file-level validations. At this point, if there are errors the user must correct the data in the source data system and re-extract the XML interchange files. If there are no errors, the data advances to the next step. The ETL plan is executed and the ODS is updated with the new records. There may be error files that are also generated at this point. The user must correct the data in the source data system and re-extract the XML interchange files. |
| Slide 36 | Once the data has been loaded into the ODS, there are 3 pathways the data can follow. |
| Slide 37 | Once the data is loaded in the ODS, there are 3 data marts that extract data. One data set goes to the TSDS PEIMS Data Mart, one data set goes to the Core Collection Data Mart, and one data set goes to the studentGPS® Dashboards Data Mart. Note that the PDM data promotion is coded purple on this slide which means that these activities fall under the responsibility of the ESC Technical Champion, LEA Data Steward and the ESC TSDS PEIMS Champion, LEA TSDS PEIMS Steward/Coordinator. The data promotion to the CCDM is coded orange which means that this activity falls under the responsibility of the TSDS Data Approver. The data promotion to the DDM is monitored by the ESC Technical Champion, LEA Data Steward. |
| Slide 38 | Let’s follow the TSDS PEIMS path first and then we will discuss the Core Collection and studentGPS® Dashboards data mart. The ESC Technical Champion, LEA TSDS Data Steward or the ESC TSDS PEIMS Champion, LEA TSDS PEIMS Steward/Coordinator will log on to the TSDS PEIMS Application and schedule the data promotion by category and sub-category. The ETL plan is executed and then the PDM is updated. |
| Slide 39 | Once the data has been promoted, the first set of validation reports can be run. |
| Slide 40 | Now that the PDM has been loaded, the ESC TSDS PEIMS Champion, LEA TSDS PEIMS Steward/Coordinator will review the validation reports generated by TSDS PEIMS. If there are fatal errors the user must correct the data is the source data system and re-extract the XML interchange files. If there are no fatal errors then the data advances. Not that this is all coded green, so this is the responsibility of the ESC TSDS PEIMS Champion or the LEA TSDS PEIMS Steward/Coordinator. |
| Slide 41 | The data continues to advance within the PEIMS application. |
| Slide 42 | There are 2 possible next steps. If the data was resubmitted to the system after fatal errors were corrected, the user has the option of running and reviewing the TSDS PEIMS validation reports again. If the file produces a fatal error, the user must correct the error in the source data system and re-extract the XML interchange files. If the data is clean, the data advances to the next step. The user also has the option of moving right to the QA reports after a resubmission. Once the data has successfully passed the validation reports or has been corrected, the user next runs the QA reports. At this juncture, if data correction is required, the user must correct the data in the source data system and re-extract the XML interchange files. If the data is clean, the data advances to the next step. Note that this is all coded green, so this is the responsibility of the TSDS ESC PEIMS Champion or the TSDS LEA PEIMS Coordinator. |
| Slide 43 | Once the data has been validated, the LEAs and ESCs go through the acceptance and approval process in order to finalize the PEIMS data submission. |
| Slide 44 | Now that the data has passed the validation and the QA reports, the agency owner of the data, either the LEA or ESC, marks the data complete. At this point, 2 actions need to be fulfilled before the TSDS PEIMS submission has been finalized. It doesn’t matter in what order these actions are completed, just that both are done before the final submission. ESC accepts either the LEA or ESC data and the Superintendent approves the LEA data or the ESC Director approves the ESC data. Once both of these events have occurred, the TSDS PEIMS submission to TEA has been finalized. Note that this is all coded green, so this is the responsibility of the ESC TSDS PEIMS Champion or the LEA TSDS PEIMS Steward/Coordinator. |
| Slide 45 | Let’s follow the path the data set will take if promoted to the Core Collection Data Mart by the TSDS Data Approver. |
| Slide 46 | From the Core Collections page select: ECDS, school year, submission, collection. Then select prepare to validate the data. |
| Slide 47 | After the data has been promoted, the submission needs to be validated and finalized. |
| Slide 48 | Run and review TSDS reports. If necessary correct any data issues in the source system. The TSDS Data Approve approves data submission and TSDS submission has been finalized. |
| Slide 49 | Once the data has been loaded into the ODS, the other possible pathway is the automated data promotion to the Dashboard Data Mart. |
| Slide 50 | Data from the ODS do not need to be scheduled or monitored to the DDM. The updates to the DDM happen automatically as soon as the data is updated in the DDM the data is reflected in the studentGPS® Dashboards. The LEA Data Steward, ESC Technical Champion will review the studentGPS® Dashboards validation reports. If there are data errors, the user must correct the data in the source data system and re-extract the XML interchange files. If the data is clean, no action is necessary. Note that this is all coded blue, so this is the responsibility of the ESC Technical Champion or the LEA Data Steward. |
| Slide 51 | Let’s take a quick look at the roles and responsibilities for rolling out the Texas Student Data System. |
| Slide 52 | The Field Coordination Netword is a two-way feedback mechanism that effectively uses a tiered communications path. It enables TSDS to deliver consistent and timely communications to users in ESCs and LEAs. |
| Slide 53 | To review what was discussed in the TSDS High Level End User Process Map, each role has been mapped to certain responsibilities as noted on the chart on this page.  ESC Technical Champions/LEA Data Stewards manage file transfer in DTU, manager data loading in eDM, manage data promotion to DDM, run studentGPS® Dashboards validation reports.  ESC TSDS PEIMS Champions/LEA TSDS PEIMS Stewards/Coordinators run TSDS PEIMS validation reports, run TSDS PEIMS QA reports, mark TSDS PEIMS data as ready, and manage ESC acceptance and Superintendent approval of data.  Activities with joint responsibility include run the TSDS Client Side Validation Tool, download the latest version of the TSDS Client Side Validation Tool if necessary, and manage data promoted to PDM.  TSDS Data Approver has the following responsibilities: manage data promoted to the CCDM, validate CCDM data submissions, finalize CCDM data submissions. |
| Slide 54 | Today we gave an over of TSDS, including talking about each of the TSDS components. Additionally we talked about the TSDs deployment plan, walked through the TSDS High Level End User process Map, and discussed the TSDS roles and responsibilities. You should be able to answer the following questions:  What are some of the benefits of the TSDS system? What is the basic data flow for the TSDS end user? What roles are mapped to what responsibilities in the TSDS data flow? |
| Slide 55 | More information is available on the Texas Student Data System website located at www.TexasStudentDataSystem.org and that brings us to end of this course. |