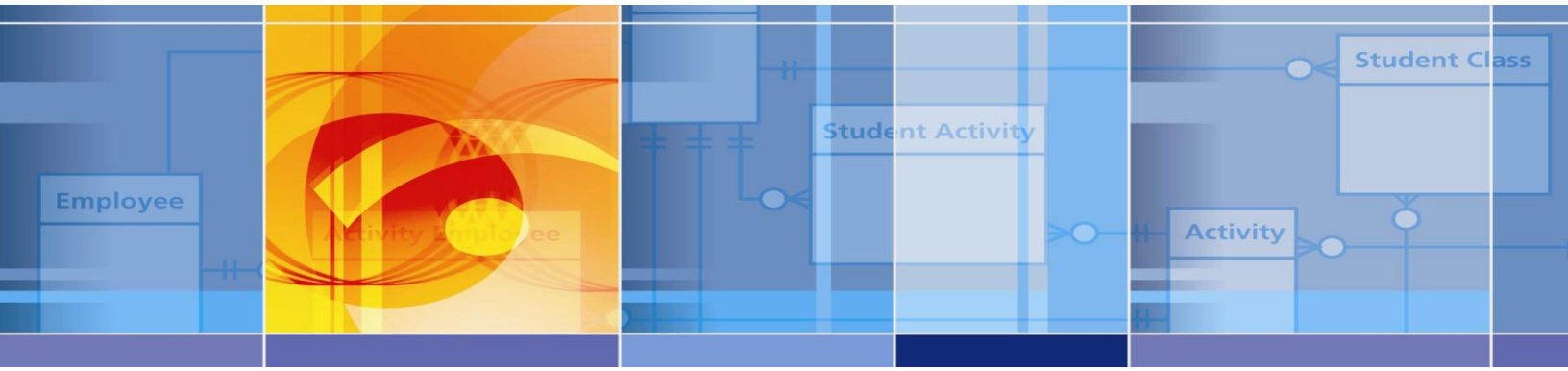

CourseWalk™

Arizona Department of Education Pilot
CourseWalk Information

ESP Solutions Group

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Date: 3 March 2012
Version: 1

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Training Guide

Introduction

The Student-Teacher Connection Project

The Arizona Department of Education (ADE) contracted with ESP Solutions Group (ESP) to collect standardized course information linking Arizona students to teachers as part of requirements identified in the State Fiscal Stabilization Fund. There are two components of this Student-Teacher Connection system. The first component is a state course coding structure based on the national course coding structure called the School Codes for the Exchange of Data (SCED), developed by the National Center for Education Statistics. The second component entails the reporting of individual student and teacher records with Arizona Statewide Course Mapping Framework v1 codes and other information relevant to making the required match.

For the first component, ADE wanted a web-based hosted software tool that allows the Local Education Agencies (LEAs), Charter Holders (CHs), and Charter Schools (CSs) to map their existing course catalogs and course codes with the existing Arizona Statewide Course Mapping Framework v1 and Data Dictionary v1. ADE decided to use the ESP proposed solution, CourseWalk™. LEAs, CHs, and CSs will use CourseWalk to map their local course codes to the Arizona state course codes. These standard course codes will be used to report on courses taught by teachers and taken by students. ESP will train LEA, CH, and CS personnel to enter their courses into a standard format, upload their courses into the application, map the courses to the Arizona Statewide Course Mapping Framework v1, and retain the information for reporting in the Student-Teacher Connection. A pilot group of LEAs, CHs, and CSs will use CourseWalk to load and map their local course catalogs to the state course catalog and also assist ADE in identifying specific Arizona courses to be added into the coding structure and make recommendations regarding the course coding structure.

The second component will entail the collection of standardized data from pilot LEAs, and eventually all LEAs, CHs, and CSs. ESP will establish a reporting system using its software solution called State Report Manager (SRM)™. This software will be configured to meet the Arizona requirements. Local Education Agencies, Charter Holders, and Charter Schools will be provided a required format for submitting data and will be trained on how to use the system to submit their data. Once student and teacher records are submitted, LEAs, CHs, and CSs will receive immediate feedback on the quality of their submissions, including specific guidance on where there are problems in the submission, if any. Business rules identified by ADE and ESP will help to ensure the highest quality data possible.

The AZ CourseWalk Pilot will occur in the month of March 2012. Pilot LEAs will be trained to use CourseWalk and then import their course catalogs and map their courses to the current version of the Arizona Statewide Course Mapping Framework v1. Pilot LEAs will also be asked to participate as part of a CourseWalk Task Force which will help the ADE Steering Committee identify additional courses to be added to the state course catalog and provide feedback about the Arizona statewide Course Mapping Framework v1 and processes. This work will ultimately set the stage for the larger roll-out of CourseWalk to the state. These pilot LEAs will also be involved in the early stages of the SRM component by submitting files, which is expected to occur in October 2012.

What is CourseWalk?

- CourseWalk is a tool that facilitates the matching of local course descriptions and codes to the state course descriptions and codes and matching of the state course codes to SCED, the national course code standards (School Codes for the Exchange of Data) developed by the National Center for Education Statistics.
    - The CourseWalk tool stores local, state, and SCED course catalogs in a central database accessible via web application to users with CourseWalk accounts.
    - CourseWalk makes course mapping recommendations (via AutoMapping) for local and state courses to SCED or local courses to the state's course codes.
    - Users may run reports to export their mapped course catalogs out of CourseWalk to put their course code mappings to use.

Why is Course Mapping Important?

- 600+ LEAs have the potential for 600+ sets of courses and coding structures.
- Future connections between student and teacher data will require alignment to:
    - Assist in the evaluation of student performance,
    - Promote equitability of teacher evaluations,
    - Assist in the improvement of instruction, and
- Provide consistent data on transcripts and student records sent to receiving districts or postsecondary institutions.
- This information is needed to fulfill the teacher student connection requirements of ARRA and SFSF.
- This information will be helpful to ensure that children in each LEA are given the same choices and opportunities

Why Did the Arizona Department of Education Select CourseWalk?

- ESP's tool can be easily used by the most and least sophisticated LEAs/districts. As long as an LEA has access to the Internet, its personnel can access and use CourseWalk.
- Other states have successfully used CourseWalk for similar projects.

Expectations from This Project

- Arizona will have a standardized statewide set of course descriptions and a statewide course coding structure.
- Arizona will have a Student-Teacher Connection collection implemented.
- Local codes will be linked to the state course list for greater consistency.
- Course codes can be matched to teacher assignment codes.
- Teacher data will be able to be aligned to secondary student results.
- Arizona will have better data to evaluate course taking patterns and future success of students.
- Issues related to educator licensure and assignment can be clarified.

Elements of the SCED Course Coding Structure and Considerations for Arizona

The School Codes for the Exchange of Data (SCED) Course Coding Structure consists of five basic elements. Taken together, they create a unique identification code for any prior-to-secondary or secondary course. For secondary courses, the five component elements are subject area, course identifier, course level, available credit, and sequence. For prior-to-secondary courses, grade span is used instead of available credit. This document contains a description of the course coding structure and considerations for Arizona in determining what should be used by districts.

Element 1. Subject Area. These are 22 general secondary content categories, each represented by a two-digit code. There are 23 prior-to-secondary content categories. The categories are mutually exclusive and, to date, can include any course offered in schools. The Subject Areas are:

Secondary Subject Area Code	Secondary Subject Area	Prior-to-Secondary Subject Area Code	Prior-to-Secondary Subject Area
01	English Language and Literature	51	English Language and Literature
02	Mathematics	52	Mathematics
03	Life and Physical Sciences	53	Life and Physical Sciences
04	Social Sciences and History	54	Social Sciences and History
05	Fine and performing Arts	55	Fine and performing Arts
06	Foreign Language and Literature	56	Foreign Language and Literature
07	Religious Education and Theology	57	Religious Education and Theology
08	Physical, Health, and Safety Education	58	Physical, Health, and Safety Education
09	Military Science		
10	Computer and Information Sciences	60	Computer and Information Sciences
11	Communication and Audio/Video Technology	61	Communication and Audio/Video Technology
12	Business and Marketing	62	Business and Marketing
13	Manufacturing	63	Manufacturing
14	Health Care Sciences	64	Health Care Sciences
15	Public, Protective, and Government Services	65	Public, Protective, and Government Services
16	Hospitality and Tourism	66	Hospitality and Tourism
17	Architecture and Construction	67	Architecture and Construction
18	Agriculture and Natural Resources	68	Agriculture, Food, and Natural Resources
19	Human Services	69	Human Services
20	Transportation, Distribution, and Logistics	70	Transportation, Distribution, and Logistics
21	Engineering and Technology	71	Engineering and Technology
22	Miscellaneous	72	Miscellaneous
		73	Nonsubject Specific

For Arizona, we propose to add AZ to the beginning of the subject area code so that the resulting number will be identified as an Arizona State Course Code. Thus, the subject area of English Language

and Literature in Arizona will be AZ01. This will identify the course on a transcript or in other uses as a course from the Arizona Course Catalog.

Element 2. Course Identifier. Courses within a Subject Area are distinguished by a three-digit code. The codes carry no meaning within themselves. "999" is reserved for courses coded as "other." Only some numbers between 001 and 999 have been used in this system; unused numbers can accommodate new courses as these are needed.
The Course Descriptions are fairly general. They provide enough specificity to identify the course's topic and to distinguish it from other courses in that Subject Area. However, the Course Descriptions do not include course objectives.
For each course that is specific for Arizona, a unique number within a Subject Area will be assigned. These courses will be mapped to the SCED course.

Element 3. Course Level/Description conveys the course's level of rigor or other important distinguishing characteristics. There are four options for coding this element:

- *B* for basic or remedial. A course focusing primarily on skills development, including literacy in language, mathematics, and the physical and social sciences. These courses are typically less rigorous than standard courses and may be intended to prepare a student for a general course.
- *G* for general or regular. A course providing instruction in a given subject area that focuses primarily on general concepts appropriate for the grade level. General courses typically meet the state's or district's expectations of scope and difficulty for mastery of the content
- *E* for enriched or advanced. A course that augments the content and/or rigor of a general course, but does not carry an honors designation.
- *H* for honors. An advanced level course designed for students who have earned honors status according to educational requirements. These courses typically include additional content not found in general courses, and are formally designated as honors courses.

The majority of courses that schools offer are general: intended for any student in the proper grade level range. However, some courses are distinguished by having more or less rigorous requirements than the "usual" course and are designated as advanced/ enriched, honors, or basic/remedial. Some school systems place students in, or allow students to select from, different "tracks"—particularly in academic subject areas—while others do not use such distinctions, holding all students to the same standards. The coding structure enables schools to portray such differences. Courses are assumed to be general unless they are coded B, E or H.
Personal judgment is needed in assigning and interpreting the Course Level element. While individual schools, districts, and states may have criteria that clearly distinguish one level of course from another, these criteria are not the same in every state or school district. And, not every course catalog will include courses at all of these four levels.

Element 4. Grade Span or Available Credit identifies the intended grade span for a prior-to-secondary course. This element indicates the grade span for which the course is appropriate. The span is represented as a four-character code with no decimals. Each grade level from 1 through 12 is represented by a two-digit code, ranging from 01 to 12; kindergarten is represented by the letters KG, and prekindergarten by the letters PK. For example, a course appropriate for kindergarten and first grade would be assigned a Grade Span of KG01.

For secondary courses, this element indicates the amount of Carnegie unit credit available to a student who successfully meets the objectives of the course. A course meeting every day for one period of the school day over the span of a school year offers one Carnegie unit. A Carnegie unit is thus a measure of "seat time" rather than a measure of attainment of the course objectives. While some schools and districts use a performance—or competency—based metric of student progress, the Carnegie unit remains the predominant metric of student progress in schools in the United States and is part of the national SCED framework.
Available Credit is coded as a one-digit number carried out to two decimal places, with an explicit decimal. That is, one Carnegie unit would be coded as 1.00. A half-unit of Carnegie credit would be reported as 0.50. Note that Available Credit for a given course can vary from school district to school district.

Element 5. Sequence describes the manner in which school systems may "break up" increasingly difficult or more complex information. School districts operating on a semester or trimester schedule frequently offer consecutive courses fitting one course description. For example, Accounting may be broken into two different courses that together make up a complete Accounting course. Or, the requirements for studio arts could include Creative Arts—Comprehensive (SCED #05154) and two additional studio arts courses selected from a number of choices (drawing, ceramics, sculpture, painting, etc.)
Sequence is a two-character element that should be interpreted as "part 'n' of 'm' parts." In the example given above, if each course were a year in length, Creative Arts—Comprehensive would be course "one of three," or "1 3." It is important to remember that sequence describes only the order in which the courses are taken. If the arts sequence in this example required six semester-long courses, the second semester of the introductory Creative Arts—Comprehensive could be shown with the sequence "2 6," or, "part 2 of 6 parts." The Sequence indicated for a given course can vary from school district to school district.
Exhibit 1 is an example of how the four SCED elements are used to identify a specific course, and the Level, Credit and Sequence that can differ for the same course**.**

Exhibit 1. Course code structure: Life and Physical Sciences

Prior-to-Secondary

course description		course level	grade span	sequence
53	***233***	***G***	***03 04***	***1 1***
Life and Physical Sciences	*Science*	*General*	*Grades 3 and 4*	*"1 of 1"—not part of a sequence*

Secondary

course description		course level	available credit	sequence
03	***051***	***R0.50***	***1***	***2***
Life and Physical Sciences	*Biology*	*Regular*	*one-half Carnegie unit*	*"1 of 2"—1st part of a 2-course sequence*

Length of Course Code. In Exhibit 1 above, the course code is 12 characters long: 2 for Subject Area, 3 for Course Identifier, 1 for Course Level, 4 for Grade Span or Available Credit, and 2 for Sequence. For the Arizona Course Code, 2 characters will be added to the beginning of the Subject Area (e.g., AZ01), thus the length of the Course Code would be 14 characters if all optional codes are used.
The essential components of the Course Code are the Subject Area and the Course Identifier, so for Arizona that will be 7 characters. The additional identifiers are optional, and it will be up to Arizona educators to decide which identifiers must follow the courses. For instance, the state may only require the first 7 characters, while districts may choose to maintain the full code.

Additional State-Specific Information. Some states have identified additional state-specific information about a course that they wanted included in the course coding structure. For instance, two states have an indicator following a course number that identified a course as applicable for a state awarded scholarship. One state wanted a code identifying courses provided over the state-sponsored on-line network. These indicators were used along with some of the optional indicators described above. These types of indicators may be considered by Arizona for inclusion in its coding structure.

Training Purpose and Goals

The purpose of the Pilot LEA CourseWalk training is to educate the pilot LEAs, CHS, and CSs on how to use the CourseWalk application to map their local course catalogs to the current Arizona Statewide Course Mapping Framework v1. In addition, the pilot LEAs, CHs, and CSs will be asked to provide input as part of their participation in the CourseWalk Task Force.

After the training, the LEA users should be able to:

- Enter their course catalog information into the two relevant CourseWalk Excel templates (Subject Areas and Courses),
- Import the CourseWalk Excel templates into CourseWalk and fix any validation errors that may arise with the imported files,
- Use CourseWalk's AutoMapping and Mapping Recommendations features to review and map courses appropriately,
- Add/Edit/Delete courses, course information, and course mapping through the CourseWalk interface,
- Run appropriate CourseWalk reports to export mapped course catalogs, and
- Provide feedback about additions to the state course catalog and the state course coding structure.

Notes:

_____

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Demo/Training Outline

Navigation to CourseWalk

- DataSpecs URLs
    - Sandbox Training Environment
        - DataSpecsTraining1.d3m.com
    - Production Environment
        - AZ.d3m.com

Sign-on to DataSpecsTraining1.d3m.com

- Username: district#5 (please use your district's ID instead of "5")
    - Please see the Arizona District Codes section for the District Code Table with your district ID.
- Password: district#5! (This should match your district's username with an additional "!" at the end.) You will be prompted to change your password upon logging in for the first time.
- Navigating to the CourseWalk component of DataSpecs
    - When you sign-on, you will be taken to the home page of DataSpecs. On the upper menu bar, there will be a link to CourseWalk. Once you click on CourseWalk, all the CourseWalk pages will appear on the menu bar.

CourseWalk Templates

- Please see the AZ CourseWalk Annotated Templates - Pilot.xlsx Excel workbook included with the training documents for detailed description of the relevant templates. The two templates, which can also be downloaded from the CourseWalk -> Course Info Upload page, are Local Subject Area and Local Course to State.

Uploading Files

- To validate and import your CourseWalk files, go to the CourseWalk -> Course Info Upload page. For examples of uploading files, please see the Walk-through and Use Case Exercises #2 and #3 below.

Mapping Subject Areas

- Mapping subject areas is an option task that helps improve CourseWalk's course recommendations for the local course catalogs. This feature allows the user to link their local subject areas to the state subject areas, telling CourseWalk that they are equivalent. When CourseWalk searches for course mapping recommendations, it will only look within the mapped subject area to which the local course's subject area is mapped.

AutoMapping

- AutoMapping is used to do a quick run though of the courses CourseWalk recommends as possible matches to assist you in the mapping process. AutoMapping will let you view multiple courses at one time and show you the top three CourseWalk mapping recommendations. You can choose to map the course to one of the recommendations or leave the course unmapped.
- For an Example of AutoMapping, please see the Walk-through and Use Case Exercise #4 below.

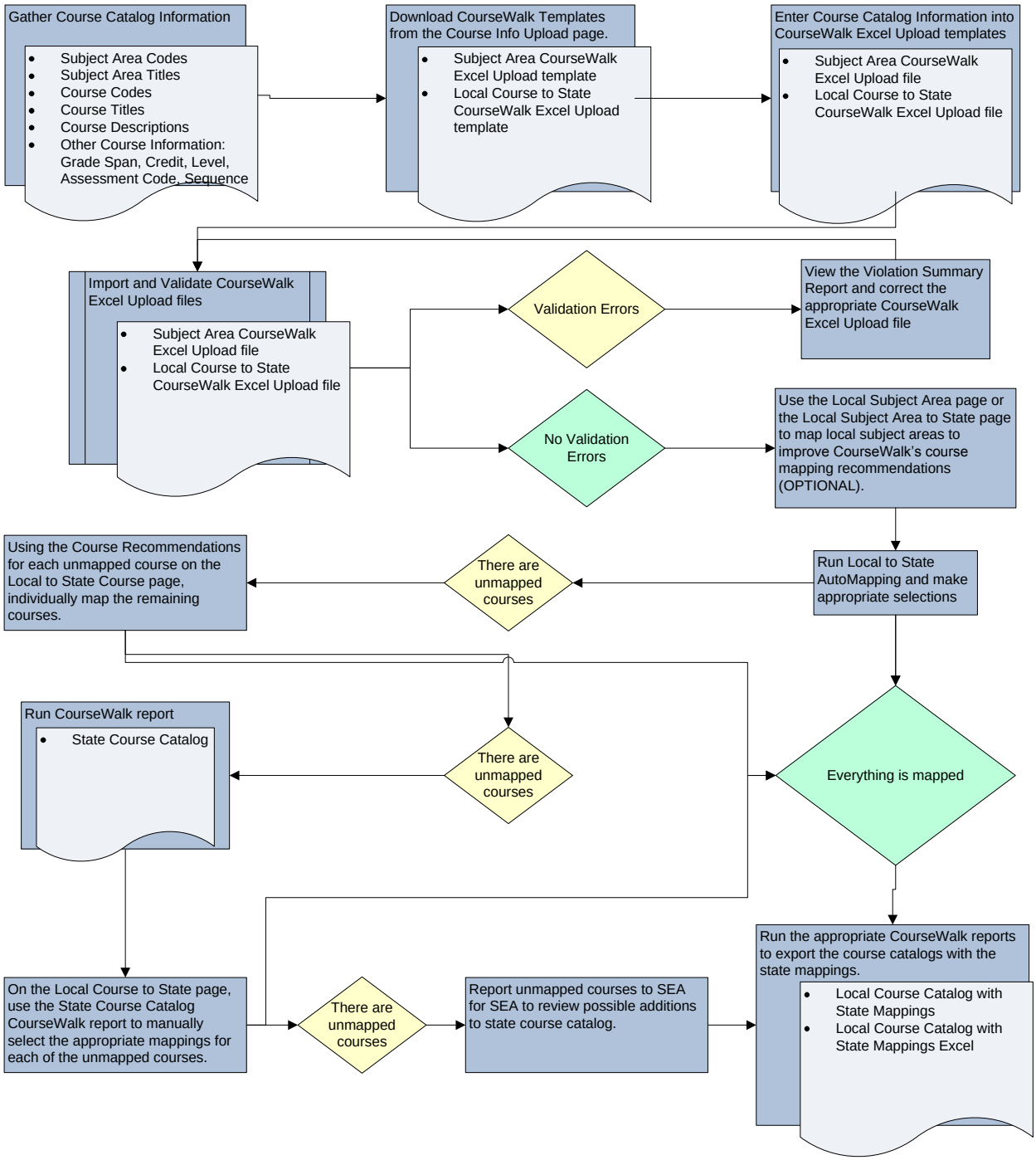
Single Course Mapping and Editing

- The CourseWalk -> Courses pages are used to do individual course mapping and editing. This page allows you to select a specific course, make edits to the course's information and mappings, and also view the full list of CourseWalk's mapping recommendations.
- For an example of this, please see the Walk-through and Use Case Exercise #5 below.

Running Reports

- There are a number of CourseWalk reports that can be run from the CourseWalk -> CourseWalk Reports page to get data out of CourseWalk.
- The four main reports that will assist you in your task are
    - State Course Catalog,
    - Local Course Catalog with State Mappings,
    - Local Course Catalog with State Mappings Excel, and
    - Local Course to State Mapping Recommendations Excel.

The Process



Walk-through Use Cases and Exercises

*****Please note******

Before loading any of the files into CourseWalk, you must enter your district's code in the proper column in the sample CourseWalk Excel file you are going to load. Please see the AZ District Code section for your district's code.

1. Add a local subject area from the Local Subject Area page.

1.1. Click on the CourseWalk tab.

1.2. Click on the Subject Areas tab.

1.3. Click on the Local Subject Area page.

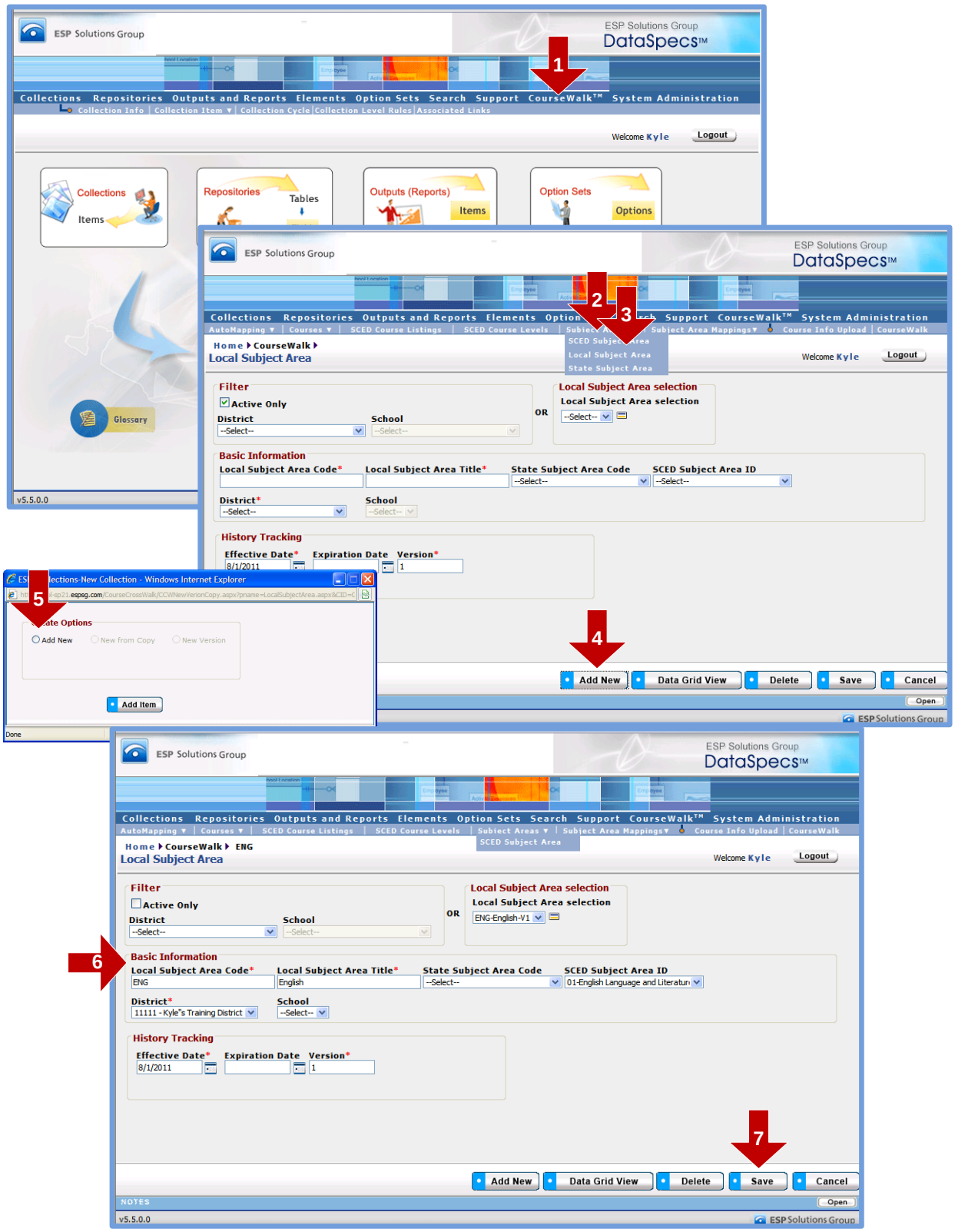
1.4. Click the Add New button.

1.5. In the pop-up window, select the Add New radio button and click the Add Item button.

1.6. Fill out the Basic Information section for the subject area English. Enter "ENG" for the Local Subject Area Code, "English" for the Local Subject Area Title, select "01-English Language and Literature" for the State Subject Area Code, and select the district your user is assigned to in the District pick list.

1.7. Click the Save button.

Notes:



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2. Upload Local Subject Area file.

2.1. Click on the CourseWalk tab.

2.2. Click on the Course Info Upload page.

2.3. In the File to be Uploaded section, select Local Subject Area.

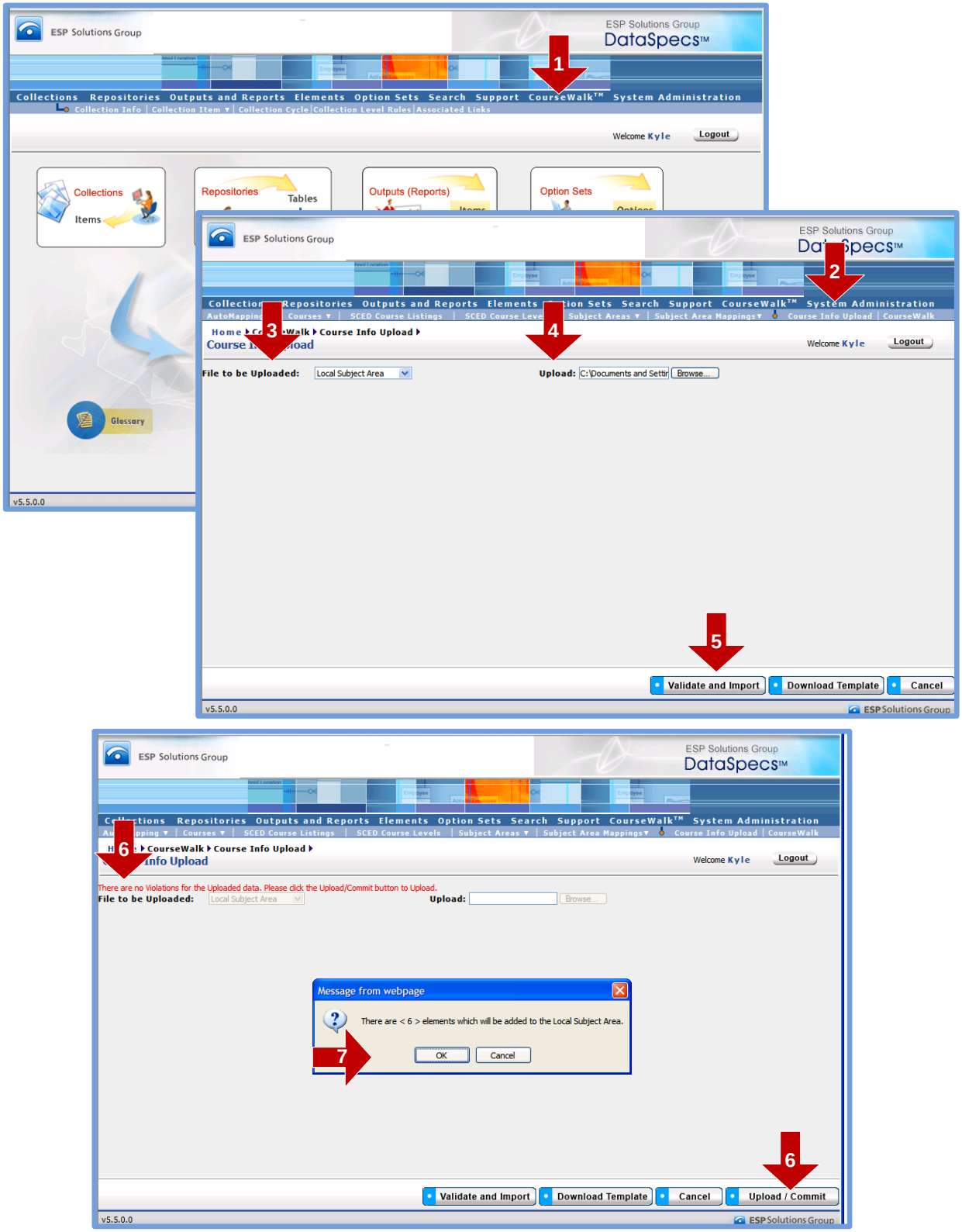
2.4. In the Upload section, click Browse and select the file, “LocalSubjectArea.xls.”

2.5. Click the Validate and Import button.

2.6. There should be a message that reads, “There are no violations for the uploaded data. Please click the Upload/Commit button to upload.” Click on the Upload/Commit button.

2.7. A pop-up message should appear that reads, “There are <6> elements which will be added to the Local Subject Area.” Click the OK button.

Notes:



3. Upload Local Course to State file and correct validation errors.

3.1. Click on the CourseWalk tab.

3.2. Click on the Course Info Upload page.

3.3. In the File to be Uploaded section, select Local Course to State.

3.4. In the Upload section, click Browse and select the "LocalCourseToState – Heading Violation.xls" to be imported.

3.5. Click the Validate and Import button.

3.6. A pop-up window should appear titled, "Format Violation Listing." This is because one of the columns was misnamed. Click the Close button.

3.7. Now, like steps 4 and 5, select the file named, "LocalCourseToState – Other Violations.xls" and click Validate and Import. This file has the correct column headers.

3.8. Another pop-up window should appear titled, "Top Level Violations Summary Listing." This gives an overview of the violations in the uploaded file. Click on the Violations Summary Report button to view the errors in Excel.

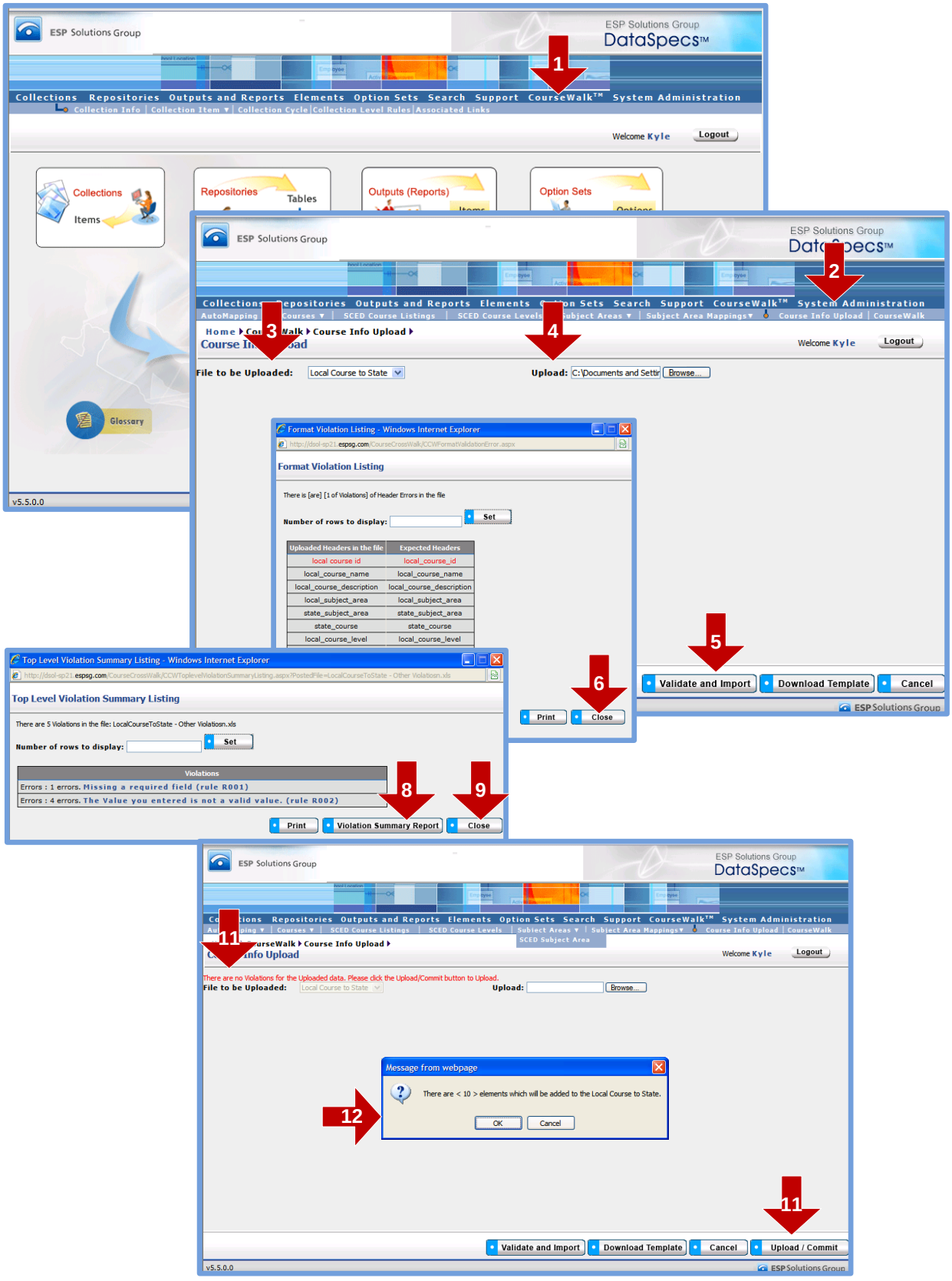
3.9. Close Excel and click the Close button on the Top Level Violations Summary Listing pop-up window.

3.10. Repeat steps 4 and 5 again, this time selecting "LocalCourseToState.xls" which does not contain any errors.

3.11. There should be a message that reads, "There are no violations for the uploaded data. Please click the Upload/Commit button to upload." Click on the Upload/Commit button.

3.12. A pop-up message should appear that reads, "There are <4> elements which will be added to the Local Subject Area." Click the OK button.

Notes:



4. Use AutoMapping to make initial run of Local Course to State mapping

4.1. Click the CourseWalk tab.

4.2. Click the AutoMapping tab.

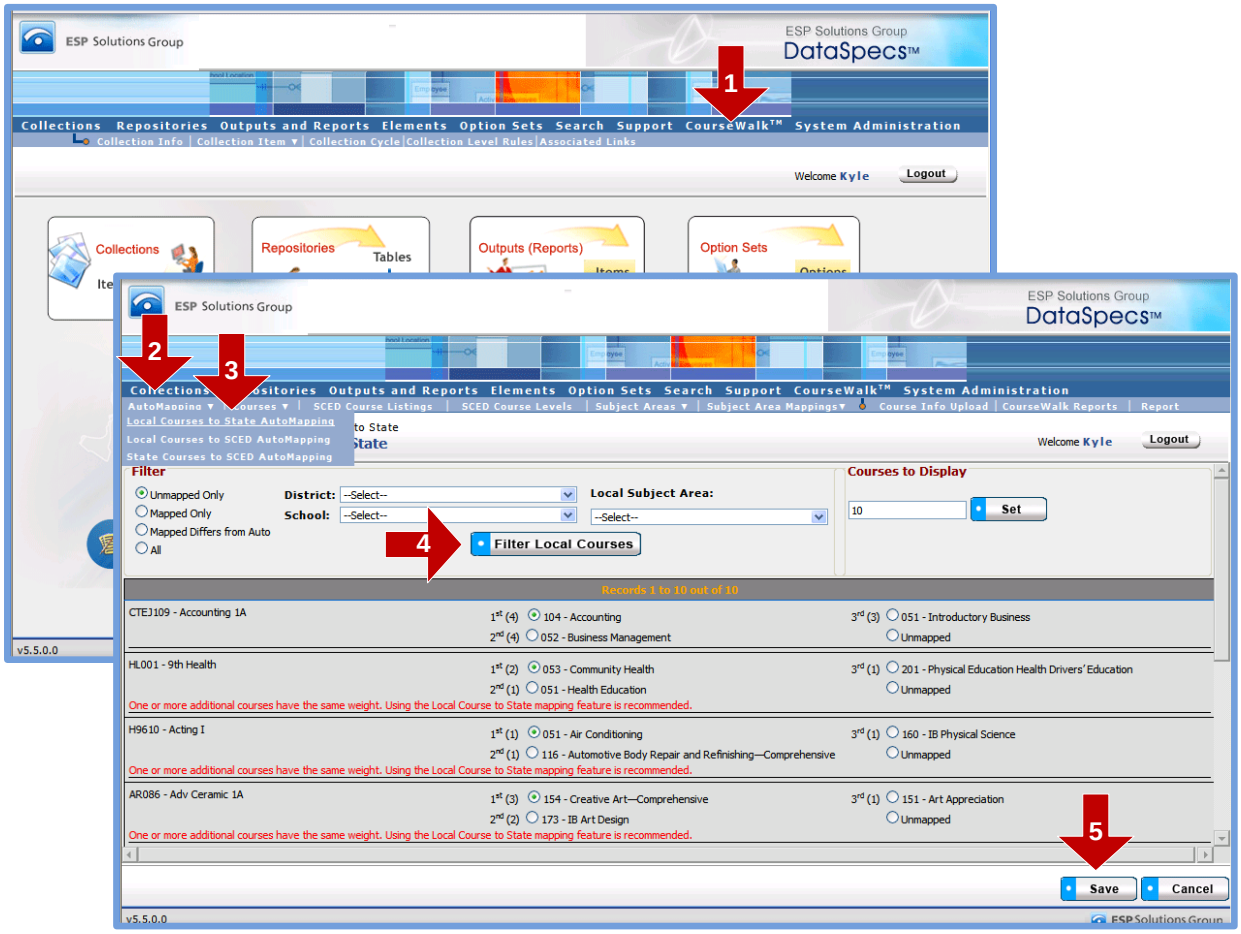
4.3. Click on the Local Course to State AutoMapping page.

4.4. In the Filter section, select the Unmapped Only radio button, select your training District, and then click the Filter Local Courses button.

4.5. Go through the course recommended course mappings and select one of the recommended state courses or the Unmapped radio button for each row and then click the Save button. Please leave Health ED Independent Study unmapped as it is used in the next example.

4.5.1. Please notice that if you hover your mouse over the course title, the course description will appear.

Notes:



5. Use Local Course to State Page to find individual course recommendations.

5.1. Click on the CourseWalk tab.

5.2. Click on the Courses tab.

5.3. Click on the Local Course to State page.

5.4. In the Filter section, select your training district and click Filter Local Course Selections.

5.5. In the Local Course Selection section, select the course “Health ED Independent Study.” Please notice that the previously mapped courses are black with an “(m)” while the unmapped course is red.

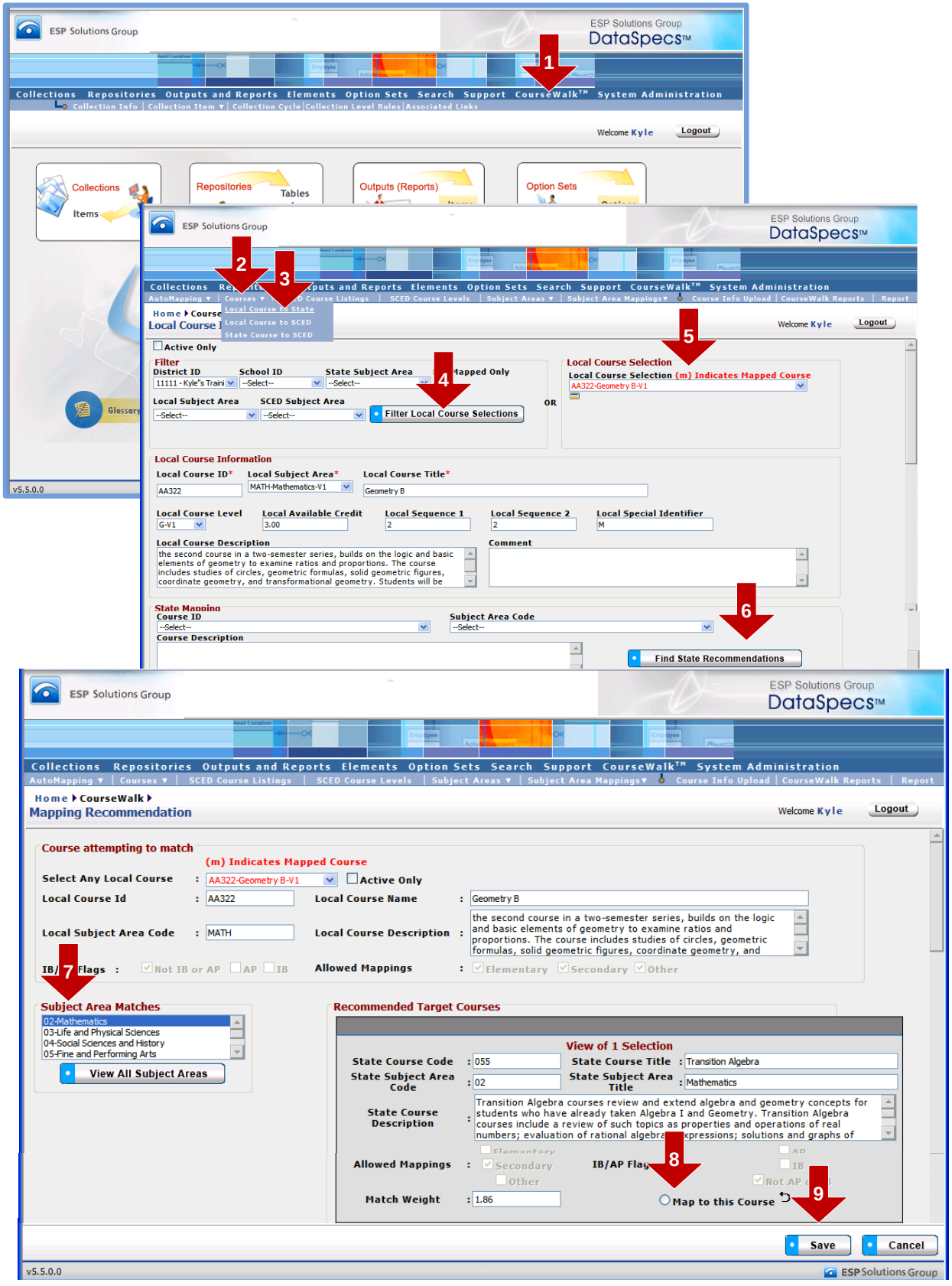
5.6. Click the Find State Recommendations button.

5.7. You will be taken to the Mapping Recommendation page. Select the Subject Area that best fits the course to filter the mapping recommendation, Physical, Health, and Safety Education.

5.8. Click the Map to this Course radio button for the course to which you would like to map. This course should be mapped to “Health Education – Independent Study.”

5.9. Click on the Save button.

Notes:

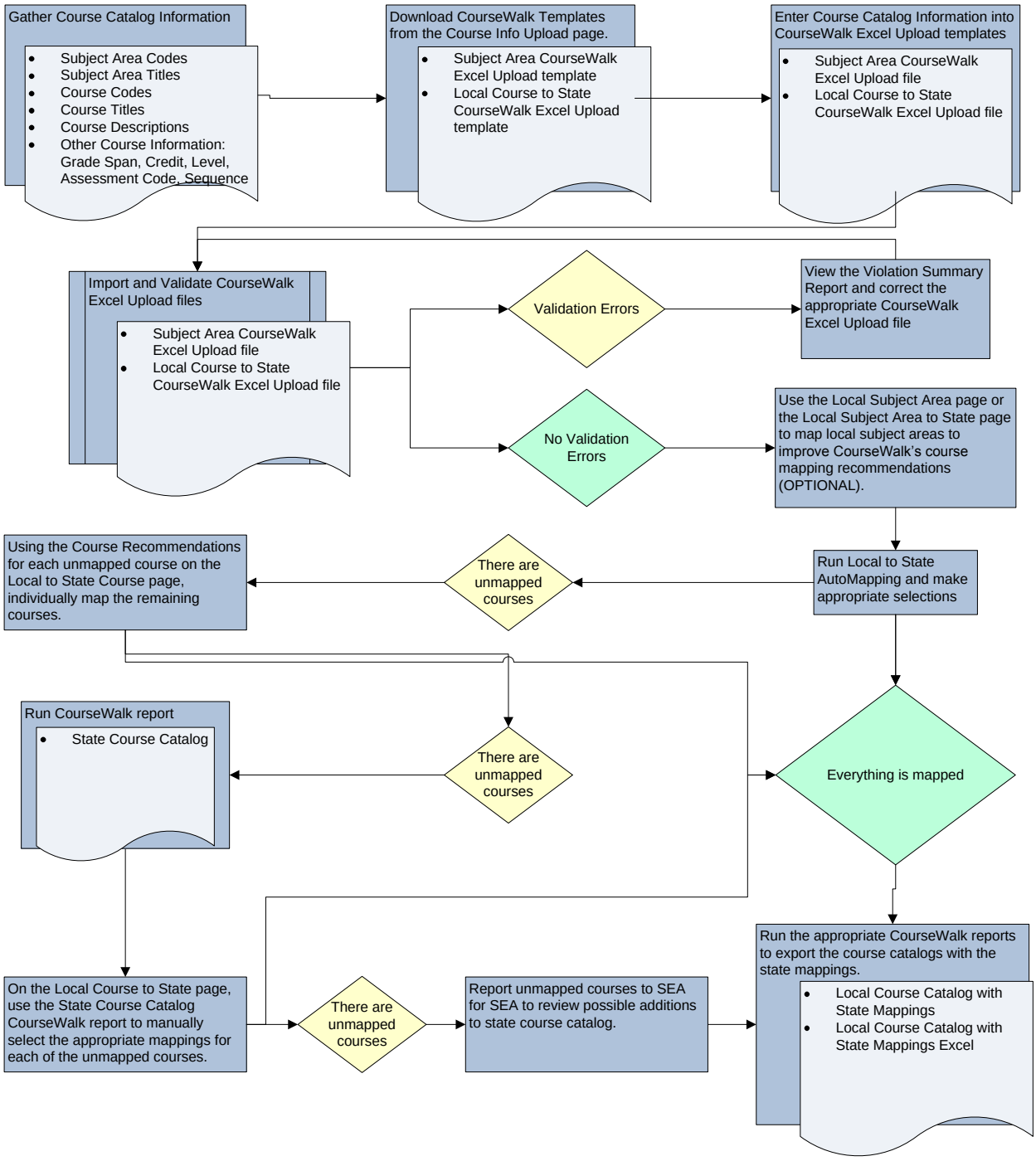


How-to Guide

Introduction

This document is a “How To” guide for the specific steps you should follow as an LEA to use the CourseWalk tool to upload your local course catalogs and map them to the Arizona state course catalog.

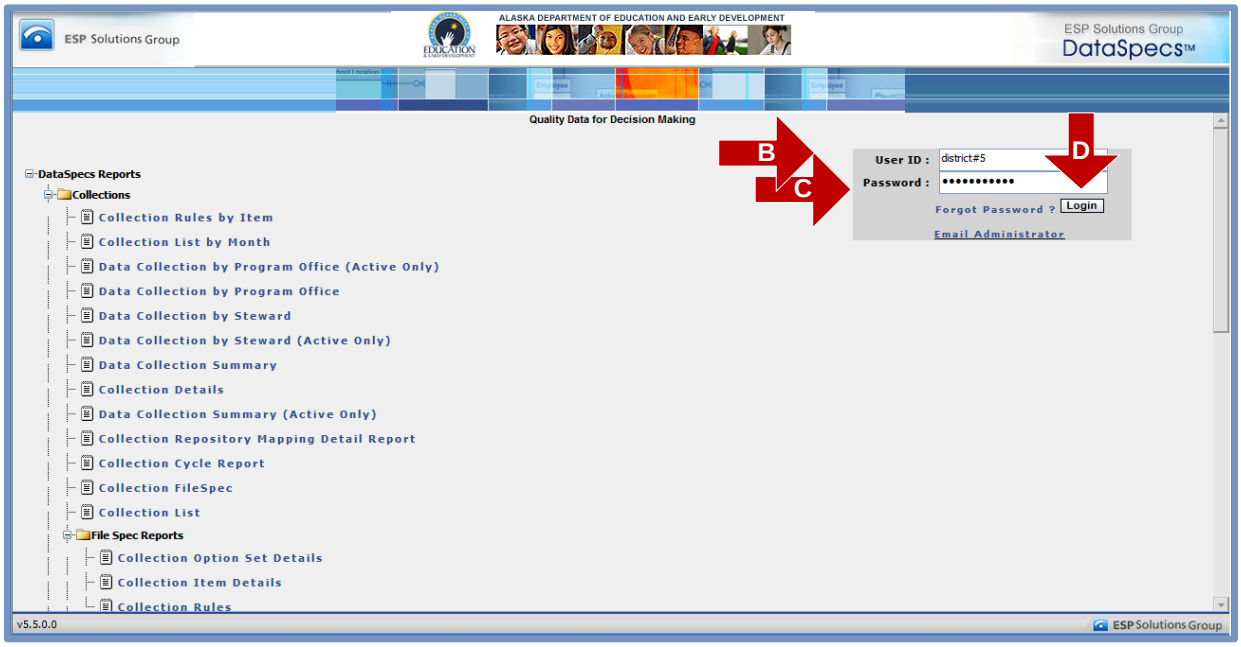
The Process



Walking Through the Process

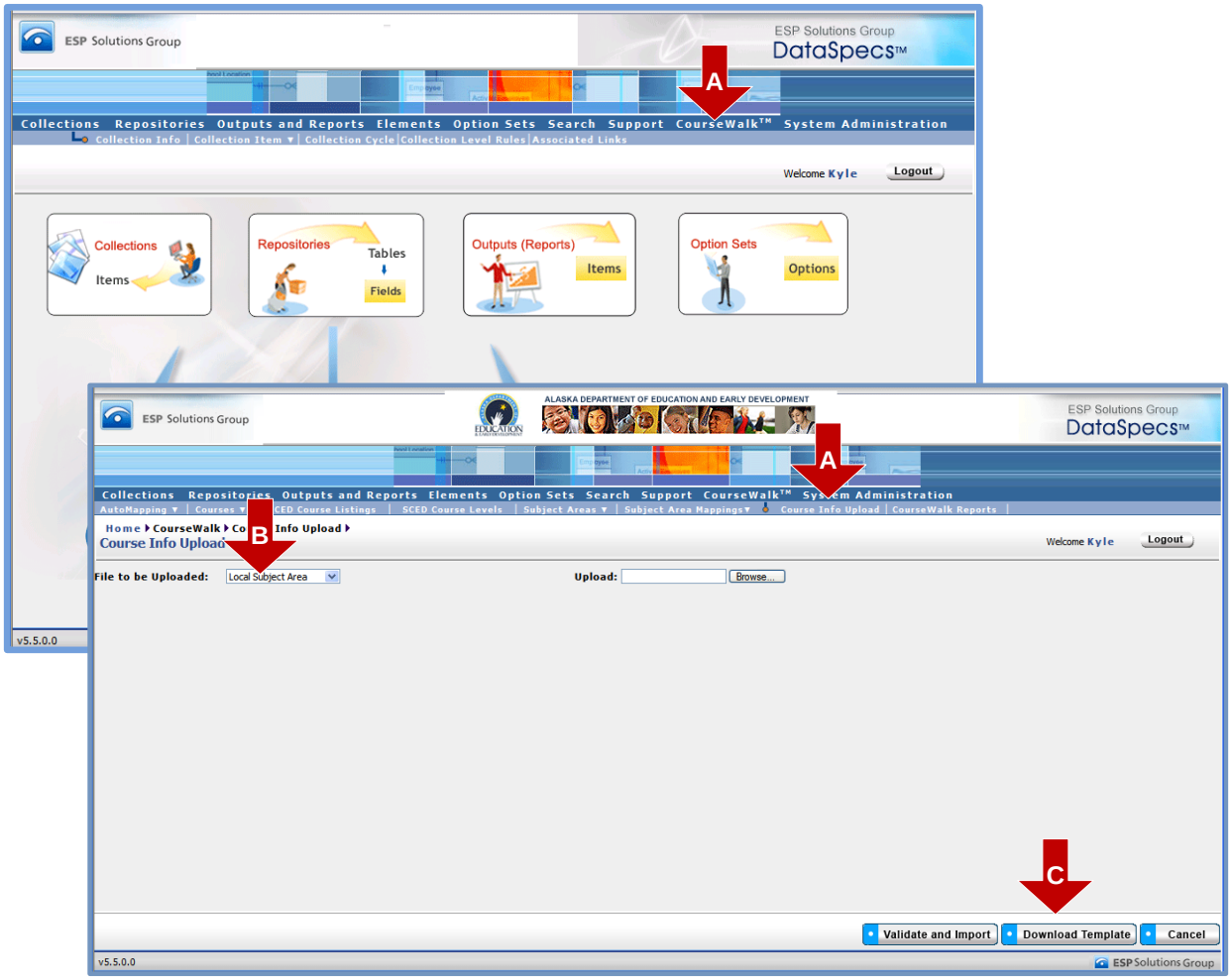
Log-in to DataSpecs and Navigate to CourseWalk

a. Type “AZ.d3m.com” into your internet browser.
b. On the log-in screen, for your username, type in “district#” and then your district’s number (Ex. district#5).
c. For your password, type in “district#”, then your district’s number, and then “!” (Ex: district#5!).
d. Click the Login button



Download the Excel Local Subject Area template and Local Course to State template

a. Navigate to the CourseWalk -> Course Info Upload page.
b. For File to be Uploaded, select Local Subject Area.
c. Click Download Template.
d. Save the template.
e. Repeat to download the Local Course to State template.



Transfer your local course catalog information into the two Excel spreadsheets.

a. First fill in the Local Subject Area template. Please refer to the *AZ CourseWalk Annotated Templates - Pilot.xlsx* file for definitions of each of the template's columns (Note that local subject areas must be entered into CourseWalk before local courses may be loaded.). Save file as an **XLSX** file. Please see the below diagram for an example of subject areas.

b. Next, fill in the Local Course to State template. Please refer to the *AZ CourseWalk Annotated Templates - Pilot.xlsx* file for definitions of each of the template's columns (Note that local subject areas must first be entered into CourseWalk before local courses may be entered.). Save file as an **XLSX** file. Please see the below diagram for an example of courses within a subject area.

c. Subject Area and Course Hierarchy – Courses are grouped into subject areas. Below is an example of the Arizona subject area and course hierarchy to help demonstrate what subject areas and local courses are and the difference between the two.

    a. **Examples:**

        i. **AZ01 – English Language and Literature**

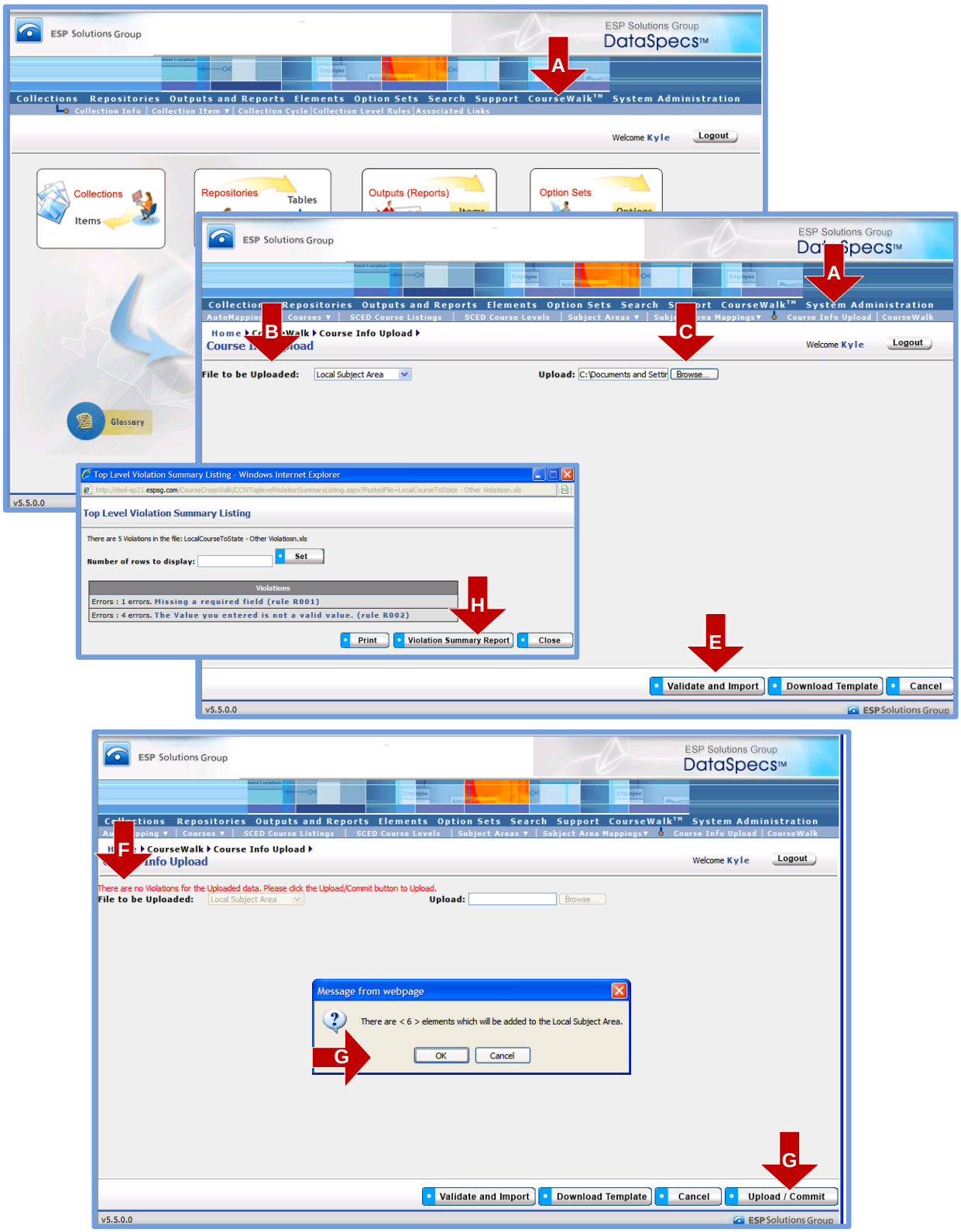
            1. 001 – English/Language Arts I (9th grade)
            2. 002 – English/Language Arts I (10th grade)
            3. 003 – English/Language Arts I (11th grade)
            4. 004 – English/Language Arts I (12th grade)
            5. 005 – AP English Language and Composition

        ii. **AZ02 – Mathematics**

            1. 001 – Informal Mathematics
            2. 002 – General Mathematics
            3. 003 – Particular Topics in Foundation Math

Upload Local Subject Area and Local Course to State files.

a. Navigate to the CourseWalk -> Course Info Upload page where you downloaded the templates.
b. For File to be Uploaded, select Local Subject Area.
c. Next to Upload, click on the Browse button.
d. Select your Local Subject Area file.
e. Click the Validate and Import button at the bottom right of the screen.
f. You will either get a message saying that there are no violations or you will get a pop-up window with a list of validation errors (Make sure your browser is allowing pop-ups and/or the pop-up window did not appear behind your active page).
g. If there are validation errors, click the Upload button. You have now imported your subject areas. Please repeat the process for the Local Course to State file.
h. If there are validation errors, click the Violation Summary Report button to export your errors into an Excel spreadsheet. Please refer to the *DataSpecs Upload and Validation Error Message Descriptions.pdf* file for questions referring to validation errors. You will need to update your file to correct any errors and repeat this series of steps.



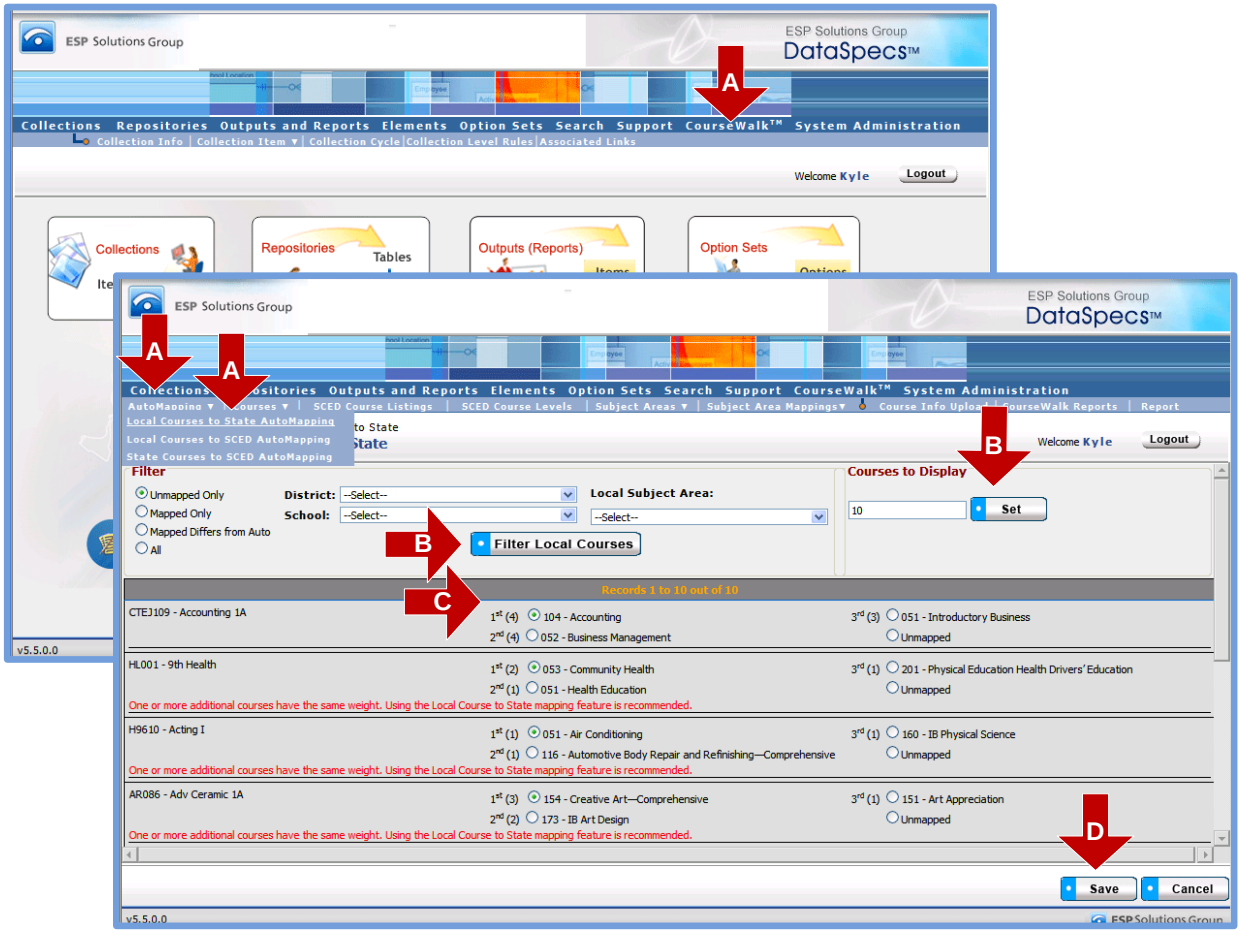
Local Course to State AutoMapping

a. Navigate to the CourseWalk -> AutoMapping -> Local Course to State AutoMapping page.

b. Select the appropriate filters for the courses which you want to map and the number of courses you would like to display per page.

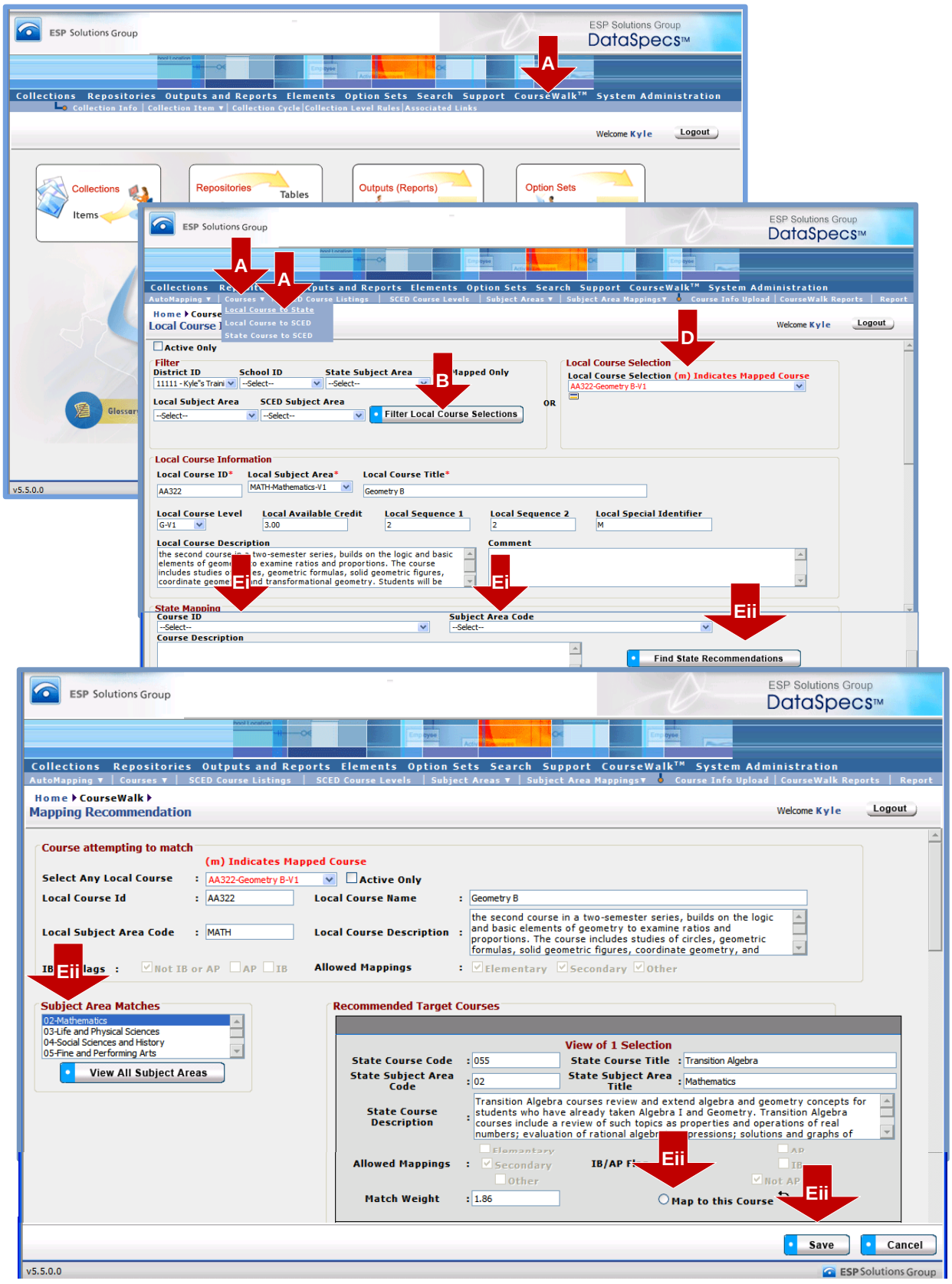
c. Do an initial run of mapping your local courses to the recommended state courses (Local courses are on the left side of the screen and the top three recommended state courses are on the right side). You can choose to map to one of the recommendations or choose to leave the course unmapped.

d. Click on the Save button as you are ready to accept your selected mappings.



Individual Course Mapping

a. Navigate to the CourseWalk -> Courses -> Local Course to State page.
b. Select the appropriate filters and click the Filter Local Course Selections button.
c. In the Local Course Selection drop-down, all of your local courses will be listed. Any course with a "(m)" at the end of it has already been mapped to a state course and any course in red text has not yet been mapped.
d. Select an unmapped course from the Local Course Selection drop-down.
e. To map this course you have two options.
    i. Option 1: In the State Mapping section, select the Subject Area Code and the Course ID for the state course to which you would like to map the local course. You can use the CourseWalk report *State Course* Catalog to assist in choosing the appropriate state course (CourseWalk -> CourseWalk Reports -> State Course Catalog). Then click the Save button.
    ii. Option 2: In the State Mapping section, click the Find State Recommendations button. This will give you all the course recommendations for the selected local course. You can filter the results down by Subject Area if need be. You can look through the pages of results and once your find the appropriate match, click the Map to this Course radio button and then click the Save button.
f. Repeat for all unmapped local courses.

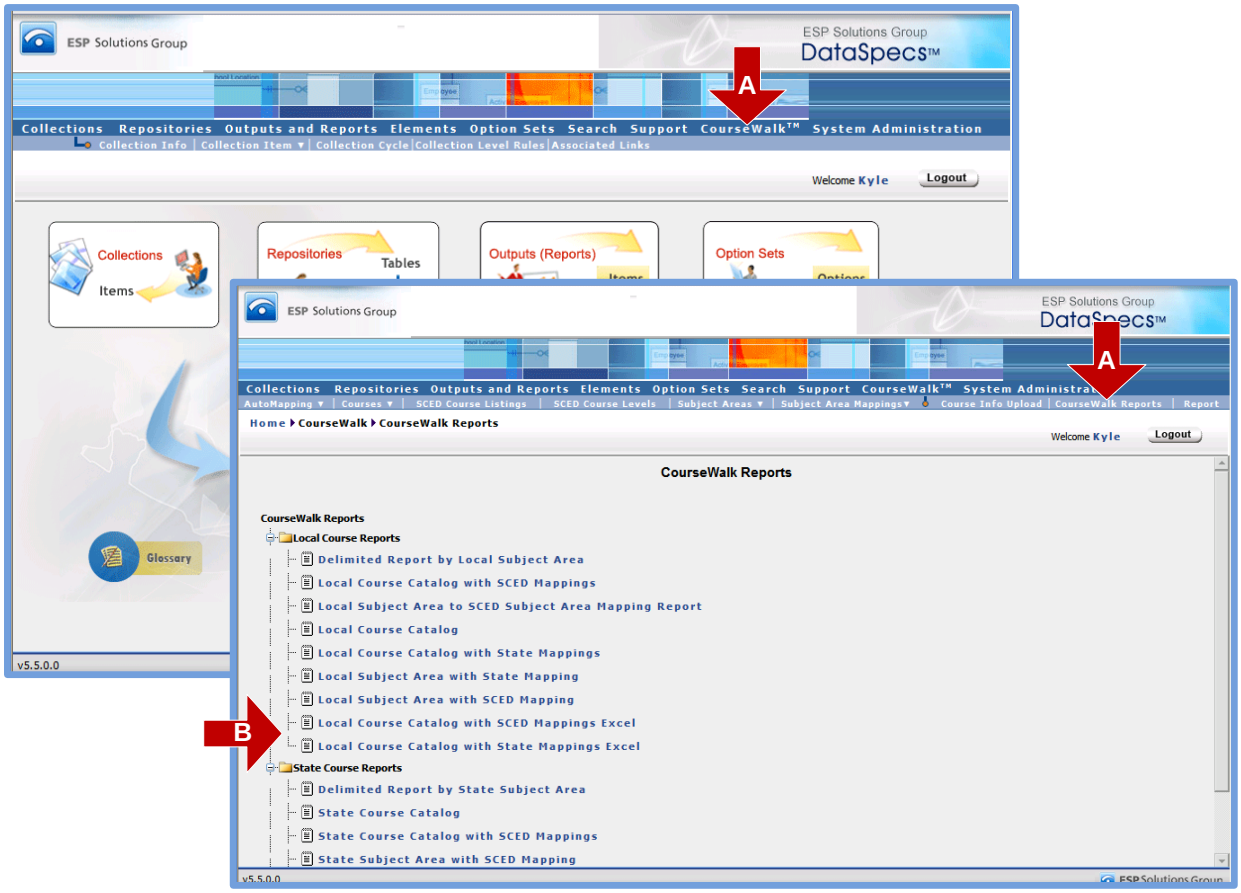


Running CourseWalk Reports

a. Navigate to the CourseWalk -> CourseWalk Reports page.

b. Click on the hyperlink to the report you would like to run. The two most useful for reviewing your state mappings will be the Local Course Catalog with State Mappings and the Local Course Catalog with State Mappings Excel reports.

c. Review your mappings with either of these reports, and update your mappings in CourseWalk as needed.



Frequently Asked Questions

Introduction

This is a living document updated with frequently asked questions from the LEAs using CourseWalk to map their local courses to the Arizona state course catalog.

FAQs

Templates

What is the difference between a local subject area and a local course?

Subject Areas are the broad categories of content taught within schools. Often these are the same as certification/licensure areas for teachers. Within subject areas there are usually subareas of content, e.g., within the Subject Area of Life and Physical Sciences, there are subareas such as Biology, Chemistry, and Physics. Within the course coding structure, all Science courses are grouped under AZ03. Subareas do not have different codes. There are 22 subject areas in the course coding structure.

A **Course** represents a specific curriculum provided in a set period of time at a school or online. Logically, a course can be offered more than once during a semester or school year, sometimes with multiple teachers teaching the same course. Within the Subject Area of Science (subarea of Biology) there may be courses such as Biology 1, Microbiology, Anatomy, and AP Biology. Each of these courses will have a 3 character code that follows the Subject Area Code, which is four characters. Biology has a course code of AZ03051.

Examples:

AZ01 – English Language and Literature

001 – English/Language Arts I (9th grade)

002 – English/Language Arts I (10th grade)

003 – English/Language Arts I (11th grade)

004 – English/Language Arts I (12th grade)

005 – AP English Language and Composition

AZ02 – Mathematics

001 – Informal Mathematics

002 – General Mathematics

003 – Particular Topics in Foundation Math

What am I supposed to put in each column of the templates?

Please refer to the CourseWalk Annotated Templates Excel file for a full description, column by column, of the templates.

Uploading Local Subject Area

I click Import and Validate and nothing happens.

1. Make sure your internet browser is not blocking any pop-ups. If you files has any validation errors, you will be notified via pop-up window.
2. Make sure a pop-up window did not appear behind the window you are viewing.
3. If you have a message that says there were no violations, then you need to click Upload and Commit to confirm your upload. You will then get a success message.

I get validation errors that say my file has blank fields that are not blank.

This issue affects Mac users. CourseWalk is set to now handle XLSX files as its primary import format. Save your file as an XLSX file and retry the upload.

What do the validation errors mean?

For a full description of the different types of validation errors, please see the DataSpecs Validation Error Description section of this document. For further information on the requirements for the specific columns within the templates, please see the CourseWalk Annotated Templates.xlsx file.

Uploading Local Course to State File

I click Import and Validate and nothing happens.

1. Make sure your internet browser is not blocking any pop-ups. If you files has any validation errors, you will be notified via pop-up window.
2. Make sure a pop-up window did not appear behind the window you are viewing.
3. If you have a message that says there were no violations, then you need to click Upload and Commit to confirm your upload. You will then get a success message.

I get Validation Errors for my subject area codes.

There is a hierarchy in CourseWalk with Subject Areas being the highest level and courses being within those subject areas. To upload local courses, you must first upload subject areas. This way, when you upload your local courses, CourseWalk can link them to the appropriate subject areas based on the subject area codes in the Local Course to State file.

Also, subject area codes must exactly match what has already been entered into CourseWalk. Make sure your subject area code column has the subject area code and not the subject area name.

I get validation errors that say my file has blank fields that are not blank.

This issue affects Mac users. CourseWalk is set to now handle XLSX files as its primary import format. Save your file as an XLSX file and retry the upload.

What do the validation errors mean?

For a full description of the different types of validation errors, please see the DataSpecs Validation Error Description section of this document. For further information on the requirements for the specific columns within the templates, please see the CourseWalk Annotated Templates.xlsx file.

Editing/Updating Course Information in CourseWalk

How do I update a local course's information in CourseWalk?

To update a course's information, simply go to the CourseWalk -> Courses -> Local Course to State page. You can select the course from the Course Selection drop-down box. Then, you are free to make any edits you want to the course's information or mapping. You can then click Save to save the changes you made.

If you would like to keep the old information on hand to refer back to, then you will want to create a new version of the course and expire the old version. This will allow you to look back at the course information at a particular point in time. To do this,

- Go to the CourseWalk -> Courses - > Local Course to State page.
- In the Local Course Selection drop down box, select the course for which you would like to update.
- Click on the Add Local Course button on the bottom of the screen.
- A pop-up window will appear. Select the New Version radio button and click the Add Item button.
    - This will make a copy of the selected course and increment the version of the course by 1. You can now make the appropriate changes and click the Save button.
    - It will also give the previous version of the course an expiration date of today. The old course is now considered inactive. Please see the Active Only section of this document for a further description.

How do I add a course in CourseWalk?

There are two ways to add a course in CourseWalk: On the CourseWalk -> Courses -> Local Course to State page or on the CourseWalk -> Course Info Upload page.

- CourseWalk -> Courses -> Local Course to State
    - Go to the CourseWalk -> Courses -> Local Course to State page.
    - Click on the Add Local Course button.
    - A pop-up window will appear. Select the Add New radio button and then click the Add Item button.
    - You will get a blank Local Course Information to State page.
    - You can then fill out the appropriate course information and click the Save button.
- CourseWalk -> Course Info Upload
    - Please see the Uploading Local Course to State File section of this document for further information.

* Please Note: The required fields must be filled in or you will get a validation error message. For the Local Course to State page, the required fields are District, Local Course ID, Local Subject Area, Local Course Title, Elementary Mapping Allowed, Secondary Mapping Allowed, Effective Date, and Version.

How do I update/edit a course's mapping in CourseWalk?

- Go to the CourseWalk -> Courses - > Local Course to State page.
- In the Local Course Selection drop down box, select the course for which you would like to update.
- In the State Mapping section, select the appropriate state subject area and state course to which you would like to map your local course.
- Click the Save button.
- If you would like to look at CourseWalk's course recommendations, click the Find State Recommendations button in this section.
- You can narrow the state subject area of your search in the Subject Area Matches section.
- You can browse through CourseWalk's recommended courses and select the Map to this Course radio button for the appropriate course.
- Then click the Save button.

Active Only

What is Active Only?

In CourseWalk, there is a concept of records being active. This means that today's date is within the date range of the record's effective and expiration dates.

An example would be, if you no longer offer a course, you can enter an expiration date. After that expiration date, when you filter, either on the CourseWalk pages or in the CourseWalk reports, to view Active Only, this course will no longer appear in the list as it is expired.

Another example would be if there is a major change in the content of a course. You may want to have the history of the old course, so you would expire the old course, and create a new version of the same course. The new version would be the active version.

On each of the CourseWalk pages, there is a check box at the top left of the screen that reads, "Active Only." When this is checked, only the active records will be displayed. If this box is unchecked, then all the records will be displayed. So, if you have Algebra-V1 and Algebra-V2, only Algebra-V2 will be displayed if the Active Only box is checked and both will be displayed if the Active Only box is unchecked.

Moving data from Training CourseWalk Site to Production CourseWalk Site

How do I transfer my courses from the training site to the production site?

If your courses are loaded into the training site and you would like to transfer the work you have done in CourseWalk to the production site, then follow the below steps. If you have loaded your courses into the training site, but have not done any mappings in CourseWalk, then simply load your upload files into the production site.

1. Go to the training site.
2. Go to the CourseWalk -> CourseWalk Reports page.
3. Select the Local Course Catalog with State Mappings Excel report.
4. For Active, select "< All >"
5. For District, select your district.
6. For School, select "< Not Specified >"
7. For Subject Area, select "< All >"
8. Click View Report.
9. On the upper menu bar, in the Select a Format drop-down box, select Excel.
10. Click Export.
11. Now, you will need to use the appropriate columns in the excel file to copy and paste into the Local Subject Area and Local Course to State templates to fill them in with all your course information (including the state mappings).
12. Now, go to the production site.
13. Go to the CourseWalk -> Course Info Upload page and upload your new files.
    a. Please see the training guide section or the how to section if this document for more information on uploading files into CourseWalk.

Upload and Validation Error Message Descriptions

Introduction

DataSpecs has developed Excel templates that can be filled out and used to import mass amounts of data into DataSpecs. This allows the user a choice to bypass entering data row by row through the user interface Before uploading data into DataSpecs, the data must first go through the upload and validation process. This process allows DataSpecs to check the data being imported for inconsistencies with the SQL database back-end. Validation error messages are given for any field in the uploaded file that does not comply with the SQL database specifications. There are different types of error messages and different ways to view them. They are all are described in this document.

The Goal

To give explanations and examples of the error messages DataSpecs uses to inform the user that the data being validated does not fit with how the SQL database back-end stores the data.

Types of error messages:

- Corrupt file
- Number of columns mismatched
- Expected header violation
- Duplication within the uploaded file
- Overwrite existing data
- Validation rules

Notes

- It is ESP Solutions Group's practice and recommendation to view the Violation Summary Report when viewing validation errors. For this reason, the validation error messages described in this document are geared toward using the Violation Summary Report only.
- Important definitions:
    - *DataSpecs upload file* – A DataSpecs upload file is an Excel 2003 file used to import data into DataSpecs. Each DataSpecs component has its own template to use to build the upload files.
    - *DataSpecs Component* – A DataSpecs component refers to a specific module of DataSpecs. The components within collections are collection info, collection items, collection cycle, collection level rules, and associated links.
    - *Record* - In the context of DataSpecs upload files, a record represents a unique row added to a DataSpecs template for import.
    - *DataSpecs Template* - A DataSpecs template is an Excel file that is preformatted for a specific DataSpecs component. These templates can be filled out and used to import data into DataSpecs.
    - *Upload and Validation Process* - In DataSpecs, upload and validation refers to the process of ensuring that DataSpecs operates with clean, correct, and useful data. The process uses validation routines that check for correctness, meaningfulness, and security of data that are uploaded from the different components' Excel files.

- *Import* - In DataSpecs, import refers to the sending of data from different components' Excel files on a local system to store in the DataSpecs SQL database.

- When importing data into DataSpecs, an Excel 2003 workbook is the only fully supported file format.
- Validation Rule 7 (R007) – Child Dates has been removed and is no longer a rule in DataSpecs.

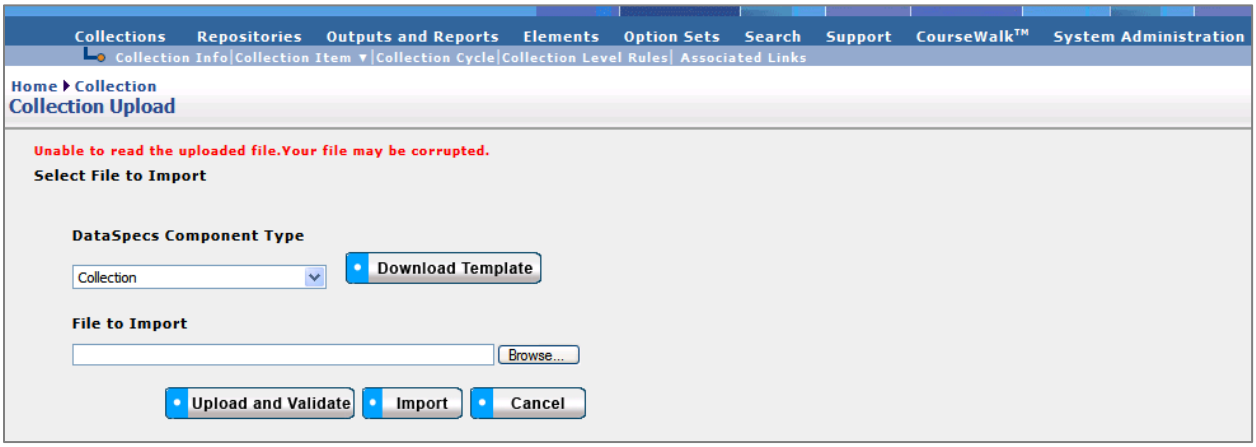
Error Messages

There are two types of error, depending on the severity.

- **Fatal errors** – These errors cause the upload to be terminated without importing any data from the file. The errors must be corrected and the upload process began again.
- **Warning errors** – These errors stop the upload and validation process and provide a user an explanation of the error and the opportunity to cancel the process to correct the error and begin again, or to close the warning error and continue the uploading and validation process.

Corrupt File Error Message

"Unable to read the uploaded file. Your file may be corrupted."



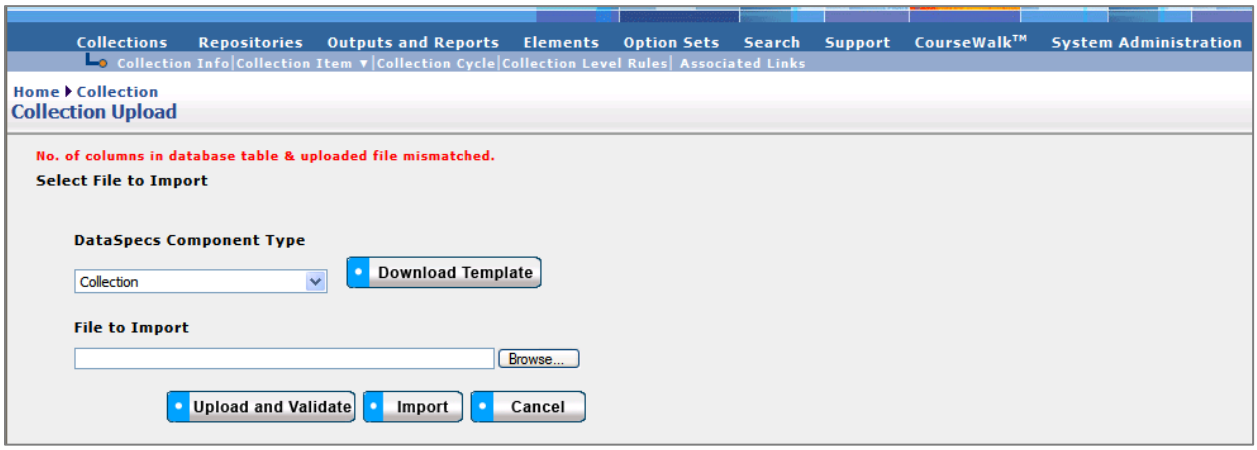
This error message occurs when there is something in the file that is being uploaded that DataSpecs is not expecting to find.

- The DataSpecs upload and validate process expects a certain type of file. DataSpecs will only accept XLS file types. When other types of files are selected, this error message will appear.
- The upload and validate process is set to read values within the columns specified by the template. If values appear in a field outside the last specified column in the template, this error message will appear.

The user must correct the error and re-start the upload and validation process.

Number of Columns Mismatched

"No. of columns in database table & uploaded file mismatched."



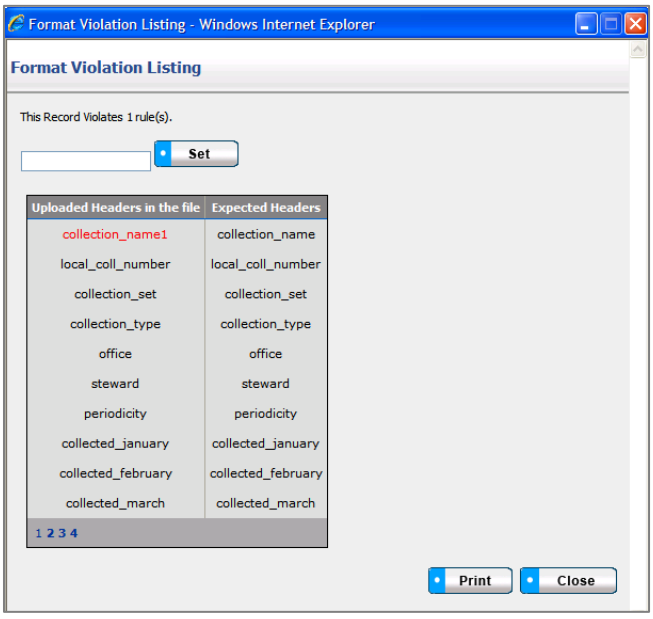
This error message occurs when the number of columns in the uploaded file is different from the number of columns for the selected component type's template.

An example would be, for a filled out collection template, if the version column did not exist. DataSpecs is looking for a certain amount of columns when the "Collection" component type is selected and the error message is generated when the number of columns is one short due to the missing version column.

The user must correct the error and re-start the upload and validation process. The column must be added by including the column header; if the information is optional, the cells may be left blank.

Expected Header Violation

"Format Violation Listing"



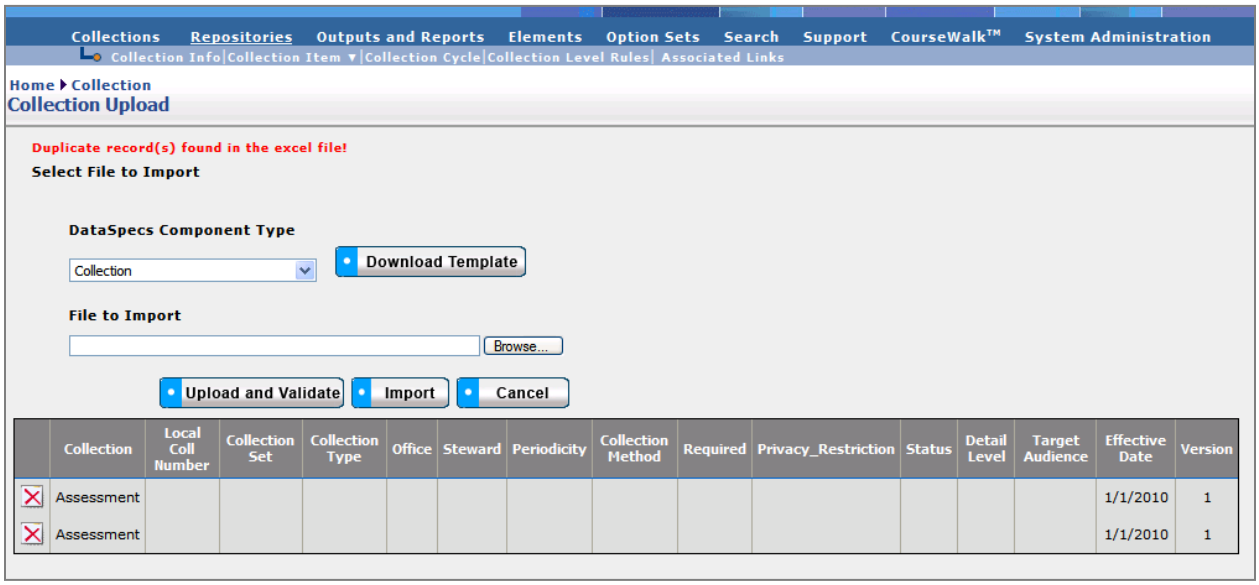
This error displays in a pop-up box. When one or more of the column headers do not match the expected column header that DataSpecs based on the selected component, the message box shows the column names in the uploaded Excel file compared to the expected headers from the DataSpecs template. The column names in the uploaded Excel file that do not match what is expected are highlighted with red text.

In the above example, the user was uploading a file for collection information. Instead of "collection_name" for the first column's title, the user had named the column, "collection_name1." This triggered the above error message.

The user must correct the headers in their Excel spreadsheet and then re-start the upload and validation process.

Duplication within the Uploaded File

"Duplicate record(s) found in the excel file!"



This error appears when there are duplicate records in the Excel file that is being uploaded. In DataSpecs, there are certain fields that must be unique. When these fields are not unique in the Excel file being uploaded, the file is rejected and this error is triggered.

In the above example, Collection Info was being uploaded. In the Excel file, two records with the same collection name, "Assessment," existed. This caused the error message. On the screen, the user has the choice to delete one of the records, if it is truly a duplicate and not a mistake in the Excel file then the user needs to correct.

The user must either:

- Correct this issue through the interface provided and continue with the upload and validation process,
  Or
- Make corrections to the uploaded Excel spreadsheet and re-start the upload and validation process.

Note: ESP Solutions Group's practice and recommendation is to make corrections to the Excel spreadsheet and re-start the upload and validation process. This allows the Excel file to have the corrected data in case there are other errors along this process.

Validation Rules

Validation Rule 1 (R001) – Required Field Validation

"[Missing a required field](Rule R001)"
Fatal

RuleID	RuleName	collection_name	local_coll_number
R001	Required Field Validation		123

The rule is violated when a required field is left blank in the uploaded Excel file. On the Violations Summary Report above, the rule appears in the RuleName column and the missing field is highlighted in yellow.

In the example shown above, the collection Excel file uploaded contained a record that left the collection name blank. Because this is a required field for DataSpecs, the error message was triggered and the collection_name field was highlighted yellow.

The user must add in a collection name for this record in their uploaded Excel spreadsheet and re-start the upload and validation process.

Validation Rule 2 (R002) – Not a Valid Value

"[The value you entered is not a valid value.](Rule R002)"
Fatal

RuleID	RuleName	collection_name	local_coll_number	collection_set
R002	Not a Valid Value	assessment	123	**Assessment**

This error occurs when the data for a field does not match exactly the field that is already loaded into DataSpecs. Some fields in DataSpecs are drop-down fields. These text fields in the uploaded file must exactly match what exists within DataSpecs. When they do not match exactly, this rule is violated. In the RuleName column of the Violation Summary Report, "Not a Valid Value" will appear. Then, for the field that is violating the rule, the field will show up in red text.

In the above example, on the collection info page, collection set is a drop-down field. So, in the upload file, the values in the column "collection_set" must exactly match the values already in the DataSpecs database. The above error message says that "Assessment" is not a value in the DataSpecs database and therefore cannot be used.

To correct this, the user must add the desired value in DataSpecs or correct the text in the upload Excel file to correctly match a value already in DataSpecs and then re-start the upload and validation process.

Validation Rule 3 (R003) – Field Length Exceeded

"[The field cannot exceed its length attribute and will be truncated.](Rule R003)"
Warning

RuleID	RuleName	collection_name	local_coll_number

R003	Field Length Exceeded	assessment	**Assessment Local Number 123456789. This field mus**

This error occurs when a field length in the upload Excel file is too long for the DataSpecs database. Each field in the database has a specified length. When this length is exceeded, DataSpecs warns the user and if the user continues, the data will be truncated. In the Violation Summary Report, the RuleName field will be, "Field Length Exceeded" and the field that is too long will appear truncated and in red text.

In this case, the text in the field local_coll_number was more than 50 characters which is the max length for the field. The above error was triggered and the user is shown what the truncated value would be.

To move forward the user has two options:

- Close the error screen and click Import. This will import the file with the truncated data. After clicking import, the user will be given one more warning about truncated data,
  Or
- The user can correct the field in their upload Excel file and re-start the upload and validation process.

Note: ESP Solutions Group's practice and recommendation is to make corrections to the Excel spreadsheet and re-start the upload and validation process. This allows the Excel file to have the corrected data in case there are other errors along this process.

Validation Rule 4 (R004) – Invalid Data Type

"[The Data Type is invalid](Rule R004)"
Fatal

RuleID	Rule Name	collection_name	local_coll_number	collection_set	collection_type	office	steward	periodicity	collected_january
R004	Invalid Data Type	assessment							**Yes**

This error occurs when a field in the uploaded Excel file is in a different data type than what the DataSpecs database allows. When there is a data type that does not match what DataSpecs is looking for, in the Violations Summary Report, the value in the RuleName is "Invalid Data Type" and the violating field is in red text.

In the above example, in the collection upload file, the displayed record has a value of "Yes" in the collected_january column. In the collection table in DataSpecs, the collected_january is a TRUE/FALSE field. The value in the upload Excel file is not the same data type that is expected.

To correct this issue, the user must edit the violating field in the uploaded Excel file and re-start the upload and validation process. To find out what the valid data types are in DataSpecs, please see DataSpecs *Annotated Templates.xlsx.*

Validation Rule 5 (R005) – Child with No Parent

"[Child has no parent record](Rule 005)"
Fatal

RuleID	RuleName	item_name	collection_name	form_section_number	item_number
R005	Child with no Parent	Student Name	**Student Assessment**	1.2	2

This error occurs when the uploaded Excel file has a record that is being added (child record) to something that does not exist (parent record) in DataSpecs. In the Violation Summary Report, the RuleName field will be "Child with no Parent" and the offending field with be shown in red text.

In the above example, a collection item Excel file was being uploaded and validated. The item being added, "Student Name" had "Student Assessment" listed as the collection. The error is saying that the "Student Assessment" collection does not exist and therefore DataSpecs is unable to add an item to the collection.

To correct this, the user should fix the parent record name in the uploaded Excel file to match what is in DataSpecs. If the desired parent record does not exist, the user will need to add it to DataSpecs either through the user interface or import it using the approprioate template.

Validation Rule 6 (R006) – Data Collision

"[The element already exists within the system.](Rule R006)"
Warning

RuleID	RuleName	collection_name	Version
R006	Data Collision	assessment	1

This error occurs when the uploaded Excel file has a record that already exists in DataSpecs. Each of the records in DataSpecs has to be unique. Also, each different type is unique in a different way. For example, collections have to be unique based on the combination of collection name and version. Collection items are unique based on a combination of collection name, item name, section number, item number, and version. This error is triggered when the combination of these fields already exists in DataSpecs. In the Violations Summary Report, the field RuleName will be "Data Collision" and the record will be shown in the other columns on that row.

In the above example, the uploaded Excel file for collections has a record, "assessment," with a version of "1." This combination of collection name and version already exists in DataSpecs. For that reason, a data collision violation error was generated.

To correct this error, the user must make the record unique. If the record is correct and already exists in DataSpecs, the user has two choices:

- Delete the record from the uploaded Excel file and re-start the upload and validation process, Or
- Import the uploaded Excel file with the data collision. The record that already exists in DataSpecs will be automatically left out of the import (it will not overwrite what is already in DataSpecs.) If the upload file has four records and there was one data collision, clicking import will only import the three records that were unique.

Note: ESP Solutions Group's practice and recommendation is to always make corrections to the Excel spreadsheet and re-start the upload and validation process. This allows the Excel file to have the corrected data in case there are other errors along this process.

Arizona District Codes

District Name	District ID
Alhambra Elementary District	4280
Balsz Elementary District	4268
Gila Bend Unified District	4238
Isaac Elementary District	4259
Mesa Unified District	4235
Nadaburg Unified School District	4252
Phoenix Union High School District	4286
Tolleson Elementary District	4264

Arizona CourseWalk Links

CourseWalk Training Sandbox: DataSpecsTraining1.d3m.com

CourseWalk: AZ.d3m.com

Secondary SCED Handbook: http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2007341

Prior-to-secondary SCED Handbook: http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2011801

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