

Validation Process

Question: How do I validate my XML extract file against the TREx schema? What is the difference between validation error messages and validation warnings? What do the warning messages mean when I upload a student record to TREx?

Answer: TREx provides data validation on student record and transcript extract files to enable:

- Districts, schools, SIS vendors and other technical users to test XML file extracts to ensure the files are compliant with the TREx schema.
- Registrars to receive feedback on the validity of record/transcript data they uploaded.

The validation process begins with the upload of an extract file to TREx. District and Campus Registrar access the upload function when sending a record/transcript. Vendors with an approved TEASE Vendor role access the validation tool directly when accessing TREx.

Validation warnings do not prevent the file from being uploaded and in some cases sent. Validation error messages stop the upload process or transfer in the case of a high school transcript that does not meet state minimum requirements being sent to a post-secondary institution.

Validation Sequence

TREx runs several types of validation on the file's XML contents. Each of these levels of validation is progressive, meaning that each type of validation is done in sequence so that fundamental errors take precedence over higher-level errors.

- The file's XML is parsed for validity. Any syntactic errors in the file's XML are reported immediately and no further validation can be performed. Note that registrars should rarely if ever see this kind of error since it would mean that their file extract produces syntactically incorrect XML. This validation will detect and report all syntactic errors found in the file.
- The file's XML is validated against the TREx XML schema. This detects any data type errors as well as any missing required fields. Any errors and missing required fields are reported immediately and no further validation can be performed. This validation detects and reports all schema-related errors found in the file.
- The file's XML is validated against TREx context edits, which are described in Section 4 of the *2007-2008 TREx Data Standards* document. TREx reports any violation of these context edits immediately and no further validation can be performed. Note that TREx has a configurable maximum number of errors that it will report on each file. This will initially be set to 100. After 100 context edit errors, no further errors will be reported on the file since it likely means there are systematic problems throughout the file.
- The file is validated against state minimum and TEA recommended requirements as described in Appendix A of the *2007-2008 TREx Data Standards*. If the student record or transcript does not include a data element, a warning is displayed in a hierarchical tree structure. TREx allows the file to be uploaded and sent to any school campus.
- The file is validated against state minimum and TEA recommended requirements based on recipient type of post-secondary. If the XML file does not include the state minimum requirements, TREx will not allow the file to be sent.

All of these checks are considered "hard validation" and the file's contents must pass all of these before the record/transcript can be loaded into TREx.

XML Schema Validation: If the XML extract passes, TREx displays a message indicating the upload was successful. If the XML extract fails the validation, TREx displays error message indicating the upload failed and the cause of the failure as shown in the example below.

Upload Records/Transcripts for institution BROWTOWN H S

! File failed with exceptions.

Expand All Collapse All

! Schema Validation Errors:

- At line=10 column=36 cvc-pattern-valid: Value 'T13017411' is not facet-valid with respect to pattern '[sS0-7]{1}[0-9]{8}' for type 'StudentIDType'.
- At line=10 column=36 cvc-type.3.1.3: The value 'T13017411' of element 'StudentID' is not valid.

To resolve the issue, the data for the extract file must be correct in the student information system (SIS), extracted through that application's extract process, and then uploaded into TREx.

Data Validation: Once the XML schema passes, TREx goes through the data validation process explained above. If the extract file passes the data validation and is uploaded, TREx displays a list of warnings related to state-minimum and TEA-recommended data for student records and transcripts. These warnings are not indication of errors and do not prevent the record/transcript from being sent to another institution. The warning serve only as an opportunity for the registrar to validate and verify the data being sent. An example of the data validation warnings follows:

Upload Records/Transcripts for institution BROWTOWN H S

File successfully uploaded with warnings

Expand All Collapse All

Student Record/Transcript for DOE, JOHN

Student Record Minimum Missing Fields

- Generation Code
- Prior ID
- Current Coursework
- Immunization

Student Record Recommended Missing Fields

- Generation Code
- Prior ID
- Homeless Indicator
- Withdrawal Course Grade - multiple occurrences
- Campus Awarding Credit - multiple occurrences
- LEP (Limited English Proficiency) Indicator
- Economically Disadvantaged Indicator
- At Risk Indicator
- Title I Part A Indicator
- Special Education Indicator
- IEP (Individualized Education Program) Indicator
- Bilingual Indicator
- ESL Indicator
- Gifted/Talented Indicator
- Personal Graduation Plan
- Career Tech Ed Indicator
- Assessment Grade Level - attachments acceptable - multiple occurrences
- Assessment Score Code - attachments acceptable - multiple occurrences
- Assessment Subtest - attachments acceptable - multiple occurrences
- Immunization

Transcript State Minimum Missing Fields

- Generation Code
- Certification of Coursework Completion Date
- Student Assessment (Exit Level)
- Current Coursework
- Campus Awarding Credit - multiple occurrences

Transcript State Recommended Missing Fields

- Generation Code
- Campus Country
- Certification of Coursework Completion Date
- Student Assessment (Exit Level)
- Current Coursework
- Campus Awarding Credit - multiple occurrences

Final Transcript with Seal State Minimum Missing Fields

- Generation Code
- Certification of Coursework Completion Date
- Student Assessment (Exit Level)
- Campus Awarding Credit - multiple occurrences

Final Transcript with Seal State Recommended Missing Fields

- Generation Code
- Campus Country
- Certification of Coursework Completion Date
- Student Assessment (Exit Level)
- Campus Awarding Credit - multiple occurrences