

TPDM Model Updates

This documentation serves as an introduction to new features and changes made for the Ed-Fi TPDM Extension set, with links to additional detail. This information is for technical professionals who work with the TPDM, including business analysts, database administrators, and software developers.

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Releases & Updates

[\(v0.8\) \(Latest\)](#)

Model Improvements & Enhancements

Person Model

- A Person model, including a new Person entity, has been added for use in TPDM.
- Originally, the Ed-Fi Data Standard was developed primarily with the student and staff of a K–12 school in mind. The use cases where a single physical person would have multiple representations within Ed-Fi solutions were rare, even when a parent was added to the system. In addition, the data for these roles were generally coming from different systems. Unifying the roles under a "person" was difficult.
- As technology within institutions progressed, it's become more common for institutions to have a designated person ID system that provides unique identifiers for a "person" no matter their various roles.
- Meanwhile, the TPDM brings focus on a number of additional roles for a person in Ed-Fi solutions. With these considerations in mind, the Ed-Fi Data Standard v3.2.0-c has introduced the concept of a person to the Ed-Fi core model for use within TPDM.
- More info on the Person model can be found [here](#).

New Performance Evaluation Domain



Note: Use of the Performance Evaluation domain require the implementation of the person model. See [Person Model](#) for more information.

- After internal review and discussions with the community, we decided to combine the concepts found in the Performance Measures and Staff Evaluation domains into a single domain, Performance Evaluation.
- Along with performance evaluation we have also added a new Goal entity to replace the existing TalentManagementGoal entity. The new Goal entity provides a richer, more defined concept of a goal.
- Performance Evaluation uses references to the Ed-Fi Person model rather than references to the person-roles such as Teacher Candidate, Staff, Applicant, and so forth.
- An overview of the new Performance Evaluation domain can be found [here](#).

Updates to Credentials and Certification Domains



Note: Use of Credentials and Certification require the implementation of the person model. See [Person Model](#) for more information.

- Credentials and Certification as defined within TPDM have been overhauled. The changes include:
 - The ability to track the lifecycle of a credential (through StudentAcademicRecord).
 - The ability to define a catalog of credentials. In previous versions, credentials were created and associated to a person at the same time, with the effect that there was not support for pre-built credentials. This update adds the CertificationLicense entity, which allows full catalogs of certifications to be created and associated to credentials before being assigned to a person.
 - Credentials reference the Ed-Fi Person model rather than using direct references to the person-role entities.

- An overview of the updated credentials domain can be found [here](#).

Removal of Survey Domain

- With the approval of [RFC 25](#), the Survey domain is part of the Ed-Fi Data Standard. The Survey domain has been removed in this version of TPDM.
- Teacher Candidates and Applicants can still "take" a survey (the SurveyResponse entity still has references to TeacherCandidates and Applicants).
- Teacher Candidates can still be the target of a survey or a survey section.
- Prospects can no longer take a survey.
- More info on the differences between the Survey domain in the prior release of TPDM and the one found in the Ed-Fi Data Standard can be found [here](#).

Alignment to Ed-Fi Core

- The FieldworkExperience entity has been reworked to use the Student role, rather than the Staff or Teacher Candidate role.
- Facts style tables have been removed. For the most frequently used facts tables (EducationOrganizationFacts and EducationOrganizationStudentFacts), we have suggested workarounds detailed [here](#).
- The GradebookEntry extension has been removed and the changes it contained were brought into the core Data Standard.
- TeacherCandidateFieldworkAbsenceEvent and StaffFieldworkAbsenceEvent have been removed.
- ProfessionalDevelopmentEventAttendance (now used in the Certification workflow) has been updated to use person model, and the entities to specific roles (TeacherCandidate, Staff, and Prospect) have been removed.

Recruitment and Staffing

- To make it easier for an applicant to either apply at multiple organizations or to the same organization multiple times, a number of fields were moved from Applicant to Application, and the Education Organization requirement on Applicant has been removed. A full list of the changes can be found in [TPDMX-108](#).

Miscellaneous Changes

- Person references have been added to Teacher Candidate, Applicant, and Prospect.
- LevelOfDegreeAwardedDescriptor had minor updates to misspellings in the code value, description, and short descriptions.
- Accreditation Status has been added to the Teacher Preparation Provider education organization as a descriptor. The default values provided are listed in [TPDMX-132](#).
- References to Credentials entities on Teacher Candidate, Applicant, and Prospect have been removed. Use the reference to Person instead.
- Facts style entities have been removed from TPDM.
 - For EducationOrganizationStudentFacts, we recommend using the StudentIndicator entity. Details can be found in the [Ed-Fi data handbook](#).
 - For EducationOrganizationFacts we have a replacement that better fits standard Ed-Fi modeling patterns. Details can be found [here](#).
- Absence Event entities were unused and thus removed from the model.
- GradebookEntry extension functionality has been moved into the Ed-Fi core data model.
- CommunityOrganizationExtension, CommunityProviderExtension, EducationOrganizationNetworkExtension, and EducationServiceCenterExtension entities have been removed. All were unused in TPDM.
 - The field FederalLocaleCode on these entities will most likely be added to the Ed-Fi data standard in a future release.

Non-Model Improvements & Enhancements

New GitHub Repository

- To bring TPDM more in line with core Ed-Fi development practices, and to help with the growing number of artifacts for the model, we have created a new GitHub repository named [Ed-Fi-TPDM-Extension](#). This repository will hold:
 - XML Sample Data. Data used to test the bulk loader and provide insight into how domains are mapped to data exchange elements.
 - XML Descriptor values. Default values for TPDM descriptors in XML format (for loading into the ODS).
 - UML diagram for TPDM entities.

Sample Data Updates

- XML Sample data for both v0.7 and v0.8 have been added to the [Ed-Fi-TPDM-Extension](#) repository. Note that this set of data is not meant to be a true representation of how data is to be mapped within TPDM. Its purpose is to test entities and API endpoints for errors.

- "Real world" sample data has been added. This data is meant to represent how data from an actual Teacher Preparation Provider would be stored in the ODS. It does not have data to represent every use case of the TPDM (the XML sample data comes much closer). But, the real-world data provides a richer set of data for those use cases it does cover. We plan to add data for additional use cases with subsequent releases. The real world sample data can be downloaded [here](#)

Descriptor Updates

- Previously, all descriptors were contained within two files. XML Descriptor values are now split into separate files per descriptor type to make finding descriptor values easier.
- Previously, adopters had to parse through XML to determine the existing descriptor values within TPDM. A spreadsheet has been created that has all descriptor values listed, with the Code, Short Description, Description, and Namespace for each.

(v0.7)

Improvements & Enhancements

Online TPDM Instance

- An online version of the Ed-Fi ODS / API + TPDM is available at <https://api.ed-fi.org/v0.7.0-tpdm/docs/>.
- Similar to the Ed-Fi ODS / API sandbox instance, this instance of the ODS / API + TPDM is connected to a populated datastore. This means you can view and download the OpenAPI spec, test out TPDM API calls, view response data, and so forth.
- Since the TPDM is an extension of the Ed-Fi ODS / API, you can see the TPDM data in the context of the core ODS / API data model.

Updated Versioning for TPDM

- As of this release of TPDM, we are updating the versioning scheme. We intend for the TPDM data model to grow and change independently of the underlying Ed-Fi ODS / API technology version. So, we have decoupled the TPDM version from the ODS / API product version (dropping the 3.x) and will now refer to TPDM by its own version number. Thus, this latest release is v0.7.
- You can view the technical version information at <https://api.ed-fi.org/v0.7.0-tpdm/api>.

Ed-Fi + TPDM Data Handbook

- To simplify mapping data to TPDM there is now a Ed-Fi Data Handbook that include TPDM, it can be found [here](#)

Updated ODS / API Base Version

- The ODS / API + TPDM now supports the Ed-Fi ODS / API version 3.2. More information about the ODS / API v3.2 can be found [here](#). The TPDM model has also been updated to be MetaEd v2.0-compliant.

Simplified TPDM Installation

- To simplify installation of the ODS / API + TPDM, we have created source branches with the TPDM extension already added. These branches come with built-in fixes, including:
 - Updated the Descriptor namespaces. Previously, namespaces were either "tpdm.exchange.ed-fi.org" or "tpdp.exchange.ed-fi.org". We have standardized to "tpdm.ed-fi.org".
 - Added default gender Descriptors. Gender descriptors were empty in previous releases. We have added them into the v0.7 release by default.
 - Removed sample extensions. The as-shipped v3.2 release of the Ed-Fi ODS / API comes with two sample extensions (Sample and GrandBend) as well as three sample profile projects (ExtensionsSample, Sample, Test). These have been removed from the TPDM-specific branches.
- To view the simplified installation instructions, see the [Getting Started](#) documentation.
- If you would like to add TPDM to an existing project, you can follow the instructions [here](#). The TPDM MetaEd files on [GitHub](#) complete with default Descriptors from the ODS branch are available on GitHub [here](#).

Survey Domain Enhancements

Several enhancements have been made to the Survey domain. With the release of v0.7, implementers have more options to indicate the object of a survey (i.e., who or what the survey is about). These options include Teacher Candidates, Staff members, and Educational Organizations as the target entity of an entire survey. These entities may also be designated as the object of a survey section (i.e., a group of specific questions).

- [TPDMX-25](#) - Add a response time field to SurveyResponse entity
- [TPDMX-45](#) - Add a comment to SurveyQuestionResponse entity
- [TPDMX-54](#) - Add education organization as an optional target of a survey response
- [TPDMX-67](#) - SurveyResponse location field description has typos
- [TPDMX-78](#) - Make SurveySection optional for a survey
- [TPDMX-79](#) - Add teacher candidate as an optional target of a survey section response
- [TPDMX-80](#) - Add staff as an optional target of a survey section response
- [TPDMX-95](#) - Add education organization as an optional target of a survey section response
- [TPDMX-96](#) - Increase length of TextResponse string from 1024 to 2048 (affects SurveyQuestionMatrixElementResponse, RubricLevelResponse, SurveyQuestionResponse)
- [TPDMX-97](#) - Increase length of QuestionText from 255 to 512 (affects SurveyQuestion)
- [TPDMX-100](#) - Rename SurveySectionResponseRating to SurveySectionResponse and make SectionRating optional

Talent Management Enhancements

- [TPDMX-10](#) - Add RecruitmentEventType descriptor to RecruitmentEvent
- [TPDMX-34](#) - Add GradePointAverage common object to Applicant domain
- [TPDMX-40](#) - Add Applicant identifier to the primary key for application
- [TPDMX-68](#) - Add characteristic common object to applicant
- [TPDMX-85](#) - Add Application Period term descriptor to applications

General Updates

- [TPDMX-21](#) - Add a comment field to RubricLevelResponse
- [TPDMX-22](#) - Add CoteachingStyleObserved descriptor to PerformanceMeasure, remove CoteachingObserved boolean
- [TPDMX-30](#) - Add GradeLevelDescriptor to AnonymizedStudent entity
- [TPDMX-33](#) - HispanicLatinoEthnicity should be an optional field on TeacherCandidate entity
- [TPDMX-49](#) - Change HoursPerWeek on FieldworkExperience entity to HoursCompleted
- [TPDMX-50](#) - Updates to CertificationExam common object
- [TPDMX-52](#) - Rename StaffTeacherCandidateAssociation to CompleterAsStaffAssociation to alleviate confusion with TeacherCandidateStaffAssociation
- [TPDMX-57](#) - Add Standard Error to TeacherCandidateStudentGrowthMeasure entity
- [TPDMX-102](#) - Expand StaffStudentGrowthMeasure to allow for multiple score per teacher per year
- [TPDMX-105](#) - Increase length of TeacherPreparationProviderProgram name field from 60 characters to 255 characters

Known Issues

- [ODS-3867](#) - In some instances the console bulk loader will not load data w/o being run through a debugger. If you experience these issues, we suggest you run your data loads through a debugger.

(v3.0.6)

This release is a refinement release, which adds new entities and elements, and corrects issues discovered in field work.

General Improvements & Enhancements

Noteworthy improvements and enhancements in this release include:

- [TPDMX-75](#) - Change TeacherCandidateAcademicRecord GradePointAverage to allow for multiple GPA's
- [TPDMX-88](#) - Change TeacherCandidateFieldworkExperience school reference from single value to multiple
- [TPDMX-94](#) - Add optional School reference to TeacherPreparationProvider and University entities

August 5, 2019 (v3.0.5)

This release is a refinement release, which adds new entities and elements, and corrects issues discovered in field work.

General Improvements & Enhancements

Noteworthy improvements and enhancements in the August 5, 2019 release include:

- [TPDMX-64](#) - Add Survey Teacher Candidate Association
- [TPDMX-65](#) - Add Survey Staff Association

May 15, 2019 (v3.0.4)

This release is a refinement release, which adds new entities and elements, and corrects issues discovered in field work.

General Improvements & Enhancements

Noteworthy improvements and enhancements in the May 15, 2019 release include changes to the Survey and Survey Response entities and the addition of TNTP domains and entities to the Recruitment and Staffing interchange schema.

- [TPDMX-35](#) - Changes to Survey/SurveyResponse Part 1
- [TPDMX-36](#) - Changes to Survey/SurveyResponse Part 2
- [TPDMX-37](#) - Changes to Survey/SurveyResponse Part 3
- [TPDMX-38](#) - Changes to Survey/SurveyResponse Part 4
- [TPDMX-53](#) - Add TNTP domains to interchange

March 19, 2019 (v3.0.3)

This release is a refinement release, which adds new entities and elements, and corrects issues discovered in field work.

General Improvements & Enhancements

Noteworthy improvements and enhancements in the March 19, 2019 release include:

- [TPDMX-41](#) - Add SurveyLevel to Survey
- [TPDMX-42](#) - Add enumerations to Application Status descriptor
- [TPDMX-44](#) - Extend field length in several areas
- [TPDMX-46](#) - Add Staff Evaluation domains to the existing StaffSectionAssociation Interchange
- [TPDMX-64](#) - Add Survey Teacher Candidate Association
- [TPDMX-47](#) - Change Elements in the Program Degree entity to Unbounded

February 5, 2019 (v3.0.2)

This release is a refinement release, which adds new entities and elements, and corrects issues discovered in field work.

General Improvements & Enhancements

Noteworthy improvements and enhancements in the February 5, 2019 release include:

- [TPDMX-32](#) - Change PerformanceMeasure.RubricReference to unbounded

Additional changes included in this release are:

- [TPDMX-1](#) - Add Major and Minor to Teacher Candidate
- [TPDMX-3](#) - Add First Generation Student to Persons
- [TPDMX-4](#) - Add Economic Disadvantaged to Persons
- [TPDMX-5](#) - Add Application Event
- [TPDMX-6](#) - Add Prospect Type to Prospect
- [TPDMX-7](#) - Add Reference from TeacherCandidate to Applicant
- [TPDMX-8](#) - Change GPA to Collection
- [TPDMX-9](#) - Add Element to Capture Continuous Ed versus Prior Occupation
- [TPDMX-11](#) - Add Optional Reference to TC/Staff in Prospect
- [TPDMX-12](#) - Remove ProgramParticipation from TeacherCandidate
- [TPDMX-13](#) - Change PerformanceMeasure.PersonBeingReviewed to Required
- [TPDMX-14](#) - Add TeacherCandidate and Staff References to Survey
- [TPDMX-15](#) - Move GradeLevel in TeacherPreparationProviderProgram into TPPDegreeType, Make IsRequired
- [TPDMX-16](#) - Add CertificationExamDate and CertificationExamPassFail
- [TPDMX-17](#) - Add PerformanceMeasureInstanceDescriptor
- [TPDMX-18](#) - Add NumberAdministered to Survey
- [TPDMX-19](#) - Add GradeLevel to common type Vacancies