



CEDS and Ed-Fi Collaboration Guidelines

Introduction

From the inception of the Common Education Data Standards (CEDS) and the Ed-Fi Alliance, the two efforts have sought close collaboration and communication. This has been expressed in many ways including the CEDS development of the “Extend” functionality within the Domain Entity Schema to enable the incorporation of emerging Ed-Fi elements not yet in CEDS, the Alliance maintaining Ed-Fi mappings within the Align tool, and CEDS and Alliance staff comparing Assessment elements and actively adopting each other’s definitions.

There has been, however, a growing demand by the field to expand the data dictionary and models that lie at the core of their education data needs. This expansion in the data dictionary, tools to support, and implementation has made it more imperative to establish a closer and more integrated coupling of the CEDS and Ed-Fi data dictionary efforts.

Both initiatives agree to seek more formalized collaboration in the areas of new element development, existing element alignment, and synchronization of development and release cycles.

Background and Context: Organizational Mission and Goals

A precise understanding of each organization’s respective mission and goals, including identifying where they align and diverge is helpful and necessary both to provide clarity to our mutual stakeholders, and to guide the development of approaches and processes for closer collaboration, which are articulated later in this document.

The core mission of CEDS is to provide common element names and definitions covering the entire P-20W system, including the data LEAs and SEAs typically handle. CEDS has also described itself as *establishing and continuing to evolve as the “Rosetta Stone of education vocabulary.”* CEDS, in pursuit of this mission, is characterized by a “breadth” focus (across P-20W sectors), centered on developing and maintaining a **standardized vocabulary of data elements** organized and accessed through a user-friendly, non-technical hierarchy called the **Domain Entity Schema (DES)**, that in turn can be utilized and operationalized across the target sectors. CEDS invests in areas beyond the standardized P-20W vocabulary, including a **Normalized Data Schema (NDS)** as a reference implementation for operationalizing CEDS elements, and a suite of **tools** to support working with education data. CEDS also engages deeply with its **community** of stakeholders across the P-20W sector.

Ed-Fi’s core mission is to *operationalize the standardized exchange of data for the K12 sector*. In pursuit of this goal, the Ed-Fi Alliance has chosen to invest in the “full stack” of data standardization, which can be thought of as a “depth” approach. This starts with defining the **Ed-Fi Data Standard**, which consists of a logical data model (that references a data dictionary aligned to CEDS) – known as the **Ed-Fi Unifying Data Model (UDM)** – together with a **data exchange framework** that defines how the logical data model can be represented in concrete form (serialization) and the protocols and other requirements for movement of that data between systems (transport), for implementing standardized data exchanges.



The Alliance also invests in **open source technology and tools** that provide starter and reference implementations aligned to the data standard. Finally, the Alliance invests deeply in ongoing engagement with the Ed-Fi community of adopters and implementers in order to ensure the technology suite continues to serve administrators, teachers, and students.

Finally, it is worth noting that the missions of CEDS and Ed-Fi lead to some important procedural differences in how each develops and governs its respective standards artifacts. Given CEDS's goal to coordinate data definitions and naming broadly across the education sector, its standards artifacts may in some cases **precede** the technical field implementation (those artifacts seek to help stakeholders standardize aspects of their technical implementations). Given Ed-Fi's goal of operationalizing standardized data exchange, the standards produced by Ed-Fi will in most cases **follow** the examples and lessons from actual field work.

Opportunities for Collaboration and Differentiation

The obvious area for collaboration between CEDS and Ed-Fi is around the **definition and alignment of common vocabularies in overlapping sectors**. Additionally, CEDS and Ed-Fi have overlapping **communities of stakeholders**, and both organizations are committed to providing precise and informative information to serve these constituents.

The areas when CEDS and Ed-Fi are distinct and differentiated – and where care needs to be taken to avoid confusing our mutual stakeholders, or competing and/or duplication of effort - is how and where the commonly defined vocabularies are further refined and transformed into concrete implementations.

- Ed-Fi is focused on operationalizing standardized data exchanges in the K12 ecosystem to support student outcomes, **with a specific focus on data exchange between agencies and vendors and from vendor to vendor**.
- CEDS is increasingly focusing on leveraging CEDS vocabularies to **simplify federal reporting and aligning data vocabularies for coherence across various technical standards for the entire P-20W education ecosystem**.

From a technical perspective, the distinctions and differentiations are found in the CEDS *Normalized Data Schema* and Ed-Fi *Unifying Data Model & data exchange framework*.

Common Vocabularies - Collaboration Details

The following statements are meant as a guide to this closer coupling and collaboration in the development of elements and enumerations that will be included in future releases by either initiative. The overriding goal is to continue to ensure strong alignment and parity to existing elements and enumerations with the least amount of disruption to the education data community at large.

New Element Development

As the field identifies new use cases and element standardization needs and either initiative identifies gaps in their existing models, a collaboration will exist between the two groups to review what currently exists in the standards space and work collaboratively to standardize the development and definition of these new elements.



New Element Development Process Flow:

Has the element already been defined in CEDS or Ed-Fi? (In addition to reviewing the respective standards themselves, CEDS and Ed-Fi will reach out to the leadership of the other organization and will provide them with a list of prospective elements to determine if they already exist in the other model.)

1. If No – Determine interest in joint development. If the element(s) will impact the other model, joint development will take place to ensure consistency among the standards. If the elements will not impact the other model, confirmation will be provided that the development can proceed without any needed collaboration.
2. If Yes – An analysis will be conducted to determine applicability to the model. If any changes to the element name or definition need to take place, representatives from the two organizations will discuss the impact of these changes and determine the path forward
 - a. If the element as it stands is a direct fit – it will be incorporated
 - b. If the element as it stands needs to be adjusted to meet the need of the other organization and there is agreement to adjust the element, it will be adjusted and then incorporated.
 - c. If the element as it stands does not fit and cannot be adjusted due to potential disruption in the current standards one of two things will occur:
 - i. The reason for non-alignment will be documented, a difference will exist between the two standards around this particular element, and no further collaboration to bring them into alignment will be pursued.
 - ii. The reason for non-alignment will be documented, a difference will exist between the two standards around this particular element, and efforts will be made in future versions to slowly bring the two elements into alignment.

Existing Element Alignment

Both CEDS and Ed-Fi contain a large number of elements. In some instances, those elements are aligned one to one. In others, there are variations to the element name and/or definition. A collaborative effort will be undertaken to determine the differences between the two standards and document the work necessary to bring consistency where possible.

Existing Element Alignment Process:

1. Each organization will do a comparison of existing elements
2. Unaligned elements will be documented
3. Where unaligned elements can be eventually aligned, a path forward to arrive at that alignment will be documented.
4. Where unaligned elements cannot be aligned, due to the nature of specific and often diverse implementation needs, including needs derived from maintaining continuity with existing adoption of the standards in field work, the reasons for continued misalignment will be documented and periodically reviewed.

Synchronization of Development and Release Cycles:

As both initiatives are solely driven by the emerging needs of education data stakeholders, development and release cycles are very often driven by these demands. As such, there is not currently an established cycle that would enable institutionalized synchronization. Thus, the initiatives both commit to early and frequent communication regarding the development and release cycle for the current N+1 version.



1. As the current cycle is defined, each organization will reach out and communicate the development and release plans.
2. Both initiatives will seek to identify key points at which input will be most critical.
3. To the extent possible, release cycles will be coordinated in a way to reduce the lag time between release and incorporation of mutually desired elements.