Common Education Data Standards

CEDS 101

ies NATIONAL CENTER FOR EDUCATION STATISTICS
Institute of Education Sciences

A language is a **standard** form of **communication**.

Humans speak **many different languages**.

But, there are **certain things** we **all** need to **understand** and **communicate**.

For these, we need a

common language.

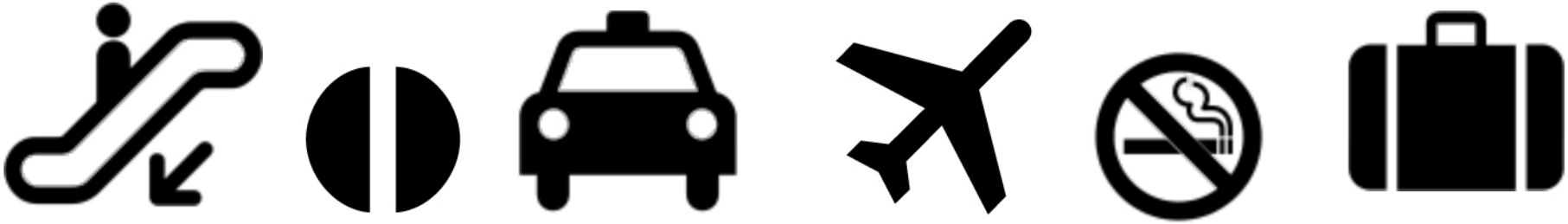
FOR EXAMPLE: Sign symbols

Imagine…

You arrive at an **airport** in a **foreign city** where an **unfamiliar language** is spoken.

How do you find your way?

Universal travel sign symbols
developed in the 1970s aided wayfinding.



What is CEDS?

A **vocabulary** including standard definitions, option sets, & technical specifications to streamline sharing and comparing information

A national collaborative effort to develop **voluntary**, **common** data standards for a key set of education data elements

Voluntary Common Vocabulary

CEDS is Not

- Required
- All or nothing
- A data collection
- An implementation
- Solely an ED undertaking
- A federal unit record system

What is an Education Standard?

A set of commonly agreed upon names, definitions, option sets, and technical specifications for a given selection of data elements.

FOR EXAMPLE: Address Type for Organization

"The type of address listed for an organization"

Reasons for a Common Vocabulary

1. **Accurate**, **timely**, and **consistent data** to inform decisionmaking
2. **Share & compare high quality data** within & across **P-20** sectors
3. **Decrease the staff burden** associated with deciphering data

Example 1

Imagine...

A **child** from
Early Learning Program A also enrolls in **Early Intervention Part C services** that use a **different education data standard**.

Here's a child:

Matthe
SmithIII
Race = Guamanian
Gender = M

Did you mean:

Matthew ?
Smith ?
Suffix = III ?
Race = NHOPI ?
Sex = M ?

Example 2

Imagine...

A **student** from a
high school in State A enrolls in a
university in State B that uses a
different education data standard.

Here's a new student:

Jonatha
TsumuraII
Race = Japanese
Gender = M

Did you mean:

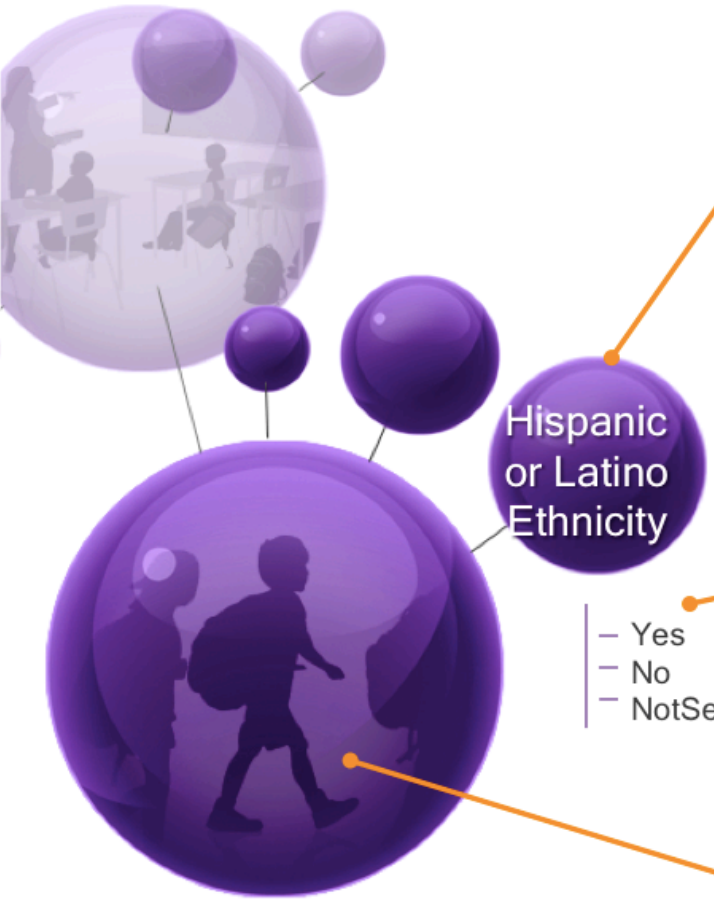
Jonathan ?
Tsumura ?
Suffix = II ?
Race = Asian ?
Sex = M ?

When both provider and recipient use the standard **in the defined way**,

there is a **common understanding** on the intended meaning.

CEDS Anatomy: The Basics

Standard Information: The Basics



Element

Definition

Option set

Domain

Entity

Element Details (press "ESC" key to close)

Hispanic or Latino Ethnicity

Definition

An indication that the person trace
Central and South America, and o

Usage Notes

K12: Use cases support Yes and N
Selected as options - As defined ir

Option Set

Description	Option
Yes	Yes
No	No
Not selected	NotSelected

Related Entities and Categories

Adult Education -> AE Participant
Early Learning -> EL Child
Early Learning -> EL Staff
K12 -> K12 Staff
K12 -> K12 Student
Postsecondary -> PS Staff
Postsecondary -> PS Student

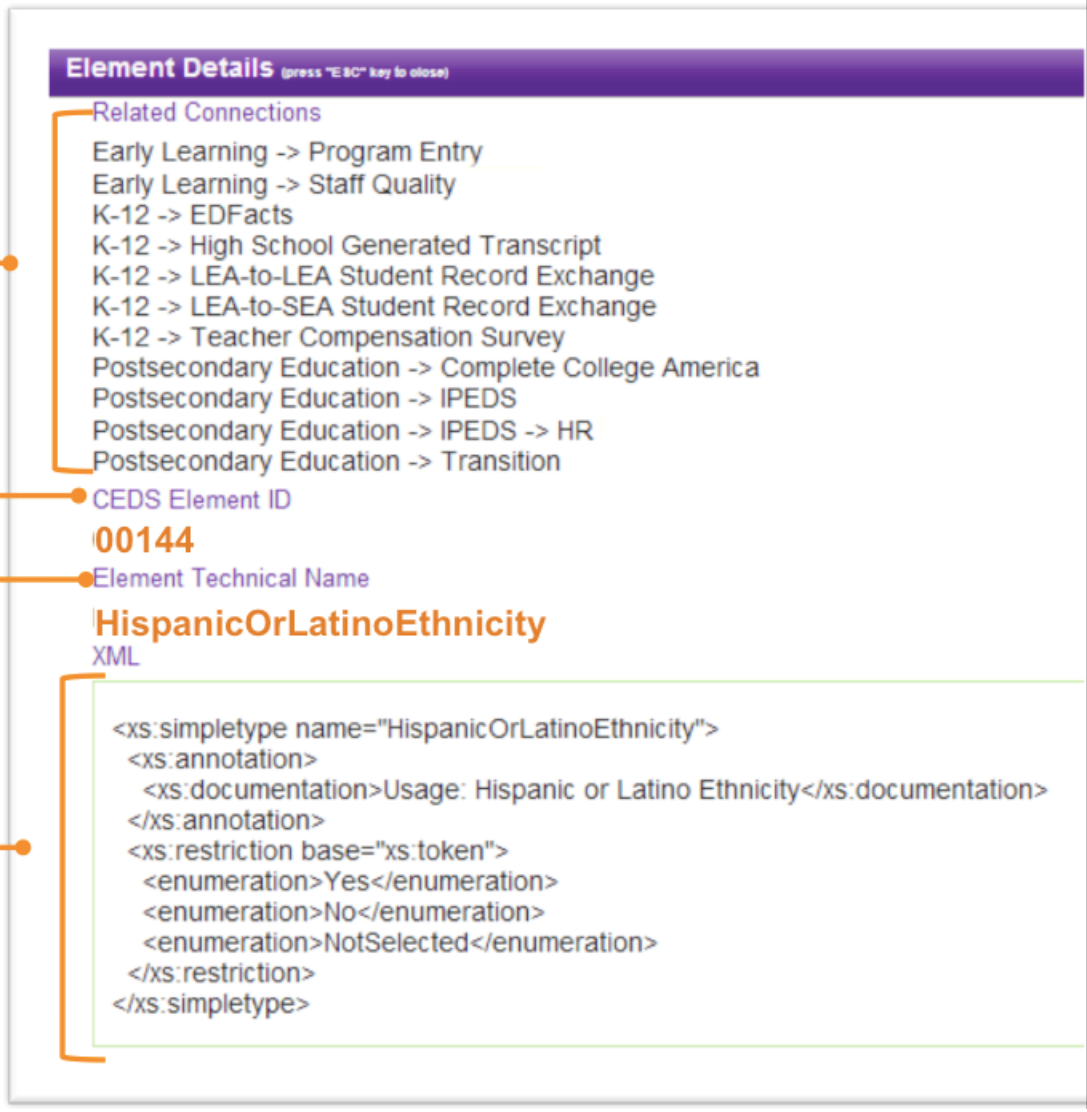
Standard Information: The Basics (cont.)

Related Connections

CEDS Element ID

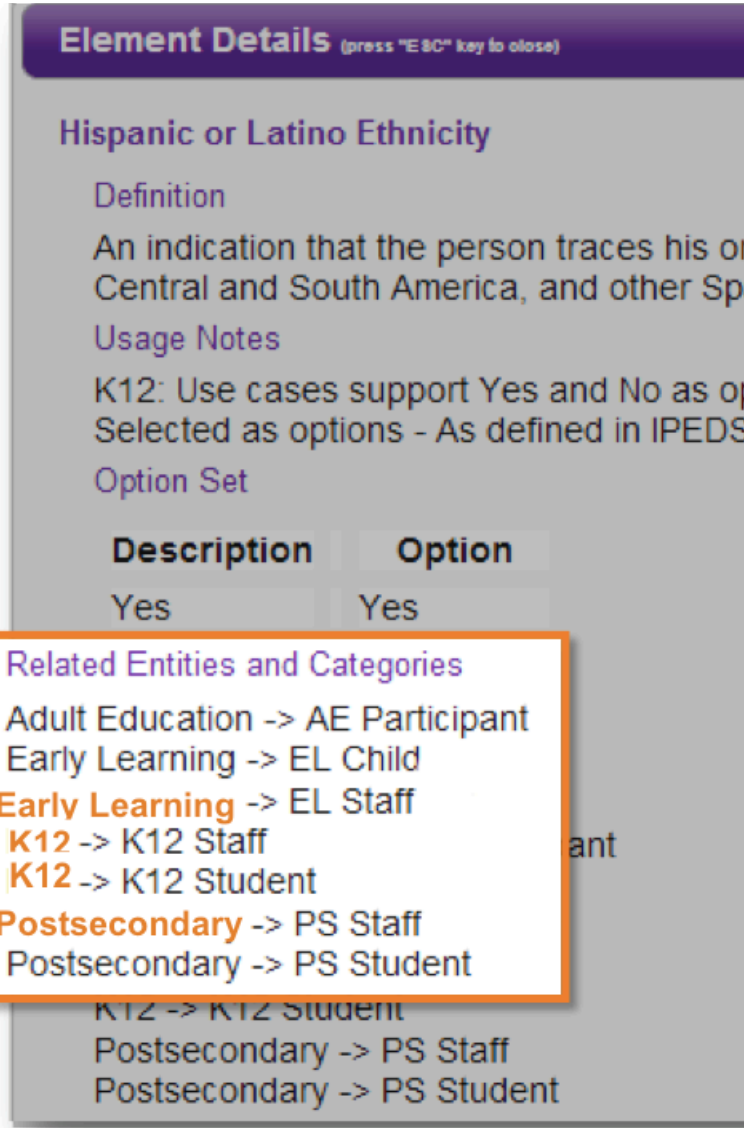
Element Technical Name

XML



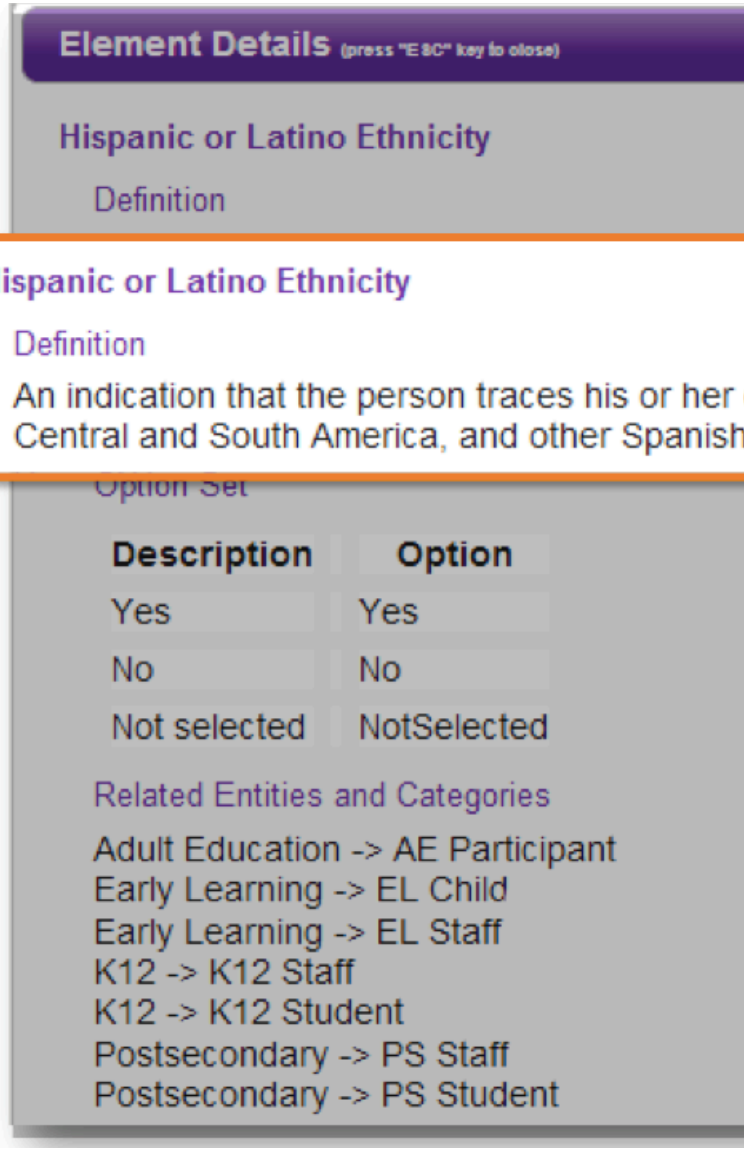
Domain

- Management level at which the data are maintained.
- Some correspond with **sector(s) of P-20 system**.
- CEDS v3 contains **9 domains**
  - → Early Learning
  - → K12
  - → Postsecondary
  - → Adult Education
  - → CTE
  - → Workforce
  - → Learning Resources
  - → Assessments
  - → Learning Standards



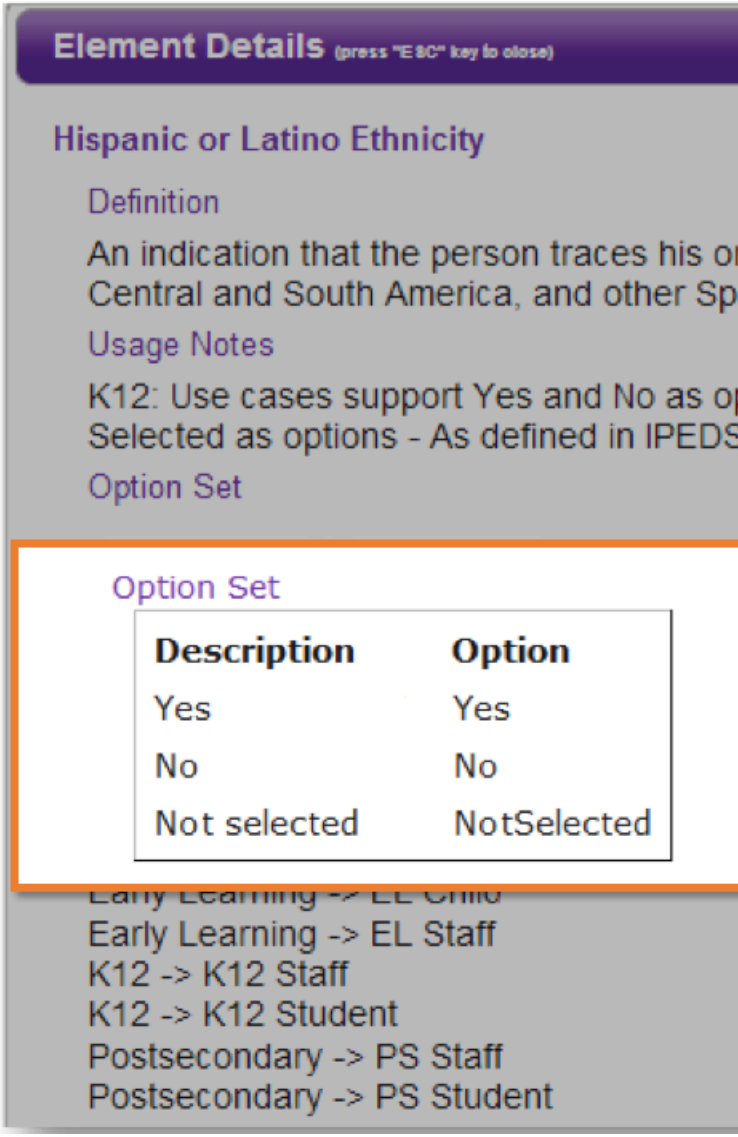
Elements

- **Attributes of entities**, and **units of data** that can be **defined** and **measured**.
- Two parts:
  - → **Name**: Common text name for the element
  - → **Definition**: A statement of the meaning or significance of an element



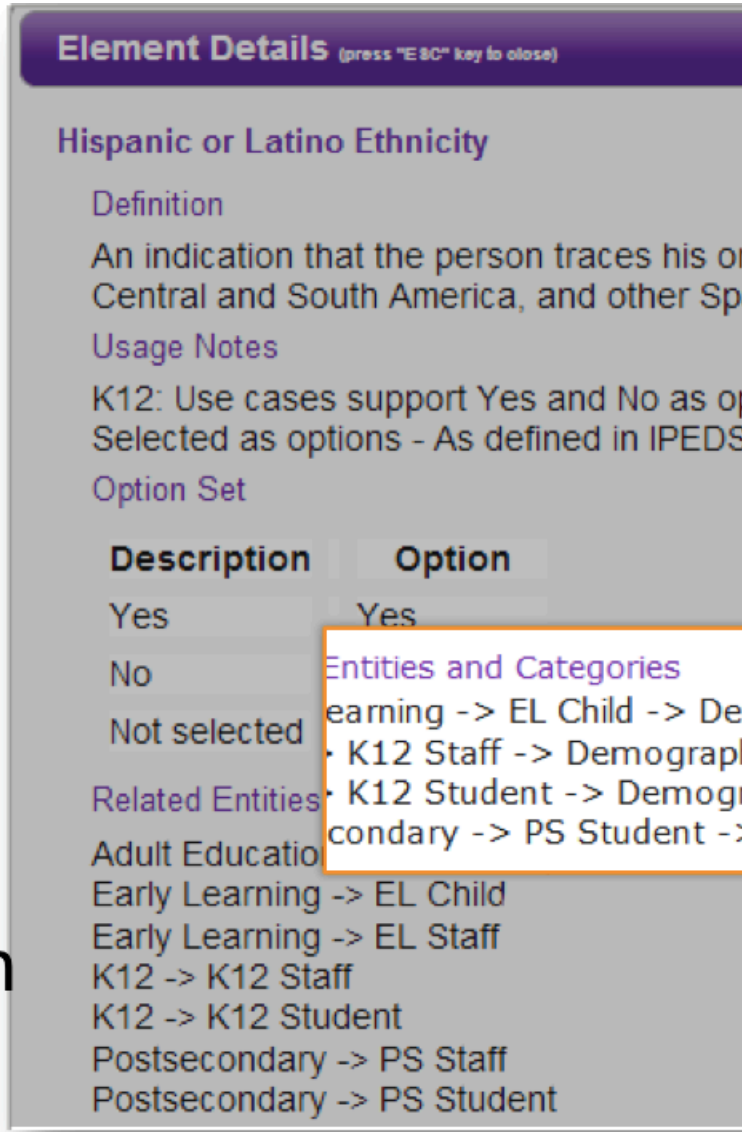
Option Set

- Provide **recommended alternatives** or **responses** for an element.
- Can be:
  - → **standard set of options**:
    Ex) LANGUAGE CODE
  - → **open-ended**:
    Ex) FIRST NAME



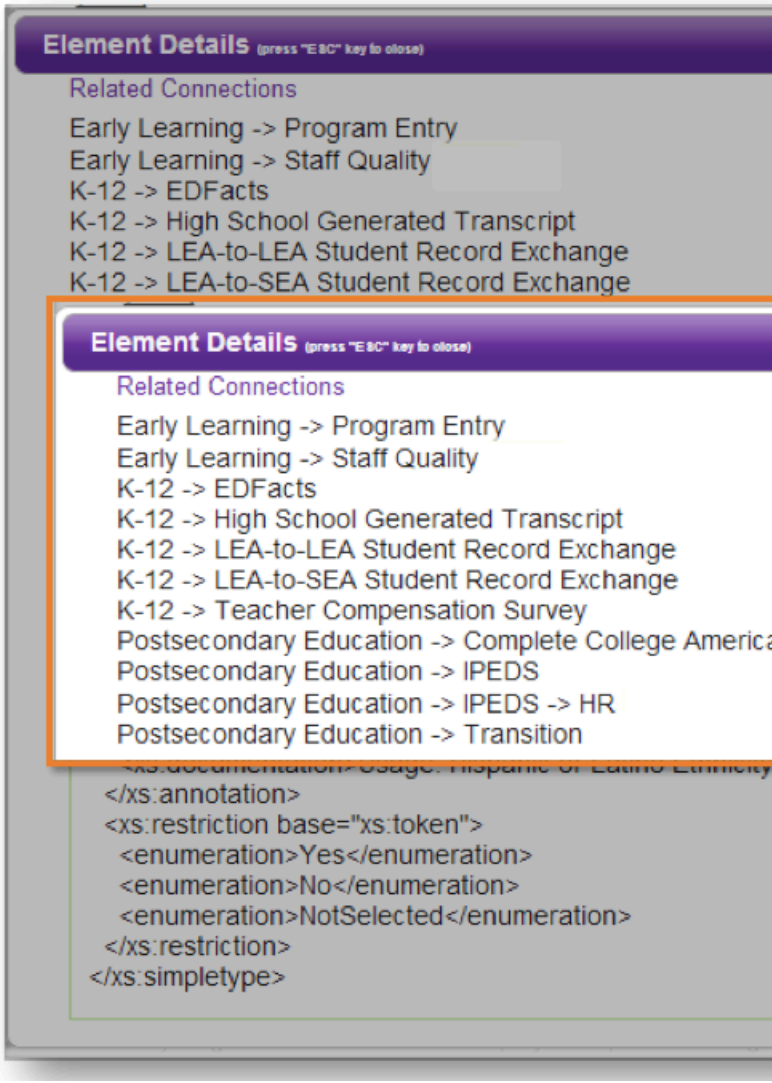
Related Categories & Entities

- **Persons**, **places**, **events**, **objects**, or **concepts** about which data are collected.
- **Provide context** for the data elements.
- Examples:
  - → Student
  - → Staff
  - → School
  - → EL Child
  - → Assessment
  - → Organization



Related Connections

- **Real-world applications** for which an element can be used to support.
- Examples:
  - → ED*Facts* & IPEDS reporting
  - → LEA-to-LEA Student Record Exchange
  - → High School Generated Transcript

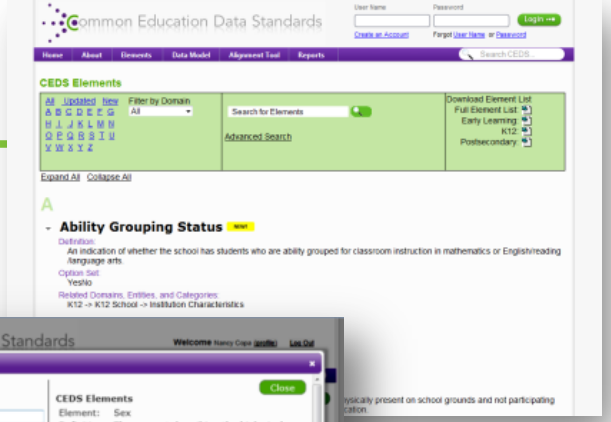


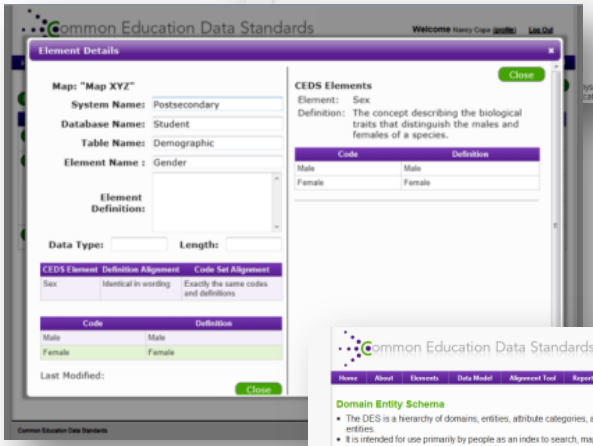
CEDS TOOLS

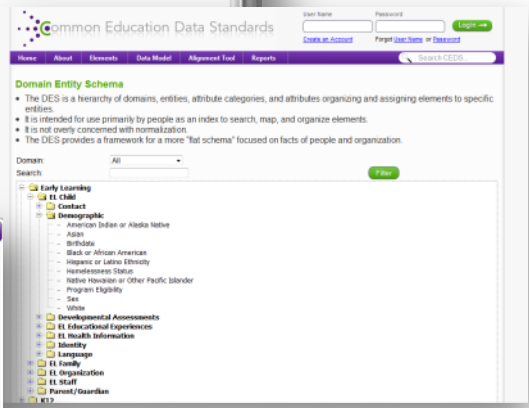
CEDS Tools

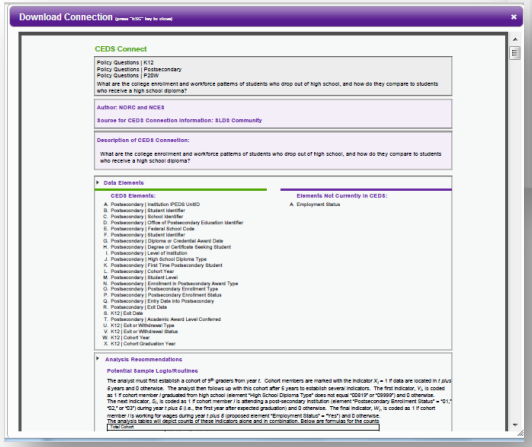
- A Robust & Expanding **Common, Voluntary Vocabulary** drawn from existing sources

- Powerful Stakeholder **Tools & Models**
  - Connect
  - Logical Data Model
  - Align



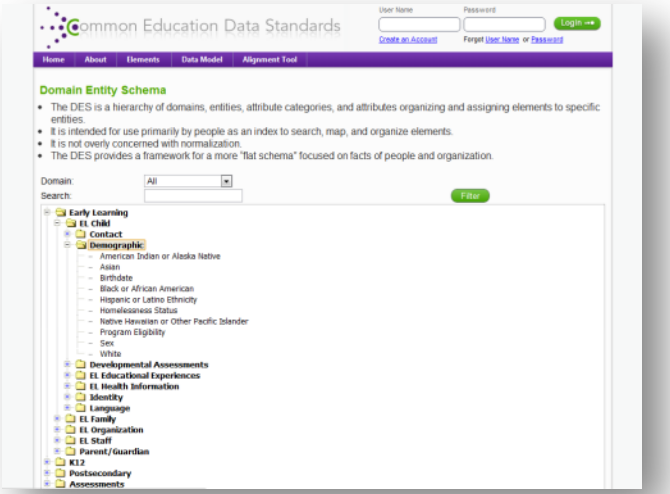






CEDS Logical Data Model

- Provides a **high-level framework** for translating standards into physical models
- **System-agnostic** representation
- **2 distinct views:**
  - Domain Entity Schema
  - Normalized Data Schema



Align

Web-based tool that allows users to

- **Import** or input their data dictionaries
- **Align** their current data to CEDS
- **Compare** themselves with others
- **Analyze** their data in relation to various other CEDS-aligned efforts

Connect

- Generates specific and relevant maps to a growing pool of CEDS aligned use cases
- Allows stakeholders to generate specific and relevant maps to a growing pool of CEDS "connections"

Stakeholders from varied types of educational organizations can use the tool to

- **answer** policy questions
- **calculate** metrics and indicators
- **address** reporting requirements

Who's Involved

CEDS v3 Stakeholders

- **State Agencies**
  - State Education Agencies
  - State Higher Education Agencies
  - Social Services Agencies
- **Local Education Agencies**
  - K12
  - Head Start
  - Social Services
- **Institutions of Higher Education**
  - Public
  - Private
  - Community Colleges

CEDS v3 Stakeholders (cont.)

- U.S. Department of Education
  - NCES (SLDS, IPEDS, Forum)
  - EDFacts
  - Office of Educ. Technology
  - Financial Student Aid
  - Office of the Undersecretary
  - Special Education
- U.S. Health and Human Services
- U.S. Department of Labor
- Interoperability Standard Organizations
- Education Associations
- Foundations

Engage with CEDS

http://ceds.ed.gov

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