

Chapter 5

Setting Up Education–Based “Crosswalk Analyses” on an Online Survey Platform

ABSTRACT

Practically, crosswalk analyses in education may be used to identify gaps for decision making and program planning, enable cross-system comparisons, promote cross-disciplinary work, and others. Often, crosswalk analyses require the expertise of a cross-disciplinary and/or distributed team. Setting up a crosswalk analysis on an online survey platform stands to benefit this collaborative work in ways that are more powerful than a co-edited shared online file. This chapter describes some ways to set up education-based crosswalk analyses on an online survey platform and highlights some online survey features that can enhance this work.

INTRODUCTION

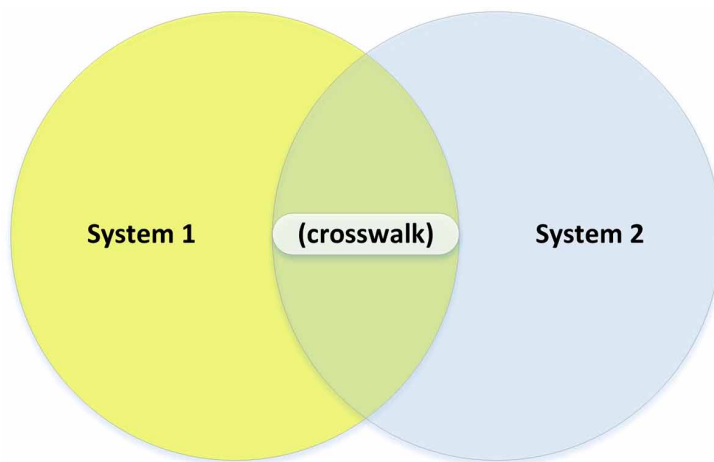
“Crosswalk analyses” are a fairly modern analytics approach which maps the granular elements of one system with those of another. One common approach is to map one database schema to that of another, so the data from both databases can be melded and somewhat interchanged. Outside of database administration, though, crosswalk analyses are used in a more loosely coupled way to map one system to another laterally (in one direction), and these may include schemas, ontologies, taxonomies, frameworks, standards, compliance criteria, performance criteria, datasets (including structured and semi-structured data), and others.

DOI: 10.4018/978-1-5225-8563-3.ch005

Setting Up Education-Based “Crosswalk Analyses”

A “crosswalk analysis” bridges between at least two systems to identify commonalities and differences (comparisons and contrasts) between them, in order to enable integration of datasets, programmatic gaps analyses, cross-disciplinary work, and other applications. The systems compared include a range of content types, including schemas, ontologies, taxonomies, frameworks, standards, compliance criteria, performance criteria, datasets, and others. Crosswalk analyses are considered efficient because they maintain the integrity of the compared systems—by keeping the terminology and phrasing verbatim—by showing connectivity at a basic unit level of analysis for each respective system. As such, they do not break down silos but connect “content silos” (Johnston, June 22, 2015). [Note: Such crosswalk analysis bridging can also occur more abstractly or at a higher level of abstraction, but for usability, the precision at the most granular units of analysis seem to be preferable. These have also been referred to as “equivalent elements” (“Schema crosswalk,” Sept. 28, 2018).] The innovation of this analytic technique is in the crosswalk, and the overlap between the systems is somewhat interpretive (and defined by the objectives of the crosswalk analysis). The crosswalk itself is partial and selective and does not include all potential overlaps between the two disparate systems. (Figure 1) Or, not all overlaps between two systems will likely be seen as relevant. This is not to suggest that some crosswalks may not be comprehensive, and in some cases, that level of detail may be required and often depicted in a crosswalk analysis matrix.

Figure 1. A Venn diagram analogy to the crosswalk analysis



A Venn Diagram Analogy to the Crosswalk Analysis

11 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/setting-up-education-based-crosswalk-analyses-on-an-online-survey-platform/227252

Related Content

Data Mining Techniques for Social Network Analysis

Vijayaganth V. (2019). *Cognitive Social Mining Applications in Data Analytics and Forensics* (pp. 25-40).

www.irma-international.org/chapter/data-mining-techniques-for-social-network-analysis/218390

Robust Econometric Methods for Anomaly Detection in High-Dimensional Economic Data

Fandi Fajar Maulanaand Binastya Anggara Sekti (2026). *Robust Methods for Anomaly Detection in Econometrics* (pp. 135-164).

www.irma-international.org/chapter/robust-econometric-methods-for-anomaly-detection-in-high-dimensional-economic-data/403078

Unveiling the Factors Influencing Dengue Fever Spread and Forecasting Future Epidemiology Through Path Analysis: Regression Model

Wiwik Anggraeni, Nisrina Nur Mahmudha, Pujiadi Pujiadiand Mauridhi Heri Purnomo (2024). *Recent Trends and Future Direction for Data Analytics* (pp. 96-118).

www.irma-international.org/chapter/unveiling-the-factors-influencing-dengue-fever-spread-and-forecasting-future-epidemiology-through-path-analysis/347267

Data Science Techniques in Knowledge-Intensive Business Processes: A Collection of Use Cases for Investment Banking

Mathias Ledererand Joanna Riedl (2020). *International Journal of Data Analytics* (pp. 52-67).

www.irma-international.org/article/data-science-techniques-in-knowledge-intensive-business-processes/244169

Dataset

(2017). *Comparative Approaches to Using R and Python for Statistical Data Analysis* (pp. 78-82).

www.irma-international.org/chapter/dataset/175145