Data Advocacy Group

The Texas Association of Teacher Educators (TxATE) hosts a Data Advocacy group that helps educator preparation programs (EPPs) get and analyze the highest quality data possible to inform continuous program improvement decisions that increase the quality and effectiveness of new Texas teachers. This newsletter is provided to member EPPs by Dr. Jim Van Overschelde at Texas State University (jimvano@txstate.edu), the group's chair.

Teacher Preparation Data Model

The Ed-Fi Data Standard is an open-source "set of rules for the collection, management, and organization of educational data that allows multiple systems to share their information in a seamless, actionable way" (Ed-Fi Alliance). The Teacher Preparation Data Model (TPDM) is an extension of Ed-Fi that is designed specifically for educator preparation programs (EPPs). Mark Olofson, Director of Educator Data and Preparation Program Management at TEA, presented the concept behind the TPDM data model at the 2019 NCES STATS-DC Data Conference in Washington DC with great interest and excitement expressed by the 100+ people from state education agencies across the USA. TPDM is starting to look like a possible long-term future for EPP data in Texas.

How will TPDM benefit you and your EPP?

In the future, I envision TPDM could look something like this:

- A teacher candidate applies to your EPP and is admitted – your TPDM-based data system automatically and securely sends the admission information to TEA (e.g., certification, GPAs, name, date of birth).
- You want to know how candidates are performing during clinical teaching so you open a data dashboard of summary data and drill down to student-level data.
- You want to know how many of your completers are employed, so employment data from TEA are downloaded directly into your system and you see employment data on a data dashboard.

The Bill and Melinda Gates Foundation and the Michael and Susan Dell Foundation recently provided funds to help the Texas Education Agency implement the TPDM model. An updated request for proposal (RFP) hit the street in May 2020 and a vendor should be selected soon.

Application program interfaces (APIs) between university student information systems and Ed-Fi/TPDM are also being developed so data can be automatically moved into TPDM. A proof of concept is currently being conducted at University of Texas Rio Grande Valley, and at Texas State University.

I recently installed Ed-Fi and TPDM on a test SQL server at Texas State. Mapping source data (e.g., Pearson TExES data; Banner student data) into TPDM will be a slow and

meticulous process. Until APIs are available, I am writing SQL code to extract data from the different source systems into TPDM. My goal is to share this code with other Texas EPPs once validation and testing are complete.

"Actionable" Data

EPPs need data to improve program quality. I know most programs understand data quality, but I have rarely heard programs talk about the *actionability* of their data. Actionable data are data that can be directly linked to one or more aspects of your EPP and that helps you know how to change that aspect of your program.

For example, knowing the percentage of your candidates who passed the math domain of the EC-6 Core Subjects examine is highly interesting but NOT actionable. These scores are not actionable because the Math domain consists of nine different math knowledge components and competencies from Number Concepts to Patterns and Algebra, from Geometry and Measurement to Probability and Statistics, and from Math Instruction to Math Assessment. You cannot know which class or classes need to be changed based on the overall or average percentage correct.

To make changes to your program's curriculum, you must at least know, for example, (a) how each candidate did on the Geometry and Measurement competency, (b) which Math class this content was "supposed" to be taught in, (c) how each candidate performed in that Math class, (d) how to accurately link all of the TExES and class data together, and (e) how to statistically analyze the linked data so you can determine whether the course results predict the TExES results.

If there is no relationship between the candidate's grade and the candidate's TExES performance, then consider adding an assessment at the end of the particular Math class that directly relates to the Geometry and Measurement competency. This assessment will help determine if the content is being learned by candidates.

If there is a positive relationship (higher grades associated with higher TExES scores), then the content may need to be reinforced in subsequent classes (e.g., Math pedagogy). If there is a negative relationship (higher grades associated with lower TExES scores), then you need to determine what is actually being taught in the class – the course content may be problematic (e.g., content taught incorrectly).

Public Information Requests

If you need data for EPP improvement efforts that TEA holds, then one possible way to get access to those data is through a Public Information Request or PIR. TEA is required by law to respond to PIRs and to give you most data you request. However, there may be a cost associated with the request, and some data are excluded under state or federal law (e.g., data about students taught by your teachers).

You can, for examples, request employment data for all educators who completed your EPP in the last 10 years or you can request all of the principal survey data for your new teachers since 2011 with each teacher's TEA ID included.

There is an art to writing PIRs to reduce the cost and to increase the quality and actionability of the data. To reduce the costs associated with the request, cite state statute or administrative code. For example, Texas Education Code (21.045(b)(3)) requires EPPs to report "the number of candidates retained in the profession." This means your EPP must know which candidates were employed. Because TEA holds teacher employment data, TEA must share the data with you so your EPP can comply with state law.

Always submit your candidates' TEA IDs and request that these IDs be included with the data they provide back to you. For example, when requesting teacher employment and role data, specify that you want the TEA ID associated with each teacher do you link their data with your data. This shared ID allows for higher quality matching with your data.

It is also important to be specific about the data you want. Review the Texas Education Data Standards for information about available data held by TEA. When I request educator employment data I ask for teacher and administrator employment data, employment roles (e.g., teacher, reading specialist, principal), teacher-class assignments, and the associated code files so I can interpret the cryptic service, role, and subject codes in the data.