Using Data for Program Improvement:

A Study of Promising Practices in Teacher Education

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Project Overview
We surveyed and visited teacher preparation programs around the country from 2011 through 2014 to learn more about the ways programs are using various kinds of outcome data for the purposes of improving local policy and practice. Click here to learn more about the project, including the methods we used to identify the programs we studied, the kinds of data we collected, and the ways in which we used these data to generate the materials we present here.

Program Portraits
In this section we present “portraits” of three programs that are situated in very different institutional contexts, each of which has developed strong organizational policies and practices related to using data for program improvement. Click each of the program portraits to read further:

Alverno College:
Creating Organizational Supports for Collaborative Inquiry

East Carolina University:
Using Data for Program Improvement

University of California, Santa Barbara:
Building Programmatic Capacity for Innovation and Change

Data Use Problems of Practice
Our visits to teacher education programs around the country revealed several thematic “problems of practice” these programs encountered in their efforts to use program outcome data for improving their practice. Here we describe some of the strategies we observed programs use to engage five recurring challenges they encountered in using data for program improvement. Click on each to read more:

Motivating and Engaging Faculty
Making Time and Space for Data Use
Building a Useful Data Platform
Creating a Common and Concrete Language of Practice
Managing the Dynamics of Dissent
Data, Data Everywhere…

Life in teacher education is now replete with new opportunities for “data use”. State and federal policy mandates, new CAEP accreditation standards, and the dramatic expansion of technologies for collecting and analyzing program outcome data have all converged to create unprecedented possibilities, and pressures, for teacher education programs to become more data-driven. At the same time, it is easy to be overwhelmed by the intensifying policy requirements around “data use”—and easy to experience these as mandates for accountability rather than opportunities for inquiry, learning and program improvement. In these documents we describe how some teacher education programs around the country have created ways to leverage many of these contemporary policy pressures to serve their own values, and to support their local efforts to use new data sources to improve their practice in ways they find meaningful.

The programs and practices we describe here are based on interviews and site visits we have conducted with teacher education programs around the county from 2011 through 2014. These observations and conversations have affirmed the importance of what Brown and Duguid (2000) have referred to as “the social life of information”. We have learned that evidence-based program improvement is constructed through a complex and dynamic process of interaction between the values, beliefs and identities of the people involved, the tools used to collect, analyze and represent program outcomes, and the policies and practices of teacher education programs as organizations (McDiarmid & Peck, 2012). We more fully define each of these dimensions of the data use process below, and describe some of the ways they are reflected in the practices of the programs we have visited.

People

Information systems do not stand outside of the webs of meaning that faculty construct about their work, both individually and collectively. Although we certainly would have affirmed this general proposition at the outset of our research, we have come to view engagement with issues of individual and collective motivation and identity as pivotal to the design, implementation, and use of information systems. In many of the programs we have studied, faculty are quite aware and often reactive to the negative rhetoric that so often accompanies policy mandates around accountability in teacher education. Consequently, one of the most substantive challenges for academic leaders faced with having to implement these kinds of policy mandates is how to frame the work in ways that reflect faculty values and beliefs. The common ground we found across the most successful programs we studied was that the work of data use was framed in terms of inquiry, rather than compliance (Peck, Gallucci, & Sloan, 2010). We also found a number of key faculty who, while highly resistant to the idea that their program needed “fixing”, were quite open to the idea that it might be improved. An essential “people”-related task then, is to design the work of data use in a way that reflects the values and goals of the local faculty—both as individual teachers, and as an intellectual community.
Tools

One of the problems that often sustains faculty conviction that local programs are not in need of renewal and improvement has to do with the nature of data available on program outcomes. Historically, program outcome data in many teacher education programs has been limited to satisfaction-type surveys collected with graduates and employers. Although these very general measures may indeed indicate some chronic areas of program weakness (e.g., preparation of candidates to work with English language learners and children with disabilities), they are often insensitive to both the need and the opportunity to make specific changes in the program. The development of new tools for evaluating program outcomes (including standardized performance assessments, graduate placement and retention data, or “value-added” measures) may allow faculty to see the program in new ways that challenge their assumptions about what candidates are learning. In one program we observed in our early work, a senior and highly influential member of the faculty was heard to exclaim, during a program wide presentation of follow along observations that showed that candidates were not using the instructional strategies he had taught them: “This changes everything!” It is at this point that the dynamics of faculty motivation and engagement related to program renewal and improvement can begin to change.

Organizational Policy and Practice

During the course of our site visits, we came to appreciate the many ways in which organizational policies and practices could function as supports (or barriers) to the use of data in program decision-making. For example, we noticed that programs in which new sources of data were effectively used as tools for program evaluation and decision making were also places in which academic leaders were extremely thoughtful and strategic in planning meeting activities. Data were carefully organized and prepared for these meetings in ways that made program outcomes visible and interpretable for faculty. This often involved considerable investment of staff time needed to disaggregate data reported from the state or from testing companies in ways that made the information more relevant and useful for program decisions. Unfortunately, most of us have experienced examples of meetings in which this kind of strategic planning and preparation has not occurred—with the predictable result that faculty become overwhelmed by the data, and struggle to create a meaningful and useful process of analysis, evaluation and decision making.

Leadership: Connecting People, Tools and Organizational Practices

Ultimately, it is the work of leadership that orchestrates the connections between people, tools and organizational practices that are so vital to the energetic and creative work that is going on in the programs we have visited around the country. The leadership roles, responsibilities and practices we have observed in these programs are highly “distributed”. That is, it is not only deans and directors who lead in these programs—the responsibilities of leadership are taken up by faculty, field supervisors and cooperating teachers who are equally engaged in navigating the challenges of contemporary accountability policies in ways that make these policies work for and not against the values of their programs. In the three program “portraits” and five “problems of practice” briefs that follow, we describe some of the promising practices we have observed in programs we visited around the country. These practices are not intended to be prescriptive—but rather to help readers get a sense of how others have engaged some of the most common challenges of using data to improve their programs. In a sense, all of these practices have at their core the goal of making programs places where people learn... individually, and collectively, how to better prepare teachers.
The Programs...how we selected them, and how we learned from them

In the early phases of our work we developed a list of teacher education programs identified as potential examples of “high data use” practice on the basis of PEDS survey data collected through AACTE, as well as nominations collected through contacts with other national organizations involved with teacher preparation (e.g., TPAC, NCATE). From this list we selected 16 programs for follow-up telephone interviews with program administrators (deans and directors of teacher education) in which we inquired directly about the extent to which each program was engaged in regular data use activities related to program improvement. These programs were selected to represent a variety of institutional characteristics and state policy contexts—including programs located in states that used “value-added” methods (VAM) for assessing the impacts of teacher preparation on standardized tests of P–12 student achievement, and others situated in states involved in implementation of standardized teacher performance assessments (e.g., edTPA).

Based on these initial phone interviews we selected 10 programs that reported particularly vigorous efforts to develop organizational policies and practices supporting the systematic use of outcome data for program improvement. We included programs situated in a variety of institutional contexts, including large public universities, research-intensive universities, small private colleges and an alternative route program administered by a non-profit agency. We conducted one to two day site visits for each of the ten programs in which we interviewed program faculty and administrators, and collected a variety of artifacts documenting program practices in an effort to learn more about how the programs supported data use activities. From these data we selected three of the ten programs, representing variation in both institutional mission and state policy context, for extended study. Over the following two years, we conducted two to three additional site visits, as well as multiple phone interviews and email exchanges with program faculty and administrators in an effort to more fully document the ways in which each of these programs supported systematic and ongoing activities in which outcome data were systematically used to improve program policy and practice.

Our analysis of what we were learning began with reviewing interview transcripts, field notes and documents we had collected from each of the 10 programs we visited. We identified themes we observed across the programs, as well as unique features of each specific program. One of the important things we learned was that successful data use practices, like other domains of practical activity, were often about the inventions and adaptations program faculty and administrators made to the specific contexts in which their program operated. This led us to invite colleagues from each of our extended case study sites to develop “Program Portraits” of their own work, focusing specifically on their ways of using data for program improvement. While each program team relied in part on data we had collected in the project as a resource for their writing, we encouraged each program team to focus on what they had experienced as most valuable and important in their data use work.

At the same time, we were struck by the thematic nature of several problems of practice related to data use that we observed across multiple sites in our study. These included issues like developing data platforms that are actually used by faculty, making time and space for data use work, and building a common and concrete language of practice. This led us to draw upon examples of practices we observed in one or more of the ten programs we visited that we thought others might find useful in working each of these problems. We have called these “Problems of Practice Briefs”. It’s worth noting that these practices should be understood as “promising” in the sense that they have appeared to have been effective in one or more programs—but are by no means “evidence-based” in the sense of having been subjected to rigorous evaluation and replication.

References

