Using Data for Program Improvement:

A Study of Promising Practices in Teacher Education

Charles A. Peck, Morva McDonald, Susannah Davis
University of Washington

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 PlatformCreating a Common and Concrete Language of Practice

Managing the Dynamics of Dissent

A collaboration of:

AACTE American Association of Colleges for Teacher Education Serving Learners

University of Washington

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

Brown, J., & Duguid, P. (2002). *The social life of information*. Cambridge, MA: Harvard Business School Press.

McDiarmid, B, & Peck, C. (2012). Understanding change in teacher education programs. Paper presented at the annual meeting of the American Educational Research Association. Vancouver, B.C. April.

Peck, C. Gallucci, C. & Sloan, T. (2010). Negotiating implementation of high-stakes performance assessment policies in teacher education: From compliance to inquiry. *Journal of Teacher Education*. 61(5), 451-463.

Building Programmatic Capacity for Innovation and Change

By Tine Sloan & Jennifer Scalzo, University of California, Santa Barbara

"One of the things that, for me, animates all the work, keeps it moving, is the flexibility and purpose that is true of most of these conversations...What I mean is, it's always possible that a conversation is going to break into a questioning of our purposes, like 'What are we doing here in teacher ed?' It's always possible that the conversation becomes 'What counts as good teaching?' That's a big deal. I'm always excited about that conversation. It keeps it moving. The possibility, the flexibility of the purposes of these conversations means that they're alive. The end goal isn't inert. 'Animate' may be the right term. In the process of trying to figure out whether or not this one student is minimally competent, we might wind up having to talk about what we think it means to be a teacher educator. That's pretty cool. That keeps it alive."

- UCSB faculty member

Creating a Culture of Inquiry to Facilitate Change

A challenge for teacher education is to design programs and practices that successfully attend to the complexity, inquiry-orientation, and integrated nature of effective K-12 teaching. The UC Santa Barbara faculty has always operated with attention to this challenge, but how individual faculty understand their practice in relation to these ideals, and how they understand the program in relation to these ideals, has changed dramatically over time with the use of candidate data. The data have anchored faculty understandings in evidence of practice.

Initially the type of data that promoted change was generated from a teaching performance assessment* (TPA) that offers a slice in time of authentic teaching, and requires candidates to integrate their learning from multiple places in their preparation program. Through collaborative inquiry into TPA evidence, faculty strengthened their individual practice and connected their practice to others' in new ways. In addition to creating a more cohesive, integrated experience for candidates, the faculty's expanded understanding of their work has created a culture where our work is extremely responsive to new innovations; where programmatic change is fluid and daresay "easy". In part this is due to the ways faculty understand their practice in terms of the program whole. In part it is because they operate within a programmatic culture of inquiry—fed by evidence of candidate practice—which has generated a collective motivation to grow and innovate and improve. The work keeps moving, we get better, and we have evidence of that.

**The program used the PACT TPA (www.pacttpa.org) for over a decade and recently piloted the edTPA (www.edTPA.aacte.org)*

Who We Are

The University of California at Santa Barbara (UCSB), one of ten campuses in California's public research university system, is mid-sized (20,000 students and 1,000 faculty), whereas the Teacher Education Program (TEP) is relatively small (75 to 115 candidates and 35 to 40 faculty with part-time roles). Housed within the Gevirtz Graduate School of Education, the TEP faculty is comprised of approximately 40% tenure-track faculty, 20% doctoral students, and 40% instructional and supervisory adjuncts. Known to be rigorous and selective, the 13-month post-baccalaureate program offers graduate students a California teaching credential in elementary, secondary, or special education, and an optional Master's degree in education.

UCSB is a big university in a small town, affording the opportunity for close relationships with community schools, where several administrators and teaching staff are themselves graduates of the UCSB program. The K-12 population is comprised primarily of students of Hispanic or Anglo ethnicity, and second language learners comprise anywhere from 25 to 80% of the students in UCSB partner schools. It is a rich and responsive environment for preparing California teachers.

The university's highly research-oriented culture poses a number of challenges to professional preparation efforts including resource justification, research faculty engagement, and the need for adjunct practitioner faculty. It also creates challenges to a democratic discourse amongst faculty whose work is valued in different ways within and outside the program. At the same time, it's an environment supportive of research into the efficacy of program, faculty, and candidate practice. The attention to the particular challenges and supports of the R1 environment has been key to developing a culture of inquiry that supports a cohesive, integrated, and highly functioning TEP.

Three Promising Practices, Two Points of View

The following portrait tries to capture elements that were and are important to creating the culture of inquiry and interdependence that we now operate within. It considers the elements of organizational supports, the tools that generate particular types of data, and the people who do the work. It considers the importance of creating shared understandings of what evidence reveals, a common language to talk about the evidence, the collaborations that cross-cut practices (supervisory, research, and instructional practice), and the motivation not only to link the elements of teaching we focus on for the purpose of preparation, but to carefully consider and create processes to help candidates integrate these elements when they teach.

Promising Practice 1: Scoring Teacher Performance Assessments

PACT scoring is campus-based and requires extensive training and calibration for the faculty who score the work. edTPA is centrally scored but there is a local evaluation option as well. While some campuses have delegated scoring to non-faculty staff, the UCSB faculty have maintained a model whereby everyone—including tenure line faculty, doctoral students, and part-time instructional/ supervisory faculty—score candidate work samples from PACT and/or edTPA.

Director View

Everyone Scores, Everyone Benefits
The purpose for having everyone score arose initially out of a fairness issue but quickly morphed into valuing the learning that calibration and scoring afforded each of us. Calibration requires a collaborative inquiry into candidate work, whereby faculty can discuss evidence vis-à-vis the rubrics. A key to the process is the ability to examine a common sample of candidate work in groups of faculty whose roles crosscut program functions (i.e., supervisory, research, and instructional practices). The collaborative calibration means multiple points of view enter deliberations and expand individuals' learning about what they are seeing in candidate evidence. The implications for their individual as well as programmatic work always creep into calibration conversation. Doing our own scoring takes time, but the value gained is worth the effort.

Suspending Normal Practice
In order to create a space for faculty to concentrate on this work, we suspend normal practice for the training and scoring week. Hence within our course schedule we design this week to be free of supervision and instruction. All faculty, whether they teach one course or five, are expected to participate in PACT scoring because it is understood as an important vehicle to seeing how candidates are taking up the preparation each of us and all of us have provided. Because so many are involved, the workload is spread out (we each score three portfolios). Now that we're moving to edTPA (which is centrally scored by Pearson), we still conduct local evaluation on all or some of our candidate work. Scoring has been the process by which we have come to share understandings of practice, and speak about that practice using the shared language of the rubrics.

Faculty View

Coming together to score the TPA as an entire teacher education faculty enables rich programmatic discussions about what our candidates are doing in their K-12 classrooms. When all faculty come together for this purpose, we are learning to score and use the PACT/edTPA rubrics, but the calibration task really serves as an entry point into a multidimensional look at candidate work (i.e. lesson plans, videos, assessments, student work and commentaries). Having the entire faculty together around one common text provides the opportunity to engage around a slice of candidate planning and teaching. Through this process, the calibration work helps us move toward a greater programmatic goal. Because the entire faculty engage in the process of scoring the edTPA, we each have a detailed knowledge of this performance assessment tool and what it does or does not show us about the kinds of practices, knowledge, skills and dispositions we hope our candidates develop.

> *"Someone across the room saw something that I hadn't even seen, and I went back and looked at it. 'Oh my gosh, yes. There it is. Oh yes.' We were sharing different perspectives on what we saw in the data. That conversation, if I were to point to one moment that was pivotal in my professional development in the Teacher Education Program at UCSB as we know it today, it was that day. The conversation changed because we were looking at student work. What happened on that day became the model for how we have gone about our work ever since. Where we look at student work, and use that student work to inform what we do."*
>
> - Adjunct Instructor recalling the first day, over a decade ago, when program faculty engaged in collaborative analysis of candidates' PACT work samples.

Promising Practice 2: Data Retreats

All TEP faculty, including supervisors, doctoral students, adjunct instructors and research faculty meet three times per year in full-day retreats for the purpose of critically examining and improving our work. Retreat activity is determined by programmatic and external needs, but always includes some form of candidate data to work with.

Director View

Planning, Planning and More Planning
I consider these retreats one of my most important functions as an administrator. I am highly conscious of the time and energy commitment for my faculty. I think well in advance about what we might focus on, what needs looping back to after a previous retreat, who has something to share with the rest of the faculty—and I run all of these ideas by as many people as I can.

All Voices Heard
My experience in our research intensive environment is that practitioner voices are less apparent and often less powerful in conversations about the work, even when the work is very practitioner based (as teacher education is). I have found that true collaborative inquiry between faculty with highly varied roles and status requires a level of trust and respect. While I attribute much about our respectful culture to the people themselves, I do think about ways to create retreat experiences that ensure all voices are heard, that privileges each program members' role, and that will also connect us on a personal level. There is a level of fun and camaraderie to our retreats.

Choosing the Data, Organizing Activities
A primary purpose for gathering all faculty in the same room is to facilitate connections. An interconnected experience for teacher candidates requires an interconnectedness among program components, which requires an interconnectedness among faculty. I think carefully about who will sit with whom and how I will structure activity to facilitate inquiry from multiple points of view. I think carefully about the types of data we work with that might privilege some voices in one activity (e.g., supervisors when the data is classroom video) and others in another (e.g., researchers when the data is commentaries on theory linked to practice). I also think about the types of data that will disrupt our assumptions about candidates, and what they are learning.

Faculty View

A Retreat Day

It is another retreat day, and the room is filled with lively conversation over food and coffee. Before we settle in to the content of the retreat, we introduce ourselves and our roles within the teacher education program. While this may not seem to be a particularly remarkable practice, as I hear the multiple roles of my colleagues, I am always astonished by the expertise we have in this room. These introductions signal the inclusive nature of our program, whereby everyone has specific knowledge and skills to contribute to the work. We need each other do this work well.

Data that Require Collaborative Inquiry

> *"As individuals, I feel like I can go to anybody—and I do it—to be able to ask questions that for me are related to what I think they have to share with me. Each of us has our own strengths, and I think we use each other very wisely. That goes beyond the supervisors, so there's really a web, a network, that is continually moving."*
>
> - Elementary Supervisor

What has brought us together this particular day is data from the performance assessment (PACT or edTPA). This performance assessment generates artifacts such as lesson plans, video, K-12 student work, assessments and commentaries. As one faculty member remarked, "PACT [edTPA] work has always been great because of its nature that requires the candidates to integrate from across the program." This integration is really a cornerstone to our program, as our faculty strives for this integration at a programmatic level.

Multiple Forms of Data, Multiple Roles of Faculty

As the retreat work begins, the data are presented to us in various forms, including raw scores and aggregated comparative analyses across time and content areas. Additionally, we have the common samples of actual candidate work (edTPA documents) in front of us. The intent for today's look at data is different than the scoring/calibration day. Today we are given agency to embark on a journey of inquiry into the data. We are encouraged to see if and how candidates integrated what they learned from coursework and fieldwork into their practice. In order to do this, it is necessary to bring multiple perspectives from the TEP program to the work. Sitting with me are a content field placement supervisor, a literacy instructor, and a doctoral student.

Collaborating Around a Common Text

Engagement with this common text that ignites critical conversation about the edTPA data from multiple vantage points. The math content instructor was delighted to see the candidate having his students construct mathematical understandings. The literacy instructor honed in on his use of questioning and discussion strategies as a means of assessing student understandings. I was focused on the integration of academic language, as well as the alignment between assessments and evaluative criteria. While I was impressed with the developing use of academic language included in the candidate's lesson plans, I could see areas that could be furthered developed in tying assessment to the academic language.

It was through sharing with and listening to my colleagues that I was able to get a more comprehensive picture of what the edTPA was telling us about the levels of integration that were and were not being taken up by teacher candidates.

Promising Practice 3: Distributed Leadership

Faculty View

When Problems Are Revealed

Examining edTPA data can be humbling, and it isn't uncommon for me as an instructor to be disappointed when I see some of the ideas that I had taught our candidates were not integrated into the candidate's high stakes performance assessment. As one of the core instructors for teaching about academic language in a course about English language learners (ELL), I initially felt disheartened to hear things from other faculty members like, "Wow, our candidates do not get academic language!" And within our trusting environment, one faculty member boldly stated in a meeting, "I don't get academic language!" Looking around the room at nods in agreement, it became apparent that a majority of faculty members did not feel they understood enough about academic language to support candidates in this area. The performance assessment data gave us a programmatic reason to all care about academic language.

Experts Teaching Experts

The confusion around academic language prompted my colleagues and I to take on a leadership role to help other faculty members better understand academic language, as well as to enrich our own developing understandings. The value placed on sharing leadership in our Teacher Ed Program created this opportunity to teach my colleagues. We are all seen as and valued as having expertise by not only our director, but by our fellow faculty members.

> *"It always seems as though everybody is an expert, as [the director] says, everybody's an expert at something. She gives us opportunities to create and move forward in the program. It never feels like the energy of the program is static. It's always moving towards something else."*
>
> - Secondary Supervisor

We facilitated conversations using the knowledge we had cultivated around research about academic language, our candidates' work, and the language of the rubrics. This professional development work happened in multiple settings over time, including all faculty retreats, smaller program meetings, and PACT/edTPA calibration days. In addition, ongoing informal conversations with supervisors and methods instructors were essential in developing ways to help candidates see academic language as something to be integrated into their daily teaching, not just broken out for edTPA.

In working closely with the faculty, mucking through the language of the rubrics around academic language together (i.e. functions, forms, discourse, language supports), and examining candidate work in terms of what constitutes varied levels of sophistication of academic language use, we began to develop a common language together.

What I See Now

The need for professional development came out of a need to get smarter about academic language for edTPA, but the result of those conversations had greater implications program-wide. One result was that we as a faculty now have a deeper understanding and appreciation of discourse and the explicit attention to academic language as an integral part of teaching and learning. From my vantage point, I can now see how candidates are integrating academic language not just for edTPA or for an assignment for an individual course. I see evidence in their planning for daily teaching; I hear them talk about lessons with linguistic scaffolds in multiple content areas; I see it integrated into the Masters' inquiries. Academic language is integrated into their work, I think in part because supervisors and instructors invested in this work together as they listened, struggled, took risks, and learned. This is what can happen when the teacher education faculty comes together to wonder, question, listen and learn together.

Director View

Capitalizing on Faculty Input

From this work, there are a few things I can point to that I believe have been critical to our program's growth. Initially my own role and that of administrative colleagues was to determine in joint conversation with faculty what needed improving, and then assign volunteers to small groups to work on those areas. These small groups had retreats and other forums to bring their work to the larger program, where it could be taken up on a broader scale and utilized in both individual and collective practice. This helped create important changes, e.g., a program-wide lesson design template, the establishment of new supervisor evaluation tools, and faculty learning in new areas of expertise such as academic language.

Supporting, Organizing, and Growing Innovation

> *"...I guess I would say there's a level of trust, and that doesn't come from nowhere. That's based on the fact that we've done this a lot for a long time and there aren't really right answers. That we aren't looking for right answers but maybe more questions? But coming out of our actual work... not just talking about it, but looking at evidence of what really is happening."*
>
> - Elementary Supervisor

There are and always have been individuals or pockets of faculty motivated to investigate their own ideas around innovations, ideas that usually come out of our joint examination of candidate data. I now focus on how to support the pockets of faculty innovations and organize the processes by which we bring the innovations into public view of the whole program faculty. I also do not expect everyone to take up everything, nor do I expect it to be done in the same way. But when a small group of faculty bring evidence back to the larger group that I and others feel is an important innovation for the faculty as a whole, I make sure to provide opportunities to get it into the public conversation, as well as listen to supports the faculty need for innovating on a larger scale. I also make sure to organize feedback loops in terms of how the work is getting taken up, and try to ensure that public forums are opportunities to check in on ongoing innovations. The faculty are the innovators and the source for program change.

Requirements for Democratic Discourse

I do believe that the ways innovations get taken up has much to do with our culture, but also with the established organizational practice that anyone, from any role, can bring something public (early on I did push a bit more on making space for supervisor voices, which were not as powerful at the time). There is also space for thoughtful dissention. The democratic discourse around the work is partly a result of multiple years of inquiry and distributed leadership practice, as well as a mutual respect for what each person brings, as well as a level of trust that allows for real inquiry. I do believe these things are facilitated by faculty having a programmatic view of our work. For example, it is not as threatening to see areas of need in candidate data when it's thought of as a program need rather than an individual's need, hence easier to trust that inquiry will be productive not threatening. Finally, there is something about the collective motivation of the group, and the sense of interdependence, that makes it important for each individual to take up the work.

Tine Sloan, Ph.D., is Director of the Teacher Education Program in the Department of Education at UCSB.

Jennifer Scalzo, Ph.D., is the M.Ed. coordinator and a lecturer in the Teacher Education Program at UCSB.

Creating Organizational Supports for Collaborative Inquiry

By Désirée Pointer Mace & Patricia Luebke, Alverno College

It's Friday afternoon, but no classes are in session. Like most Fridays, all faculty members are in meetings across campus. Some examine ways in which students demonstrate communication across various disciplines. Others identify ways to assess the ability of social interaction. Down the hall, cross-disciplinary faculty meet with School of Education colleagues in the SOELs group (School of Education Liaisons). Mimi, an English professor, animatedly shares creative ways in which her students approached their final assessment in a 19th century literature class, pondering how assessments like this might help students excel in PRAXIS II without her "teaching to the test." Lois, from Mathematics, wonders how a change in the math curriculum for education majors might contribute to improvement in student scores on PRAXIS I and enhance candidates' teaching of mathematical practices. And Desiree, from Education, shares edTPA expectations, relating national pedagogical expectations to discipline content teaching and learning. Welcome to Alverno, where collaborative focus on student learning outcomes undergirds everything we do.

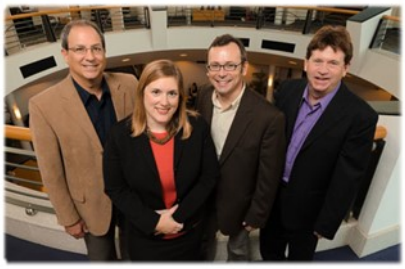
Who We Are

Alverno College is a small, Catholic liberal arts college in Milwaukee, Wisconsin founded by the School Sisters of Saint Francis. We are a single-sex, tuition-driven women's institution at the undergraduate level, and we serve women and men students at the post-baccalaureate and graduate level. We mirror the diversity of Milwaukee County, from which most of our students come. Half come from underrepresented ethnic groups. 75% are the first in their families to attend college. Around that same percentage are eligible for Pell grants, an indicator of the low socioeconomic status of many of our students. Our students come to college not only to transform their own lives, but also the sense of possibility and potential for their families and communities.

Outcome-based Model:
What We Consider and What We Do

Alverno is an ability-based institution. That means that students are not assessed using letter grades, but by leveled criteria that pertain to their demonstrated performance in eight abilities that, for us, define an educated person: Communication, Analysis, Social Interaction, Problem Solving, Effective Citizenship, Developing a Global Perspective, Valuing in Decision-Making, and Aesthetic Engagement. Every course we teach is aligned to "validate" specific levels of these eight abilities, and every academic major is designed to route through each level of each ability. This means the faculty need to understand the ability framework as comprehensively as their disciplinary content frameworks. Within the majors, there are advanced disciplinary abilities; for education,

Structures for Involving Discipline and Content Colleagues



Our School of Education Liaisons committee (SOELs) is one way in which we engage in democratic, continuous relationship building with our colleagues outside of the School of Education. The SOELs committee is comprised of representative faculty from each content discipline that prepares teachers (Math, Science, Social Studies/History, English, Arts) as well as one or two education faculty, and is led by a content faculty member. The committee head might invite a staff member from Instructional Services, who are charged with mandatory test-preparation support, to lead us in an analysis of patterns of underperformance in the PRAXIS II content tests, and engage in a discussion about how the curriculum in courses does / does not map onto tested areas. Education faculty have served as SOELs resources when asked, for example in understanding the structure and requirements of the edTPA and backwards-mapping the edTPA rubric criteria onto our pre-clinical coursework.

they are Conceptualization, Communication, Coordination, Diagnosis, and Integrative Interaction. Faculty feedback is mostly narrative in nature, and student self assessment using explicit criteria is required of every major performance in the program.

Instead of being highly selective on the way IN to programs, Alverno is highly selective on the way OUT. In order to receive a diploma or professional license, Alverno teaching candidates have long had to demonstrate at each step of their program that they "have what it takes" to be a teacher, linked explicitly to evidence from their practice and self assessment in relationship to criteria.

For those of us who teach in the School of Education, then, it's not a recent push for us to gather student learning data, analyze them, and mine them for questions. It's been a common practice at Alverno for over forty years. The curriculum reform launched in the early 1970s when the college leadership engaged in two major initiatives - to reach out to organizational leaders in the Milwaukee area and discern what key abilities they most valued in their highest-performing colleagues, and to involve disciplinary faculty in a defense of their content ("Why MUST someone study Philosophy? Art? Education? What does one learn from having engaged in a robust disciplinary course of study?") From this process, they articulated key competencies, now defined as our eight abilities that guide each student toward high-level development.

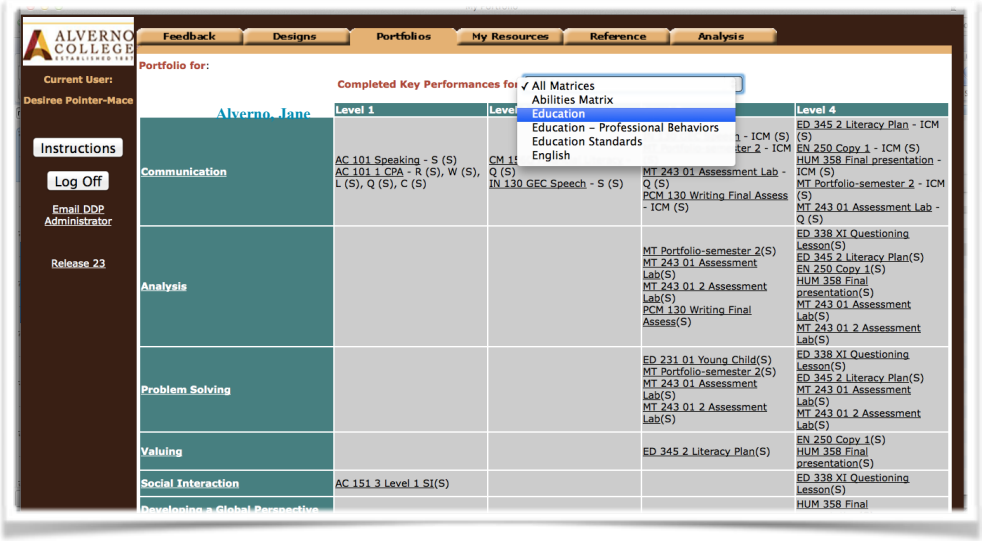
Each full time faculty member has an identity not only as a member of a discipline department, but also chooses membership in an ability department. Our institution leadership prioritizes time for collaboration; no classes are held on Friday afternoons, so that they may be used for discipline meetings, ability meetings, or all-faculty workshops. We have multi-day faculty institutes three times a year, in which faculty present and advance our understanding of the curriculum, and envision responses to emerging issues and challenges. Within the School of Education we have also structured time for disciplinary collaboration; no Education course is taught between the hours of 12-2 on Tuesdays, so that we may hold meetings, collaborate in smaller teams, or engage in more informal drop-ins with each other.

Student Work: An Infinitely Renewable Resource for Program Improvement

This institution-wide orientation and presumption of ability/discipline "biculturalism" and prioritization of common time enable faculty to enter into highly generative collaborative teams to support and advance our work. The college emphasis on criteria and performance assessment requires deep understanding of our electronic portfolio system, the Diagnostic Digital Portfolio (below), that aligns with the internal ability-based performance matrix as well as external matrices for disciplinary evaluation (e.g. the InTASC standards,

the Council for Exceptional Children standards, the International Reading Association Standards). We have used various web-based tools to support faculty learning and development: a faculty launchpad with access to key documents to guide continuous learning, ongoing Moodle courses that engage faculty in online discussions and work sampling, and project management tools to support the collaboration of those in administrative and directorial positions.

Inspiration via Collaboration



The vignette at the beginning of this document highlights how many organizational structures intersect in ways that make teaching and learning at Alverno highly generative. Faculty are not hired at Alverno unless they share in the institutional commitment to authentic assessment, collaboration, and orientation to student outcomes. By anchoring our practice and communal work to our students' performance, we provide ourselves with an infinitely renewable resource for inspiration.

What We're Learning

We know that advising you to "***start a revolution, then work for 40 years***" is not helpful. But what we'd suggest is that you might find some initial space for a conversation with colleagues around what truly distinguishes your teacher graduates from others. What are those characteristics? Where are they developed? Where are they assessed? Where are their strengths? Where are their areas of growth? How might tools, like the edTPA, or your portfolio system, provide you with evidence of these characteristics? It's very rewarding to hear, as we do, that "***I hired one of your graduates, she was SO ALVERNO.***" Knowing what they mean by that is heartening. Even more significant is that the newly hired teacher also shares a fully developed sense of her capacity to perform in the knowledge, skills, and dispositions of teaching.

Distributed Leadership and Learning from Colleagues

We learn best when we learn from and with each other. Our entire School of Education faculty meets weekly. We also have a leadership team comprised of the Dean, Associate Dean, and Program Directors for our licensure areas; these faculty meet biweekly. The Teacher Education Committee is composed of ALL faculty who teach teacher candidates from across the college, and meets once a semester over lunch to maintain our sense of connectedness to each other and to extend our learning about emerging issues. Together, these groups steer the conceptual work of the School of Education.

At a TEC meeting, for example, you may find Pat and Nancy, School of Education faculty members, sharing resources faculty can use in their classrooms to better prepare their candidates to teach a wide range of students, including students with disabilities, in field experiences and student teaching.

As the education landscape changes, we continue to learn and ask new questions. The economic downturn of the last half-decade has hit Milwaukee hard, exacerbating already significant segregation lines of race and class. Increasing numbers of our candidates are in "on the job" placements, where they have been hired and provisionally licensed to teach in a high poverty, high teacher-turnover setting. State-wide, recent changes in teacher compensation structures and abilities to collectively organize have accompanied (or perhaps caused) a decline in numbers of those seeking an initial teaching license, just as high numbers of Boomer teachers are preparing to retire. We are asking new questions about what this means for how we prepare our candidates, and inviting colleagues from within and outside of Alverno to be our thinking partners. Having a common language and culture with which to explore these questions is the key.

Désirée Pointer Mace, Ph.D., is Associate Professor of Education and Associate Dean of the School of Education.

Patricia Luebke, Ph.D., is Assistant Professor of Education and Director of Initial Licensure Programs in Special Education .

Using Data for Program Improvement

By Kristen Cuthrell & Diana Lys, East Carolina University

The anticipation is palpable, the noise level is a buzz, and the focus is intense. Not exactly what you would expect mid-summer in a large room full of faculty and administrators from six different colleges; especially given a full-day agenda of data digging into the most recent set of candidate and graduate data. Yet, this is what you will find happening in annual Data Summits. Welcome to ECU, where data talk and use is rapidly becoming a habit of mind.

Who We Are

East Carolina University is a large state supported public university located in rural eastern North Carolina. We are part of the University of North Carolina system. One of 17 in the system, ECU was originally founded as East Carolina Teachers College in 1907. In 2003, the School of Education became the College of Education (COE). The University and the region it serves sees the COE as the preparer of teachers and administrators for eastern North Carolina. Offering initial licensures at the undergraduate level and advanced licensure at the graduate level, we serve both women and men with an enrollment of 27,000. We offer licensure in 17 programs areas and average 700-750 completers each year. The majority of our students come from the surrounding areas while approximately 50% qualify for financial aid. ECU attracts students due to our longstanding reputation in the state as a quality teacher education program and our commitment to excellence through partnerships with school districts.

Research and Design Model
What We Consider and What We Do

While ECU is not a Research I university, as a large college of education we have embarked on a research driven approach to program improvement. Driving our work is a strong, collective commitment to preparing effective teachers. Situated within the context of extensive budget deficits, increased scrutiny of teacher preparedness, and mounting external accountability pressures, a departure from traditional program improvement within individual courses or field experiences is necessary. Although these improvements are important, they are not large enough in scope and consistency to evoke any significant change in teacher effectiveness.

Achieving systemic improvement resulting in more effective teachers is no small feat. We feel it requires vision, commitment and action in size and scope sufficient to transform the culture of the institution. Such a transformation must not only impact the work of the college but it must also impact how the college views its work.

Common Language

As the vision of an R&D oriented, non Research I, large rural teacher education program formed, critical ingredients were identified. Specifically, the development of a common language and cultivation of collaborative data analysis became our primary focus.

In our case, the field testing of the edTPA became an important turning point in focusing on a common language and led to authentic opportunities for collaboration surrounding a common outcome.

The common language was viewed by many faculty as pivotal to the emergence of new levels of collaboration:

"I think, as a department, that it has become so much more streamlined and we're using similar language between the courses. We're having conversations between the courses."

Having access to this language of practice empowered program members who were historically not connected to program conversations and decision making. For example, university supervisors became much more involved in program discussions during monthly internship meetings. While edTPA data was routinely prepared, shared, and analyzed, the data often opened up, rather then closed down conversations about action. The data allowed new problems to come into focus, and raised new questions about practices.

As such, it is the COE's vision to move towards a coordinated and systemic set of curricular and clinical reforms that are designed thoughtfully and assessed consistently to ascertain results that can be both trustworthy and informative to the overarching goal of program improvement.

At ECU, faculty and staff form collaborative research groups around planned studies of practice. Our planned studies of practice address both systemic teacher education elements AND data-driven program improvements. Examples include early experience observations, core instructional strategies, and internship support. As practice is examined, innovations are developed and piloted. We explore the strengths and weaknesses of teacher candidate performance allowing us to determine what targeted innovations result in more effective teacher education programs. The overall work results in a more cohesive, structured, and data-driven preparation program. The planned studies of practice become part of a continuum of developing expertise within our individual program areas.

Because of systemically investing in planned studies of practice, we are the first in the state to engage in a Transformation Initiative (TI) for CAEP accreditation, and, as such, are contributing to the development of a research base that documents and substantiates promising and effective practices and innovations to inform and transform program improvement.

Our vision

- Create an infrastructure that facilitates the continuous improvement of teacher education and provides consistent outcomes.
- Create a set of innovations where teaching, research and service are inextricably linked and seamlessly integrated into the work of faculty.
- Create a culture of collaborative research and program development around the enterprise of educator preparation rather than the individual project.
- Institutionalize not just innovate.

Planned Studies of Practice: Emerging Innovations

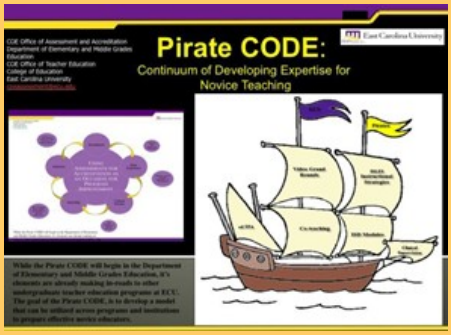
Transforming a large teacher education program is a complex, multifaceted task. As we systematically invest in planned studies of practice, a coordinated set of innovations have emerged leading to data driven program improvements. These core set of innovations include: Video Grand Rounds, ISLES, Instructional Coaching, and Co-teaching.

1) The Video Grand Rounds (VGR) initiative requires teacher candidates in their first field experience courses to view and reflect on video case studies. By watching, analyzing, and then discussing the videos, our teacher candidates hone their classroom interaction observation skills. Analysis of data highlights the impact of the experience on how our candidates view, describe, and transfer knowledge from video to classroom settings.

2) The establishment of a common language of high leverage practices is critical in implementing curriculum reform and developing expertise in novice teacher candidates. With school district personnel, we developed an online module series, *ISLES,* in which ten high leverage practices were taught. Findings suggest that our ISLES teachers outperform non-ISLES teachers in student engagement and use of high leverage practices.

3) In efforts to maximize interns' growth in the internship and strengthen the intern support team, instructional coaches were introduced in our senior semester. The coaches mentor interns in best practices, conduct in-class observations, and provide targeted professional development. Multiple research measures indicate the coaching model has yielded statistically significant gains in our edTPA results, increased the usage of high leverage practices, and increased student engagement.

4) Our co-teaching innovation, based on the work of Cook and Friend (1995), allows clinical teachers and interns to increase differentiation in the classroom as they utilize seven different co-teaching strategies throughout the internship experience. We are exploring two interns co-teaching with one clinical teacher. Faculty, interns, and clinical teachers report that consistent mentoring leads to greater success while providing classroom students access to instruction.



Conceptual tools have been important to our data use work. Perhaps the most comprehensive example of this is the conceptual framework known as the "Pirate Code" (our mascot is a pirate). This framework has been developed as a way of articulating both the innovations of the curricular and clinical reforms within a Continuum of Developing Expertise (CODE) for novice educators, but also the way in which those parts exist in functional relation to one another.

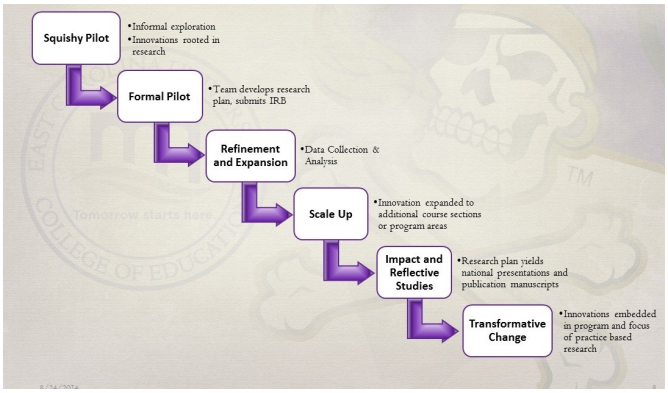
Our integrated approach extends beyond the development of conceptual tools. In the upcoming pages, we will discuss technical tools, places and spaces for collaboration, and institutionalizing innovation. This integrated view and approach to our work characterizes our data use as large scale program improvement. This is uniquely ECU.

"So I think, when you start thinking in that perspective, that it isn't just to satisfy an accrediting agency, it isn't just to do the minimum to get approved, it isn't just about satisfying a doubting public. But it really is about taking control of your institution, your institution taking control of itself and charting a course for doing what they do better as an integral part of the everyday work."

The robust coding feature in the COE's Teacher Education Management System (TEMS) integrated database allows for the coding of teacher candidates participating in reform innovations. For example, data associated with an elementary teacher candidate participating in Instructional Coaching carry a coaching tag. Data from an elementary teacher candidate participating in Instructional Strategy Lessons for Educators Series (ISLES) instruction are assigned an ISLES tag. As a result, each teacher candidate's code reflects the instructional affordances offered that candidate. This coding provides the opportunity for faculty to collect and analyze edTPA data at multiple levels: individual teacher candidate, individual innovation, and combined innovations.

Institutionalizing the Improvements

As faculty discuss program improvement, you will hear terms such as squishy pilot, scale up, and coding. Relatively new, these terms have taken hold and have reframed how faculty and administrators approach program improvement. Careful planning and consideration are given at the forefront of a project in an effort to provide programs with meaningful, actionable data. Equal attention is given to data analysis and issues of refinement and scaling up. Faculty have these conversations in course alike groups, department faculty meetings, and with COE leadership. It is a joint enterprise that is supported in multiple ways.



First phase: is the "Squishy Pilot" phase. Here no one is threatened because the innovation is tried at a very informal level.

Second phase: (next semester): The "Squishy Pilot" becomes a formal pilot and it is at this point that the Dean brings in educational researchers, seasoned faculty, associate dean for research, etc. to help the group formalize the pilot, write it up and submit it for IRB approval.

Third phase: Data gathered must be stored. Here is where a single integrated system of data collection is needed (Director of Assessment, Accreditation and Data).

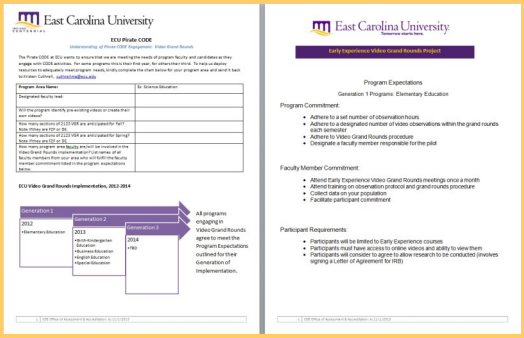
Fourth phase: Pilot is further refined and "scaled up" to two or more sections—in some cases all sections of a given course (depending upon how many there are). Here is where the "institutional rub" begins to take place because it is at this point that other faculty are being drawn into the work and where their courses are being impacted.

Fifth phase: Work in each innovative project begins to mature and produce knowledge which, in turn, is presented at national conferences and written up for publication.

Sixth phase: The maturing projects are now meeting and looking at data across projects; tracking individual students through the innovations; etc. Here is where a student coding system is needed. We track which students receive which innovations in our single integrated system of data collection so that we can sub-categorize our students (according to the number of "innovations" they received) and the K-12 student achievement outcomes.

Guiding Implementation

Pirate CODE innovations originated in the department of Elementary Education and Middle Grades Education. Their implementation has been well documented in the R&D model beginning with the squishy pilot phase onward. Innovation-based memoranda of understanding (MOU)'s were developed by innovation lead faculty and used to guide implementation consistency and data collection. Because of scale, implementation became characterized as generational. For example, programs involved in early pilots were considered Generation 1. Programs that piloted the innovations in the scale up phase were considered Generation 2.


East Carolina University

ECU Pirate CODE

East Carolina University

Early Experience Video Grand Rounds Project

As the Pirate CODE research focus shifts from implementation to impact, innovation-based documentation of assessment, evaluation, and research plans supplemented the MOUs. To support institutionalization of innovations, the Council for Teacher Education (CTE) commenced a new data-driven exploratory process to recognize and adopt innovations as programmatic elements.

"I think it would've been so easy for elementary to just fly with this and just go "Here's ahead of the rest of us." But they took very careful and intentional steps of bringing other people along. For me that's actual collaboration. Sharing resources that our college didn't have and sharing all the steps that they've learned along the way with programs like mine. To me that's incredible."

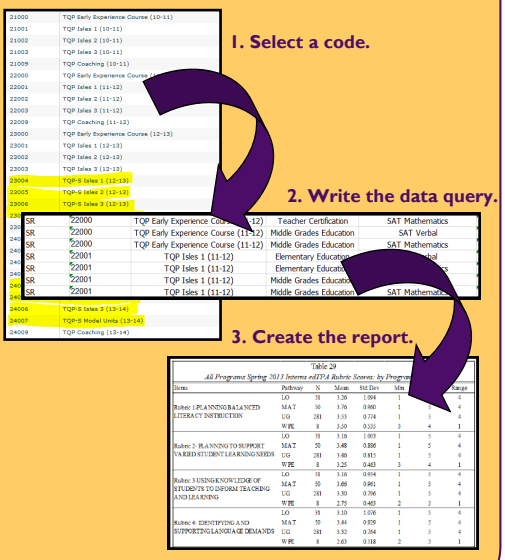
RETURN TO NAVIGATION PAGE

Faculty Needs Drive Integrated Supports

An important feature of the data platform development process has been its strategic attention and response to faculty needs and interests. Once coded data from TEMS became more visible and openly available to faculty, the faculty interest in the data for research and program improvement began to drive developments in the data platform.

Technical supports included the acquisition and development of IT tools for collecting, archiving and analyzing program data. Use of an electronic portfolio with the integrated technology system provided access and oversight to program administration, increasing the likelihood that teacher candidate data could be and would be utilized by faculty.

The Assessment Office spends considerable time coding candidates, developing SQL data queries, and compiling and disaggregating large data sets in a way that facilitates faculty access and use of a variety of data sources.



Places and Spaces for Collaboration

Data Summit: The summits begin with connections to prior summits, group think time, and an explicit framework for approaching the day's tasks: analyzing data for program improvement. Essential for the success of these annual summits is a common language. As part of these sessions, faculty and administrators discuss results of edTPA portfolio assessments through unit-level and program-level lenses and determine next steps in program improvements and innovations.

The Data Summit illustrates the way in which faculty are continually positioned to make the programmatic decisions—their responsibilities as "curriculum-makers" are supported, not supplanted by the data analysis process. This is quite important, as one of the common concerns of faculty in the context of new accountability policies and data is that their power and authority in curriculum matters will be eroded as larger data systems come into play.

"Do you mean what I got from the edTPA Data Summit? So much! This was wonderful. It was wonderfully planned and organized. Every minute that we used was well planned and purposeful. I LOVE that our faculty come together around these shared projects of inquiry to examine our practice."

TPALS: Lead faculty from all university teacher education programs completing the edTPA are invited to be part of the Teacher Performance Assessment Liaisons (TPAL) structure. Identifying TPALs proves beneficial in creating effective spaces and places for collaboration. The TPALs meet monthly and become versed in the assessment processes in the college as the performance assessment is implemented on a larger scale. Data-driven program improvements are continually part of the conversation at the monthly meetings. Providing a forum that establishes the authentic use of performance assessment data to truly improve programs cements the purpose of this group and increases faculty engagement. The data are collected and analyzed regularly, allowing the programs the opportunity to highlight its work and learn from others. Data-driven actions are real and go beyond the academic exercise of checking off a box on an annual assessment report. These actions are inclusive of individual program and collective unit needs.

Kristen Cuthrell, Ed.D., is Associate Professor and Associate Chair of the Elementary Education and Middle Grades Education Department.

Diana Lys, Ed.D., is Director of Assessment and Accreditation.

Data Use Problems of Practice:

Motivating and Engaging Faculty

How can you bring faculty together, organizationally and ideologically, to forge a vision of common work centered on using program data and student learning artifacts to improve both individual and collective practice?

It's 9 a.m. on the day of the all-program data retreat, and the room is filling early with faculty, field supervisors, grad students as well as several cooperating teachers, many of whom are graduates of the program. There is a sense of an extended family reunion as people greet one another. The program director briefly welcomes the group saying, "I thought we'd start by welcoming new members of our community." Projected on the screen behind her are pictures of all the new babies born over the last several months, along with a set of photos of all the new mothers. "Okay…let's see how good you are at making connections. Who belongs to whom here?"

The group erupts with laughter as they try to match babies and mothers.

The tone soon shifts as the group quickly engages in reviewing the carefully prepared agenda for the day. The new edTPA scores are in, and the director has created several handouts that allow program members to see the data in several ways, including those for the students that they had taught themselves, as well as scores for all candidates. The group quiets as everyone becomes absorbed in examining the data. The program director asks the group to move into program-level teams (elementary, secondary, special education) and interpret the data through the lens of three questions: What do these data suggest we are doing well? What issues/areas appear problematic and need our attention? What kinds of evidence (e.g., candidate work samples, course assignments, field observations) would help us understand the problem better?

The groups discuss these questions for some time, and then report their findings, sharing their ideas and identifying needs for deeper inquiry into specific issues. Ad hoc teams are identified and charged with examining several sources of data related to these issues and returning with recommendations for collective action.

"It just feels like we are all on the same page."

The program director then directs the group's attention to a slide she has prepared showing edTPA scores for rubrics related to "Academic Language". This has been an area of program-wide concern for several years, and the group is eager to see how candidates have performed this year. They have taken significant collective action over the last year to provide technical assistance to each methods instructor, helping them infuse specific performance expectations around teaching English language learners (ELL) into their methods courses. And the data this year suggest they are on the right track—candidate scores are up, and a sample of candidate work confirms that there is encouraging improvement in their integration of academic language concerns into their lesson planning and classroom assessment methods. In reviewing the gains, the faculty members who have historically held primary responsibility for teaching ELL content observe that it took all of them—methods course instructors, supervisors, and cooperating teachers—working together to achieve the observed improvements. There is a palpable sense that this is a team victory.

Later, as the meeting ends, a field supervisor talking with one of the course instructors is overheard saying, "I love these meetings; it just feels like we are all on the same page."

The scene at the retreat, and the program culture described above did not spring full-formed from the head of the Program Director or faculty leaders; rather, it evolved over time. However, it did begin with the program leaders' strategic actions aimed at motivating faculty engagement.

Below, we describe several strategies that program leaders have used to motivate and engage faculty and staff around data use activities. These are not intended as prescriptions for your program—but rather as promising practices you may find useful, and consider adapting for your local context:

Articulate local values

Faculty are often concerned about the effects of new accountability policies, fearing that local program voice, values, and identity will be buried under new mandates and measures. One program we visited had spent considerable time supporting faculty to articulate its local values and goals—those things they felt were special about the program, and were anxious to preserve. Faculty and staff referred repeatedly to this list of "valued outcomes" as they reviewed new and existing data on program outcomes, and these conversations served to make an ongoing commitment to local values transparent and concrete.

Get data on the table

One of the many challenges programs face is making the need for improvement visible to faculty. In many of our site visits, faculty talked about the experience of confronting the ways new kinds of data challenged their assumptions about what candidates were able to take up from coursework and implement in their classroom practice. Teaching performance assessment data were a particularly powerful tool in this regard—with candidate work samples often demonstrating in a concrete way that specific practices they had been taught in their coursework were not being used in their classroom practice.

Distribute leadership responsibility

Leadership responsibilities are often engaging and motivating in themselves, and we noted that the most successful leaders at the sites we visited were good at creating and sharing leadership opportunities throughout their programs. These leaders were keenly aware of "nodes" of energy and interest in both individual faculty, and existing "communities of practice", and cultivated engagement and commitment to the data use process by inviting these groups to investigate specific issues and make recommendations for action to the larger program. Leaders made sure to distribute "air time" at program meetings widely across program participants, as leadership responsibilities were taken up by both individual faculty and small ad hoc working groups.

Make individual practice a resource for collective learning

Faculty, field supervisors, and other staff in many (perhaps most) teacher education programs function in relative isolation from one another— resulting in lost opportunities to learn from one another…not to mention loss of coherence in the program as a whole. Programs we visited had often created ways of making individual practice, whether situated in courses or in fieldwork, more visible and accessible to all program members by making time at program meetings to present and discuss specific courses, assignments, evaluation tools and other artifacts of practice.

Never waste a crisis

Whether it is budget cuts, new mandates, or the publication of negative outcome data, crises can create a clear context for collective action as well as an opportunity for program leaders to reify the sense that "we are all in this together". In fact, failing to bring people together to face these challenges can lead to isolation and demoralization among faculty and staff, as people retreat into the silos of their individual work. An important goal for program leaders in these situations is to preserve a sense of local control over the work. One leader put it this way: *"It isn't just to satisfy an accrediting agency; it isn't just to do the minimum to get approved; it isn't just about satisfying a doubting public; it's really about taking control of your own institution and charting a course for doing what we do better as an integral part of the everyday work."*

Data Use Problems of Practice:
Making Time and Space for Data Use

How can academic leaders plan for, prioritize, and incentivize the use of time and space for faculty and staff to analyze, interpret, and act on program outcome data for the purpose of program improvement?

"We have been trying to get folks together that taught a similar course, maybe across departments or across programs…and trying to get some common process of assessment and so forth, because that not only gives you a greater ability to compare and contrast, but it also allows you to start developing these communities of practice where people really start talking about the work from the ground up, and you have to have those real opportunities; they can't be fake."

- Linda Patriarca

Dean of the College of Education, East Carolina University

"The most powerful reform decision we ever made was to make structures for faculty to meet regularly."

- Sister Joel Read

President, Alverno College, 1968-2003

For most programs, finding time and space to support additional work related to data use and program improvement is a significant challenge. While no one would suggest that an "add-on" approach to this work is a sensible strategy for engaging and sustaining faculty participation, it is the de facto approach evident in many programs. In contrast, the most successful programs we visited had developed strong organizational supports for data use activities. These involved both changes to regular program policies and routines of practice as well as ad hoc supports for faculty engaged in projects specific to using data for program improvement. Here are some of the practices we observed that seemed particularly promising and potentially useful for others:

Data summit

Several successful programs we visited had established regular structures and events (two to three times per year) to share data from both regularly collected program outcome measures as well as pilot studies evaluating new practices. These events brought data into common view and provided a context in which program members could deliberate alternatives for action and program improvement.

Take something off the plate

Virtually every teacher educator we know feels they have more than enough work to do! So it may be unrealistic for you to expect them to engage in new forms of work (even those as potentially valuable as using outcome data to improve your program) without reducing some expectations elsewhere—especially if you want to sustain these new work practices. For example, one program we visited suspends both coursework and field supervision for a week each spring to allow everyone to review data on program outcomes and discuss action plans for the coming year. While faculty were initially reluctant to replace their regular activities in this way, through the context of their discussions about program outcome data, they were able to find and strengthen connections between courses and between coursework and fieldwork. The value of this Spring Data Week is now apparent and the practice has been sustained for over a decade.

(Continued on page 23)

Meeting design

Creating meaningful and effective meetings requires the same kind of thoughtful and strategic thinking as planning a good lesson. Several academic leaders we observed were successful in creating meetings that faculty and staff found valuable and looked forward to attending. As one program director described, planning these meetings often began several weeks in advance:

> *One to four weeks prior to retreat I plan what we might focus on based on my perception of programmatic or external needs. I decide on the type of data that might best engage faculty in this focus. I run these by other faculty/program coordinators.*
>
> *I ask faculty for input on the agenda–what do faculty think we all need to be in the same room at the same time for? What is meaningful, connected to their actual work? It is important is to have meetings connected from one to the next so there is a concrete sense of continuity and progress (retreats build upon information learned at previous retreats) centered around programmatic goals.*

Integrate data use into regular organizational routines

Many programs made time for data use activities by integrating them into regular meeting routines. As simple as it seems, developing a yearlong planning calendar that clearly identifies data use activities is one of the most important actions you can take to make time for this work. In some cases, making the relationship between program decisions and relevant data transparent was a condition for allocation of funds and related program supports from the dean's office.

Supporting experimentation

In one program we studied, academic leaders have developed very specific policies and procedures for inviting and supporting experimental projects—what they called "squishy pilots" (see ECU program portrait in this series). A Memorandum of Understanding (MOU) is created to guide and support each proposed innovation, including specification of project goals, needed supports (e.g., faculty release time), an evaluation plan, and project deliverables.

Making data accessible

Careful and strategic work invested in preparing relevant data sets makes the faculty's task of interpreting the data more manageable. The data sets may be complex, but careful preparation work keeps them from being overwhelming. In some cases, this preparation work involved strategic selection of specific examples of candidate work (e.g., edTPA portfolios), and in other cases it involved doing preliminary disaggregation and analysis of data from quantitative measures of program outcomes (e.g., disaggregating data by specific program or content area). In each case, the preparation of relevant data was crucial to making meeting time feel well spent, and for achieving meaningful faculty deliberation and decision-making.

Changing personnel policies

In many cases, program leaders have found that existing personnel policies do not support the new forms of more collective and data-oriented work they are trying to create. A common example of this is that compensation for field supervisors in many universities does not include pay for attending program faculty meetings. Faculty promotion and tenure policies are typically built around publication and teaching evaluations, and often do not refer to engagement in program work. To support emerging program goals for collective, evidence-grounded decision-making and to elicit participation from faculty and staff, it may be necessary to change the definitions of program personnel's roles and responsibilities, as well as their compensation. Some of the personnel policy changes we observed included:

- Creating a "Fourth Box" in faculty tenure and promotion guidelines that called for evidence of participation in collective work of the program
- Reducing the number of expected field observations to allow field supervisors to attend program faculty meetings
- Changing hiring policies better reflect institutional commitments to program-level collaborative work

Data Use Problems of Practice:
Building a Useful Data Platform

How can you create an electronic data platform in which multiple data sources related to candidate learning and performance are readily accessible to program faculty and staff and used to support individual and collective inquiry and improvement of practice?

"Previously, the progress reports were paper based and it was really just the university supervisor turning them in to the College of Ed. I think the Program Director got summative feedback. Now we can see for all of our interns some of their strengths and some weaknesses because those progress reports are electronically based. It's been a little bit eye-opening in terms of some things that we had just made assumptions about, and so it changed the way we're running our seminars; it's changed our methods classes; it's changed a series of methods classes really."

Obviously, we are in the midst of a technological revolution, and the affordances of new information resources are just as significant in teacher education as elsewhere. The emergence of electronic data platforms makes it possible to collect, archive, and analyze many rich artifacts of candidate teaching practice, not to mention the kinds of large quantitative data sets that are being used more and more to evaluate teacher preparation programs. While most programs have some form of electronic database related to their work, our field observations suggested that many, if not most of these databases were used primarily for collecting information for external reporting, and were seldom used by faculty or academic leaders as tools for inquiry and program improvement. On the other hand, several sites in our study offered examples of how useful well-designed data platforms could be in supporting these efforts. The key to the designs of these platforms was the extent to which they made visible and accessible the artifacts of the work faculty undertake with candidates (in coursework and in fieldwork). In observing these programs, several promising practices related to development of useful (and used) data platforms were evident:

User-centered design

Perhaps the most common mistake administrators make in building a data platform is to leave the people you want to use the system out of the design process. If you want faculty, field supervisors, cooperating teachers, and other program members to use the system, it is essential to involve them in every facet of its design. While many platforms are now available off the shelf, having faculty at the table in the selection process will allow decisions to be shaped with a concrete understanding of the users' needs. In our site visits, we found people to be happy with a variety of commercial platforms, but in every case where we found a platform to be especially effective as a tool for inquiry and program improvement, program members had been involved in the design and decision making at every step.

Design for accessibility and transparency

The data platforms used most often for program improvement purposes were designed to facilitate access by all faculty (including field supervisors and cooperating teachers) as well as students. The transparency and accessibility of the platform is crucial for making it a functional tool for program members' use, and not just for occasional administrative reporting functions.

Design for "drill down" capacity

The ability to tag individual students in the data platform allows program faculty and staff to collect, archive and analyze benchmark artifacts and capstone assignments for specific students. This makes the system more useful for instruction and focused inquiry around processes and outcomes for both individuals and ad hoc groups.

Design for multi-modal input

The platform should allow candidates to submit video, written commentary, and images documenting their practice. In one program we visited, assessment office staff and faculty regularly collaborate to develop, pilot, and modify assessments to upload to the platform. These help inform program improvement deliberations and decisions. Program faculty view the platform as a "data garage" that is modifiable.

Design for adaptation and change over time

The data platform, as a representation of key performances and related outcomes in the program, should be able to change over time. One program we visited had a standing committee of faculty and students who continuously reviewed the electronic data and made regular proposals for changes in response to both program innovations and changes in reporting requirements over time.

Design for external reporting requirements

In many cases, you can use the technical tools and related staff supports for data archival and analysis strategically to streamline and reduce faculty and staff workloads related to external reporting requirements. In some of the programs we visited, reports that used to take program administrators, faculty, and staff many hours to prepare now take seconds.

Invest in building program assessment capacity

A data platform will only be useful to the extent that it is well-managed and responsive to changes in needs over time. The development of a strong and proactive professional Office of Assessment can provide invaluable support for data use activities.

Data Use Problems of Practice:

Creating a Common and Concrete Language of Practice

How can you use common texts or tools to develop a shared language with which to interrogate program data, understand each other's practice, and enhance trust and dialogue?

It's 4:30 in the afternoon, and the secondary teacher education program members are meeting to examine edTPA data together. Also in attendance are several cooperating teachers, course instructors from academic departments of three colleges in the university, and field supervisors from the College of Education. The meeting, facilitated by the program director, is a follow up to a larger data analysis retreat, in which program members had identified candidates' planning and evaluation skills related to "academic language" as an area of concern.

Today, the program director has grouped the participants by academic content area and provided a set of three edTPA work samples (representing high, average, and low scores) for each group to examine and interpret. Course instructors, supervisors, and cooperating teachers are working to integrate academic language planning issues into methods coursework more concretely, and to strengthen connections between coursework and fieldwork experiences.

Within each group, participants use the edTPA rubrics as a lens to examine the candidate work samples. "Academic language" is a relatively new concept for several participants, and they focus on establishing a common understanding of the concept. They point out where it is or is not apparent in the planning documents, video excerpts, and classroom assessments they are reviewing. Each group discusses how they might adjust methods coursework assignments to better fit with fieldwork opportunities as well as how they could draw on common artifacts and examples from this year's work samples to make expectations of candidates more transparent and consistent.

One of the cooperating teachers comments: "This is really helping me understand what I need to do with my student teacher… I can see what I need to ask her to do, and who she needs to be working with to learn these skills." A program faculty member reflects on how developing a shared language impacts the faculty's capacity to collaborate across courses: "I think, as a department, that it has become so much more streamlined and we're using similar language between the courses. We're having conversations between the courses."

Developing a common and concrete language of practice is one of the most important and most challenging tasks for faculty and academic leaders wishing to use data effectively for program improvement. Conceptual frameworks are not enough since they are typically so abstract and vague that they allow faculty to achieve consensus in the absence of real understanding of what is actually being taught (or not) in the program. A shared language of practice must be concrete, allowing course instructors, supervisors and cooperating teachers to be clear and consistent in their expectations for candidate performance. This kind of common and concrete language of practice is also a critical resource for collaboration; without it, collaboration can be frustrating and unnecessarily time consuming. On the other hand, the time and energy spent negotiating a common and concrete understanding of key concepts and practices can be one of the most powerful and satisfying places to invest programmatic resources, allowing a collection of individuals to become a "community of practice" in which individual experiences become resources for collective learning. This, in turn, can yield a strengthened and energized commitment to collective work and more robust connections between and across program courses as well as fieldwork.

The following are some promising strategies for building common language that we observed in our site visits:

Work with common texts and other artifacts of candidate work

Use concrete examples of candidate work to drive the discussion of key ideas. The task of building a common language of practice is fundamentally about tying abstract ideas to concrete examples, and this can only occur when program members are able to refer to common "objects" of interpretation, such as lesson plans, video records, or classroom assessment data.

Invest in common professional development experiences

The most successful programs we visited routinely created common opportunities for learning focused on developing shared understanding and common language related to various program requirements, policy initiatives, and related teaching practices (e.g., edTPA, Common Core, Universal Design for Learning, Differentiated Instruction).

Invest in development and use of local expertise

Strategic use of local faculty and staff to provide professional development for one another was another feature of successful programs. This "grow your own" strategy often included sending faculty to conferences and/or workshops to gain specific expertise, but the focus was on building local expertise and capacity. This approach had dual benefits of reducing costs, and, even more important, engaging the programs' faculty and staff and positioning them as authoritative and important resources for collective learning.

Piggyback on national and regional training resources and initiatives

All of the programs we visited that were participating in the edTPA used the scorer training process sponsored by Pearson as a resource for building a common language of practice. The language of the edTPA does not have to supplant local values and visions about teaching quality, but our observations and interviews show that it can provide a strong framework and a rich set of practical tools and resources to help programs build a common language, expanding their capacity for collaboration across courses as well as fieldwork.

Focus meeting time on developing shared language

In several of the programs we visited, program members described how faculty meetings had become more meaningful and useful as they shifted away from administrative notices and announcements and focused more on building a common and concrete understanding of their collective and individual practice. This process took many forms:

- examination of artifacts from multiple courses as they relate to a common goal for program enhancement or improvement
- discussion of interpretations of specific assessment rubrics using concrete examples and artifacts of candidate practice
- presentation and discussion of common assessment tools, including core assignments used across courses, field observation protocols, or use of data platforms to facilitate archiving and comparing samples of student work across content areas, cohorts, or time

Build cross-program collaborations

One of the most exciting observations from our site visits was that the development of a common language of practice afforded the emergence of new kinds of cross-program and cross-institutional collaboration. In some cases, this collaboration resulted from an institutional need to develop ways to interpret and respond to "value-added" measures of program effectiveness. In others, having a common performance assessment tool enabled more meaningful and useful forms of cross-program and cross-institutional collaboration to emerge. For example, in one of states we visited, which had used standardized teaching performance assessments for several years, an active but informal "community of practice" of science educators had developed, in which faculty across institutions were actively communicating with one another as they used common assessments. The language they shared allowed them to more easily understand and learn from one another's practices.

Data Use Problems of Practice:
Managing the Dynamics of Dissent

How can you encourage faculty to express different views about data, and create a tone of low threat, high trust, and mutual respect? How can you, at the same time, keep faculty deliberations focused on actions toward the shared goals for program improvement?

"I've heard other people ask very direct questions about what this [new assessment] is and how it will change things and what's the burden on the teacher candidate compared to the benefits. This kind of openness and attitude, that if you do not agree with the conversation as it's going, is fine. I've worked in a bunch of places. This is one place where nobody is ever encouraged to stop talking. I think we always feel like we're listened to. It doesn't mean anything changes or things change all the time because of the way we want them. It's just somebody listens."

Issues of accountability and data use in teacher education can be charged with tension and paradox, as teacher educators may interpret these policies in the context of negative rhetoric about teachers and teacher educators from some policy makers as well as members of the public. Others bring more ideological and critical perspectives to these conversations, and may see data use initiatives as an unwelcome sign of the intrusion of corporate or political interests into the work of teacher education. A key challenge for academic leaders at every level is how to manage, and even encourage constructive critique while at the same time channeling that criticism in ways that contribute to program improvement, rather than program paralysis. When done well, the result of this approach is a culture that views sincere critique of proposed changes as a valuable resource.

Perhaps the most fundamental dilemma to address around the dynamics of dissent and change is how dissent can function as both a barrier as well as a resource for learning and program improvement. In the most successful programs we visited, there was shared understanding that differences of opinion contribute to more thoughtful deliberation and better decisions. As one faculty member put it, "*Whenever there's dissent…usually there's a piece or an ounce of positive or truth or whatnot that comes from that dissent.*" At the same time, one very skilled academic leader reminded us, *"If you let some people dominate the discussion, they can and will derail any efforts to make change."* We are respectful of this reality. At the same time, our observation has been that the way dissenting views are handled, particularly by administrators and faculty leaders, has a great deal to do with accessing and focusing the creative capacity of program faculty and staff. One faculty member we interviewed commented on how support for diverging viewpoints was integral to the inquiry-oriented culture of the program:

"In any program, our program included … they use data to solve problems—'Are we doing good?'—to measure your progress in solving the problem. But here that same data might get used to reformulate the original problem. Then you might say, 'Wait a second, whether or not we're solving the problem, is that the right problem?' That's great. That's exciting. It means that it's… it's that word, 'animating'. That makes it come alive … I think I would frame it as genuine inquiry."

Below, we describe several leadership strategies that we have observed program leaders applying to manage the dilemmas of dissent that inevitably (and often productively) arise in the context of data use activities. We do not intend these as prescriptions for your program, but rather as promising practices you may find useful, and may consider adapting for your local context:

Use your active listening skills

One of the common complaints of dissenting faculty is that their views are not listened to. As is true in most face-to-face communication, the technique of "active" listening (e.g., "Let me say back to you what I've just heard to make sure I understand what you are saying.") can be helpful in assuring dissenters that leaders hear and comprehend their arguments. This does not imply agreement; rather, it is a matter of making clear that any disagreement is not due to misinterpretation or lack of respect.

Collect data on how faculty are feeling and thinking

One program director we observed regularly collects brief "free writes" from program members, soliciting their input and opinions about issues under deliberation. She makes her analysis of this input visible to faculty by reporting back summaries of what they said. Using the actual wording taken from the written input can help assure individuals that leaders are hearing and considering opinions carefully. The data from these free writes can also be used as a common text to focus further analysis and discussion, as well as a tool for making the relationship between the views expressed by highly vocal individuals and those of other group members transparent and visible, without being confrontational.

Structure deliberative discussions

We observed some program leaders using deliberative structures in ways that clearly encourage articulation of different positions on important program decisions. For example, you might invite all program members to participate in a process where they make arguments in favor of a proposal, then collectively make arguments against. The point here is to scaffold the expression of dissenting views by allowing arguments to be disassociated from individuals.

Stay out of the way

Cultivating a culture of inquiry is primarily about assisting faculty thinking. Skillful facilitation of discussion and deliberation is an artful combination of providing relevant and timely information, raising important questions, and listening. The most adept leaders we observed were good at listening and acknowledging what their faculty had to say, often serving as a recorder and facilitator. They often guided discussions subtly and indirectly by summarizing arguments and raising questions instead of taking strong positions themselves.

Beware of your own emotions

Managing the dynamics of faculty dissent can be trying. In our observations, it appears every faculty has at least one member that is chronically antagonistic toward change, and the issues surrounding how academic leaders respond to them are complex and layered. Faculty are alert to the emotional undertone of interactions around disagreement and dissent; even those who are not involved directly in contentious interactions are keenly observant of the handling of dissenting views. The artful practices of the leaders we observed certainly included responding to dissenting views with respect, but they also involved redirecting conversations toward shared goals and sometimes even placing topics of individual concern in a "parking lot" for later discussion.