Part of a series of case studies on training data-literate teachers that includes Western Oregon University, Relay Graduate School of Education, Boston Teacher Residency, and Urban Teachers.
“In the past, there have been times I’ve spent so much time on data that I didn’t leave enough time to actually plan my instruction. While it’s essential that I know if the students are getting what they should from my lessons, it was too time consuming [before learning techniques from WOU]. Through Western Oregon’s rigorous data training, I’ve learned easier and more efficient ways to collect the important information I need to help my students. It’s helped me have more impact in the classroom.”

— Sylvia Hoagland, 2015 Western Oregon University graduate, currently teaches science at Central High School in Independence, OR

Some 20 miles from the state capital of Salem, Western Oregon University (WOU) began as a normal school—a training ground for educators—in the mid-19th century. That early history still shapes the institution; its college of education accounts for about one-third of WOU’s 6,000 students, more than half of whom are the first in their families to attend college. But WOU clearly isn’t stuck in the past. The institution boasts several emerging best practices around a decidedly 21st century concept of data literacy.

**STRONG LEADERSHIP AND VISION**

Western Oregon University College of Education leadership has a clear vision of education data literacy that has held steady across several decades and multiple administrations. Leaders across the various departments and programs are consistent in how they frame that vision, and actively work to ensure that the curriculum and faculty members’ day-to-day practice reflect it.

College of education leaders put data—gathering it, assessing it and using it to drive ongoing improvement—at the heart of their teacher training. The school’s de facto motto, “connecting teaching and learning,” stresses the institution’s commitment to high-quality instruction as an evidence-based practice to drive K-12 student outcomes. “Leaders explicitly track the data literacy knowledge and skills the program teaches its candidates,” says Dean Mark Girod. “We also believe that the actions of our graduates should lead to demonstrable learning among the children in their charge,” he says. “The approach is very purposeful, and it’s been embedded in what we do for 30 years.”

Other faculty and staff echo the need to ensure that their teacher graduates leave with the skills they need to connect their teaching with student learning.
“Just because you teach doesn’t automatically mean that students learn,” says Maria Dantas-Whitney, chair of WOU’s teacher education division. “The connection piece is huge, and that’s where data comes in. You need to be able to access and examine data in order to evaluate not only your own teaching, but also the learning that your students are doing. You have to use it to deliberately ensure students are learning as a direct result of what you’re teaching.”

The school’s data-driven practices date to the 1980s, when senior WOU researcher Del Schalock started exploring the connection between teaching and learning (and arguing that teacher efficacy could be measured by student outcomes). This long history of intentional emphasis on connecting teaching and learning in a demonstrable way helps explain why WOU’s data literacy training practices are so strong today. Girod’s predecessor, Hilda Rosselli (who served as dean from 2002 to 2014), is credited with establishing the practices and structures that created a robust college-wide data literacy culture. From the start of her WOU tenure, Rosselli was explicit in her expectation that all college staff apply the principles of data-driven education to their own practice.

Rosselli says some of her role as dean was to “constantly push faculty on questions around, ‘What are you doing to model your own reflection on learning, your own reflection on the impact that you have?’ ‘How are you going to be convincing as you prepare new teachers if you aren’t looking at your own learners, figuring out who they are, figuring out how to customize for them?’”

Rosselli came to WOU because of its reputation, built under Schalock, as an institution that considered teaching an evidence-based practice. Rosselli believed faculty should demonstrate good teaching practices by seeking evidence of their own candidates’ progress against clear academic goals. With the advent of the edTPA, WOU’s approach to teaching its candidates key data literacy skills remains as rigorous as ever. The WOU program is crafted to ensure all candidates know how to apply data-informed insights to their day-to-day instruction—and do so as a matter of course.

To comply with the prior state requirement, each college of education in Oregon had crafted its own version of the work sample; WOU’s approach continues to stand out for its data focus. Where other schools have tended to focus outcomes, and then I’d better be able to see how whatever ‘grade’ you administer at the end relates.’ We approached the exercise through a specific lens: If X is what we want at the end from our students; they need to know what X is, up front. They need to be supported in doing X, and we have to have empirical evidence that they are doing X.”

This approach to “good teaching”—establishing standardized expectations, communicating them to students, using evidence of mastery to evaluate success and providing support along the way—is precisely the methodology WOU’s college of education seeks to instill in its own graduates. And it’s embodied in WOU’s teacher work sample, which gives teacher candidates a clear road map of the skills and practices they are expected to master to become good teachers.

CLEARLY DEFINED DATA LITERACY PRACTICES

Schalock and his WOU colleagues created the teacher work sample (TWS) some 30 years ago. Until recently, the state of Oregon used the TWS as a condition of certification and more than 400 colleges and universities across the nation used it. While Oregon is phasing in a new performance assessment for would-be teachers (the nationally available edTPA), the move hasn’t substantively changed WOU’s approach to teacher preparation and data literacy. The university now simply helps candidates prepare for the new performance assessment but the TWS continues to undergird candidate instruction.

The teacher work sample is a form of performance assessment that demonstrates how what teachers taught during their clinical practice was linked to what their students learned. WOU’s curriculum was designed to reflect and incorporate all the skills a TWS required. With the advent of the edTPA, WOU’s approach to teaching its candidates key data literacy skills remains as rigorous as ever. The WOU program is crafted to ensure all candidates know how to apply data-informed insights to their day-to-day instruction—and do so as a matter of course.

To that end, Rosselli asked faculty to outline each course’s academic goals and evaluate candidates’ success or failure against those goals. She told faculty: “Your syllabi need to state what the course outcomes are, then you need to be able to show how your assessments are linked to those outcomes, and then I’d better be able to see how whatever ‘grade’ you administer at the end relates.’ We approached the exercise through a specific lens: If X is what we want at the end from our students; they need to know what X is, up front. They need to be supported in doing X, and we have to have empirical evidence that they are doing X.”

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heavily on assessment results, WOU’s approach goes far beyond test scores, guiding teacher trainees through a step-by-step process to incorporate a wealth of socioeconomic, behavioral and observational information. This provides would-be teachers a richer, more complete real-world experience of data literacy, WOU leaders say.

“The teacher work sample helps teaching candidates understand the range of factors that go into student learning,” says Alicia Wenzel, an assistant professor specializing in curriculum and assessment. “It helps structure that process. It asks them to plan, teach, assess and move forward. And that’s what good teachers do.”

The TWS represents a model of effective teaching grounded in teaching and learning that is student centered, outcomes based, and dependent on classroom, school and community context. WOU uses it as both an instructional and an evaluation tool. It teaches students habits of mind around collecting and using a broad range of data, contextualizing the data and using the data for effective lesson planning around relevant district, state and national standards. It creates a mental model for teachers to look critically at who they are teaching and adapt their methods to help their students maximize achievement. And it lets faculty systematically track development of would-be teachers’ skills.

The basic nuts and bolts of the TWS process are this: Candidates gather pre-assessment data from their students that they then use to plan appropriate lessons tied to state standards and customized to their students’ learning needs. After teaching their lessons, a post-assessment lets candidates and their professors examine how effective the instruction was for actual K-12 student learning. The candidate analyzes this pre- and post-data and then provides a written self-reflection that includes examples of what steps need to be taken to address students who didn’t master the material.

Candidates complete their two work samples with extensive faculty input and oversight. The WOU work sample emphasizes “setting”—a critical exercise that differentiates WOU’s data literacy approach. Candidates have to document and analyze a wide range of nonacademic student data such as “available community resources, environmental factors, district funding, support for programs and staff, curriculum, school resources, parental involvement, and organization among administration, faculty and staff.”

To complete the TWS, candidates must evaluate which factors are likely to directly impact student learning. Finally, they must explain in writing the “probable implication[s]” those factors will have on how they teach.

This required step-by-step framework that emphasizes context-sensitive planning makes WOU a stand-out example of what good data literacy training looks like in practice. “Candidates get insights into how the environment might impact what they teach, and how to function in a world where some components are completely out of control,” Wenzel says. “It helps them focus more effectively on the factors that they can control.”

Once candidates complete the “setting” exercise, they can build an instructional plan designed to work in a living-and-breathing classroom. The work sample sequences specific skills and techniques that candidates apply methodically to reliably connect what they teach and what their students learn. Key steps include:

• Breaking down district, state and national standards to identify discrete learning goals and objectives.
• Aligning those goals and objectives with students’
individual needs (initially established through assessments measuring baseline mastery, then monitored via informal assessment tools candidates use on an ongoing basis to ensure students master each learning objective before moving on to the next.)
• Planning lessons and lesson sequences that incorporate relevant content and a range of pedagogical strategies.
• Deploying multiple approaches and tools to assess student knowledge, including exit tickets, observations, verbal checks and quizzes and unit tests.

The TWS helps candidates break down critical underlying teaching skills, Wenzel says. “The teacher work sample— and the coursework that aligns with it—helps candidates see, ‘Oh I need to know how to use those standards to create assessments that are valid, and that will collect the kinds of data I need in order to know what to teach tomorrow. I need to be able to incorporate student interests and learning styles and needs, and I need to understand how to assess and address those.’”

Courses are explicitly designed to incorporate all the skills outlined in the TWS and to help candidates develop a habit of applying data-informed insights to their day-to-day instruction. Both candidates and faculty are expected to have a reflective practice, as embedded in the TWS. Faculty and staff regularly pressure-test the curriculum to ensure they are meeting candidate needs.

“We spent quite a bit of time over the last couple of years identifying the specific skills required by the work sample, and making sure there’s adequate coverage for those skills throughout the program,” Wenzel says. “We found there was overlap in some areas, and holes in others. So we [re-mapped] where the skills had to be [taught]. Now, it seems much more cohesive.”

OPERATIONAL SUPPORTS FOR A STRONG DATA-USE CULTURE

Examples of WOU’s strong data-use culture include a long-standing assessment council that analyzes evidence to ensure the college of education continually optimizes its curriculum and programs; an annual, multi-day, school-wide data event; and custom-built data tools to help faculty and administrators systematically collect and assess the data they need to understand program performance.

WOU’s college of education actively practices what it preaches and teaches candidates around reflective and responsive practice. The school’s assessment council, comprising faculty across the college’s three divisions (teacher preparation, health and exercise science, and special education), “helps drive a continuous improvement cycle across all program areas,” says Peggy Pedersen, chair of the Division of Health and Exercise Science. “We continually step back to review and discuss what we’re assessing, what we’re doing with the data we get, and how we use it to promote improvement.”

The types of data reviewed varies by division, but council member Elisa Maroney, who coordinated the special education division’s graduate-level Interpreting Studies Program, gives a taste of the breadth and depth of evidence considered in her program. She rattles off the following: national tests, coursework (including minors, extracurricular and electives), transcripts/GPA review, graduate students’ thesis and professional projects (noting how many times they’re downloaded on the digital commons), and informal student surveys.

In place since Dean Rosselli instituted it in 2004, the annual data analysis review event (DARE) is a campus wide forum designed to showcase performance data from the college of education’s various divisions. As described,3 DARE provides a forcing function that ensures that faculty and administrators take time to:
• Focus on what they know about their candidates
• Focus on what’s happening to candidates while at WOU
• Focus on what happens to candidates after they leave WOU
• Plan, based on what they learn
• Share information within and across areas
• Ask themselves questions
• Fine-tune their assessments and processes

A typical DARE presentation might include faculty, alumni and exit surveys; external assessment data; and most recently, data on how graduates’ own K-12 students fare.

on assessments, information WOU’s local partner school district now regularly supplies. DARE “spurs ideas and fosters questions on an ongoing basis,” Pedersen says.

The event’s public accountability piece is important and ensures continued focus on empirical evidence across all college of education departments, says Cheryl Davis, chair of the Division of Special Education, director of the Regional Resource Center on Deafness and an assessment council member. “It’s easy to have pockets of people who are using data, and pockets who aren’t, and the two never have to interact until accreditation comes up.”

Educator Data System Management and Retrieval Technology (EDSMART) is another Rosselli innovation intended to drive continuous improvement. The homegrown data system was designed to help WOU parse highly customized inputs about teacher candidate and program performance, in part to alert faculty when candidates had challenges and needed support to progress. Dean Girod says that the system continues to evolve to meet the ever-changing needs of administrators and faculty.

Girod has built on Rosselli’s legacy and remains deeply committed to the internal practices that gird the college of education’s effort to produce data literate, evidence-based teachers who can connect what they teach to what their students learn. But Girod is working to extend the institution’s ability to understand its impact on teachers’ classroom practice. He is strengthening connections with the local school district that hires many WOU graduates to create a feedback loop on how novice teachers actually perform so WOU can better understand—and respond to—the strengths and weaknesses of the institution’s data literacy training. With the Salem-Keizer Public Schools sharing classroom performance data for first-, second- and third-year WOU teachers “we can see how our product, our graduates, are performing in the real world,” Girod says. “And we feed that back into our systems and ask, ‘What do we need to tweak to help our teachers do better? How can we help ensure they’re better aligned to what the district needs? And how can we ensure they have the skills they need to make it, out there?’ Because it [the real-world classroom] is not an easy place to be. In my view, that’s the least we owe our candidates.”