

A Better Windmill: Teacher Education at the University of Washington

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Over my fireplace is a 17th-century tile depicting a Dutch windmill. I used to look at it while my mother told me stories about the windmills that pumped water to save the country from flooding. My sister and I recently traveled to Holland to see the romantic, historical windmills that lingered in our imaginations. We found them, still hard at work, pumping water. To the inexperienced eye, they probably look just as they did hundreds of years ago: beautiful, austere, and antiquated. We learned, however, that the inner workings of these windmills have changed again and again over the years to serve the needs of the country and to take advantage of the technological advances of the last two centuries. Many years ago windmills did more than simply pump water. Through the positioning of their sails, news could be communicated to the village—a death in the miller’s family, a marriage, a birth. During World War II, this “language of windmills” was used to communicate messages to the Allies, while today it communicates information about flood conditions in modern Holland. In many ways, the changing history of the Dutch windmills reminds me of the many teacher education programs I have worked with and, in particular, the one I now work with at the University of Washington.

To those who are unfamiliar with the inner workings of teacher education, programs that prepare teachers probably appear much as they always have: a collection of courses and brief clinical experiences that graduates and their employers often criticize. The reality is quite different. Most teacher education programs (TEP) have been and are being constantly revised to meet the changing needs and priorities of graduates, school districts, and the state. This capacity for adaptation and change is what gives teacher education, like windmills, such enduring value. Adaptation leads to improvement; new developments lead to new approaches. Teacher education at the University of

Washington has undergone just such a period of development and renewal.

Changing Directions

In 1991 it was decided by the faculty and Allen Glenn, who was Dean at the time, that the existing, undergraduate teacher education program at the University of Washington would be replaced by one that was in keeping with research about how best to prepare beginning teachers. This was a major shift shaped by the broader context of the early 1990s, in particular the influence of John Goodlad’s National Network for Educational Renewal (NNER) and the various reports of the Holmes Group.

The Puget Sound Consortium was established as one of the original 14 school/university partnerships in the NNER. The consortium remained active from 1985 to 1993 and helped to create several professional development schools to support new approaches to teacher preparation. At the same time, John Goodlad (1990) and his colleagues conducted extensive research on teacher education. Another initiative, the Institute for Educational Inquiry, founded by Goodlad and his colleagues as a non-profit educational think tank, organized leadership seminars for school/university partnership members on issues of teacher education and the simultaneous renewal of schools, in which approximately 10 of more than 60 faculty in the College of Education participated. Similar developments were also taking place with faculty at Stanford University, who took their cue from Lee Shulman’s (1986) research on the critical role of subject matter knowledge in teaching.

A new Master’s in Teaching (MIT) program emerged as the major component of the College’s renewal efforts. It was designed to incorporate the following elements gleaned from the above influences:

- ❖ Teacher candidates would complete an undergraduate major and minor in disciplines related to school subject matter.
- ❖ Teacher candidates would complete 60 hours of field experience in schools prior to admission to the MIT program to confirm their interest in pursuing a teaching career.
- ❖ Admission to the program would require GRE scores (replaced this year by Washington State's basic skills test), a written goals statement, and an in-person interview that involved participation of College faculty.
- ❖ Student teachers would be organized in cohorts to model the importance of community.
- ❖ Student teachers would participate in three field placements totaling a year's worth of work across different settings.

Our MIT program has developed into an exemplary research-based program taught by tenure-track faculty in the College of Education. Many of our faculty have aligned their research interests with their programmatic work in teacher education and have continued to integrate new research findings into the program. One faculty member, Mark Windschitl (2003), has conducted revealing research on teachers' misconceptions about inquiry. He also uses those findings in his methods course to ensure that future teachers have an appropriate and sophisticated understanding of inquiry as it applies to science education. Two other faculty, Catherine Taylor and Susan Nolen (1996), have investigated how teacher candidates learn about validity and reliability when it comes to classroom assessments. They discovered that most texts use definitions that apply to large-scale standardized tests rather than to classroom-based assessment. As a result, they have revised the classroom assessment course to ensure that emerging teachers have a more sophisticated understanding of validity and reliability as applied to their everyday classroom instruction and that they have the necessary tools to create appropriate classroom assignments and related assessments. Marsha Riddle Buly and Sheila Valencia (2003) have been exploring the factors underlying the scores of students who failed to meet the standard on the statewide fourth-grade reading assessment. Their findings suggest that different children have distinct

and multifaceted problems, making it necessary for teachers to develop a repertoire of sound practices for teaching children to read. Valencia has integrated these important findings into her literacy methods course.

In the new teacher education program, courses have been carefully sequenced to complement and strengthen a full year of field experiences. In addition, experienced educators have been hired as university field supervisors. These field supervisors attend a year-long seminar conducted by two staff members in charge of admissions and field work. The aims of this seminar are to link field experiences with course work, and to help field supervisors problem solve the various issues that inevitably occur when university and school cultures intersect. Field supervisors are also encouraged to attend any and all of the courses offered by faculty from methods courses to reflective seminars so that they learn more about the course content and can then improve coherence between coursework and fieldwork.

The establishment of partner schools—a less formal version of the professional development school—has been an important element in teacher education reform at the University of Washington. Partner school principals and faculty sign yearly contracts to ensure that cooperating teachers in each school are familiar with the goals and aims of the new program. They are encouraged both to meet with field supervisors and to attend university meetings designed to orient them to the experiences our students have while on campus. Prior experience with professional development schools had led faculty to believe that this kind of arrangement might be more sustainable and might provide our students with a broader range of schools from which to choose depending on their interests.

During the fifth and final quarter of the MIT program, following full-time student teaching in the fourth quarter, students are required to return to the University to reflect on what they have learned about schools and teaching. They are asked to prepare a portfolio that includes their philosophy of teaching and learning, lesson plans, reflections on individual lessons, and other supporting artifacts. In a recent move, we have begun to require e-portfolios to reflect the College's goal of enhancing students' technology skills.

Faculty have also recognized the need to encourage new recruits into the teaching profession through an innovative project called the University Initiative Fund (UIF). The UIF aims to encourage innovation across units on campus and successful proposals receive permanent funding. This has led to the creation of a number of undergraduate education courses. Faculty in the College believe that the creation of these undergraduate courses will help us to recruit more students into the MIT program and into the teaching profession. Gene Edgar and Ken Sirotnik, for example, have developed a course on Education for a Democracy, which is now a regular offering. Edgar has also set up several interest groups for freshmen and sophomore students interested in education; these students have in turn formed a future educators club that meets regularly.

Over the past decade, our MIT program has been incredibly successful. Past graduates say that they are better prepared than they expected, and that they feel well qualified to deal with subject matter, state standards and assessments. They also feel more able to deal with the context of their schools. Administrators continue to say that they would not change our program, and that they would like us to prepare more students. According to a survey of 1996–2000 graduates of our MIT program, which was completed this year by Eugene Edgar and Susan Nolen, College of Education faculty, almost all of our students who sought teaching jobs have been able to secure positions. Most remained in Washington State and, based on this survey, our 1996 MIT graduates have a much higher retention rate than the national average for teachers completing five years in the classroom. Principals and teachers claim that our graduates have a sophisticated grasp of the pedagogical strategies specific to their respective disciplines. The College of Education's secondary-education program is ranked among the top 10 in U.S. News & World Report's list of best graduate programs in education in the country.

Continuing Self-Examination and Renewal

During the 2000–01 academic year, the College began to develop a mission statement and draft a strategic plan and set of goals to guide its future work. The mission statement confirms our commitment to preparing students to promote

equity and full participation in a democracy. Faculty also agreed that preparing teachers is no longer enough, that we must align our preparation programs with mentoring provided during a teacher's first two years in the classroom, and align that in turn with ongoing professional development.

The impetus for this goal came from "Sustaining and Strengthening Teachers" (SST), a project designed to build sustainable systems of support for teachers, from pre-service education through the fifth year of teaching. Funding for SST was secured for two sites—Seattle and Portland, Maine. Both partnerships include faculty from Arts and Sciences, the colleges of education, and the local school district and its education association. This project has been funded by the Bill and Melinda Gates Foundation, the Ford Foundation, Carnegie Corporation of New York, and the GE Fund.

The goals of the University of Washington's College of Education are to advance knowledge through research; prepare and support educators and educational leaders throughout their careers; connect research, policy, and practice; contribute to the innovative and responsible use of technology in education; and provide for the ongoing renewal of the people, programs, and environment of the College of Education. In consideration of these goals and drawing on funds made available for the creation of an SST partnership, we conducted, in the spring of 2001 and the summer of 2002, a series of focus group meetings with recent graduates of our program, current students, field supervisors, cooperating teachers, principals, and superintendents. The focus groups revealed that students appreciate much of what they learned but also had suggestions for revisions. Their recommendations included the following suggestions:

- ❖ more preparation to understand how to support low performing students;
 - ❖ more exposure to appropriate technologies likely to strengthen learning;
 - ❖ recruitment of more students of color into the teacher education program;
 - ❖ increase focus on diversity issues in schools;
 - ❖ greater alignment between school district curricular resources and those provided at the university; and
 - ❖ more urban placements for field experiences.
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While the College pursued ideas for program revisions, colleagues in Arts and Sciences were also at work on some revisions of their own. Faculty in mathematics and applied mathematics, for example, agreed that the undergraduate degree in math had been originally designed to weed out students from the pre-med program, a task that had them racing through a wide range of important mathematical content. In contrast, because classroom teachers need a deep understanding of the mathematics they teach, they really should have an undergraduate degree that stresses depth over breadth.

An important goal of the College has been to increase student diversity, especially among those who intend to complete their undergraduate degrees and then move into teacher education. To that end, we began, about three years ago, to partner with the Seattle community colleges. Our ultimate goal is to create a shared pathway into education that includes field-based courses during the freshman and sophomore years that will be offered with open enrollment at both the university and the community colleges. We then plan to add support seminars for those students transferring from community college to the University at the conclusion of their AA degree for the completion of their undergraduate degree at the University. We hope this will add up to an undergraduate minor in education with a major in a school-related discipline and early admission to our Masters in Teaching program at the end of the Junior year.

We have also created a new approach to professional development from the third to the fifth year of teaching. This approach invites teachers to participate in major subject-matter intensives or research projects, followed by on-line study groups. It also encourages teachers to pursue certification through the National Board for Professional Teaching Standards. We believe that emerging teachers need to understand the rigorous nature of intellectual engagement that is required of successful teachers. We know that teachers must continue to build a wide repertoire of approaches for working with diverse children, with subject matter, and with classroom assessments, and that a very sophisticated repertoire takes a lifetime to build.

Placing students in low-performing schools often generates important discussions about whether teachers can be

effectively prepared in the toughest school settings. In response to the special demands that these arrangements place on our students, we created the Teaching and Learning Partnership (TLP), a pilot alternative teacher-certification program to prepare math and science teachers to teach in Seattle's lowest performing middle schools. The Seattle Public Schools (SPS) agreed to provide our TLP students with qualified teachers as supervisors. But they also took a novel approach by requesting that whole departments rather than individual teachers assume responsibility for our students. This arrangement ensured that student teachers are able to observe more than one teacher in action and to enable them to select their own mentors.

In early summer 2002, twenty students were admitted to the Teaching and Learning Partnership. During that summer, students took a month-long course cotaught by Arts and Sciences faculty in earth sciences; Mark Windschitl, secondary science methods faculty member; and Caroline Kiehl from the Seattle Public Schools. The team used Washington State's learning standards and Seattle's earth science curriculum. It blended latest developments in the earth sciences and science education with knowledge of classroom management, teacher planning, and school context.

Four of our faculty taught both in this program and in our regular teacher education program; which enabled us to compare the two programs and their approaches. The University's coordinator/supervisor had a background in science education, and acted as a supervisor in the regular program.

Like any new program in its first year, TLP experienced its share of difficulties. One major, unforeseen problem occurred when the district overspent its budget by \$34 million, thus depriving these students of guaranteed jobs in Seattle's middle schools, as originally planned. Adding to the problem, the anticipated teacher shortage of a mere two years ago has all but disappeared statewide. The economic downturn has taken its toll in Washington State. We are anxiously waiting to see if our teacher education students will manage to find jobs this fall.

In 2003-04, we plan to concentrate on building a two-year induction program for recent graduates of the Teaching and Learning Partnership and a sample in the regular MIT

teacher education program. This will constitute the last link in the continuous system of support that we are constructing for our teacher candidates. Once that is complete, we will again take all that we have learned that is of value and renew our approach to teacher preparation.

Continuing our Commitment to Renewal

The University of Washington was recently awarded a "Teachers for A New Era" grant from the Carnegie Corporation. These funds will allow us to complete some work already underway and provide the evidentiary warrant for our approach to teacher education. With our partners in the community colleges and in Arts and Sciences, we will complete an undergraduate, clinically based minor in education with early admission into our MIT program. In addition, we hope to complete the continuum of support for teachers by making refinements to our TEP program, to our approach to mentoring, and to our new approach to continuing professional development. But most importantly, we hope to build the evidentiary warrant that will demonstrate that our ever-changing approach to teacher education makes a difference in a teacher's ability to improve children's academic achievement.

The College of Education has been immersed in renewal and change for the last 15 years. Presented with growing evidence that teachers need more subject matter preparation, we said good-bye to conventional undergraduate teacher preparation. We are now working to build a more coherent and intellectually rigorous early career for new teachers. Each shift, each new adjustment, each renewal initiative may be invisible to the untrained eye. To those involved, however, the changes have been crucial to the continued vitality of our public education system.

We continue to be committed to a graduate teacher education program—one that steeps teachers in the disciplines they teach. But we know that it is not enough simply to provide a good academic preparation. It is also essential to provide a more integrated and coherent system of support beginning with an emerging teacher's undergraduate education right through to the fifth year of teaching. We look forward to amassing detailed evidence that our approach to teacher education is critical to higher student achievement. Like the enduring windmills of Holland, our teacher education program strives to adapt to the times and to the needs of our educational system so that future citizens can manage a complex and ever-changing world.

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