Appendix A
Case Study of Appalachian State University

Overview

Appalachian State University (ASU) is located in Boone, North Carolina. Set in the Blue Ridge Mountains, Boone has approximately 26,000 residents, half of whom are the university’s 13,800 students. Another 800 students live off campus. Students come from all over the state, but only a small number (approximately 1 percent) of students are from outside North Carolina. The university comprises the College of Arts and Sciences, the College of Business, the College of Fine and Applied Arts, the School of Music, the Reich College of Education, and the Graduate School. With approximately 1,900 students, the Reich College of Education (RCOE) is one of the largest colleges at ASU and the second largest teacher education program in the UNC system. Approximately 60 percent of RCOE students are in the four-year undergraduate program, and 40 percent are in graduate programs. RCOE has approximately 23 master’s programs in education, including a master’s in educational administration, an education specialist’s degree in education that can lead to superintendent licensure, and a doctorate in education that can also lead to superintendent licensure. ASU began as a normal school for teachers 100 years ago, and, according to the dean, its teacher preparation roots reflect the highly respected place that the RCOE holds within the University.

RCOE has been accredited by the National Council for Accreditation of Teacher Education (NCATE) since 1954 and received its latest review in the spring of 2001, receiving “continuing accreditation with no weaknesses” for the next five years. Since the state of North Carolina began rating teacher education programs four years ago, ASU has been in the most highly rated tier of both public and private institutions with teacher preparation programs.

Dr. Charles Duke has been dean of RCOE since 1995, and Dr. Henry McCarthy the assistant dean and director of teacher education since 1996. As administrators and faculty point out, the college prides itself in preparing teachers who are regarded as “the best in the state.” This seems justified by data on recruitment of students and outcomes of RCOE graduates. For example, under the North Carolina incentive program to encourage talented students to enter teaching, 400 full four-year scholarships (Teaching Fellows) are awarded annually to students for use in North Carolina teacher preparation programs. RCOE has the largest program in the state. Each year, ASU receives almost twice the number of candidates it can accept. The maximum allowed at any one institution is 60; ASU last year had approximately 100 Teaching Fellows applicants. According to Dr. Duke, each year anywhere from 10 to 20 of the applicants with these scholarships who are unable to be accommodated under ASU’s Teaching Fellows quota choose to come to ASU even if they cannot apply their scholarship, with the hope that it can later be converted if another Teaching Fellow drops out during the freshman year.

ASU graduates also fare well upon graduation. Approximately 11,000 ASU graduates are currently teaching in North Carolina. They are actively recruited for teaching positions throughout the state, with some receiving signing bonuses that many districts across the state pay for highly qualified new teachers. Over 99 percent of the RCOE graduates who seek continuing licensure in North Carolina successfully complete the licensure process. Data are not collected
on RCOE graduates in terms of staying in teaching—the statewide attrition rate is relatively low, hovering around 13 percent to 14 percent per year compared with approximately 16 percent nationwide (National Commission on Teaching and America’s Future, 2003). However, one measure of the quality of the teacher preparation program is the fact that in a state that ranks first among all states in the number of teachers certified by the National Board for Professional Teaching Standards (NBPTS), 16 percent of the NBPTS-certified teachers in North Carolina are ASU graduates.

Leadership’s Impact on Partnerships and Technology Preparation

The dean has made one of his highest priorities the integration of technology across the teaching program at RCOE. Partnerships with local school districts are also central to his vision of the college’s role within the community. Dr. Duke’s commitment remains strong despite the challenge of funding cutbacks and the ending of several federal grants. ASU is the lead institution for the $1.29-million PT3 grant, the Appalachian Rural Teacher Technology Alliance, which ran from 2000 to 2003. Despite the ending of this major grant, Dr. Duke has brought a number of funding initiatives under an umbrella that continues to support partnerships and technology initiatives.

Dr. Duke’s approach to faculty development with technology has been creative. In 1995–96, the Spangler Program, a special state funding initiative for technology, provided an opportunity for ASU to enhance its faculty support for technology. Dr. Duke hired a technology/curriculum specialist whose primary focus is helping faculty integrate technology into their teaching. Using internal RCOE funds, he also added two other positions: a technology facilities coordinator and a technology network/hardware specialist. Together, these three positions help support student and faculty use of technology. According to the dean, this “three-legged stool” for support is a critical piece of the success RCOE has had in building faculty expertise. Although there is technology support from the university as a whole, the technology support team at RCOE goes beyond what the university system can provide. Dr. Duke put it this way in the first year’s visit: “The faculty needed that just-in-time support. We have three terrific people, and our faculty loves them. The atmosphere in which faculty learn best is one to one, so this is the best way to have faculty respond.”

Other initiatives in the college continue to support faculty growth and professional development. Although most colleges provide some support for faculty to attend professional conferences, Dr. Duke made grant or university funding available to encourage groups of faculty to attend professional meetings and conferences together as a team, gathering before and after sessions to discuss what was learned and how the new research, instructional tools, or teaching techniques might be applied in their teaching at ASU. For example, with faculty-development support funding from ASU’s PT3 grant, a team of 14 faculty from various departments within the College of Education attended the Society for Information Technology and Teacher Education (SITE) conference in Albuquerque, New Mexico, in March 2003. The technology/curriculum specialist coordinated a series of meetings at the conference center each morning and evening for the faculty team to meet and discuss the day’s sessions, what each had learned during the day, and what knowledge they had gained that could be applied to programs back on campus.
Most recently, Dr. Duke has set aside $75,000 from university funding to support a faculty grant program called Successful Applications of Learning Technologies (SALT). The request for proposal (RFP) says faculty members are invited to submit proposals (two to five pages in length) related to the use of technology in the RCOE curriculum and in related programs. Proposals are to address the innovative use of technology in the context of enhancing teaching and learning or solving existing programs faced by the college, with priority given to proposals involving collaborative teams of faculty. The RFP encourages inclusion of faculty outside the college and K–12 faculty and administrators. The intent is to support program development using emerging technologies to create distributed communities of practice to support students, particularly those off campus, in their learning and development. From four to fifteen one-year grants of $5,000–$20,000 each will be awarded in late July 2003.

Besides being a strong incentive to use technology, these grants appear to support two other goals the dean identified as important to his vision for the college. The first has been to encourage faculty to work more collaboratively. As Dr. Duke noted, “Shifting from ‘my research’ to ‘our research’ can be messy!” The second goal has been to confirm for faculty that the college recognizes that faculty research can be in the context of service, as, for example, working with a K–12 teacher in investigating what is happening in the classroom as a part of working more directly in the school environment.

Like other institutions in this study seeking to reach out and serve a broader population beyond the campus boundaries, ASU is faced with the necessity of finding alternative means to deliver courses and support teacher candidates and teachers in the field. The dean has worked to encourage faculty to put more courses online, as a way of providing more outreach and support for off-campus programs, and to work more directly with technology. And, as is found in other sites, there has been concern among faculty as to how online courses will affect teaching quality.

In a meeting on this issue, attended by NCREL researchers as a part of the case visit, approximately 20 faculty members from across the college shared their concerns with the dean about design, content, and skills issues related to teaching online. Some of the questions, debated quite extensively were these: Who should determine whether a course is to be provided online? What preparation of students is necessary to enable them to take advantage of an online course? How does one create a constructivist perspective in an online course? Faculty interest was high, and discussions were heated, especially around the issue of class size. At the conclusion of the meeting, there was agreement that, with support from the technology/curriculum specialist and ASU faculty who had begun to offer online courses themselves, more courses would be developed for online use, but these courses would include both face-to-face and online components and would have no more than 20–25 students.

**Impact of State Policies**

The state of North Carolina places an emphasis on assuring that teachers acquire the skills necessary for teaching with technology. Although the state initially required all preservice students be tested in an Essential Technology Skills Inventory, the test is no longer required. Instead, each teacher preparation program is given responsibility for assuring that its graduates meet the technology skill requirements through “completion of a technology product of learning
that is evaluated by a panel of Institutes of Higher Education and public school faculty.” At
ASU, students take a required course in which they complete the National Educational
Technology Standards (NETS) self-appraisal created by the International Society for Technology
in Education (ISTE) as one of a number of required activities in the course. Based on this self-
assessment, faculty directed students to resources (e.g., tutorials, workshops, software) to help
them build skills in identified areas of need.

All teacher education students must also complete a technology portfolio prior to student
teaching. The portfolio is intended to give students a way of producing, collecting, and revising
artifacts (lessons, modules, unit plans, resource materials, and other instructional materials) that
can be used during the field experiences. A basic template has been created by the Teacher
Education program staff, and artifacts are developed during the students’ program. A final check
sheet is included in the student teaching handbook for the instructors and supervising teachers to
sign. All competencies must be met in order to receive a passing grade for the student teaching
period. Programmatic oversight is an issue; there is wide variation across professors and
supervisors as to what is acceptable.

With support from the technology/curriculum specialist, many of the RCOE students put their
portfolios online and continue to maintain these “telefolios” after their student teaching is
completed. There also has been a general movement, for the teacher preparation program, toward
the use of portfolios that demonstrate a range of teaching competencies well beyond technology
skills.

In the NCREL case study visits, students gave mixed reports on the value of the technology
portfolios: Some student teachers demonstrated their telefolios with great pride, but others, who
seem less interested in technology, felt the technology portfolios were “busy work” that provided
no value to them in their student teaching. Until recently, portfolios were required for North
Carolina teachers in order to obtain a full professional license after two years of teaching.
However, the state legislature, under pressure from some teacher groups, has pulled back on this
requirement, and initially licensed teachers no longer have to prepare portfolios in their second
year. The requirement for technology portfolios or other portfolios within a teacher education
program, however, was not affected by the North Carolina State Board of Education’s change in
policy. Interestingly, some ASU students, looking toward the future, reported that they valued
the experience of collecting multimedia documentation of teaching lessons and skills as
something they could apply when submitting evidence in support of NBPTS certification. They
felt the ASU portfolio gave them a head start, especially in creating the video documentation of
teaching a lesson, in their professional careers.

**Partnerships and Technology**

RCOE is part of the ASU-Public School Partnership that extends over a 2,000-square-mile area
of geographically isolated terrain. Eight school districts and 115 schools are part of the
partnerships, and teacher preparation students are placed in a number of these schools for early
field experiences, internships, and student teaching. Most are placed within a 50-mile radius of
ASU for early field placements. Since Watauga County has only one high school, many student
teachers, as Boone residents say, go “off the mountain” for high school placements at schools
within a 20- to 40-mile radius. Approximately 240 student teachers are placed in student teaching assignments each semester, and although the state requires 10 weeks of student teaching, RCOE provides more—15 weeks for each candidate. Another 700 students have internships/observations in schools each year.

The college is expanding its student-placement options and now works with about 30 different districts for student teaching placements, including partnership districts and the urban and suburban districts of Winston-Salem, Greensboro, Charlotte, and Raleigh. There are also opportunities for students to visit schools in New York City and Washington, D.C., and a program in Mexico. The Mexican program allows students to take up to five weeks in Guadalajara after completing ten weeks in North Carolina. The variety of internships and field experiences is a source of special pride with Dr. McCarthy, assistant dean for field experiences.

Each teacher education student must conduct 30 hours of classroom observations, designed to be done early enough in the program so teacher candidates can be steered into other directions if teaching doesn’t seem right for them. Fifteen weeks of student teaching is required, either in one site or split into two seven-week sessions in two sites. (The last week in either plan is spent observing other schools.) Additional field experiences are integrated with methods courses that students take as they progress through their programs and culminate in the 15 weeks of student teaching.

The large number of schools in the partnership districts means that in some cases it isn’t possible for the coordinator to know all the cooperating teachers well, as was observed in one school visit. Nonetheless, many of the relationships with cooperating teachers have gone on for many years and are built on strong, cooperative relationships between ASU and the host schools. The cooperating teachers we met described these partnerships as important for them in a number of ways, and the partnership districts have begun to formally acknowledge the importance of supervising student teachers as a valued professional development activity for the cooperating teachers. For example, ASU has recently negotiated with partnership districts that a cooperating teacher can receive up to three renewal credits for each student teacher he or she supervises. Districts determine how many of these renewal credits can count towards recertification. (In most cases, it is three in a five-year period).

Cooperating teachers visited for this case study described most ASU student teachers with whom they have worked as very well prepared, particularly in the area of technology. Several of the classes led by student teachers observed during the case study visit confirmed the ASU students’ comfort level in using technology:

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*Student teacher D.M. involved his honors English class in a thoroughly engaging multimedia lesson on the writings of Daniel Defoe and Samuel Pepys, using a combination of technologies. He recorded his own dramatic reading of the text on audio tape for students to listen to as they read along silently; he used a SmartBoard for students to record the contrasts between the two authors’ descriptions of the plague; and he projected on the SmartBoard a Web site that has a “classic comic” version of the Robinson Crusoe story. Students were assigned roles in the story to read aloud. The student teacher also showed them*
the class home page he created on his personal Web page, encouraging them to
post definitions of words in the style used in Samuel Johnson’s dictionary. The use
of technology was seamlessly integrated into what was a very complex but well-
designed lesson, and every student in the class was actively engaged throughout
the class period.

In the same school, another student teacher, J.M., taught a mixed-ability group of
high school sophomores, juniors, and seniors a series of major Supreme Court
cases (e.g., Korematsu Vs. United States) in the Economics/Constitutional Law
class. She used PowerPoint® as an organizing vehicle for showing an Internet site
on Japanese internment camps in World Word II, along with a video clip from the
movie Snow Falling on Cedars that portrayed the impact of internment on
Japanese Americans. While this teacher’s style was more presentational or
didactic, and less interactive than that used by the previously observed student
teacher, her use of media appeared to help make complex content more accessible
and engaging to her students.

Whenever possible, student placements are made with technology-using teachers, but this is not
always the case. (In neither of the classes cited above was the supervising teacher particularly
skilled in using technology, although both valued the way their student teachers were using
technology to support their lessons.) One way ASU seeks to encourage the use of technology in
supervising teacher classes is through the Cooperating Teacher Surplus Computer Program. In
this program, the college donates “excess” computers (i.e., those that are going to be replaced
because of upgrades in the college) to local schools that do not have adequate technology. A
three-year cycle of upgrading computers in the college means that each year approximately 20 to
25 computers are classified as excesses. Cooperating teachers at local schools in which ASU
teacher candidates are placed are invited to apply for these computers after attending a three-day
workshop in the summer, led by ASU’s technology/curriculum specialist, to gain knowledge
about the uses of computers in their teaching. As a result of this experience, and as a culminating
activity, they write the proposals and are then provided the machines. This project has been
described as a win-win situation: The teachers get professional development targeted to their
individual teaching goals; the schools get nearly new technology (all computers are warranted by
the university, and teachers can get technology support if problems arise); and the college is able
to keep its computer inventory up to date while assuring that student teachers have technology in
the schools in which they are placed.

One of the cooperating teachers visited in the case visit was Kay Campany, the biology teacher
at Avery High School. In the class visited as a part of this study, her students were using
PowerPoint to present information on various medical conditions they had researched and
prepared reports on. Campany has attended technology workshops offered by ASU and received
five computers through the Surplus Computer Program. She has also acquired additional
technology (e.g., a SmartBoard and video cameras) through other grants. She models technology
integration in her classes and helps her student teachers use technology in her classroom.
Because Campany is preparing for her NBPTS certification, she does not have a student teacher
this year, although she has been a supervising teacher for ASU teacher candidates for many years
in the past.
Based on comments from teachers in schools visited, most cooperating teachers at the partnership schools value the monthly subject-specific (e.g., English, math, science, social studies) focus groups where teachers and education faculty meet to discuss teaching in the content areas. These focus groups are open to any interested teacher and include teachers from many schools, cutting across all districts in the partnership. High school faculty at Avery High School, interviewed for this study, reported that they learn a lot from the ASU faculty. As one indicated, “I feel I could pick up the phone and call anyone from ASU and they’d help me.” Apparently the learning goes both ways. Outcomes were practical, for example, English teachers prepared online tips for first year teachers, and science teachers distributed “care packages” of materials for experiments to student teachers at the beginning of the year. Outcomes were also philosophical, for example, based on what ASU faculty heard from the high school English teachers—that “teacher candidates were being prepared to teach college English” but not the North Carolina standards—they made adjustments to “bring it down to the real level of the kids.”

The case study made it clear that, even in a state with a reputation for supporting technology, most schools in ASU’s partnership area are far from being “high tech.” Many schools still have a limited number of computers in the classroom, with the exception being those classes of teachers who have applied for and secured special grants (e.g., the ASU Surplus Computer Program). As was seen in the other case visits, more technology activity is likely to be found in the computer labs than in classrooms.

Equipment is often cross platform and variable in terms of age and power. Schools face the challenge of upgrading equipment at a time of budget cutbacks. In this case visit, as was true in the other two sites, there was some use of laptops on carts to increase classroom access, along with the occasional SmartBoard and distance learning lab, but no classes were observed in which handheld devices, tablet computers, or other “cutting-edge” applications were in use. Consequently, although ASU’s student teachers and graduates are ready to teach with technology, they are often disappointed by the resources they find when they enter the schools. Still, several graduates commented that, if they found their schools lacking the appropriate resources, they were prepared to write proposals to get technology they deemed necessary for their students to learn.

University faculty serve as supervisors of student teachers whenever feasible. For the varied off-the-mountain placements, however, local teachers or retired teachers are hired as adjuncts and conduct the field supervision of the student teachers. In addition to the regular university supervisors, academic consultants for each content area in the secondary and K–12 areas visit student teachers once or twice a semester.

This case visit confirmed what has been found to be a problem common to many teacher preparation programs: the lack of technological sophistication in supervisors. Most supervisors, who typically have been retired for a number of years, often have limited knowledge of and skills in using technology. At best, the vast majority are beginners. Although ASU has provided workshops for supervisors, it is on a voluntary basis. This means that the majority have not been prepared to carefully assess student teacher use of technology. These supervisors, unaware of the best educational uses of technology, are unable to guide student teachers in best practices with
technology. Yet they are the ones who “sign off” on student use of technology in lessons required for their technology portfolios. This is an area of concern to ASU. As the dean reported, “This is unfortunately accurate, but we’re working on it. Come back in two years and take another look!”

Concluding Comments

ASU is typical of state institutions that prepare a large number of teachers but are located in a rural area: They graduate many more teachers than can be placed in local schools. While the setting of ASU and many of its partner schools in the area is rural, students must also be prepared to work in suburban and urban schools where most vacancies occur. And, with students scattered across a wide geographic area, problems emerge—diversity of placements; contact with cooperating teachers and collaborative schools; and wide variation in technology expectations, access, and skills. Nonetheless, ASU has a track record of preparing teachers who are sought out by schools throughout the state, in part because of the strong skills they have acquired in teaching with technology.
References

Appendix B
Case Study of University of Texas at El Paso

Overview

The University of Texas at El Paso (UTEP) is located in the city of El Paso in far-northwestern Texas across the Rio Grande from Juarez, Mexico. El Paso has a population of 800,000; El Paso and Juarez together form an interconnected metropolitan area of 2.5 million people. More than 70 percent of UTEP’s 16,000 students are Hispanic, and most are first-generation college students who come from the El Paso community. The UTEP College of Education prepares about 600 candidates each year for initial certification through the undergraduate program. Approximately 60 percent of these graduates come from the community colleges feeding into UTEP and enter at the junior year. Another 150 are prepared through the Texas Alternative Certification Program, in which candidates teach full-time in an elementary, middle, or secondary school while employed by a public school district, and complete a one-year internship plus 20 semester hours of university coursework.

More than 70 percent of the teachers prepared at UTEP are Hispanic, making UTEP one of the largest entities in the country that prepare Hispanic teachers. The link to the local community is strong: Approximately 60 percent to 80 percent of the teachers in its partner districts come from UTEP. The faculty counts as an indicator of success not just the fact that districts seek out UTEP graduates, but also that they are told that teachers prepared at El Paso become the change agents for other teachers in area schools.

Partnerships between the university and the local schools are central to the mission of the University of Texas at El Paso. The College of Education’s Web site indicates the commitment to serving the Hispanic community: “The mission of the College of Education is to prepare effective teachers, counselors, diagnosticians, and school administrators, who successfully address the problems of schools and other youth-serving agencies, especially in communities with a significant Hispanic population” (University of Texas at El Paso, 2001).

Leadership’s Impact on Partnerships and Technology

Long-term leadership at the university has provided a history of support for the partnerships found at UTEP. The president, Dr. Diana Natalicio, has championed service to the El Paso community since her appointment almost 15 years ago. The provost, Dr. Stephen Riter, has been at UTEP for eight years. Both Dr. Natalicio and Dr. Riter have also been supportive of the College of Education in its role preparing educators for the local community. As of the writing of this report, one of the four major headings on the home page for the UTEP Web site (www.utep.edu) is “Teaching as a Career,” signaling the importance placed on teacher education at UTEP.

The College of Education also benefited from continuity in leadership as it built up its programs. Dr. Arturo Pacheco was dean for 10 years and served as chair of the Teacher Education Department. Dr. Jorge Descamps was at UTEP for 28 years, the last 10 years serving as assistant dean of the College of Education and the chair of Teacher Education. However, both of these leadership positions changed in 2002. Dr. Josefina (Josie) Villamil Tinajero, former associate
Dr. Tinajero also directs the nationally acclaimed Mother-Daughter/Father-Son programs with the local community. Dr. Tinajero is a noted author and featured speaker in the field of bilingual education and in the recruitment and retention of Hispanic students in higher education.

Dr. Elena Izquierdo has taken Dr. Descamps’ place as chair of Teacher Education. After working in the K–12 environment as a teacher, assistant principal, principal, and director of civil rights, she returned to El Paso—“home” and a community where she believes she can make the greatest impact.

Dr. Tinajero stated her intention to expand the emphasis on community partnerships and on technology in the college. Her first action as acting dean was to provide a summer retreat for faculty, in which technology was, as she put it, “the number one issue.” One of the UTEP technology “superstars,” Dr. Henry Ingle, led the discussion on how faculty can better integrate technology into their teaching and the development of online courses. The campus technology support director, Eldon Posie, also attended the faculty retreat, along with a new faculty hire, Carol Awalt, technology integration specialist, whose job it is to work with faculty in technology integration. Awalt conducted a survey of faculty needs and concerns and is working with faculty on a one-on-one basis with appropriate hardware and software. She sees her job as getting staff up to speed to the point that some time in the future a separate course will not be necessary. She wanted to focus on assisting them with lesson plans and using technology for specific learning concepts. She noted that alternatively certified teachers are almost always better prepared.

Dr. Tinajero’s leadership in her year as acting dean was important in securing funding for technology in the face of state budget cuts impacting all parts of the university. The state cut the College of Education’s budget by 7.5 percent (as a result, the hiring of new or replacement faculty was cut from eleven to four positions) and the technology budget by 50 percent. Nonetheless, Dr. Tinajero was able to get a higher technology allocation from the university administration this past year than in the previous year. In fact, the technology allocation for the College of Education is the highest in the university, and in this past year all the college’s funding requests for technology from the university have been approved. Much of the technology in the college needs upgrading, and Dr. Tinajero was pleased when she was able to get approval for doubling the student technology fee making it possible to focus on upgrading technology in the college.

Despite the ending of several grants that had supported technology initiatives in the past (e.g., the five-year Technology Innovation Challenge grant from the U.S. Department of Education), half the technology efforts in the college continue to be funded by outside money. A $100,000 grant from the Texas Infrastructure Fund has made it possible to put wireless hubs throughout the education building. Additional funding from the El Paso Partnership made it possible to increase funding for hardware acquisition. Two new staff have been hired with primary responsibility to assist faculty and school partners with the integration of technology. And, a recent $29-million grant from the National Science Foundation’s Math/Science Partnership will create a new emphasis on using technology to support the teaching and learning of mathematics and science in the partnership schools. While not a technology grant per se, UTEP’s selection as one of the Carnegie Corporation’s grantees in the Teachers for a New Era program will also extend the
visibility and support for strong K–16 partnerships between the university (both in teacher education and the arts and sciences) and the local school districts.

Dr. Tinajero believes that leadership “from above” is important to convince faculty to seek out grants with technology as a focus. It is also necessary to have this top-down encouragement for faculty to redesign courses to better employ technology. For example, she is urging faculty to submit courses to the statewide higher education group that is promoting the use of online courses across the system. With design and proposal assistance from Dr. Ingle and his staff, ten College of Education courses have each received $15,000 to $17,000 to redesign their courses for online delivery.

Dr. Tinajero also believes that UTEP has a special niche in its expertise in bilingual education that will serve it well in the outreach it can offer through online courses, especially as expectations grow among those who live and work in the many rural areas far from the university. Some online courses will be aimed at helping paraprofessionals meet the certification requirements of the No Child Left Behind Act. However, faculty concerns about the courses are similar to what was heard by researchers in other case site visits, such as these: Will sufficient students enroll? What might be the impact on faculty workload and on their work in the schools? Will teaching quality suffer?

**Partnerships With Local Schools**

El Paso County has approximately 135,000 students attending public schools. More than 80 percent of these students are Hispanic, and nearly 75 percent qualify for free or reduced-price lunch. A large number have limited English proficiency and require bilingual or English-as-a-second-language instruction. The overall dropout rate is approximately 30 percent, although pupils in the region generally score at the state average in achievement tests.

The UTEP College of Education prepares a significant number of beginning teachers for the districts in the metropolitan area. During the case study visit, it was not possible to observe student teachers or to meet with them, because classes at UTEP had ended for the semester. However, the research team met with recent UTEP graduates now teaching in El Paso schools, teachers completing their two-year certificate program funded under the 1998 Technology Innovation Challenge grant, and visited three of the El Paso Partnership schools. The El Paso Partnership was created in 1996 with support from the first U.S. Department of Education $3.5-million Technology Innovation Challenge grant awarded to the district. This five-year grant, awarded in 1995, was followed in 1998 by a $10-million Challenge grant, which ended in 2003.

The College of Education is expanding its partner school network to bring 12 local schools in the El Paso Partnership into a Professional Development School (PDS) status, where teacher preparation classes are taught and serve as centers for professional development and research. University faculty from the School of Arts and Sciences are also involved in teaching in the schools for the secondary education majors.

The PDS model, however, is expensive and creates a problem for faculty because it requires them to spend so much time off campus and out in the schools. As has been noted in the literature about partnerships, faculty express concerns about finding time for publication, research, and graduate-
level guidance in the context of increased time demands for time spent in local schools. In the face of budget cutbacks, there has been some pressure from the provost to reconsider whether the intensive field-based model is worth the extra expense and effort. Dr. Tinajero is trying to work out a model that will have faculty rotate through work in the partnership schools. The real question is yet to be answered: Does the intensive, field-based model create better teachers? The research to date is inconclusive.

Partnerships and Technology

Interviews with recent graduates and the faculty in partnership schools suggest that graduates of the UTEP College of Education enter the classroom well prepared to begin teaching in the El Paso schools. The new graduates were satisfied with the methods courses in their teacher preparation program as well as clinical preparation they experienced. They also graduated feeling ready to teach with technology. The biggest challenges these students faced in their first years of teaching were not technological concerns, but rather knowing how to deal with the problems the students bring with them from home. Graduates noted that they would have preferred to have more information on appropriate agencies to which they can refer students when particular social problems are identified.

The Challenge Program, funded through the 1995 and 1998 U.S. Department of Education Challenge grants, has been the major technology professional development program for teachers in the El Paso Partnership. (Five teachers from each of the participating schools volunteer to participate for this two-year program.) There have been nearly 500 teacher technology leaders and 200 master teachers with master’s degrees trained through these programs to date.

During the case visit, interviews were held with a focus group of seven of the teacher technology leaders completing the final year of the program. Several recent UTEP graduates who participated in the Challenge Program described it as one of the best programs they have ever experienced. They believe the program, with its student-centered, constructivist approach to using technology, taught them practical skills and gave them quality experiences in using technology to help advance student learning.

In the Challenge Program, teachers learned to use various software packages and technology for problem-based science activities. They also mentioned a number of Web sites their instructors shared with them as being helpful in their teaching. The Challenge Program enabled them to learn how to use software including BIOSIMS, WebQuests, Geometry, and Sketchpad, as well as National Geographic and language-arts Web sites that could be used in lessons supporting content needed for the Texas Assessment of Knowledge and Skills (TAKS) state test. They also learned to use computer-based laboratory probe ware to collect and analyze information, and they created a parent-awareness Web site. These teachers noted that they especially appreciated the opportunity for self-reflection and the help in learning which teachers to draw upon as sources of information and resources.

The goal of the Challenge Program is for teacher technology leaders to learn technology-integration skills over a series of monthly meetings and to become informal mentors to other teachers in their schools. Teachers participating in the program receive a laptop that can be used
as long as they remain in their school, and they receive a certificate at the completion of the program.

The teachers from the Challenge Program reported that they chose to be part of the program for a variety of reasons. Some had never been trained with technology, and this was the first chance to learn. Others had some experience but wanted to improve their skills and deepen their knowledge. Teacher skills in technology at the completion of the program ranged from novice to experts. While the time commitment was considerable for participating teachers, they all reported it was worth the time spent. The mentoring commitment varied in terms of how it was structured at each of their schools, and in the amount of support provided by administrators to enable them to conduct any mentoring activities. In most cases, this technology mentoring was informal with little time set aside during the school day to assist their school colleagues and with no funding set aside for hiring substitutes for classroom visitations or in-school training time.

Three Partnership Schools

Three partnership schools were visited as a part of the case study: Canutillo Elementary, Ysleta Middle School, and Bowie High School. In each of these schools, strong principals and staff have been instrumental in employing technology to give students positive experiences that enhance their self-images and help them gain confidence in themselves. These partnership schools may not be typical of what is found around the district, but they were made available to the research team in order to demonstrate sites that are exemplary in the ways they use technology.

Canutillo Elementary. Canutillo Elementary School serves a low-income community of 800 students, 94 percent of whom are on free or reduced-price lunch. Now in his sixth year as principal, Hector Girón immigrated to the United States from Mexico and is working on a doctorate in education at UTEP. Describing himself as dedicated to the improvement of all children, Girón is a technology advocate. He oversees two buildings, a PK–4 school wired with an average of four computers per classroom and an older building housing the fifth and sixth graders also containing considerable technology. The school has received computers from various federal and state grants but is facing problems found at several sites in this case study: replacing aging equipment as well as meeting the increasing expectations of both students and teachers as they become more sophisticated with technology. At the time of the case visit, Canutillo had submitted a grant proposal to the Beaumont Foundation for additional funds for hardware.

The school is moving toward a greater emphasis on the use of laptops because they can be moved from class to class via a mobile lab, can take advantage of the wireless network, and are particularly important for project-based learning activities, which the school emphasizes.

Canutillo is a Professional Development School for UTEP and last year hosted 22 student teacher interns in the fall semester and 16 in the spring. The student teachers observe modeling of technology integration in the classroom. Twenty-five of the 45 teachers on staff at Canutillo have participated in six-day workshops on technology integration provided by the school.

Girón believes that technology is a powerful tool for all children and that it is critical that children from poor families have access to and the ability to use technology in their learning. One of the
most powerful uses of technology at Canutillo has been to help make all students competent in both English and Spanish. Students use both English and Spanish Web sites with instruction emphasizing cognitive understanding of both languages, not just conversational knowledge. Teachers at Canutillo integrate technology into the curriculum and almost all content areas by including Web page development and information gathering on the Web in classroom instruction. Teachers feel this use of technology helps students develop social skills as well as achieve better on state achievement tests. Wherever possible, teachers make a great effort to make learning experiences relevant and useful to solving real problems, and they believe technology helps them do that.

Technology is also used at Canutillo to reach out to the broader community, and computer labs are open for parents one day a week. Parent involvement “at their own comfort level” is emphasized at Canutillo; parents may come with their children to the library, to computer labs, or just to sit in on class to observe. It is not unusual, according to Girón, to find parents in the cafeteria eating with their children. Once a month, there are parent meetings for which parents set the agenda. In early May 2003, the school hosted a technology fair, and 300 parents attended. Canutillo administrators and teachers believe that technology plays an important role in their students’ education, and they see technology as a positive factor contributing to the school’s high (80-percent to 90-percent) passing rate on state exams. They believe that community members understand this important contribution by technology.

Ysleta Middle School. At Ysleta Middle School, where a similar percentage of students are on free or reduced-price lunch, the principal, Barbara Trousdale, a 12-year veteran, has also been very resourceful in finding ways to support technology initiatives in the school. Site-based control of the budget has been helpful because it has allowed flexibility in how the school uses its resources. For example, building funds and other resources have made it possible for Ysleta to wire all of its classrooms, provide all teachers with laptops, and equip two computer labs. Mobile laptops have also been very important here. On the other hand, much of the equipment is aging and needs upgrading, and replacement will be a significant issue for the school.

The faculty at Ysleta cited several technology initiatives as especially valuable to them: UTEP’s 1995 Challenge grant program, the Netschool Laptop Initiative, and the 1998 Challenge grant program for technology leader teachers and master technology teachers. Even though the school is well equipped by most standards, one of the mathematics teachers noted, “We have labs and I have three machines in my room, but it is never enough because if I had more I would find even more uses.” Faculty are also aware that the technology is coming to the end of its useful life, and that budgets are so tight that replacements are unlikely soon. This is a worry for teachers who have grown accustomed to integrating technology into instruction.

When asked about the value of the partnership with UTEP, the educators at Ysleta reported that the partnership has expanded their horizons and introduced them to more research on student-centered practices, which has led to greater student motivation and fewer classroom disruptions. They maintain that the partnership works to the mutual benefit of the university and the school.

Bowie High School. Bowie High School, located in South El Paso, just over the border from Mexico, also serves students who are predominantly from high-poverty backgrounds. A
substantial number of Bowie students are recent immigrants from Mexico. Technology is spread throughout the buildings on the campus, but most of the school’s computers are clustered in content-area labs. In the literacy wing, a computer lab is heavily used for developing English literacy skills. A mix of computers of varying ages and brands are employed to assist students on their language and writing skills as well as learning core content. Students are asked to create reports using Microsoft® Word®, PowerPoint®, and HyperStudio®. Teachers commented that combining technology tools with specific assignments improves student learning of the content and their ability to use appropriate English words and grammar.

Another example of technology supporting content was demonstrated in the math computer lab managed by a former mathematics teacher. In this lab, students use or develop lessons that expand and support content in the mathematics curriculum. One mathematics teacher has worked closely with students on a project in which they researched various careers on a Web site and used a spreadsheet to enter data on the skills required in their chosen field, its entry-level and average pay scales, and other relevant information. According to the math computer lab teacher, the hands-on involvement of this teacher (the district’s first National Board Certified teacher) in creating and overseeing the technology-supported activity in the lab was unusual. She found that it was more often the case that classroom teachers fade into the background or even leave the lab while the computer teacher conducts the math lab activities.

Bowie will house a new program, the International Business and Public Affairs Academy, taking 60 students per year, starting with the freshman class in the fall of 2003. Funded through the district, the academy builds on the international flavor and many international resources in El Paso. Bowie also has a modern, state-of-the art technology center on its campus, with classrooms for computer-assisted design, television production, graphics, and other classes about technology. At the time of the case visit, Bowie had made the network and computers in the technology center available for specially trained district teachers who were creating online courses for student remediation in the El Paso Online Academy. The Online Academy makes it possible for teachers to assign whole courses, course sections, or course modules that students can study online as needed for extra help or when they must repeat courses. The Online Academy is seen as a different way to help students master needed content in a self-paced manner, presented in a format that goes beyond the content found in textbooks in face-to-face classroom courses.

**Challenges for the Partnership**

School and higher-education personnel interviewed for the case visit reported that the El Paso School District has a serious problem with teacher retention. In this, the district mirrors the nationwide problems noted with new teacher attrition: Nationally, 40 percent of all teachers leave teaching by their fourth year of teaching (National Commission on Teaching and America’s Future, 2003), and El Paso is no exception. According to Dean Tinajero, the numbers are similar in El Paso: Forty percent of new teachers leave by their fourth year of teaching. Dr. Tinajero believes that teachers leave the profession because they are not supported in their schools and experience unsatisfactory working conditions and low pay. Many leave teaching for higher-paying jobs in immigration and security work in the expanding employment market along the Mexican border. As one way to help stem this tide, the UTEP College of Education is working with
districts to develop a teacher-retention plan. As a first step, they created a retention institute that researches the reasons teachers leave the profession.

Concluding Comments

UTEP is an example of a teacher education program highly integrated into its community—candidates are recruited from the local area and prepared as high-quality teachers committed to returning to teach in their local schools so that the next generation of students will be successful learners. UTEP faces many challenges in accomplishing this task but has been successful in attracting major new sources of funding (e.g., the NSF math/science grant and the Carnegie Teachers for a New Era grant) that will help position the institution as it continues to move forward as a college of education that builds successful partnerships to support technology-competent teachers.
References


Appendix C
Case Study of University of Wisconsin–Milwaukee

Overview

The University of Wisconsin–Milwaukee (UWM), located in the state’s largest city, is the only urban campus within the University of Wisconsin system. UWM has approximately 24,500 students, with 149 degree programs in 11 schools and colleges. In addition, the School of Continuing Education serves more than 47,000 people per year.

The School of Education has five departments: Administrative Leadership, Educational Policy and Community Studies, Educational Psychology, Exceptional Education, and Curriculum and Instruction. The last two departments are primarily responsible for the teacher preparation program. In the fall of 2002, the School of Education had 79 full time faculty and 1,998 undergraduates, 499 master’s candidates, and 111 doctoral candidates. UWM is the only institution in the state that offers a Ph.D. in urban education.

Each year, approximately one half the approximately 1,250 students enrolled in the teacher education program are participating in the student teaching programs, which average 30 hours per week for 20 weeks, supervised by 48 full-time or part-time faculty. The School of Education’s 2003 entering class, numbering 305, was the largest entering class in 30 years.

In July 2003, the UWM School of Education was selected as one of seven new recipients of a five-year, $5-million grant from the Carnegie Corporation to improve teacher education. The grant is part of the Teachers for a New Era initiative, designed to research and demonstrate the most effective, evidence-based methods of preparing teachers for today’s classrooms.

UWM’s proposal for the grant highlighted collaborative teacher preparation efforts within both the university and the community. The School of Education partners with the College of Letters and Science and the Peck School of the Arts at UWM to improve teachers’ academic preparation in content areas. In announcing the grant, Dr. Alfonzo Thurman, dean of the School of Education, said, “Improving teacher education is a university-wide effort.” Richard Meadows, Dean of UWM’s College of Letters and Science supported this statement, noting “We’ve been a partner with the School of Education for more than 20 years. This grant will give us additional resources to continue those efforts. We’re very happy to be an active part of this project.”

Leadership and Partnerships With the Urban Community

Community-university partnerships are at the core of UWM’s urban mission. Leadership for these partnerships starts at the highest level. Dr. Nancy Zimpher, former chancellor, was instrumental in creating The Milwaukee Idea, the university’s initiative to forge vital and long-lasting community-university partnerships that enhance the quality of life for all. Since its inception in 1999, The Milwaukee Idea has brought together hundreds of people from the community and the university in partnerships that address...
Named UWM chancellor in the summer of 1998, Dr. Zimpher helped to develop a similar community partnership in The Ohio State’s Columbus neighborhoods as dean of the College of Education and executive dean of the professional colleges there. When she came to UWM, in her first campus speech, Dr. Zimpher offered her vision of the power of community-campus partnerships; “It’s not just us serving the city. It’s not just the city serving us. It is the notion of together building a city and university that are the heart of metropolitan Milwaukee. This is the essence of [what we will call] The Milwaukee Idea.” In a speech to the faculty in September 2003, Dr. Robert Greenstreet, interim chancellor, stated that he intends to continue supporting The Milwaukee Idea and that the institution will move “full-speed ahead” with its initiatives, including its community partnership initiatives.

One example of The Milwaukee Idea in action is the Milwaukee Partnership Academy (MPA), the university’s partnership with Milwaukee Public Schools (MPS). Supported initially in 1999 by an $8-million U.S. Department of Education Title II Teacher Quality grant, the MPA was created as “an urban P–16 council for quality teaching and learning.” Addressing systematic issues across educational institutions, this citywide organization is dedicated to the enhancement of teaching and learning in MPS. The specific goal is to assure that every child is performing at or above grade level in reading, writing, and mathematics. Priorities include, among others, implementing a comprehensive literacy agenda, creating school-based learning teams to foster data-based reform at the school level, aligned professional development for teachers and administrators, citywide tutoring, and data-based decision making.

The MPA is a system-to-system collaborative reform model rather than a partnership between the university and just a few selected urban MPS schools. As a communitywide effort to revitalize urban schools across Milwaukee, seven institutional leaders make up the MPA’s original Executive Committee: the Metropolitan Milwaukee Association of Commerce, MPS, the Milwaukee Area Technical College, the Private Industry Council, UWM, the Milwaukee Teachers’ Education Association, and the Milwaukee Board of School Directors. An additional business partner, the Greater Milwaukee Committee, was added to the Executive Committee in August 2003.

The MPA is an active, hands-on organization governed by a unique multipart structure. The Executive Committee is made up of the chief leaders of the eight major partner organizations. Meetings are led alternately by the superintendent of MPS, William Andrekopoulos; the executive director of the Milwaukee Teachers’ Education Association, Sam Carmen; and the interim chancellor of UWM, Robert Greenstreet. It is important to note that the culture of the partnership is such that the leaders of the primary partners do not send substitutes or representatives to the meetings of the Executive Committee or the monthly board meetings; they attend themselves. The MPA also includes a board of directors, made up of broad representation from the metropolitan community; representation from other local (private) institutions of higher education; the deans of the School of Education, College of Letters and Sciences, and the Peck School of the Arts at UWM; board affiliates, who represent a wide range of community organizations; and the Implementation Team, which is the action arm of the MPA. The
Executive Committee meets biweekly; the entire MPA membership meets monthly; and the Implementation Team meets weekly to do the hard work of translating the MPA goals into a sustained plan of action to improve education for the children of Milwaukee. The Implementation Team manages a network of work groups that also meet weekly to carry out the various priorities. Reflecting how important the organization is considered by the state, the lieutenant governor or another representative of the governor attended most meetings until a change of administration, and the state superintendent of public instruction attends all meetings herself, only rarely sending a representative from her office.

According to the MPA Web site,

As this structure becomes institutionalized in the Milwaukee community, the goal is to ensure responsiveness to various community stakeholders, create an annual focus for partnership activities, and provide a stable financial basis for increased teacher and other needs in the Milwaukee Public Schools. (Milwaukee Partnership Academy, 2002a)

Through the MPA, UWM takes a holistic view of education by helping the K–12 school system prepare the students who will attend UWM in the future, thus raising the quality of students in the university. The community also benefits economically from a well-educated population. As all MPS schools begin to improve from the partnership, UWM can draw on a larger pool of K–12 partner schools in which to prepare all of its student teachers. Equally important, the MPA, and especially its Implementation Team, provides a shared forum for discussing and decision making about all aspects of how resources are deployed to improve the quality of teaching and learning. As a result, technology, which, like other issues, formerly was discussed in isolation in the district, is now discussed in the context of the priorities of the MPA and in relation to achieving its goals, with representatives of all of the lead partners at the table, simultaneously providing input and learning more about each aspect of the issues at hand. As a more public forum for discussion of and action on how education is carried out, the MPA is creating a new organizational culture around education in Milwaukee.

In addition to the Title II grant, several other grants were awarded to UWM and MPS in 1999 as the MPA was getting started, including a Preparing Tomorrow’s Teachers to Use Technology (PT3) implementation grant and a PT3 catalyst grant, a Title II recruitment grant and two GEAR-UP grants, totaling $26 million inclusive of the Title II grant. While these initial grants provided the catalyst for the partners to initiate the MPA, today the MPA is becoming an institutionalized way of “doing business” in education in Milwaukee. It has focused the priorities of the community with regard to education and has begun the hard work of aligning human and fiscal resources to meet these priorities. Finally, grant writing is aligned with these priorities as well.

In addition to the nearly $26 million in grants that initiated the partnership, in the past year the MPA has garnered an additional $36 million, including the Carnegie Teachers for a New Era grant, a $20-million Mathematics Partnership Grant from the National Science Foundation (NSF), and a Small High School grant from the Bill and Melinda Gates Foundation. The NSF grant will support improving mathematics teaching and learning across the PK–16 continuum and represents a communitywide partnership designed to improve
mathematics teaching and learning, and to reduce the number of students who require remedial mathematics at the postsecondary level.

The partnership continues its work in system-to-system reform despite the change in the MPS superintendent in August of 2002 and the change in the chancellor at UWM in the fall of 2003. The MPA recently received a state award from the Wisconsin PK–16 Leadership Council as an exemplary practice partnership in the state. UWM is a full partner in all MPA initiatives and activities. One area of special note is the Teacher-in-Residence Program, aimed at creating stronger links between the teacher preparation program and classroom practice and developing teacher leadership skills in and retention of veteran urban teachers. Cohorts of MPS teachers spend two years on special assignment to UWM, working in every phase of the teacher preparation program, including the College of Letters and Science and the two-year urban pre-teacher education program at the local community college. In the first cohort, there were 19 teachers in residence, and 13 MPS teachers are in the current cohort. They have helped align the teacher education curriculum with content standards in the MPS schools, worked with student teachers in clinical practice experiences, assisted with school-based learning teams throughout the city, participated directly on the MPA Implementation Team, and provided input into the Professional Support Portal, the district’s electronic mentoring initiative. Moreover, they have used the opportunities available at the university to gain important skills in technology in their development as teacher leaders, including video-editing capabilities.

At the inception of the MPA, the following vision of teacher education reform was offered on the MPA Web site in conjunction with the Title II grant:

The overarching goal of the Title II Grant is to develop a comprehensive teacher education prototype preparing K–12 teachers for high need schools. This prototype will draw from best practices and enabling policies across a national network of urban partnerships and leverage various program components and high quality teacher education materials back across selected sites in a redesign process. Teacher preparation as necessarily both a partnership and an all-university endeavor will intersect with school and community renewal. The prototype calls for major, aligned changes in the letters and sciences, professional preparation, and entry into the profession so that the outcome is a more coherent, protracted and potent form of teacher preparation. (Milwaukee Partnership Academy, 2002b)

The Urban Mission of the School of Education

UWM has another urban visionary to provide leadership for this partnership in the person of Dr. Alfonzo Thurman, dean of the School of Education since 2001 and the chancellor’s deputy for education partnerships. He has led his faculty in what he calls a shared commitment to meeting the needs of today’s multicultural society and students from diverse backgrounds. He believes the college should work with the entire district. In an e-mail, he states, “We are looking systemically at changing, first of all, the way the district teaches literacy. Our work in schools is to implement the comprehensive literacy initiative, and much of our focus is in the professional development of teachers, guiding the work of the literacy coaches and the leadership teams and
working to sustain that work through the Milwaukee Partnership Academy” (A Thurman, personal communication, n.d.)

The School of Education’s mission statement confirms the centrality of its urban focus:

The mission of the UWM School of Education is to contribute to the improvement of learning environments in a multicultural, urban society through the preparation of professionals for school and community settings, the production of high quality research, and service to educational and community organizations.

Our teaching, research, and service are responsive to the needs of the community and reflect a visible commitment to diversity, equity and excellence. (UWM School of Education, 2003a)

Students of color make up approximately 77 percent of the 106,000 students served in the MPS’s 160 schools. In contrast, approximately 70 percent of the teaching force is white (Hains, Maxwell, Tiezzi, Simpson, Ford, & Pugach, 1997). To bring a more diverse teaching force into the local schools, the UWM School of Education has sought to expand its number of students of color, growing from 9 percent in the early ’90s to 18 percent in 2003. Several specialized grant programs have also addressed the teacher diversity challenge. The Milwaukee Pathways to Teaching Careers Program, supported by the DeWitt Wallace-Readers Digest Fund, has supported bringing paraprofessionals and emergency licensed teachers through the teacher education program at UWM. An earlier federally funded program, EXCEL, supported the recruitment of underrepresented populations interested in working in early-childhood education.

UWM has had a long history of commitment to preparing its students for urban schools. To enhance the education of teachers who are well prepared to teach in an urban setting, the School of Education created the Collaborative Teacher Education Program for Urban Communities. Starting in the early ’90s and continuing over a number of years, faculty worked to renew this commitment and create a framework for reforming early childhood, primary/middle, and special education programs, with a renewed focus on urban teaching and learning, and a substantial integration of special and general education. At that point, special education became a postbaccalaureate-only option; primary/middle regular education has both an undergraduate and postbaccalaureate option. The first cohort of students in the special education program entered in 1996, and the first cohort in the regular primary/middle program entered in 1997. Annually, approximately 250 students complete their degrees and certification. Each year, UWM students make up more than 40 percent of all new teachers in MPS. Retention data are available only for paraprofessionals from underrepresented groups who were part of the Collaborative Teacher Education Program for Urban Communities; these data indicate that more than 90 percent of graduates who are paraprofessionals have retained their positions in MPS for five years. This is a commendable record of retention when compared to national data showing that 46 percent of all teachers leave teaching by their fifth year of teaching (National Commission on Teaching and America’s Future, 2003). Documentation of retention of UWM graduates in MPS will be part of the Carnegie Teachers for a New Era initiative.
Undergraduate students or students who enter special education preservice programs from the undergraduate program at UWM have had a pre-education experience. Students enter the program as members of a cohort of 20–25 students and proceed through their preparation with the same set of students. For undergraduates, the urban focus begins before students are formally accepted to the education program. Students who declare a major in education enroll in the required School and Urban Community block, a combined course and introductory field experience taken in the freshman or sophomore year. The course, Introduction to Urban Teaching, with its emphasis on urban teaching and social justice, provides students with an early familiarization with education in an urban environment. Through the course, potential education students are judged whether or not they are ready to commit to working in the urban education program, and these judgments form part of the admissions requirements to the School of Education. Each year, a small number of students decide not to pursue teaching in an urban school as a result of their introductory experience.

The UWM graduates and student teachers interviewed in this case visit report that the School of Education’s seven core values, which have a strong commitment to equity and social justice, form an excellent foundation for teaching urban students. They learn to examine the varied cultures, beliefs, and perspectives that students bring to the classroom, and strive to create lessons that address equitably the needs of all students. Students quickly learn to recognize the challenges. As one student noted, “We need social work experience. How far do we go with this particular child, what can we do to help family, what resources could I draw on in the community, etc.?"

In addition to their professional preparation, undergraduate students in the primary/middle program enroll in two 18-credit academic minors (called focus areas) in the College of Letters and Science: one in mathematics or science and one in humanities or social studies. During the professional program in the junior and senior years, students participate in a teaching experience in an MPS school each semester selected to match the goals of their academic block. Each semester students participate in a reflective seminar that revisits the program’s core values, and in which they reflect on their learning experiences and upon the roles they will undertake as urban educators.

The College of Education at UWM has chosen to partner with the entire MPS district rather than a selected number of schools; therefore, students have field experiences throughout the city. It is, according to Thurman, a two-way partnership, with the university learning from the school and community at the same time it works to address the needs of that community.

**State Regulations and Impact**

Teacher certification in Wisconsin, like that in many states, has been impacted by recent teacher quality legislation. The new law states that a content test will be required for those license applicants who complete programs after August 31, 2004. Secondary teachers must pass a test in their content area and primary/middle education majors must pass a single test covering language arts, math, science, and social studies.
The law also requires that in order to be certified, prospective teachers provide a portfolio as evidence of their impact on student learning. The portfolios are assessed at least three times during the teacher education program. Showcase portfolios have been used for several years in the primary/middle teacher education program. With the new state legislation, portfolios have expanded to become developmental records of progress as students move through the teacher education program. Beginning in the introductory Schooling and Urban Community block as part of the UWM teacher education admission process, portfolios will include developing understandings of the program’s core values with appropriate artifacts and personal goal setting and reflection. Portfolios will be reviewed at several points during a student’s program to ensure that appropriate progress is being made. With the new certification requirements, portfolios take on added importance.

Due to the nature of the partnership, discussions of electronic portfolios—and how they relate to new state requirements for individual professional development plans as a means of advancing through the newly developed career ladder within new state regulations—take place in the MPA Implementation Team. This means that a natural feedback loop exists to connect the schools and the university as they both work to meet new state expectations. Because the Implementation Team meets weekly, communication is enhanced significantly regarding all aspects of the work, technology among them.

**Focus on Technology**

Both former Chancellor Zimpher and Dean Thurman have been supportive of technology initiatives and have been active in seeking grants to build the human and technological infrastructure necessary to ensure that those who learn to teach at UWM bring to the classrooms they enter an understanding of technology’s power to improve the learning opportunities of all children. Thurman, in fact, might be described as a technology enthusiast. He is concerned about the challenge of upgrading technology in the School of Education at a time of declining budgets, and stays abreast of the latest technological tools and their implications for his program. For example, at the time of the case study visit, Dean Thurman and a group of faculty were exploring the potential of handheld organizers with keyboard attachments for professional use, considering how tools like this might provide flexible, low-cost professional and instructional technology options for faculty.

UWM’s urban teaching focus is reflected in, and supported by, the College of Education’s use of technology. In 1999 the UWM’s Technology and Urban Teacher Project was funded by the U.S. Department of Education’s PT3 program, with a three-year, $1.3-million implementation grant. The grant has been an important catalyst for a focus on instructional technology in the School of Education, in its work with the College of Letters and Science, and in the work with the MPS. With a final no-cost phase extending the project over the 2002–03 academic year, the challenge, according to Marleen Pugach, co-principle investigator of the grant, has been “to institutionalize the grant with hard money.” In addition, UWM was awarded a $25,000 grant for the 2002–03 year as part of a statewide, UW System PT3 catalyst grant to pilot the use of electronic portfolios. Prior to these grants, instructional technology was virtually nonexistent in the teacher education program.
The PT3 implementation grant made it possible to hire the School of Education’s first instructional technology coordinator, D.J. Himes, who previously worked in K–12 schools as a teacher who modeled technology use, and also as a school network administrator. Originally funded by PT3, the college has continued to support this position with institutional funds since the PT3 grant ended, which is a significant indicator of technology support in a time in which faculty and staff hiring has been frozen due to budget cuts.

The UWM teacher education program requires student teachers to create instructional technology projects that enhance the curriculum they are teaching. Although some recent graduates interviewed for this case study described this as an “add-on” requirement, others felt differently. For example, at an orientation session for student teachers, a returning student teacher on the panel told incoming students, “If you do nothing else, do the technology project; every one of the principals I interviewed with asked me about that and, I was so glad I had that project in my portfolio!”

Learning about technology occurs in two required one-credit technology courses in a lab environment, in groups of 20–25. The technology courses themselves, taught by Himes, cover application software (e.g., HyperStudio, KidPix, Inspiration, spreadsheets, and databases), tools (digital cameras), and Web site explorations. These courses are carefully coordinated with the methods courses and field experiences in which students are enrolled during any given semester, and applications of technology are required within them. Student teachers and recent graduates interviewed for this case study had mixed reactions to the required courses. These included a second-grade teacher in her first year of teaching, a student currently completing her student teaching in the fourth grade, a recently certified graduate in his first semester of teaching fifth grade, a student in the special education primary program who will begin teaching in the fall and who completed the regular primary/middle program, a second-grade student teacher at Dover Elementary School, a student teacher in the fourth grade at Hartford University School, and a UWM graduate who began as a paraprofessional and is now fully certified as an elementary teacher.

Most felt the stand-alone, one-credit courses were too limited, too much of an overview, and not enough to give them a firm grounding in using technology in the classroom. Several, who appeared to be the more technologically sophisticated new teachers, wanted more depth, while the others agreed that it would be beneficial to add more technology training but “in small steps” in preparation for teaching, with more hands-on, targeted applications. Paraprofessionals interviewed during the case study school visits also felt the technology training went too fast for them. Without access to technology at home, and little support in the schools where they were already teaching, they often felt overwhelmed.

Students and graduates generally expressed a desire for information on how to use technology in a range of settings (e.g., to a whole group in a lab setting versus in a “technologically rich” classroom) and how to master the classroom-management skills needed for using technology in a variety of activities.

As found in the other case study sites, student teaching assignments are not necessarily made with technology-savvy teachers. Compounding the problem is the fact that decisions about
purchasing technology are completely decentralized in MPS and have been for several years, leaving principals basically on their own to make decisions to purchase hardware or to support human resources to manage networks and provide professional development. Therefore, the variability across schools is great, with no effort to raise the bar uniformly across schools or ensure that each school has technology-savvy teachers, teacher leaders, or principals. Further, until last year, several district barriers existed to the use of e-mail on the part of MPS teachers. Also, and paralleling what was found in other cases, supervising teachers are typically retired teachers who, by and large, are not trained with technology. The UWM graduates interviewed for the case study noted that once they were out of the university and teaching in the schools, they were on their own to solve their technology problems unless they had a personal relationship with the technology coordinator at UWM or another faculty member at the School of Education, or were in a school that was technology rich.

A pilot electronic portfolio project had been in effect for one semester at the time of the site visit, with a small number of students volunteering to participate. The project was designed in part to develop the content for teaching all students how to prepare electronic portfolios. Therefore, only a small number of students had developed electronic portfolios at the time of the visit. This pilot project provided initial experience and perspective on schoolwide adoption of portfolio software and its most important functions. Led by Dean Thurman, an effort is now underway to make decisions about the direction the entire school will take vis-a-vis electronic portfolios, in conjunction with the new state teacher education program regulations.

The Professional Support Portal Project, under development by MPS, is one effort to provide support for new teachers. The portal project is seen as a door-to-district resource. It was originally intended to be an extra source of support to supplement the face-to-face mentoring program, but budget cuts to the face-to-face mentoring programs mean the portal project is—at least temporarily—the only form of new teacher support. While this is unfortunate in terms of losing the important resource provided in personal, face-to-face mentoring, the online support system may offer, through technology, a link in terms of connecting new UWM graduates with their cohort peers and the School of Education faculty after graduation.

UWM faculty serve on the advisory committee for the portal and have provided significant input to the district regarding how the portal communicates what it means to teach in an urban context and what resources need to be available on the portal to address what it means to be a strong urban teacher. The portal was in a pilot phase during the 2002–03 year with limited availability and limited scope. Nevertheless, as a result of UWM’s involvement in the portal’s advisory committee, all UWM graduates new to the district were invited to participate in the pilot phase, which during 2002–03 included the use of a laptop. There was little discussion during the case visit of the portal project and its implications for supporting student teachers and recent graduates, but as the portal develops, UWM faculty have been asked to host chat rooms specifically on teaching in the urban context. Further, the portal has been addressed within the MPA Implementation Team as a means of opening up the dialogue concerning how it is framed and its potential use. And, through the Carnegie project, UWM will be developing electronic forums for the portal on the various academic content areas as a means for direct involvement of faculty in the College of Letters and Science and the Peck School of the Arts.
Modeling technology integration in methods courses and the arts and sciences—the “holy grail” for understanding the use of technology to support learning across the disciplines—is a goal yet to be fully achieved. Interviews with students reveal a wide variation among courses and professors. Some faculty use technology in their courses; others use very little. The use of technology for course materials and shared discussions is the most common application in university classes. Progress integrating technology projects in classes themselves has been greater in mathematics methods courses, and very good inroads are being made in literacy methods courses. Himes notes that it has been hard to impact faculty use of technology when there is a variety of part-time faculty and adjuncts teaching in the program. Newly hired faculty have been very responsive to integrating technology, and in the past year technology integration has increased substantially in literacy methods courses, as well as in the Introduction to Urban Teaching course. Unlike other institutions in these case studies, UWM’s School of Education has not made formal attempts to use the work of faculty “tech superstars” and model their work for others; rather, this is done informally, working with small groups of faculty. Another way to view this is that the instructional technology staff is scaffolding the technology development of new and interested faculty on an ongoing basis.

Several technology projects are described on the UWM School of Education (2003b) Web site for the 2001–02 academic year involving 17 faculty members in addition to those involved in PT3 projects. These range from a research project on the design and development of American Sign Language video-based objects and their impact on student learning to an investigation of the use of streamed video of best teaching practices in teaching secondary science for students with behavior and learning problems. Technology use among faculty for these projects is diffused across several program and projects, but they represent potential for increased modeling of technology use.

**Technology and Urban Partnerships**

Due to the unevenness of technology resources across MPS schools, students often find they will be working in schools with limited technology resources. As an initial part of student teaching, students conduct a technology inventory of the schools in which they practice, meet technology leaders in the school, and make plans for how to augment what is available if necessary. The PT3 grant has tried to address this concern. Using a no-cost extension to the PT3 grant, the School of Education purchased five student teaching technology kits that may be checked out and brought into schools where students are student teaching, in order to provide technology-delivered projects. The kits contain an iBook® with an external floppy drive and internal wireless network card, a digital camera and digital video camera, and appropriate instructional software. These kits are additional to several digital cameras, video cameras, and other hardware and software resources already purchased by the grant for UWM student and faculty use. In schools that are technology poor, it is often UWM student teachers who are modeling the use of technology to enhance instruction and who are locating technology resources that formerly went unused in the building.

A large percentage of the original PT3 grant funds went directly to the three MPS partner schools in the project (Hartford University School for Urban Exploration, Frances Starms Discovery Learning Center, and Congress Extended Year-Round School). Each of these schools is a
fieldwork and student teaching site for UWM teacher preparation students, and they all received technology support and inservice training from School of Education staff. They also got grants of $32,000 each year to support a half-time school-based technology consultant. This funding was leveraged by the partner schools in a number of ways, with each principal electing to use school funds to supplement the grant funding in order to make the position full time. With the conclusion of the PT3 grant, one of the three schools has kept the positions fully funded through their school budgeting. Others have arranged for part-time funding. UWM’s partnership with these schools also led to their securing additional technology-related grants that were written by one of the co-principle investigators of the UWM PT3 grant for a UW System competition.

**Three Schools, Three Different Kinds of Technology Partnerships**

The technology use observed in the partnership schools visited for this case study ranged from substantial to limited. These variations were confirmed in interviews with recent graduates and student teachers, who reported that each school’s culture determines how often computers and other technologies are used, and the ways in which technology use is valued. Overall, the students interviewed report that word processing remains the most common use of technology across all schools.

*Hartford Avenue University School for Urban Explorations.* This school illustrates how technology can support a comprehensive reform agenda. Although located just across the street from the UWM campus, Hartford previously had a reputation for low academic performance and difficult management issues. Dr. Cynthia Ellwood, the current principal, has headed a comprehensive reform effort to change the nature of the school and the performance of its students.

A K–8 school, Hartford has 630 students, of whom 66 percent receive free or reduced-priced lunch. The racial composition is 72 percent African American, 15 percent Caucasian, with the remaining students representing a variety of nationalities, as well as some international students, children of university faculty. When Dr. Ellwood came to Hartford five years ago, she was the fourth principal in three years. There had been substantial turnover among students and faculty, and the school was targeted for central office takeover. Dr. Ellwood focused on enhancing university connections and forging bonds between staff and the parent community. Today, the UWM staff describes Hartford as one of the best schools in the city, attracting children from the community around the university as well as typical students from around the city who can select it on a space-available basis.

Dr. Ellwood ascribed much of the turnaround at Hartford to the partnership with UWM. “Life-changing for us” is the way she described the impact of the UWM technology partnership. She recalled that five years ago “the school was in the dark ages, with little consciousness of technology and how it could be used. Now we are at the other end of the continuum, very much on the forefront.” With the PT3 grant funds, she was able to pay half the salary of a technology coordinator and paid the other half through school funds. She noted that the technology coordinator originally hired by the grant...
was a visionary in the way technology could be used to support learning. He wrote to teachers before he came and asked about what they want to do in their teaching—their goals and how he could help them. Before, teachers were not staying in computer room when they brought kids in; it was seen as an add-on. But [he] shared my conviction that technology should be a tool for academic learning. The staff identified their biggest staff-development need being technology training. He told them they’d get access to technology in their classrooms if they participated in his training. He got us Internet-compatible mobile laptops, and we saw immediate results: Kids were tripling the amount of research they were doing, teachers were assigning new kinds of activities, and we got a grant for a new iMac lab. (C. Ellwood, personal communication, n.d.)

The technology coordinator also worked with the science education department at UWM in securing a grant from the McDonald Foundation to put in wet labs, microscopes, and computers in the science room at Hartford. Although the original technology coordinator was there only a year (“hired away by a fancy private school,” according to Dr. Ellwood), technology enthusiasm remains high at Hartford. Through the additional grant with the university, Hartford received funds to purchase iBooks and high-level literacy software for students in Grades K–2. The school used this grant and school funds to purchase another four mobile carts, with 32 units on each floor. The grant provided some of the time for UWM’s technology staff to support their teachers informally, as well as formal staff-development programs for teachers in the summer and several afternoons during the school year.

In another university-Harford technology connection, the fourth-grade class is working with graduate-level film students from UWM on a regular basis. The Hartford students researched the early days of the civil rights movement and discovered that there was actually a young woman who preceded Rosa Parks in integrating public facilities in the South. Her story is a powerful one the children told in their film, which won an award in a statewide film festival. Now a middle-aged woman, this “unsung pioneer” has visited Hartford regularly and become a part of the school community.

Most of the teachers at Hartford who are ethnically diverse are UWM graduates. The student teachers interviewed for this case study were enthusiastic about the dynamic uses of technology across the curriculum they found in their field experiences at Hartford. In turn, the principal values the UWM student teachers because they bring a clear social-justice perspective with them when they come to Hartford and have skills that go beyond their technology expertise. “Technology is important, but philosophy is more important,” Dr. Ellwood states.

Francis Starms Discovery Learning Center. The second PT3 partnership school visited as a part of the case study visit, Starms is one of 10 year-round schools in the district. The school has nine weeks of classes, then three weeks off, throughout the calendar year. At the time of the case study visit, classes were not in session, so the observation was limited to an interview with Principal Martha Wheeler-Fair. The year-round schedule creates a logistical challenge for the university partnerships and student teaching, since it does not match the university’s schedule, but the School of Education believes the unique features of Starms make it a good partner school.
Family involvement is the hallmark of the Starms program, although only half the students come from the neighborhood, with the other half bussed in from throughout the city. Rather than grade-level classes, Starms has “family teams” (with full special education inclusion) made up of 30 to 32 students in each multiage family team, staffed by two teachers and an education assistant. At the intermediate grades, there are 40 to 45 students in each family team with special education teachers and interns supplementing the work of the two teachers.

Title I staff-development funds and the PT3 grant have supported university connections with inservice training in technology use. Starms has four to six computers in each family-team setting. There is also a computer lab for each age group (Grades 1–4 and 5–6), and a video link enables teleconferences with the MPS Spanish Immersion School. Students use a writing program as part of the work with the full-time literacy coach; the position of literacy coach was instituted as a goal of the MPA’s work. Starms moved from using technology as a “special,” where teachers would drop off students in a lab, to using technology to support required project presentations at the end of units of study. The grant provided staff development and, in particular, funded the continued services of a part-time instructor who was formerly funded by an early-childhood technology grant, as well as a network support teacher. A technology club for students was launched as part of the PT3 activities, and students took an active role in teaching others about technology use. Technology projects were presented at regular family meetings of the entire school. However, with budget reductions, upgrading equipment to stay up to date is a current challenge.

The principal, Martha Wheeler-Fair, is responsible for two other schools in addition to Starms. She has a number of paraprofessionals on staff, education assistants from the community who are in the process of getting their certification. She has found that her greatest challenge has been keeping staff at Starms, which experiences a 20-percent to 25-percent annual turnover rate. Wheeler-Fair attributes the high turnover to the challenge of finding staff able to work effectively with teaming and multiage inclusion classes. Despite these challenges, last year when Starms was placed on the list of schools in need of improvement, and letters were sent home to parents informing them of this status, no one pulled their children out. According to Wheeler-Fair, parents offered to help however they could and said, “We’re not moving our kids.”

**Dover Elementary School.** A different picture of technology use was seen at a third school visited for the case study. Although not a PT3 partnership school, Dover is another school regularly used for field placements of UWM students.

Dover faces a different set of challenges. Once a school of 500 students, Dover’s enrollment in 2003 had decreased to 380 students. According to Principal Jaclyn Laber, this neighborhood school is losing students to several parochial schools located within a few blocks of Dover. With MPS public school funding now supporting students who choose to attend private schools, Dover has lost almost one fourth of its neighborhood children. The resulting $200,000 funding lost by students attending other schools means that Dover can no longer support a science teacher, music teacher, physical education teacher, or a librarian. Dover has no technology specialist. Older computers, most of which were purchased up to nine years ago, are located in a top-floor media center/computer lab that receives little use. New computers for the lab had been ordered and...
were slated to arrive shortly after the visit. While there is one computer per classroom, most have no Internet connection.

Dover is a direct-instruction school. This form of scripted instruction impacts technology use: Teachers do not seek out inquiry learning projects, and the principal believes there is little use for Internet research with young children. Because of the direct-instruction philosophy, teachers believe that there are limits to the ways that technology can be used to support their teaching, beyond some work in writing and skill drills. The use of technology in schools like Dover means that teacher preparation students there have a very different technology experience than they would in a technology-intensive, constructivist setting like Hartford. Student teachers at Dover often model what technology use can look like and stretch the use of local technology resources beyond what is normally done at the school.

Dover, and other direct-instruction schools, provide a special challenge for the School of Education. Direct instruction is becoming more popular in many urban school systems, MPS among them, and approximately 60 of the 120 elementary schools in the district are direct-instruction schools, with more coming on board each year due to pressure from the No Child Left Behind Act. This scripted approach to teaching reading fits well with the current testing and basic skills emphasis. Thus, despite the fact that the School of Education’s comprehensive literacy teaching philosophy is in direct contrast to the didactic, direct-instruction teaching model, the School of Education does not ignore the fact that some of its graduates are likely to accept positions in direct-instruction schools if it is serious about meeting its commitment to serving the teaching needs of the local community. When it comes time for hiring new teachers or taking on student teachers, principals like Jaclyn Laber look for teacher candidates with some experience with direct instruction.

This is another conundrum the School of Education must face.

**Concluding Comments**

UWM has maintained a long history of partnerships with MPS, despite changes in leadership and difficult financial times. The Milwaukee Partnership Academy, in particular, is an important resource for continuing the close connection between UWM and the MPS and for creating a communitywide responsibility for the quality of teaching and learning in Milwaukee’s urban community. The partnership has now sustained a change in superintendents and in the chancellor at UWM. A review of the literature suggests that partnerships tend to maintain a major thrust for about a decade and then begin to drift apart naturally because of a number of factors, including leadership changes; different reform agendas; lack of resources to pay the high costs; faculty turnover or burnout; and fatigue from just keeping the thing going with meetings, meetings, and more meetings. It appears promising that the UWM-MPS partnership has the right ingredients to make the partnership continue to work and that the partners themselves are cognizant of the importance of institutionalizing this way of conducting the business of improving education. It is through the partnership that the role of technology will continue to be forged, with a reciprocal understanding of its role for both preservice and practicing teachers. The new Carnegie grant, in particular, may be the important glue that keeps the spotlight on partnerships and moves them forward.
References


