Mollenkopf, D. L. (2009). Creating highly qualified teachers: Maximizing university resources to provide professional development in rural areas. *The Rural Educator, 30*(3), x-xx.

Creating Highly Qualified Teachers: Maximizing University Resources to Provide Professional Development in Rural Areas

Dawn L. Mollenkopf
University of Nebraska at Kearney

The "highly qualified teacher" requirement of No Child Left Behind has put pressure on rural school districts to recruit and retain highly qualified regular and special education teachers. If necessary, they may utilize uncertified, rural teachers with provisional certification; however, these teachers may find completing the necessary certification difficult due to time, distance, and geographic barriers. The University of Nebraska at Kearney has been able to address this need by: (1) creating access to the university's certification program, (2) providing professional supports, (3) tailoring assignments, projects, and field based practicum experiences and (4) building capacity for rural teachers who have completed certification to mentor others in their regions.

The Need for Institutions of Higher Education to Prepare Highly Qualified Teachers in Rural Areas

The "highly qualified teacher" requirement of *No Child Left Behind Act of 2001* (2002) has put significant pressure on school districts to recruit and retain highly qualified teachers; however, some districts are more hard pressed than others to meet this requirement due to geographic, demographic, and field specialization factors (McClure & Reeves, 2004). For example, rural and highly urban districts have been harder hit by teacher shortages than other areas (Brownell, Hirsch, & Seo, 2004); the need for special education teachers is higher than the need in general education (Boe, Cook, Bobbit, & Terhanian, 1998); and the demand for early childhood teachers is increasing due to state and federally-funded preschools' certification requirements (Jacobson, 2007). Rural districts, in particular, often have restricted resources due to limited economic growth, which may decrease populations and increase poverty (Eddy, 2007). Rural districts, then, may have a difficult time with recruitment and retention because teachers are compensated less than other rural professionals, rural states pay teachers less than more populated states, and rural teachers receive less pay than their suburban and urban counterparts (Jimerson, 2003). Overall, rural teachers' salaries are about 11-17% lower than the rest of the teacher population (Southeast Center for Teaching Quality, 2003).

Geographic and social isolation and demanding workloads are also contributing factors (McClure & Reeves, 2004). Rural teachers who are trying to do more with less may work long hours and take on multiple duties, including some for which they may not feel qualified. They may serve one or more schools, particularly if they have a specialization area such as art, music, or special education, and this may involve long commutes. Professional isolation and lack of professional support can affect retention (Jean-Marie & Moore, 2004; Schmidt, 2004), particularly when the staff pool is small enough that there are no other teachers to identify with or to problem-solve work-related situations. Rural districts are unable to provide professional supports or professional development opportunities to remediate the situation.

However, rural areas also have benefits. The majority of teachers who have grown up in rural communities and appreciate the sense of community that comes from a rural lifestyle are likely to stay, usually teaching near or in the town in which they grew up (Collins, 1999; Harris, 2001). They often have family close by, enjoy the challenge of the work environment, and are involved in and connected to the community (Davis, 2002). They also have the advantage of understanding rural practice and culture, a characteristic hard to find in teachers that have had little rural experience (Howley & Howley, 2004).

Although rural teachers may enjoy the challenge of the work environment, as dynamics and demographics shift within their communities, they may find themselves taking on new roles. If certified teachers are unavailable, districts may be forced to utilize uncertified but available teachers who can get provisional, or emergency, certification to take on new subjects, grades or specializations (Billingsley, 2004; Ingersoll, 2001; Thorton, Peltier, & Medina, 2007). In the Schools and Staffing Survey from the National Center for Education Statistics, 6% of general education teachers and 10% of special education teachers reported teaching in a main field assignment for which they were not certified (Cook & Boe, 1995). Of special education teachers interviewed in a national study, 14% had emergency certificates, 4% were teaching out of field or for disabilities they were not prepared to work with, and 2% did not have any teacher certification (Billingsley, Carlson, & Klein, 2004). One of the problems of putting teachers in situations where they work outside of the areas in which they have

been trained is that otherwise highly qualified teachers may actually become "highly unqualified" (Ingersoll, 2001, p. 42). Insufficiently certified teachers often experience increased amounts of stress and difficult working conditions, and are more likely to leave the field (Miller & Smith, 1999); therefore, it is important for rural districts to make sure that those working with provisional certificates are able to finish their certification quickly and receive sufficient professional development and support.

Yet, higher education programs are not always accessible to the teachers most likely to stay in rural areas (Westling & Whitten, 1996). Problems related to budget, distance, and time can make it both difficult and impractical for them to attend college, particularly when balancing family and job responsibilities (Askvig & Arrayan, 2002; Westling & Whitten, 1996). If rural teachers with provisional licenses cannot obtain university coursework to complete their certification, they may leave their current employment (Knapczyk, Chapman, Rodes, & Chung, 2001), which can further burden the schools.

Universities serving rural populations should be particularly sensitive to these issues and partner with rural districts to adequately prepare teachers for rural positions (Theobald, 2002). Professional development should be aimed at building local capacity for highly qualified teachers; however, this does not happen as often as it should (Howley & Howley, 2004). Part of the challenge is that smaller colleges and universities are also struggling. When budget cuts hit and resources become scarce, departments focus on cost effectiveness rather than program effectiveness (Kilo & Bruder, 1997) or innovation. Like their rural district counterparts, they too may be short-staffed, having to do more with less. Furthermore, these institutions also have regulations on class size and the number of classes an individual professor can teach, which can affect how often certain classes can be offered and the extent to which classes can be created or adapted to meet a small subset of the overall college population. These regulations may make it more difficult for colleges to respond to a limited number of requests, regardless of their importance. Yet, institutions of higher education are the most qualified to provide the professional development rural teachers need. Consequently, it is incumbent upon these institutions to find avenues to make appropriate professional development accessible to rural teachers and enable them to become and stay highly qualified, even with limited resources. They can begin by creating access to the university's certification program, providing adequate professional supports, tailoring assignments, projects, and field based practicum experiences to the rural areas in which teachers are already employed and building capacity for rural teachers who have completed certification to mentor others in their geographical regions.

Alternate Delivery Options for Institutions of Higher Education to Address the Need

One commonly used approach to creating access is to utilize alternate delivery systems for web-based classes. Distance education, teleconferencing, and online delivery methods are certainly not new; however, as technology has become more sophisticated and programs such as Blackboard and WebCT have become more mainstream, an increasing number of professors are converting face-to-face classes to online formats (Johnson, 2004). Although more research is needed to validate the effectiveness of various aspects of web-based course delivery, there is a growing body of research that indicates well-prepared web-based courses can be as effective as traditional courses (Pucel & Stertz, 2005; Sun, Bender, & Fore, 2003) and they have the advantage of being more cost-effective for in-service teachers than commuting for traditional classes (Jung, 2005). In many cases, geographically isolated teachers may find that online coursework is their only real option (Askvig & Arrayan, 2002).

Online delivery, however, is not a panacea, nor does the method ensure access. Teachers who have had little experience with technology will need professional support in order take classes successfully. Askvig and Arrayn (2002), in their Peer Coaching Rural In-Service Model (PRISM), found that teachers benefited greatly from low-technology supports such as e-mail and fax for frequent contacts with their professors, which allowed them to get help on technology issues, assignments, and other course-related issues. Teachers also felt more assured when professors took the time to provide specific comments and individualized feedback, and when they indicated whether or not they received an assignment. Teachers who completed low-risk assignments, such as sharing a teaching experience via a discussion board, were able to practice the technology that helped them become more competent when they approach later assignments.

Putting content-based courses online can be difficult, but providing high quality field based experiences present a different set of challenges because most teachers with provisional certificates are working full-time; consequently, it is advantageous for teachers to build practicum activities and field based projects into their current work setting when possible (Knapczyk, Hew, Frey, & Wall-Marencik, 2005). However, providing supervision and feedback to teachers can be difficult if the mentoring professor is not in the same geographic location. One promising option is to supplement face-to-face visitation or videotaped classroom presentations with online mentoring. The advantage of online mentoring is that practicum teachers and mentors may be able to communicate more frequently than they would otherwise be able to do if they were dependent on arranging face-to-face

meetings into their busy schedules (Ensher, Heun, & Blanchard, 2003). A second advantage is that teachers can access web pages or e-mail at any time of the day or night, which can better fit tight schedules (Knouse, 2001). The mentors can also provide expertise not available in the geographic region the field experience is taking place (Knapczyk, Khe Foon, Frey, & Wall-Marenick, 2005). Another option that can develop over time is to build local capacity by training certified teachers in various rural locations to mentor and supervise other teachers in field experience placements in their area. If certified teachers are not initially available, graduates of the online certification program can then be trained in this capacity to assist with future in-service teachers.

One University's Approach to Prepare Highly Qualified Teachers in Rural Areas

Setting up a certification program that addresses all of these areas while maintaining a campus' regular program can be challenging; however, institutions of higher education can address these needs and make changes within the system to accommodate these teachers without over-extending their resources. The University of Nebraska at Kearney is one institution that has been willing to adjust its existing program to successfully meet this need in a way that maximized its limited resources while being sensitive to rural concerns. Located in the center of a predominantly rural state, it is in an ideal location to work with rural teachers. In 2002, the University of Nebraska at Kearney reorganized its teacher education program to streamline its various endorsements--elementary education, middle school education, special education K-6, English as a second language, and early childhood—to minimize the number of credits needed for teachers to add a field endorsement. In addition, the University replaced its early childhood education and early childhood special education endorsements with an early childhood unified (ECU) endorsement and restructured its courses. States offering this endorsement differ in certification requirements and teaching positions such a teacher may hold; however, in Nebraska, an ECU-certified teacher is prepared to teach in special education positions with children 0-5 and in regular education positions with children 0-8. Although the endorsement meets dual certification requirements, it is a blended program so that the majority of courses combine special and regular education content, and field experience placements include children with and without disabilities.

As the new ECU program began its implementation, the Teacher Education Department began receiving calls from rural teachers and superintendents interested in the program. The teachers were serving in a variety of capacities:

- Half-time kindergarten teacher who was asked by her district to teach a half-time state funded preschool
- Primary grade teacher (1-3) who would need to teach kindergarten as enrollments shifted
- Elementary special education teacher asked to teach the special education preschool program when another teacher retired
- Elementary education teacher teaching her district's special education preschool and early intervention program without special education certification
- First grade teacher of 20 years whose district wanted all primary-grade teachers to have an early childhood endorsement to meet "highly qualified teacher" requirements for *No Child Left Behind.*
- School district hiring an elementary teacher with an emergency certificate to teach a state-funded preschool to ensure school readiness in kindergarten
- Independent two-room K-8 school with a teacher who needed the certification to improve her job opportunities as her school closed under consolidation legislation.

The University's Teacher Education Department was challenged to create a professional development certification track that would be accessible to rural teachers while allowing them to use their current teaching placements and other locations in their towns to meet field experience and practicum requirements. The program would also need to be set up for teachers to enroll part-time and still finish the endorsement in a maximum of two years. Additionally, the department had to balance the college teaching load of its only early childhood professor and its senior lecturer support.

To address accessibility, the early childhood professor and the teacher education certification officer analyzed transcripts of the rural teachers to determine courses that were most needed. The average teacher needed the equivalent of seven or eight three-hour courses plus a final supervised practicum. This arrangement would allow a teacher to take two courses a semester for three semesters plus one summer, complete a final practicum in his or her place of employment, and complete the program. Second, the early childhood professor met with the department chair to determine a sequence of course development and method of delivery to put the needed courses online. The professor and two senior lecturers took the University's annual summer workshop on developing and teaching online courses and, over the course of one year, converted their face-to-face courses to online formats. The early childhood professor was responsible for four of the courses and the field experiences, each lecturer was responsible for one course, and a professor outside of the department was responsible for another course. Each of the courses was made available online at least once a year with the majority being available online each semester.

The early childhood professor served as the advisor to all of the rural teachers and, as recommended by Askvig and Arrayn (2002), worked to make sure teachers and course instructors stayed in frequent communication with each another. Teachers were able to access any of the course instructors regularly by e-mail and students had the option of faxing, e-mailing, mailing, or using Blackboards "digital dropbox" to turn in assignments. Instructors acknowledged when they received assignments and graded them promptly, giving constructive feedback. If teachers had difficulty reaching a specific instructor, they could contact the early childhood professor to get assistance, and the professor would facilitate communication until the issues were resolved. If teachers had technical difficulties, they could call the university's technology help desk for assistance, or work directly with the course instructor.

Also, introductory assignments to familiarize students to the Blackboard site's features were included as needed. For example, when a particular class used a discussion board format, a "get acquainted" activity might be assigned to help students learn to navigate the discussion board. Or when there was an assignment involving web-based research, the teachers might have an exploratory web-based activity where the undergraduate on-campus students became familiar with certain websites before being required to gather or analyze research from those sites. Since on-campus students also took these courses, discussion board group activities included mixed groups of teachers and on-campus students so that they could benefit from each other's experiences.

Two of the most difficult courses to convert to an online were the methods courses for the infant-toddler and preschool-kindergarten age groups since these involved field placements that may or may not match many of the rural teachers' places of employments. Consequently, these methods courses needed to be available every semester, including summer. Since face-to-face delivery is the preferred mode for this type of class for the undergraduate on-campus students, this made it difficult to have enough teachers needing an online format to offer sections separately from the face-to-face courses. To address this issue, the professor split the Blackboard site each semester into two tracks: on- and off-campus students. Announcements and course information were shared, but class notes and readings in the study modules were split. Teachers and face-to-face students were instructed to select the track that applied to them so that they could receive equivalent instruction in an appropriate format. For example, if the face-to-face class watched a video, teachers might go to a website containing similar information or read an article on the topic.

Assignments were also created with flexible but equivalent options. If the assignment was to write an Individualized Education Plan (IEP) for a preschool student and the on-campus students were doing a case study in class, teachers had the option of doing the case study on their own with supplemental materials, attending an IEP meeting for one of their students, or documenting their work with a student in their room on an IEP and how they addressed IEP goals. The flexibility allowed teachers to choose options that best fit their situation and incorporated activities they were already using in their classrooms to meet course requirements.

For field experience options, teachers were often able to use their places of employment, a strategy recommended by Knapczyk, Hew, Frey, and Wall-Marencik (2005). For example, if they taught in a special education preschool half-time and then did the early intervention program for infants and toddlers half-time, or if they taught three-year-olds half-day and four-year-old children the other-half, they could meet the field experience for the infant-toddler and the preschool-kindergarten requirements since the infant-toddler age requirement includes 0-3. However, if they had a preschool, kindergarten, or primary grade placement, they needed to find an alternate placement to meet the infant-toddler field experience requirements. In these cases, the early childhood professor would work with the teachers to find out what was available and workable in their communities. Teachers would then work out an arrangement with a local program to complete required teaching activities for 30 contact hours in that setting. The teachers completed these hours after school, between semesters, or in the summer to get the hours and experience needed and complete the related assignments. Sometimes teachers completed the requirements prior to registering for the class. A few took incomplete grades and completed the course after the semester was over. The majority of teachers were able to complete the field experience within the semester for which they were registered.

The field-based methods courses were also set up for online mentoring through weekly journal entries on Blackboard to allow teachers to be able to communicate frequently about their classrooms, get constructive feedback on classroom related issues, and reflect on their performance. This was an effective way to help teachers stay connected with the professor, communicate at times convenient to their schedules, and get help from someone with expertise not available in their geographic region (Ensher, Heun, & Blanchard; 2003, Knapczyk, Khe Foon, Frey, & Wall-Marenick, 2005; Knouse, 2001). In addition to the online mentoring, the early childhood professor arranged to visit the teachers in their field experience once during the semester. Teachers shared available time options and the professor would group visits by geographical locations to minimize travel time. The professor gave the teachers information on what to prepare before the visits. During the visits, the professor would observe the classroom using a standard observation form, give constructive feedback on teacher performance, and assist the teacher with any problems or concerns he or she might have. Issues ranged from classroom management to working with a specific

child, getting help on a class assignment, seeking academic advising, or answers to the certification program.

In some instances, such as winter weather conditions, the early childhood professor was unable to see a teacher that semester. In those cases, if there was another university supervisor assigned to student teachers in that area, he or she would try to visit the teacher instead. However, some places were more geographically isolated than others, and with the farthest corner of the state being six or more hours away and in a different time zone, some site visits were not always possible. To address this issue, the early childhood professor began to work with one of the graduates of the ECU program who had taken the program online and lived in the farthest region. She had demonstrated strong skills in course work completion and in completing her field experience and final practicum. The professor provided instruction and guidance to her on the supervision process and then had her visit and work with an online teacher in her region who was working on her certification. The teacher completed one of her placements in the ECU graduate's program and the other in her own classroom. The two teachers had not worked together before since the ECU graduate had a center-based infant-toddler special education program and the teacher had a church-run regular education preschool. However, as a result of the experience they formed a networking system so that infants and toddlers from the one program could be transitioned to the preschool, which would expand to include children with disabilities. Together, they were able to improve their community's resources in helping young children with and without disabilities because of the networking through the ECU program.

The Teacher Education Department at the University of Nebraska at Kearney is in its fifth year of implementing the new ECU field endorsement program and to date 20 rural teachers have been able to complete their certification. Several more are currently enrolled, and the program is continuing to expand and attract more rural teachers. The program, like all new programs, has plenty of room for growth, but it is evident that it is making a difference for rural teachers across the state who are finding professional development accessible and are able to complete the certification they need to be highly qualified teachers who are able to better serve their schools and communities.

References

Askvig, B., & Arrayan, K. (2002, June). *Supporting teachers during online in-service instruction.* Minot, ND: Minot State University, North Dakota Center for People with Disabilities.

Billingsley, B. (2004). Promoting teacher quality and retention in special education. *Journal of Learning Disabilities, 37*(5), 370-376.

Billingsley, B., Carlson, E., & Klein, S. (2004). The working conditions and induction support of early career special educators. *Exceptional Children, 70*(3), 333-347.

Boe, E., Cook, L., Bobbit, S., & Terhanian, G. (1998). The shortage of fully certified teachers in special and general education. *Teacher Education and Special Education, 21*(1), 1-21.

Brownell, M., Hirsch, E., & Seo, S. (2004). Meeting the demand for highly qualified special education teachers during severe shortages: What should policymakers consider? *Journal of Special Education, 38*(1), 56-61.

Cook, L., & Boe, E. (1995). Who is teaching students with disabilities? *Teaching Exceptional Children, 28*(1), 70-72.

Collins, T. (1999). *Attracting and retaining teachers in rural areas*. ERIC Digest. (ERIC Document Reproduction Service No. ED438152)

Davis, M. (2002). Teacher retention and small rural school districts in Montana. *Rural Educator, 24*(2), 45-52.

Eddy, P. (2007). Grocery store politics: Leading the rural community college. *Community College Journal of Research and Practice, 31*(4), 271-290.

Ensher, E., Heun, C., & Blanchard, A. (2003). Online mentoring and computer-mediated communication: New directions in research. *Journal of Vocational Behavior, 63*(2), 264-288.

Harris, M. (2001). Lessons from prairie teachers. *Action in Teacher Education, 23*(1), 19-26.

Howley, A., & Howley, C. (2004, December). *High-quality teaching: Providing for rural teachers' professional development* (Policy Brief). Charleston, WV: Appalachia Educational Laboratory.

Ingersoll, R.M. (2001). *Teacher turnover, teacher shortages, and the organization of school* (Document R-01-1). Seattle, WA: University of Washington, Center for the Study of Teaching and Policy.

Jacobson, L. (2007). Scholars split on pre-k teachers with B.A.'s. *Education Week, 26*(29), 1-5.

Jean-Marie, G., & Moore, G. (2004,). The highly qualified teacher: Implications and recommendations for rural school districts. *Teacher Education and Practice, 17*(2), 146-161.

Jimerson, L. (2003, March). *The competitive disadvantage: Teacher compensation in rural America* (Policy Brief). Washington, D.C: Rural School and Community Trust.

Johnson, L. (2004). Research-based online course development for special education teacher preparation. *Teacher Education and Special Education, 27*(3), 207-233.

Jung, I. (2005). Cost-effectiveness of online teacher training. *Open Learning, 20*(2), 131-146.

Kilo, J., & Bruder, M. (1997). Creating new visions in institutions of higher education: Interdisciplinary approaches to personnel preparation in early intervention. In P. Winton, J. McCollum, & C. Catlett

(Eds), *Reforming personnel preparation in early intervention: Issues, models, and practical strategies* (pp. 81-103). Baltimore, MD: P.H. Brooks.

Knapczyk, D., Chapman, C., Rodes, P., & Chung, H. (2001). Teacher preparation in rural communities through distance education. *Teacher Education and Special Education, 24*(4), 402-407.

Knapczyk, D., Hew, K., Frey, T., & Wall-Marencik, W. (2005). Evaluation of online mentoring for limited license teachers. *Teacher Education and Special Education, 28*(3/4), 207-220.

Knouse, S. (2001, December).Virtual mentors: Mentoring on the internet. *Journal of Employment Counseling 38*(4), 162-169.

McClure, C., & Reeves, C. (2004, November). *Rural teacher recruitment and retention: Review of the research and practice literature.* Charleston, WV: Appalachia Educational Laboratory.

Miller, M., & Smith, S. (1999). Factors that predict teachers staying in, leaving, or transferring from the special education classroom. *Exceptional Children, 65*(2), 201-218.

No Child Left Behind Act of 2001. Pub. L. No. 107-110, Title IX §901, 115 Stat. 1425 (2002).

Pucel, D., & Stertz, T. (2005). Effectiveness of and student satisfaction with web-based compared to traditional in-service teacher education courses. *Journal of Industrial Teacher Education, 42*(1), 7-23.

Schmidt, M. (2004). *Rural roots, urban harvest, and giving back to the land* (Occasional Paper No. 8). Athens, OH: Ohio University, Appalachian Collaborative Center for Learning, Assessment, and Instruction in Mathematics (ACCLAIM).

Southeast Center for Teaching Quality. (2003, July). *Shortchanging rural teachers. Teaching quality: Research matters*. Chapel Hill, NC: Author.

Sun, L, Bender, W., & Fore, C. (2003). Web-based certification courses: The future of teacher preparation in special education? *Teacher Education and Special Education, 26*(2), 87-97.

Theobald, P. (2002). Preparing teachers for our nation's rural schools. In A. Poliakoff (Ed), Rural schools: Small schools, teacher preparation, place-based education [Special issue]. *Basic Education, 46*(5), 7-10.

Thorton, B., Peltier, G., & Medina, R. (2007). Reducing the special education teacher shortage. *Clearing House: Journal of Educational Strategies, Issues, and Ideas, 80*(5), 233-238.

Westling, D., & Whitten, T. (1996). Rural special education teachers' plans to continue or leave their teaching positions. *Exceptional Children, 62*(4), 319-335.