University-School Teacher Education PARTNERSHIPS

Fourth-Year Progress Report The University of North Carolina



2000-2001

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2000-2001

DATA AT A GLANCE

The University of North Carolina System

University-School Teacher Education Partnerships

This report provides numbers for 2000-2001 on people and activities involved in University-School Teacher Education Partnerships at The University of North Carolina System's 15 institutions preparing teachers.

Numbers are an important representation of partnership achievements. First, they convey the magnitude of the enterprise-for example, thousands of school and university educators working with thousands more educators-in-training.

Second, they identify the many players the prospective teachers being trained, the teachers and principals helping prospective teachers learn to teach, the education and arts and science faculty advising, instructing, and supervising prospective teachers.

Third, they communicate the extent to which the partnerships are experimenting with innovations like these:

- Yearlong internships, which give prost in a classroom with a group of students and a host teacher
- New rote for teachers, which engage them in supervising yearlong interns, mentoring/beginning teachers, and/or teaching university methods courses alone or with professors
- Action research and minigrants, which provide reachers and professors with time and assistance to test ways of upgrades conficulum and instruction
- Tutoring of underserved and disadvantaged youngsters, which improve students' academic and social skills while offering prospective teachers opportunities to interact with children

Numbers do not tell the whole story, however. Other achievements include these, for example:

- Teachers receiving preparation to use technology: hardware, software, and other media
- Teachers getting support through professional development, including assistance in preparing for certification by the National Board for Professional Teaching Standards
- Teachers and professors working together to improve student learning in schools
- Partnerships undertaking efforts to recruit diverse teacher candidates

For details on such achievements and more at all 15 partnerships, see the program's full annual report, University-School Teacher Education Partnerships: Fourth-Year Progress Report, 2000-2001

ASI

In 2000-2001 . . .

- 1,648 undergraduate and 48 graduate students (lateral entry, licensure only) were formally admitted to teacher education.
- 389 students completed teacher preparation.
- 75 teachers hosted prospective teachers in school experiences before student teaching or internships.
- 254 teachers supervised prospective teachers as student teachers or as interns.
- 300 teachers participated in professional development.
- 6 teachers assumed new roles in teacher education as clinical teachers or clinical instructors.
- 50 education professors and 15 arts and science professors worked in partnership activities,

ECSU

In 2000-2001 . . .

- 7 undergraduate and 90 graduate students (lateral entry, licensure only) were formally admitted to teacher education.
- 30 students completed teacher preparation.
- 4 teachers hosted prospective teachers in school experiences before student teaching or internships.
- 4 teachers supervised prospective teachers as student teachers or as interns.
- 2 teachers participated in professional development.
- O teachers assumed new roles in teacher education as clinical teachers or clinical instructors:
- 4 education professors and 2 arts and science professors worked in partnership activities.

ECU

In 2000-2001 . . .

- 1,158 undergraduate and 280 graduate students (lateral entry, licensure only) were formally admitted to teacher education,
- 338 students completed teacher preparation.
- 2,286 teachers hosted prospective teachers in school experiences before student teaching or internships.
- 498 teachers supervised prospective teachers as student teachers or as interns
- 2,002 teachers participated in professional development
- 8 teachers assumed new roles in teacher education as clinical teachers or clinical instructors.
- 40 education professors and 7 arts and science professors worked in partnership activities

FSU

In 2000-2001 . . .

- 194 undergraduate and 322 graduate students (lateral entry, licensure only) were formally admitted to teacher education.
- 66 students completed teacher preparation
- 30 teachers hosted prospective teachers in school experiences before student teaching or internships,
- 35 teachers supervised prospective teachers as student teachers or as interns.
- 75 teachers participated in professional development,
- 5 teachers assumed new roles in teacher education as clinical teachers or clinical instructors.
- 40 education professors and 22 arts and science professors worked in partnership activities.

NC A&T

In 2000-2001 . . .

- 69 undergraduate and 205 graduate students (lateral entry, licensure only) were formally admitted to teacher education.
- 44 students completed teacher preparation
- 51 teachers hosted prospective teachers in school experiences before student teaching or internships.
- 51 teachers supervised prospective teachers as student teachers or as interns.
- 20 teachers participated in professional development.
- 4 teachers assumed new roles in teacher education as clinical teachers or clinical instructors.
- 65 education professors and 26 arts and science professors worked in partnership activities.

NCCU

In 2000-2001 . . .

- 158 undergraduate and 99 graduate student (lateral entry, licensure only) were formally admitted to teacher education,
- 67 students completed teacher preparation.
- 157 teachers hosted prospective teachers in school experiences before student teaching or internships.
- 56 teachers supervised prospective teachers as student teachers or as interns
- 105 teachers participated in professional development.
- 5 teachers assumed new roles in teacher education as clinical teachers or clinical instructors.
- 23 education professors and 4 arts and science professors worked in partnership activities.

NCSU UNC-CH UNCW n 2000-2001 . . . In 2000-2001 . . . In 2000-2001 . . . 334 undergraduate and 131 graduate students 153 undergraduate and 241 graduate students 429 undergraduate and 86 graduate students (lateral entry, licensure only) were formally (lateral entry, licensure only) were formally (lateral entry, licensure only) were formally admitted to teacher education. admitted to teacher education. admitted to teacher education. 40 students completed teacher preparation. 152 students completed teacher preparation. 208 students completed teacher preparation. of teachers hosted prospective teachers in 93 teachers hosted prospective teachers in 726 teachers hosted prospective teachers in school experiences before student teaching school experiences before student teaching school experiences before student teaching or internships. or internships. or internships. 2 teachers supervised prospective teachers 255 teachers supervised prospective teachers 296 teachers supervised prospective teachers as student teachers or as interns. as student teachers or as interns. as student teachers or as interns. 6 teachers participated in professional 215 teachers participated in professional 3,515 teachers participated in professional development: development. development. teacher assumed a new role in teacher 3 teachers assumed new roles in teacher 43 teachers assumed new roles in teacher education as a clinical teacher or a clinical education as clinical teachers or clinical education as clinical teachers or clinical instructor. instructors instructors. O education professors and 1 arts and 25 education professors and 5 arts and 41 education professors and 8 arts and science professor worked in partnership science professors worked in partnership science professors worked in partnership activities. UNCA UNCG WCU 2000-2001 . . . In 2000-2001 . . . In 2000-2001 . . . 77 undergraduate and 17 graduate students 368 undergraduate and 69 graduate students 199 undergraduate and 73 graduate students (lateral entry, licensure only) were formally (lateral entry, licensure only) were formally (lateral entry, licensure only) were formally admitted to teacher education. admitted to teacher education. admitted to teacher education. 6 students completed teacher preparation. 362 students completed teacher preparation. 125 students completed teacher preparation 25 teachers hosted prospective teachers in 202 teachers hosted prospective teachers in 283 teachers hosted prospective teachers in school experiences before student teaching school experiences before student teaching school experiences before student teaching or internships. or internships. or internships, 7 teachers supervised prospective teachers 204 teachers supervised prospective teachers 143 teachers supervised prospective teachers as student teachers or as interns. as student teachers or as interns. as student teachers or as interns. 00 teachers participated in professional 346 teachers participated in professional 119 teachers participated in professional development development. development. teachers assumed new roles in teacher 16 teachers assumed new roles in teacher 21 teachers assumed new roles in teacher education as clinical teachers or clinical education as clinical teachers or clinical education as clinical teachers or clinical instructors. instructors. instructors. Deducation professors and 7 arts and 29 education professors and 19 arts and 49 education professors and 20 arts and science professors worked in partnership science professors worked in partnership science professors worked in partnership activities. activities. activities. UNCC UNCP WSSU 2000-2001 . . . In 2000-2001 . . . In 2000-2001 . . . 99 undergraduate and 483 graduate 234 undergraduate and 160 graduate 33 undergraduate and 104 graduate students students (lateral entry, licensure only) were

- formally admitted to teacher education.
- 16 students completed teacher preparation.
- 33 teachers hosted prospective teachers in school experiences before student teaching or internships.
- 25 teachers supervised prospective teachers as student teachers or as interns.
- 05 teachers participated in professional development.
- 2 teachers assumed new roles in teacher education as clinical teachers or clinical instructors.
- 2 education professors and 4 arts and science professors worked in partnership activities.

- students (lateral entry, licensure only) were formally admitted to teacher education.
- 59 students completed teacher preparation.
- 1,000 teachers hosted prospective teachers in school experiences before student teaching or internships.
- 80 teachers supervised prospective teachers as student teachers or as interns.
- 454 teachers participated in professional development.
- O teachers assumed new roles in teacher education as clinical teachers or clinical instructors.
- 13 education professors and 17 arts and science professors worked in partnership activities.

- (lateral entry, licensure only) were formally admitted to teacher education
- 33 students completed teacher preparation.
- 422 teachers hosted prospective teachers in school experiences before student teaching or internships.
- 36 teachers supervised prospective teachers as student teachers or as interns.
- 23 teachers participated in professional development.
- 7 teachers assumed new roles in teacher education as clinical teachers or clinical
- 7 education professors and 4 arts and science professors worked in partnership activities.

In 2000-2001, in all 15 partnerships . . .

More than 7,700 undergraduate and graduate students were preparing to teach.

Undergraduate Students (juniors and seniors)

- 2,139 for elementary schools
 - 418 for middle schools
- 1,231 for secondary schools
- 1,632 for special areas (e.g., art, music, and physical and special education)

Graduate Students (lateral entry, licensure only)

2,297 total for elementary, middle, and secondary schools and special areas

Nearly 2,300 undergraduate students completed teacher education programs.

The length of field experiences was extended.

11 of the 15 partnerships offered yearlong internships as an option.

7 of the 15 partnerships required yearlong internships.

Nearly 7,600 prospective teachers obtained experience in partnership school classrooms.

- 840 completed student teaching.
- 1,319 completed yearlong internships.
- 5,415 completed pre-student-teaching and pre-internship experiences.

Schoolteachers supervised prospective teachers.

- 2,236 supervised student teachers and yearlong interns.
- 5,998 hosted preservice teachers in school experiences before student teaching or internships.

Schoolteachers took new roles in teacher education.

In 13 of the 15 partnerships, teachers served as clinical instructors, teaching methods courses.

- 42 clinical instructors team-taught methods courses with professors.
- 51 taught methods courses alone.

Partnerships introduced other important innovations and provided support services.

- 13 supported a total of 450 action research projects to solve school problems or probe relevant questions.
- 11 awarded a total of 109 minigrants to support teacher innovations not possible under regular budgets.
- 13 provided assistance to 1,340 beginning teachers.
- 12 offered programs for underserved and disadvantaged school students.
- 15 provided professional development for 7,697 practicing teachers.
- 13 provided professional development for 473 professors of education.

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Fourth-Year Progress Report

The University of North Carolina

2000-2001

University-School Teacher Education Partnerships: Fourth-Year Progress Report 2000–2001 Roy Edelfelt, *Editor*

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Foreword

More than four years ago, the 15 colleges, schools, and departments of education in The University of North Carolina embarked on a significant journey: to alter fundamentally the way in which teachers were prepared. The belief then, as now, was that effective preparation for teaching could happen only if the universities and the public schools were in authentic partnerships, in which both saw it in their enlightened self-interest to prepare more accomplished teachers and each was willing to learn from the other about how better to accomplish that mission.

It is clear in reading this report that much has been learned and much has been accomplished in the redesign of teacher preparation in all the University-School Teacher Education Partnerships. Obviously, trust between colleagues across the K-16 spectrum has increased, deep professional relationships have developed, and new ways of preparing teachers have evolved across the state. I was especially pleased to read about the many ways in which public school educators and higher education faculty have engaged as partners in action research, writing, and presentations at professional meetings.

Although much has been accomplished, there is clearly more to do. In many respects the current state of development of the partnerships only lays the groundwork for even more creative work in the future. The K-16 education professionals must find ways to help more students meet higher standards in our schools. The minority achievement gap persists, so we must work across systems to help close the gap and open up more opportunities for the youth of our state.

I continue to applaud those who are making the partnerships so successful. I urge others to read this report and to continue to support and help expand the vision of the University-School Teacher Education Partnerships.

- Molly Corbett Broad, President The University of North Carolina

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Introduction

Charles R. Coble, *Vice President, University-School Programs, The University of North Carolina*

For this fourth annual report on the University-School Teacher Education Partnerships (USTEPs), I asked the 15 partnerships to begin with a brief description of where they are now, compared with where they started, and a short statement of the context in which their partnership exists—degree of involvement of school and university personnel, general climate of support, and level of acceptance.

For the main part of their report, I asked the partnerships to describe five significant activities that illustrate principal purposes of their collaboration. At least two activities were to address the primary purposes of the USTEPs: (1) the improvement of teacher education and (2) the betterment of student learning and the improvement of school program.

The reports meet those requirements well.

The individual campus reports state again and again that progress takes time. They unanimously communicate that change requires substantial amounts of effort and resources. Further, they recognize that changing how people think and operate, schedule time and spend energy, set goals and priorities, demands personal and group commitments.

For the most part, these conclusions have grown from experience and reflection. The partnerships' initiatives and activities have offered opportunities for participants to try different ways of operating and have provided the climate to assess strengths and shortcomings. Much of the exhilaration and the determination has developed from the interaction and the collaboration of school and college personnel. The chance to do something new and better has helped challenge and overcome long-standing traditions and habits, even as patterns and customs have slowed movement in some situations.

Although impressive achievement is evident, there have been impediments to progress, some manageable, others intractable. Between those extremes the partnerships have attacked some key issues but have yet to address others.

To report the full story, I have divided this introduction into four sections: significant developments, impediments, unresolved issues, and next steps.

Significant Developments

The positive achievements of the partnerships far outweigh the difficulties they have confronted. The following section describes in some detail the most significant developments.

University and School Faculty Relationships In the partnerships the different cultures of the school and higher education have been bridged to a degree. For example, many university people have gotten to know school personnel better and have come to appreciate their skills and knowledge; and innumerable schoolteachers have found professors more approachable, helpful, and responsive. Each group has come to realize that the other has special skills and abilities and that their working together can be very productive.

One indication that college personnel have accepted and recognized teachers is the creation of quasi-faculty positions such as clinical teacher and clinical instructor—in other words, school-based teacher educators. Another sign is that many partnerships employ some teachers to team-teach with professors, and employ others to solo-teach methods courses.

More and more, professors have come to see practitioners as close allies. As school and university faculty and administrators truly develop as colleagues, they will become a positive force in fostering improvements in teaching and learning at both levels, as well as in establishing a political power base of great influence for public education.

At several sites the partnership concept now permeates or encompasses the entire teacher education program. Such partnerships have given field experiences more depth and coherence, integrated theory and practice better, and intensified the focus on learning to teach. These changes have meant earlier, longer, and higher-quality school experiences for prospective teachers.

Eleven partnerships now offer yearlong internships, seven of which require them. This expansion of student teaching to two semesters involves parttime participation in teaching in the first semester, full-time participation in the second. In a few universities, the internship still differs little from traditional programs in which pre-student-teaching field experiences pave the way for student teaching. Typically, though, the internship is better integrated with course work, provides greater continuity, and offers a more coherent induction into professional practice.

All yearlong internships are not alike, however. Some sites have adopted the internship label but offer minimal participation in the first semester and have not yet attempted to achieve greater integration and continuity.

The most complete yearlong internship extends prospective teachers' training in the real world of teaching. In the first semester, they begin at the same time that regular teachers start the fall semester. They work with a clinical teacher in setting up a classroom for instruction, study the records of students assigned to that class, review and plan curriculum for the year, attend preschool workshops, get to know their clinical teacher and other school personnel, learn the rules and the routines of a school, and more. All through the first semester, they spend one, two, or three days a week in the classroom while taking college courses on teaching, some on campus and some at the school site. Such a schedule provides them with immediate opportunities to analyze and interpret what they observe in the classroom, and to discuss demonstration lessons by the clinical teacher and others.

During the second semester, interns are at their school five days a week, mentored by the same clinical teacher and college supervisor who supervised them the first semester. This provides continuity in both program and people. It also leads to opportunities for the intern and the clinical teacher to co-teach. This arrangement tends to keep the clinical teacher in the classroom more than he or she would ordinarily be in a traditional student-teaching setup. As a result, the relationship becomes more collegial than that of preceptor and protégé, and the goal for the intern becomes more than preparing for solo teaching.

Often, interns are videotaped, and the resulting tapes are studied by the intern and evaluated jointly by the intern, the clinical teacher, and the college supervisor. The tapes then become part of a placement portfolio, allowing prospective employers to see more than paper credentials.

In most instances, interns experience the full school year, which goes beyond their university's spring closing date. As a result, they see how the school year winds down—final exams, reports to parents, ceremonies, and the closing of school.

In addition to being a more intense and more indepth experience, the internship has benefits that were not anticipated. Principals and teachers report a bonus in having an extra hand in the classroom. Interns' presence also gives principals a chance to observe and recruit possible teachers. Principals recognize too that working with an intern helps clinical teachers stay aware of current trends in education and enhances their professional development. First-year teachers who have completed an internship report that veteran teachers often mistake them for second- or third-year teachers.

New Roles for Teachers

In partnerships schools, teachers are taking new roles. One is that of clinical teacher. Clinical teachers receive special training to work with prospective teachers in student teaching and yearlong internships. Their role goes well beyond the responsibilities typically assumed by cooperating teachers, who are good teachers but typically have minimal preparation for supervising a teacher-to-be. The clinical teacher is guide, model, counselor, adviser, and supervisor, as well as teacher of teachers. The clinical teacher not only understands what makes a good teacher but also knows how to help a person become one.

Clinical instructor is another new role, this one reserved for highly qualified teachers. Most clinical instructors have first distinguished themselves as clinical teachers and then have had advanced preparation in mentoring and in helping others learn to teach. Among their tasks are preparing mentors and clinical teachers, teaching methods courses, demonstrating teaching techniques, and leading seminars on the science and the art of teaching. Clinical instructors often are on loan to a school of education for a year or two, enabling a closer collaboration between the practicing and the preparation arms of the teaching profession. Overall, the most important task they perform is providing a productive bridge between theory and practice.

Action Research and Minigrants

In 12 partnerships, action research has brought teachers and professors together to investigate questions and problems that teachers face—for example, whether students understand certain concepts being taught. Customarily, teachers' schedules allow neither time nor assistance to do action research. After identifying an area of common interest, participants typically write a proposal and submit it to a partnership committee. Accepted proposals provide participants with resources such as time, pay for a teacher's substitute, and other assistance. Outcomes often result in new teaching strategies, improved curriculum, or more appropriate materials. Successful results often go beyond a teacher to adoption by an entire school.

At many partnerships, minigrants (usually, awards of \$1,000 to \$1,500) support teachers in trying innovations, such as a new reading program, a different way to assess student learning, the use of technology to motivate students, or a more effective approach to professional development. Sometimes the teachers employ formal methods of inquiry, but usually their work is not highly structured. Nonetheless, it may be powerful in finding better ways to teach or to learn.

Both action research and minigrants have helped teachers think through new or different ways to solve problems and have injected vitality into teaching and faculty development.

Action research and minigrants often involve professional development that is more effective than traditional district-sponsored inservice education. It engages participants in problems and issues that are directly related to their teaching and succeeds in improving learning for school students as well as for teachers.

Student Learning

In 2000-2001, a number of partnerships explored different approaches to measurement of student learning. For example, the partnership based at Appalachian State University assessed elementary school students' learning in reading over three years. The study viewed changes in professional practice alongside students' growth in reading. The school's reading scores improved from the lowest in the school district to the highest.

Another example is the Weldon City Schools, where education and arts and science faculty from North Carolina Central University and trainers from the Southern Initiative of the Algebra Project provided a series of professional development workshops and classroom visitations to support the introduction of new strategies for teaching mathematics in grades 6–12. Middle and high school mathematics teachers learned how to use the Algebra Project's curricular process and cooperative learning model to facilitate specific lessons. The effort resulted in greater student achievement.

Recruitment of Teachers

Cary High School, a part of the North Carolina State University partnership, instituted several programs to recruit teachers. One of these, the Teacher Apprenticeship Program, involved 17 high school students in a yearlong course that met 55 minutes a day, five days a week. One day a week the students explored topics such as effective teaching skills, current issues in education, and diversity. On the other days, they paired with classroom teachers and performed tasks such as tutoring students, teaching minilessons to small groups, and grading papers. One of the class members subsequently received a Teaching Fellows Scholarship, and 12 others, now enrolled in general studies in their respective universities, have expressed interest in becoming teachers.

The partnership at The University of North Carolina at Asheville has addressed recruitment through sponsorship of a high school Teacher Cadet Program (which promotes teaching as a career), recruitment of tutors and mentors from an African-American colloquium on campus, and outreach to middle and high school students who might qualify for a Legislative Opportunity Grant (a four-year scholarship for students tracked from middle school through higher education). Two African-American Teacher Cadet graduates currently attend the university.

The North Carolina Central University partnership launched a program to increase the number of licensed special education teachers of students with behavioral and emotional disabilities. The program recruited graduate students from minority populations. On average, it supports 35 graduate students per semester.

Sharing Across Partnership Sites

In North Carolina, discussion of teacher education issues by university faculty and schoolteachers across institutions has not been a frequent occurrence. A milestone reached in April 2001 was a statewide retreat of more than 40 representatives from the 15 partnerships. Held in Asheville, it was the most intensive cross-partnership exchange ever, of common (and uncommon) problems and achievements. Participants represented a mix of partnership members.

The initial discussion question was whether partnerships were meeting the original goals of the USTEPs. The discussion expanded into small-group conversations on three types of concerns: organization, structure, and policy issues; substantive programmatic questions; and practical operational procedures. The event was so successful that participants recommended it be repeated.

Learning through sharing also has been evident between North Carolina Central University and North Carolina State University, focused on the latter's mentor training program. The collaboration has flourished to the point that North Carolina Central now offers its own two-semester course (theory and practicum) on clinical supervision. Each partnership has learned from the other.

In Greensboro the partnerships at The University of North Carolina at Greensboro and North Carolina Agricultural and Technical State University joined to sponsor a Summer Leadership Institute on closing the minority achievement gap.

Use of Technology

Integrating technology into teaching at both the university and the school level was a major focus in 2000–2001. Prospective teachers were taught, and then expected to demonstrate, knowledge and skills in technology. The focus was on use of the computer (word-processing, sending and receiving e-mail, using software, accessing the Internet, developing Web sites, and more). Some interns developed units that incorporated technology. Many prospective teachers developed portfolios for placement purposes. At East Carolina University, a sophisticated electronic portfolio was developed and implemented across several programs.

One site conducted research on the use of technology during internships, particularly for communication among university supervisors, interns, and clinical teachers. University faculty and supervisors and school-teachers received training in the use of a variety of technologies. After training, one group employed *threaded discussions*, a technology whereby a faculty member or a supervisor can post an idea on the Web, and students can access and react to it, as well as access and react to comments from other students.

Some sites used Web pages to provide supervisors, interns, and clinical teachers with updates on policies and procedures. One site set up a Web page to answer questions that interns frequently ask, as well as to give information that clinical teachers request.

Several grants supported workshops to enhance preservice and inservice teachers' sophistication in use of technology in instruction. Schools and universities were involved in workshops sponsored by the NC Catalyst technology grant. Opportunities to practice with colleagues and to obtain materials for classroom use were provided in all academic areas. Teachers shared innovations and experiences, and they completed products for use in their teaching. Some sites integrated technology into professional development, sometimes using distance learning. Distance learning enabled school districts to expand offerings for teachers and to capitalize on the expertise available from universities and other sources.

North Carolina State University's Centennial Campus, a center for advanced science, engineering, and technology, assisted teacher candidates in demonstrating proficiency in the state's Advanced Technology Competencies.

A conference on technology brought together principals and administrators from partnership schools to compete in a Technolympics. This event consisted of a series of hands-on activities, such as developing databases to track school outcomes, designed around the Advanced Technology Competencies expected of all North Carolina students by eighth grade. Administrators explored possibilities for using technology in the classroom and came to understand better the requirements that teachers and interns must master to meet the needs of students.

Western Carolina University interns at Fairview Elementary, a school equipped with *airports* (wireless devices that allow connection to the Internet without being connected to an Ethernet port), launched a technology initiative. They and their students used word processing, spreadsheets, the Internet, e-mail, and curriculum software to enhance students' skills and learning. Interns were provided with iBooks (laptop computers) to use for the year. The project made the interns more aware of the usefulness of technology in teaching, especially in enabling them to respond to their students' personal curiosities and to motivate students to get more involved in learning and discovery.

The U.S. Office of Education's Preparing Tomorrow's Teachers to Use Technology initiative also supported workshops for faculty, staff, and cooperating teachers in 2000–2001.

Support for Teacher Advancement

Several partnerships helped prospective teachers prepare for Praxis II (a standardized test that prospective teachers must pass during their college years) and helped experienced teachers prepare for certification by the National Board for Professional Teaching Standards (NBPTS).

In the case of Praxis II, education and arts and science professors took the test themselves and then planned ways in which their university could incorporate content and experiences into the teacher education curriculum that would prepare students for the test. This strategy, pioneered at UNC Charlotte, has spread to other partnerships across the state.

Helping teachers become acquainted with the NBPTS test involves teachers learning about the standards for their subject of specialization and level of teaching and then demonstrating that they meet those standards. Several partnerships conducted workshops and other sessions to inform teachers about the appropriate standards and the procedures that the NBPTS employs to test whether teachers meet those standards.

Impediments

Despite the wealth of accomplishments, the partnerships also encountered many impediments.

The partnerships have expanded so quickly that existing resources are inadequate. Before the advent of university-school partnerships, education faculty taught college classes, advised students, carried on research, contributed to scholarly journals, supervised field experiences,

served on college and university committees, and provided community services. Schoolteachers taught students, planned and implemented instructional and curricular improvements, served on grade-level and subject-matter committees, counseled students, advised extracurricular clubs and activities, and consulted with parents.

Under the partnership arrangement, education faculty and schoolteachers still assume their prior roles and responsibilities. In addition, they serve on partnership committees, supervise yearlong interns, work with tutors, train or are trained as clinical teachers and instructors, carry on action research, recruit teachers, undertake minigrant projects, and evaluate partnership effectiveness. They also keep up with developments in technology. Increasingly there are demands to assess and document student learning and to share with parents ideas that might facilitate students' growth and development. In addition, teachers and professors must tend to their own updating in both subject matter and pedagogy.

The obvious risk is that participants will become stressed, exhausted, and disillusioned, in spite of initial enthusiasm and commitment. Explanations in the impediments section of partnership reports expand on these points. Out of altruism, habit, and commitment to learners, educators do not protest loudly about overloads in assignments, but the inherent dangers of burnout and disillusionment are clear to see. Educators have little opportunity to make their case with citizens and policy makers, yet the quality of education hangs in the balance. University faculty load is computed using strictly academic criteria-that is, credit hours-and teachers have all-day/every-day schedules that provide little time even for planning lessons. For professors, supervision of field experiences takes much more time than campus classroom teaching, even excluding travel time. For teachers, supervision is an added assignment, much of it taking place before and after school in conferences. Supporting beginning teachers and providing professional development for veterans require much more time than traditional courses. The time necessary for essential communication (telephone calls, e-mails, newsletters, Web sites, and the like) among teachers and professors is an additional demand not provided for in either

university or school budgets. When parents,

people are involved, still another need for

resources exists.

community groups, local business, and industry

Unresolved Issues

The partnerships began as clearly distinguishable projects. As they have become more integral parts of their institutions' teacher education programs, they have gradually connected with other programs—the Model Clinical Teaching Program, Coach²Coach, technology initiatives, etc.—and become less distinct. Collaboration with corporate and government projects has supported this trend. Such amalgamation becomes a problem in accounting for budgets or giving credit: Which entity paid for what? Who gets credit (or blame)? At some time it might be advantageous for policy makers to think in terms of one budget for teacher education that includes as many parts as possible.

The problem just described leads nicely to the question Who's in charge here? The two main participants, universities and school districts, operate on different budgets and have different goals, routines, administrations, audiences, clients, and cultures. Yet partnership budgets come from the state. So who should be in charge? To what extent is increased collaboration really possible? What should be the formula for financial contributions? Who takes the credit for successes, the blame for failures?

The goal of education and arts and science faculties having joint responsibility for the preparation of teachers is recognized nationwide. But in the partnerships there is not much joint planning or action by the two faculties on what it takes to create competent teachers. There is little more than tacit understanding that teachers need a combination of a good general education, competence in a subject field(s), and knowledge and skills in the science and art of teaching. Agreement on the goal is unchallenged. Action on the goal is still rudimentary in most partnerships.

Another unresolved issue is What constitutes collaboration or partnership? Merriam-Webster's dictionary defines *collaborate* as "to cooperate with an agency or instrumentality with which one is not immediately connected." It defines *partnership* as "a relationship . . . involving close cooperation between parties having specified and joint rights and responsibilities." In this program those conditions have been slow in coming to fruition. Universities have usually been dominant. The rhetoric is "shared ownership, equal voices." There are just a few partnerships in which equity between teachers and professors is a fact.

Innovations in education often bear labels that do not hold up under inspection. Terms such as *intern*, *action research*, *student teaching*, *clinical* or *cooperating teacher*, and *college supervisor* are defined differently by different institutions. Should common definitions be sought? If so, will that restrict institutional autonomy?

Next Steps

Partnerships seem preoccupied with doing better what they already do in field experiences and professional development. If the original goals of the USTEPS are to be achieved, such thinking may be too narrow.

Partnerships might give consideration to these endeavors:

- Focusing more on school improvement.
- Exploring what teachers and professors ought to know and be able to do in measuring student learning.
- Revisiting qualities and characteristics for selection of prospective teachers.
- Giving more attention and time to documentation of partnership activities (particularly to reporting outcomes more carefully and comprehensively).
- Reviewing with arts and science faculty the nature and the content of general education and its relationship to professional education. (This must happen before more substantive discussions on the nature and the structure of the discipline, suggested next, can occur.)
- Exploring the need for teachers to know and understand the structure of their major discipline.
- Evaluating and improving the nature and the quality of supervision in field experiences.
- Assessing the importance of advising in teacher education.

The benefits of universities and schools working together are undeniable. This report makes them crystal clear. North Carolina can take pride in what it has accomplished and in being the first to launch a statewide partnership program that includes all publicly supported universities.

Appalachian State University

in partnership with Alexander, Alleghany, Ashe, Avery, Burke, Caldwell, Watauga, and Wilkes County Schools

The University-School Teacher Education Partnership housed at Appalachian State University (ASU) includes the university and eight school districts (105 schools). It has increased dialogue between K-12 schools and higher education. It also has led to collaboration to improve learning for school students; to strengthen teacher preparation; to link theory, content, and practice more closely; to improve staff development; and to promote interaction between education and arts and science faculty.

Further, the partnership has served as a catalyst for almost \$3 million in federal grants over the past four years:

- The Mountaineer Millennium Project (in its second year), which fosters an after-school enrichment program for more than 700 academically at-risk students in seven partnership districts
- GEAR-UP (Gaining Early Awareness and Readiness for Undergraduate Programs, also in its second year), which supports 80 academically at-risk middle school students by encouraging them to seek preparation in higher education
- The Appalachian Rural Teacher Technology Alliance, which brings together ASU, UNC-Asheville, Warren Wilson College, Western Carolina University, and 15 school districts to work on integrating technology into teaching and learning at both the university and the school level

These projects all involve collaborative efforts among higher education faculty, preservice teachers, school students, teachers, administrators, and community representatives.

Activities

Impact of Partnership Activity on Professional Development Schools From its beginning, the partnership has worked to establish professional development schools (PDSs) and foster their growth. The focus has been three elementary schools: Beech Mountain (in its fourth year as a PDS) in Avery County, and Bethel (in its third year) and Mabel (in its second year), both in Watauga County. This year 59 students at Beech Mountain, 185 at Bethel, and 201 at Mabel were directly affected, as were their teachers, aides, and principals. ASU faculty worked closely with the principals and with 4 teachers at Beech Mountain, 7 at Bethel, and 8 at Mabel. ASU faculty, interns, and student teachers spent 206 hours working with teachers, administrators, and students in these schools. In addition, during the fall and spring semesters, 27 interns spent 5,481 hours, and 13 student teachers 7,217 hours. At all three schools, partnership funds increased the book collections, supplied teachers with instructional materials, and supported travel for presentations and faculty development.

ASU and Watauga County continued jointly to employ a Bethel teacher to teach at the university and in school settings. She worked with two Bethel teachers (fourth and fifth grade) and their students, modeling language arts instruction, and she taught ASU's methods course in language arts. This allowed university students to observe her teaching demonstration lessons in the school. In addition, she spent time working with teachers in two other PDSs and providing staff development in two counties.

Preservice Teacher Learning

Preservice teachers continue to make better connections between course work and field experiences. For example, in the language arts methods course, they learned what literature circles are (groups of students formed around a common reading level) and how to plan and use them in reading. The instructor modeled the process in the methods course, having university students work in literature circles with books appropriate for their reading levels. Students assumed various roles—for example, word wizard (someone who looks up words that are not generally known) and discussion director. They then observed the instructor using literature circles in the fourth- and fifthgrade classes at Beech Mountain and Bethel. University students also created interdisciplinary units that used literature circles, later using the

units during their internships (which at ASU

involve participation in classrooms part-time before student teaching). The units are posted on the Web at http://www.ltl.appstate.edu/litcirunits_Spring01/index.html.

Further, university students demonstrated their knowledge and skills in integrating curriculum and technology by creating electronic portfolios of their work and posting the portfolios on the Web at http://www.ltl.appstate.edu/436/index. htm. Moreover, they added to the college database on children's literature by posting book reviews on the Web page just cited.

Interns could choose to student-teach in the same school in which they interned and to work with the same ASU and school faculty and students. If they did so, as student teachers, they would teach a known group of students and extend their experiences from the internship, instead of beginning with a new set of university and school teachers and students. Classroom teachers appreciated the approach because it ensured continuity of instruction, an important factor in the continued academic growth of K-6 learners. The student teachers also served as mentors to interns. The entire arrangement required careful planning and scheduling. Further, it demanded the effective use of time by teachers and university faculty, who worked together closely to ensure that both groups received appropriate supervision and feedback.

At the end of each semester, ASU hosted a partnership celebration for all participants in the term's field experiences. This provided a time to reflect on and celebrate partnership accomplishments, enhance the learning community, and highlight each group's contribution to the successes of that semester. Participants also considered what might need to be changed and how such change might be brought about.

Professional Development

This year professional development for teachers and others in PDSs focused on mathematics and reading. Several groups of teachers emphasized more use of strategies that connect theory and practice in these subjects. Bethel K-2 teachers, for example, incorporated elements of a curriculum called Investigations in Number, Data, and Space into their teaching. An ASU faculty member introduced them to this curriculum, which is used in the mathematics methods course. With the same curriculum materials used in both places, university students were better able to make connections between course work and field experiences.

An ASU faculty member also worked with two teams of teachers from Mabel (seven teachers in all, K-2 and grades 3-5) throughout the year to help them explore using the Investigations curriculum. As a result, the teachers decided to adopt it, and in fall 2001 the ASU faculty member will help them use it.

Two ASU faculty and a university Practitioner-in-Residence (a schoolteacher on leave to teach full-time in the teacher education program) worked with a group of teachers from grades 3–5 from Avery and Watauga counties throughout the year in a focus group on elementary school mathematics. They focused primarily on the Investigations curriculum. Lead teachers from Bethel and Mabel also participated.

During the spring, summer, and fall, a group of teacher-leaders from Avery, Caldwell, Watauga, and Wilkes counties who used the Investigations curriculum met with an ASU faculty member after school, on their own time, to learn how to assist other teachers interested in the curriculum. ASU's Mathematics Science Center and the Watauga County Schools supported the activity with money and materials.

Across 2000–2001, an ASU faculty member and another Practitioner-in-Residence worked with 14 Avery County teachers in grades 3–7, teaching them how to design and implement literature circle units. Working in teams, they met 10 times to design the units, which they published electronically (see http://www.ltl.appstate.edu/litcircleunits/index.html). In addition to learning how to develop the units, they learned how to publish Web pages. A new group of teachers will begin similar work in August 2001.

Evaluation

Assessing the outcomes of efforts like those just described is a major undertaking, and it cannot be done without first developing an overall framework within which to examine PDS activity. An extensive study of the first three years at one of the PDSs, Beech Mountain Elementary School, has been completed.

The partnership created a PDS community of practice to increase the PDS's potential for improving the quality of teaching and learning in both school and university settings. A theoretical perspective was developed to help understand and guide this PDS work and the complexities endemic to it. The work was based on a sociocultural paradigm that calls for the creation of relationships and activities that enrich the

process of learning to teach. (The full PDS evaluation study is reported in Trathen, Schram, Shomaker, Maldonado, and McKinney; see the heading "Dissemination of Promising Practices . . . " for a complete citation).

For this report a précis of the community of practice at Beech Mountain is provided to illustrate the nature, the scope, and the results of the research. The community of practice consisted of the people engaged in various work activity. The characteristics of Beech Mountain and its community shaped the nature of the goals and the activity created by the partnership.

The study focused on two questions: How can researchers evaluate the complexities of partnership activity? What is the impact of partnership activity on the PDS community-of-practice system and, in this case, on students' reading performance? Reading performance was selected as the area to be studied because it was a need identified by the personnel in the school.

A method of system analysis put forth by Engestrom was used to capture changes in the PDS community of practice. A comparison was made between elements of the *activity system*—the social organization represented by the PDS—at the beginning of the partnership with Beech Mountain and those same elements three years later. Contradictions in the activity system that affected the PDS community of practice also were studied. The focus of the analysis was the group that participated in the shared activity of the PDS community of practice: the Beech Mountain principal, teachers, and students, and ASU faculty and students.



ASU intern Steve Gough shares a story with kindergarten and first-grade students at Beech Mountain Elementary School.

A Précis of the Study

The following précis addresses the study's first question, How can researchers evaluate the complexities of partnership activity?

Practices Before the PDS

The PDS approach was a departure from previous practices at Beech Mountain and at ASU. When ASU faculty first visited Beech Mountain, they were struck by how well the school functioned as a social organization. Parents were connected to the school, volunteers often helped when needed, older students cared for younger students, and faculty regularly interacted socially. However, the academic curriculum was fragmented, and teachers were isolated in their methods: (1) They rarely discussed teaching with one another, and faculty development came primarily in the form of district-sponsored workshops; (2) teachers had little awareness of methods and materials used in other classrooms; (3) no assessment other than end-of-grade tests was evident; (4) the teachers made little attempt to integrate language arts skills into content instruction; and (5) very little instruction occurred across grades in phonics or word study.

Whole-class instruction predominated in all subject areas and grades. Teachers did not differentiate reading instruction, even though many students were reading below grade level. Materials consisted primarily of basal readers and worksheets, except in fourth and fifth grade, where students read short novels. All students at each grade read the same text, whether it was a basal reader or a novel. Students' responses to what they read were largely limited to teacher-directed

questions; there was little conversing or writing about books.

The special education/Title I reading teacher pulled children out for individual instruction but did not coordinate the lessons with the classroom teachers' reading curriculum. The special education/Title I reading teacher matched reading material to students' reading ability. However, there was no pacing plan to ensure that children advanced in reading levels, and little attention was given to increasing students' *reading fluency* (their ability to read at a certain level with minimal difficulty).

Before the establishment of the partnership, ASU placed its interns in a single classroom, which might be in any one of five or six schools. Each intern worked with a teacher in a particular grade, rarely visited other teachers and other grades, and seldom had the opportunity to reflect on or share experiences with peers.

Interns' activities in placements varied greatly. Some teachers asked interns to teach small groups. Others restricted interns to grading papers and lining children up and escorting them to and from activities.

Interns were scattered across one or two school districts, so university faculty had little time to visit them and connect with their cooperating teachers. And each semester ASU faculty worked with different teachers in different schools. Without sustained and meaningful connections with a core of teachers, they could not be sure about the kinds of instruction that interns were seeing in their classrooms, and interns rarely saw ASU faculty interact with teachers.

Practices Three Years Later

When these early characteristics were compared with the structure of the activity system three years later, the PDS community of practice showed evidence of systemic change. ASU interns were placed two to a classroom in one of three PDSs, rather than being spread all over a county or two. All students visited the three PDSs before their intern placements. As a result, they had a better understanding of the contexts in which other students were working. Once they became interns, they were more inclined to visit other classrooms and participate in school activities, and reported feeling part of the school faculty. They were encouraged to observe one

another teach and to reflect together on their experiences. ASU faculty associated more closely with teachers and students, and interns saw faculty work with PDS teachers and students.

Such changes made possible a better alignment of the teacher preparation curriculum and PDS practices. ASU students learned techniques in university classes that they then saw being used in the PDSs, and they had opportunities to teach and discuss the experiences with ASU faculty. Until the establishment of the PDS, Beech Mountain rarely hosted ASU interns or student teachers, so the school appreciated the extra hands. ASU interns gave needed assessments

and worked individually and in small groups teaching students.

Further, the content of the reading and language arts curriculum now was aligned across grades. Teachers talked with one another regularly about materials and methods. They used a variety of assessment techniques to determine students' instructional needs. They also employed flexible, dynamic grouping (one-on-one, small group, and whole class), by gearing reading material to the students' reading ability, and they used a variety of materials and teaching strategies. Teachers formed small instructional groups based on assessment techniques, and pacing occurred to ensure that students worked on appropriate instructional levels, for maximum growth. Student performance and growth were monitored; when students could advance, they were moved to the appropriate group.

A comprehensive developmental word-study program was designed and implemented in grades 2-8, and teachers learned about developmentally appropriate spelling instruction. Students were placed in groups consistent with their developmental understanding of English orthography (the art of writing words with the proper letters according to standard use), determined by their performance on the developmental spelling instrument teachers learned to administer. Instructional reading groups, student performance, and growth were monitored to determine when students were ready to advance. Responses to reading through discussion and writing were emphasized. Language arts skills were integrated with content areas such as



ASU intern Louise Urban works in a literature circle with Charlie Mann and Jesse Gomez, fifth graders at Beech Mountain Elementary School.

mathematics, social studies, science, music, and art. Literature circles were formed around instructional reading levels, and the books that students read correlated to those levels.

The special education/Title I teacher worked with students in the regular classrooms as well as in small-group and individual pull-out sessions, using a variety of strategies and programs. She also supported classroom teachers by assisting in schoolwide assessment of all students.

Further, Beech Mountain implemented ancillary programs such as community volunteer readers, peer reading, and after-school tutoring. Teachers participated actively in professional development embedded in partnership work.

To summarize, in a span of three years, changes occurred in the settings, the roles and the responsibilities of the subjects, the tools, the rules, and the procedures used in the PDS community of practice activity.

Contradictions

However, a number of contradictions occurred in the activity system. Under the state's assessment program, students took end-of-grade tests that required them to read material on grade level. But many students were reading below grade level. So, on the one hand, teachers and interns received encouragement to match materials to a student's abilities, but the state was ignoring this issue in its testing practices. As a result, teachers had to be convinced that they could have more influence on grade-level reading by having students who were reading below grade level, read material matched to their abilities, regardless of how the state tested. However, students also were given practice in test-taking skills.

At the county level, teachers attended workshops that did not align with the instructional practices being implemented in Beech Mountain. Recognizing this contradiction, ASU faculty worked more closely with the district office to revise professional development. The district now welcomes this involvement, largely as a result of the success of Beech Mountain students on end-of-grade tests.

Personnel changes at ASU and Beech Mountain created new contradictions. For example, a new librarian expressed concern that helping students consider the reading level of books before taking them home was a form of censorship. From ASU faculty's perspective, this was a means of increasing students' interest in and access to books. To address the contradiction, faculty and teachers devised a three-level scheme: All students would

read books at their instructional level with someone; they would read books one level below independently; and someone would read to them books that were a level above.

Another contradiction was the mismatch between university students' expectations and reality. Often ASU students showed resistance to the rural setting and the small size of the PDS. Many undergraduates expected that they could learn to teach only in a school like the one in which they thought they would be employed. As a result, faculty and teachers had to help them focus on children's learning instead of whether the learning was occurring in a rural or an urban setting.

Engestrom's systems-level analysis proved helpful in conceptualizing the complexity of the PDS activity system and in revealing the impact of partnership work on the PDS community of practice. Faculty continue to use the analysis as they engage in PDS work and attempt to improve their practice.

Analyses of Student Performance

The second research question focused on the impact of partnership activity on students' reading performance. Before partnership activity, Beech Mountain had some students with the lowest performance scores in the state. As a result of involvement in the partnership, students showed gains on North Carolina's end-of-grade test scores, as well as gains on informal diagnostic assessments.

A longitudinal view of test scores since spring 1997 indicates that composite (overall) scores also improved at Beech Mountain. In 1997–98, 76.3% of students in grades 3–8 scored on or above grade level on the end-of-grade test. In 1998–99, the proportion on or above grade level was 83.8%. This accomplishment meant that students had shown exemplary growth in end-of-grade test scores and that Beech Mountain was among the top 25 schools in the state in overall performance, and a School of Distinction. In 1999–2000, 90.5% of students scored on or above grade level. This represented exemplary growth by students, and recognition for Beech Mountain as a School of Excellence.

In addition, at the 2000 annual meeting of the International Reading Association, Beech Mountain was recognized as a Title I Distinguished School, 1 of 25 throughout the United States. The school also received an award from the North Carolina Department of Public Instruction for educational excellence.

Results of 2000–2001 informal reading assessments were that 95% of the students who scored at least two levels below grade level had achieved at least one year's growth, and 58% of those students had achieved greater than one year's growth. A school that once had the lowest reading scores in the school district now had the highest. The teachers and the principal attributed these positive changes to PDS efforts.

Lessons Learned

The partnership has learned many useful lessons:

- In a PDS model, professional development is in-depth and emerges best out of the needs identified by school personnel.
- As a PDS team works to change a curriculum, professional development of team members occurs as a natural extension.
- A successful PDS team identifies an area to change, gathers relevant information, discusses ways to use it, tries out ideas with students, analyzes the results, and makes needed modifications.
- Careful analysis of student growth over time using a case study approach can contribute to an understanding of the impact of PDS work on student learning.
- PDS research reveals that to affect student learning significantly, all participants must make a long-term commitment to collaboration, and they must carefully structure how participants work.
- PDS work is dynamic and developmental, involves layers of complexity, entails collaborations among groups and individuals of multiple perspectives, and requires work to be assessed across time.
- PDS characteristics argue for a different type of evaluation, one that looks at an entire activity system, rather than a particular discipline or area.
- Viewing PDS work as an activity system enables participants to understand the overall structure of the system and the ruptures that might occur, even in a healthy system. It also provides a way to analyze the ruptures and use what is learned to modify and improve the activity system.

Next Steps and Future Aspirations

On the basis of activity system theory, partnership participants have developed a set of questions to guide future PDS research:

- In what other ways can activity system theory be useful in evaluating PDS work?
- How does a PDS activity system transform, expand, and sustain itself over time?
- What are the effects of PDS activities on the thinking processes of individuals and the social processes of groups?
- In what ways can system-level analyses of unsuccessful PDS work contribute to PDS work?
- How might the PDS standards developed by the National Council for Accreditation of Teacher Education inform PDS evaluation?

Dissemination of Promising Practices and Research Findings During 2000–2001

Web Sites

http://www.ltl.appstate.edu/436/index.htm The page provides access to each of the three PDSs, university course information, and university student work.

http://www.ltl.appstate.edu/436/student/ student.htm

Students created electronic advanced technology portfolios and instructional portfolios designed to meet the standards of INTASC (the Interstate New Teacher Assessment and Support Consortium), required of North Carolina teachers.

http://www.ltl.appstate.edu/litcircleunits/index.html

Students also created integrated units and published them in an electronic format.

Publications

Trathen, W., Schram, P., Shomaker, P., Maldonado, J., & McKinney, T. (in press). The impact of curriculum development and alignment on student reading performance in a professional development school. In D. Wiseman & S. Knight (Eds.), *The impact of school-university collaboration on K-12 student outcomes.* Washington, DC: American Association of Colleges for Teacher Education.

East Carolina University

in partnership with Beaufort, Carteret, Craven, Edgecombe, Greene, Johnston, Jones, Lenoir, Martin, Nash–Rocky Mount, Onslow, Pamlico, Pitt, Wayne, and Wilson County Schools

Partnership is a key to the conceptual framework on which all the work of East Carolina University (ECU) is based. In this year's joint accreditation visit by the National Council for Accreditation of Teacher Education (NCATE) and the North Carolina Department of Public Instruction, the visitors cited partnerships as a major strength of the teacher preparation programs.

A central element of the partnership is the Walter and Daisy Carson Latham Clinical Schools Network, which consists of ECU and 15 school districts in eastern North Carolina. A strength of the partnership is the diversity of the school districts and the university faculty that participate. Key components of the partnership are the yearlong experience required of all seniors in teacher education; courses taught on-site at professional development schools (PDSs) and other schools in the network; a Teacher-in-Residence program; programs for recruitment of future teachers; support for lateral-entry teachers and, through the Coach²Coach position, for teachers seeking certification by the National Board for Professional Teaching Standards; curriculum enhancement; and research on the use of technology.

Activities

Collaborative Teaching of Reading

During the 1999-2000 academic year, feedback solicited from preservice and clinical teachers on ECU's introductory reading course, Fundamentals in Reading, indicated that preservice teachers might benefit from more knowledge on strategies of teaching reading. Also, they needed hands-on experience and interaction with practicing master teachers in order to develop the skills to deliver effective reading instruction. In response, one of the partnership's Teachersin-Residence organized and facilitated a project called Teaching Reading Collaboratively, designed to link university faculty in reading and elementary/middle-grades education with teachers in the Pitt County Schools. Six master teachers gave presentations to approximately 150 preservice teachers on topics such as Literacy

Collaborative, Reading Recovery, end-of-grade testing, teaching English as a second language, and differentiated approaches to teaching reading.

Before each presentation, undergraduate preservice students completed a survey that assessed their knowledge of these topics. During the sessions, students participated in hands-on activities and group work. According to the evaluations and the feedback, the collaborative effort provided the university students with concrete examples of useful strategies for the teaching of reading as well as up-to-date information about current reading initiatives. Ninety-three percent of the students responded that the presentations and the activities increased their knowledge of the content area presented.

A logical extension of the partnership is to include similar presentations in the next reading course, on classroom assessment practices. This will allow the preservice teachers who take the second course to continue with partnership learning and collaboration at their next level of instruction.

Teacher-in-Residence Program

The two classroom teachers selected for ECU's Teacher-in-Residence positions are board-certified. In 2000-2001 one of them worked full-time in ECU's elementary education program and sometimes taught university courses at a local elementary school. The other one was a parttime instructor in ECU's special education program and a part-time teacher of students with exceptionalities in a local elementary school. The two teachers frequently team-taught with faculty members both on and off campus. Both also gave minipresentations on various topics in ECU classes. The elementary school teacher's salary was paid by the partnership; the special education teacher's salary was paid half by the partnership and half by the school district in which she was employed. Together with the partnership's Coach²Coach facilitator, the two teachers served as real-world resources for ECU students and faculty.

Feedback indicated that the Teachers-in-Residence were credible to students because they still were active in classrooms and thus could relate to the real and current changes taking place there, as well as provide concrete examples of best practices.

The two Teachers-in-Residence met weekly to develop teaching modules for use by university faculty. Their products were a module on assessment and six modules on diversity. The module on assessment addressed both formal and informal assessments of K-8 and special education students. It began with a videotape defining assessment and then involved university students in an activity that made them analyze assessment firsthand. It also provided descriptions, video clips of classrooms where assessment was being used, and samples of different assessment tools.

The six modules on diversity covered such topics as personal awareness of diversity in general, cognitive and physical differences, gender, culture (as related to different ethnic and racial groups), socioeconomic status, and multiple diversities. The modules called for students to create individual definitions of diversity and compare them with NCATE's definition; to work in groups to design creatively what diversity looks like; and to participate in a closing activity based on the NCATE definition. The modules are available on the School of Education Web site, http://www.soe.ecu.edu/Diversity/default.htm.

Teacher Leaders for Better Schools Project In 2000-2001 the Office of School Leadership Programs established Teacher Leaders for Better Schools, a network of education recruiters in area high schools, to assist the School of Education in a project called Leading Talent to Teaching.

From lists of currently employed ECU graduates and from the recommendations of school districts, 30 high school teachers, representing 21 districts, were identified to begin a recruitment effort to try to increase the number of high school students entering teacher education in all licensure areas.

Faculty of the Office of School Leadership Programs met with the 30 teacher-leaders to explore ways that they might collaborate in developing a system of recruitment. They provided each teacher-leader with a recruitment videotape produced for the School of Education and a newly designed set of printed materials and marketing supplies to use with or distribute to students. The teacher-leaders were promised a small stipend for their work.

Follow-up reports showed that the teacher-leaders directly contacted about 1,500 students. Approximately 250 of these students indicated a definite interest in one of ECU's teacher education programs. About 70 of these students will actually enter ECU in fall 2001. Approximately 350 of the 1,500 students were academically proficient students, who were contacted directly and encouraged to apply for the Teaching Fellows Program. Of these, 85 applied, and 71 identified ECU as their university of choice. ECU will have 54 Teaching Fellows entering this fall.

Teacher Cadet Program

The Teacher Cadet Program is an orientation to the teaching profession for high school students. Its main purpose is to encourage students who have a high level of academic achievement and the personality traits found in good teachers to consider teaching as a career.

In 2000–2001, ECU's School of Education was in its second year as a college partner for the program. During that year the partnership served four high schools in the Latham Clinical Schools Network, involving 66 cadets, all seniors. The latest data available indicate that 25 cadets from the class of 2001 will enroll at ECU in fall 2001. These students will be matched with Teaching Fellows and other students in the School of Education. The matching will help them with the transition to college, provide a support group, and make other mentoring and learning experiences possible, as funding permits.



Pictured with Marilyn Sheerer, dean, ECU School of Education, are the 2000–2001 recipients of the Walter and Daisy Carson Latham Awards for Excellence in Teaching. Left to right: Heather Freeman, middle-grades education; Kimberly Mullis, mathematics education; and Hallie Rojeski, special education.

Technology in the Internship

The Technology in Internship Task Force was formed in fall 2000 to examine the use of technology during the internship. The task force's work focused on clinical teachers, interns, and university supervisors using e-mail as a tool of communication.

A survey of clinical teachers regarding their use of e-mail suggested that most had limited access to computers in their classrooms and more frequently used e-mail at home. Through the survey, clinical teachers suggested that Internet access to announcements, calendars, requirements, and other pertinent internship information would be beneficial.

During the fall 2000 semester, the task force examined strategies for strengthening electronic communication among university supervisors, interns in the senior-year internship, and clinical teachers. A group of university faculty and adjunct supervisors received training in the use of a variety of technologies and subsequently conducted *threaded discussions*, a technology whereby they could post an idea on the Web for discussion and students could access the idea, react to it, and access and react to comments from other students as well.

A Web page (http://www.soe2.ecu.edu/emsce) was designed that provided supervisors, interns, and clinical teachers with access to elementary/middle-grades and special education departmental updates, forms, and policies and procedures. The site thus conveyed information about which interns frequently had questions, as well as information requested by clinical teachers. This site continues to develop.

Throughout spring 2001, several university supervisors collected data to assess and document the frequency of use, and the value, of these communication strategies. Several laptop computers will be secured for use by adjunct faculty beginning in fall 2001 so that they can further their use of electronic communication and threaded discussions, and collect data about the effectiveness of electronic communication versus other means.

The most effective use of electronic communication documented during spring 2001 was e-mail, which was valued for both its timeliness and its ease of use. Interns submitted reflections and lesson plans to their supervisors and clinical teachers and received feedback in a timely manner. In addition, part-time adjunct faculty stayed better informed about departmental business.

Support for Board Certification

Between January and August 2001, the partnership at ECU hosted six events in support of 203 career teachers seeking board certification in 2002. First, it held information sessions on the ECU campus and in four area counties. Then it sponsored a two-day workshop in July, attended by 85 participants from 19 counties. Twenty board-certified teachers and session facilitators presented, including representatives from the National Board for Professional Teaching Standards. Session topics included getting started with board certification, entry descriptions, reflective writing, and assessment centers. ECU's team of four trained board facilitators was responsible for planning and organizing the event. The team has planned continued yearlong support in 2001-2 for 50 candidates (see "Next Steps . . . ").

Evaluation

Throughout its endeavors, the partnership embedded evaluation elements. For example, the PDS project used NCATE's PDS standards to set benchmarks and measure progress; data were collected on all professional development projects; and an assessment coordinator reviewed the points at which data were collected and refined feedback loops. Also, the partnership sought continuous input through every possible avenue from current students, from graduates, and from school partners. The ECU School of Education's conceptual framework will be refined with assistance and feedback from internal and external partners. Professional development projects were revised for increased impact on the basis of input from the participants, and professional development in technology was targeted for the next academic year on the basis of school and university faculty needs.

Impediments

Partnership personnel see three major impediments to successful collaboration:

- The *sheer size* of the Latham Clinical Schools Network creates challenges in communication that most other partnerships may not encounter. It also poses obstacles in tracking data and gathering information. In 2000–2001, ECU had the largest number of teacher education graduates of all UNC system institutions, and it served 15 school districts.
- Resources are always a problem, with 15 school districts in the network and the expectation that faculty will work in the field.

Creative and effective collaboration takes resources, and the current level of funding limits the amount of deeperlevel work that can be done. Clinical teachers in the school districts should receive at least the same amount of stipend that mentors for initially licensed teachers are paid. Their work with preservice teachers is equally important.

 Faculty roles and rewards also remain an issue. Partnership work with schools must be ele-

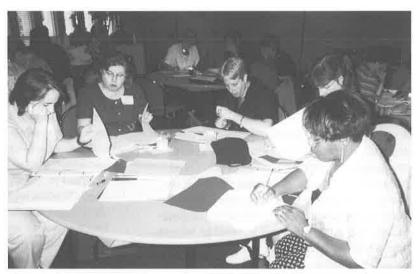
vated on the priority list of faculty workloads. The partnership has made minimal progress in making this happen. ECU as a whole and the School of Education in particular are looking at Charles Glassick's notion of scholarship and working toward implementing a revised concept of roles and rewards that recognizes partnership work more fully.

Lessons Learned

Relationship-building is key to the success of partnership work, and having top leadership at the table is imperative. Although the work should be about more than people, people working together as a team make the partnership happen. The faculty of ECU's teacher education program have put considerable effort into relationship-building, and they value that effort.

Good research data can sometimes assist in making change occur quickly. In the cultures of both the university and the school districts, datadriven processes provide solid frameworks on which to build. Methods for collecting data on partnership activities continue to be improved. Using frameworks such as the NCATE 2000 assessment guidelines, and the NCATE standards for PDSs combined with individual PDS action plans for research, partnership personnel can collect meaningful data and use them for program revision and enhancement.

Partnership work and successes must be reinforced, particularly by the leaders. Attention to



Teachers seeking board certification participate in a two-day workshop hosted by the Latham Clinical Schools Network at ECU.

marketing, public updates, and highlighting of particular partnership efforts are essential.

Next Steps and Future Aspirations

The partnership envisions the following next steps:

- Further development of a model for sustained professional growth for clinical teachers and university supervisors that contains a commitment to continuous learning in the area of supervision.
- Expansion of the network to encompass 2 more school districts and 18 community colleges in eastern North Carolina.
- Formalization of the ECU National Board Network to bring facilitators in the eastern region together to share ideas, opportunities, and resources for teachers seeking board certification. The Coach²Coach facilitator at ECU will support this board and ECU's part in it. During the 2001–2 academic year, information sessions will be available on seven Saturdays, supported by ECU facilities. Two days will be "camp sessions," during which board-certified teachers will read candidates' entries, view their videotapes, and give them one-on-one feedback. Other planned support includes several information sessions and a summer workshop for 2003 candidates.
- Use of ECU's Rural Education Institute to further develop partnership models in rural east-

ern North Carolina by building deeper connections with existing rural-outreach programs.

Dissemination of Promising Practices and Research Findings During 2000–2001

Presentations

Bradshaw, L. (2001, February 8-9). *The TPAI-BT: What are the implications for mentors and coaches?* Paper presented at the Maritime Mentoring Conference, Wilmington, NC.

Bullock, A., Hawk, P., & L'Esperance, M. (2001, April 7–12). *Data-driven professional development in a school-university partnership*. Paper presented at the annual meeting of the American Educational Research Association, Seattle.

Covington, V. M. (2001, February 16). *University-School Teacher Education Partnerships: Implications for improving preservice education.*Paper presented at the 18th Annual Atlantic Coast Business and Marketing Education Conference, Raleigh, NC.

Davis, M. L. (2001, April 20). *Developing the critical and reflective thinking skills of preservice teachers.* Poster session presented at the annual convention and exposition of the Council for Exceptional Children, Kansas City, MO.

Hawk, P., Burke, M., & Thomas, C. C. (2001, February 17–20). *NC Teach: One state's response to teacher shortages and teacher quality.* Paper presented at the annual meeting of the Association of Teacher Educators, New Orleans.

Ledford, C., & Peel, B. (2001, February 17-20). Preparing preservice teachers to meet the needs of diverse learners: A reflective field-based approach. Paper presented at the annual meeting of the Association of Teacher Educators, New Orleans.

Sheerer, M., & Mellon, C. (2001, April 7–12). *Improving teacher education curriculum through field-based research*. Paper presented at the annual meeting of the American Educational Research Association, Seattle.

Sugar, W., Parke, H., & Pedersen, J. (2001, March 7-9). *Collaborative university-public*

school partnerships: Development of an on-line network for school of education faculty and public schools. Paper presented at the Society for Information Technology and Teacher Education, Orlando, FL.

Ventura, R., & Faulkenberry, A. (2001, March 8-9). *On task with INTASC.* Paper presented at the Maritime Mentoring Conference, Wilmington, NC.

White, M., & Warren, S. (2001, April 20). Strategies for local implementation of mentoring induction programs: General and special education collaboration. Paper presented at the annual convention and exposition of the Council for Exceptional Children, Kansas City, MO.

Williams, S., Davis, M. L., White, M., Metcalf, D., & Covington, V. M. (2001, April 20). *Integrating multiple professional standards into the development of pre-service teachers' portfolios.* Paper presented at the annual convention and exposition of the Council for Exceptional Children, Kansas City, MO.

Publications

Bullock, A. A., & Hawk, P. P. (2001). *Developing a teaching portfolio: A guide for preservice and practicing teachers*. Upper Saddle River, NJ: Prentice-Hall.

Powers, D. A., Thomson, W. S., & Buckner, K. (2001). Electronic portfolios. In A. A. Bullock & P. P. Hawk (Eds.), *Developing a teaching portfolio: A guide for preservice and practicing teachers.* Upper Saddle River, NJ: Prentice-Hall. Sheerer, M. A. (2000). Shifting the perspective on the professional development of inservice teachers and teacher educators. *Action in Teacher Education*, 22(3), 30–36.

Elizabeth City State University

in partnership with Edenton-Chowan, Elizabeth City–Pasquotank, and Gates County Schools

The University-School Teacher Education Partnership based at Elizabeth City State University (ECSU) is a collaborative effort between ECSU's School of Education and Psychology, D. F. Walker Elementary School (Edenton-Chowan County Schools), Sheep-Harney Elementary School (Elizabeth City-Pasquotank Schools), and T. S. Cooper Elementary School (Gates County Schools).

Twenty-two student teachers completed the teacher education program this year. They were supervised by 22 cooperating teachers. Also, there were 7 interns (students participating in clinical experiences in the schools—observations, etc.—before beginning their student teaching): 1 in Sheep-Harney Elementary the first semester; 2 in Sheep-Harney Elementary and 2 in T. S. Cooper Elementary the second semester; and 2 in D. F. Walker Elementary during the summer. Exit interviews were held with all the students who completed their student teaching and internship assignments and were graduating.

• Workshops and equipment (i.e., digital camera and video) provided by the partnership

Participants noted the following strengths of

the partnership:

Weekly visits by the partnership's clinical coordinator

The partnership was beneficial to students, faculty, teachers, local school districts, and the university. It facilitated greater opportunities for more in-depth involvement in the partnership. The clinical coordinator worked closely with the cooperating teachers, the university supervisors, and the student teachers in partnership schools.

As a result of the partnership, personnel from the local school districts participated in selection of the new clinical coordinator. Also, partnership cooperating teachers attended the Triad Meeting of Cooperating Teachers, University Supervisors, and Student Teachers, held at the beginning of each semester. Further, a technology workshop was offered to broaden the level of competency of cooperating teachers.

The entire teacher education program was affected by the partnership. For example, the teacher education program has been preparing

for mandatory participation of all prospective teachers in a yearlong internship beginning in fall 2002. This will entail revisions in methods courses to help meet the needs of the yearlong internship. Also planned is a course in technology for all beginning teachers. This will be supported by a new electronic classroom in which instructors will model the use of technology. Further, a sophomore seminar will assist students in preparing for the Praxis I examination, a prerequisite for entry into the teacher education program.

The clinical coordinator communicated with the various publics that needed to know about the program. Prospective teachers, undecided majors, and students with other majors were made aware of the program through personal contact and campus meetings. The clinical coordinator was involved with the Dean's Advisory Council and the Teacher Education Advisory Council, the continuing accreditation visit of the Southern Association of Colleges and Schools, and various committees involved in the continuing accreditation review by the National Council for Accreditation of Teacher Education and the North Carolina Department of Public Instruction.

The partnership continues to use action research to assess ways in which it can be more responsive to the needs of the 21 counties in the ECSU region. In 2000–2001, quick surveys helped ascertain the personnel needs of the school districts and suggest the direction of future curriculum offerings and program development for the university.

Activities: A Vignette

In spring 2001 the partnership held a staff development workshop for 7 participants, including 2 cooperating teachers, 3 interns, and 2 university teachers. The two-hour-a-day, five-day workshop provided instruction on design with PowerPoint and use of a digital camera and a scanner. Participants received 10 hours of instruction and practice, and cooperating teachers earned 1 continuing education unit. The goal was for each teacher and intern to create a PowerPoint presentation on an integrated curriculum/classroom topic, using

digital or scanned images, links to Web sites, text, clip art, transitions in PowerPoint, and animation. Evidence of success was that the teachers' and interns' PowerPoint presentations at the last workshop session demonstrated competency in each required area.

Two of the interns participating in the workshop were required to share their presentations with their school, Sheep-Harney Elementary. They collaborated on a presentation about Dr. Seuss and showed it at a student assembly. It included information on Dr. Seuss's date and place of birth; the date of his death; his childhood; his reasons for becoming an author; his motivations for writing the works that he did; and a list of his works. Also, it identified a Web site where school students could find additional information. The interns used digital scanned images to enhance their presentation. They also brought in pictures that went along with their presentation. Further, they created hyperlinks to related Web sites.

The interns picked their favorite book in the Dr. Seuss series to introduce, present, and read. On Dr. Seuss Day at Sheep-Harney Elementary, they wore Dr. Seuss hats as they made their presentation. All the classes at the school attended the assembly. The principal was pleased with the interns' presentation and wrote each one a letter of appreciation for a job well done.

The interns also used the digital camera to take pictures of themselves engaged with their students in classroom activities. The resulting images provided additional materials for their required portfolio.

Another excellent resource was a video camera. The clinical coordinator videotaped lessons and activities conducted by the interns. Each intern received at least two videotaped sessions for inclusion in his or her portfolio. The interns were able to learn about their strengths and weaknesses from analysis and discussion of the videotapes with their cooperating teacher, the clinical coordinator, and the university supervisor.



School and university administrators meet to discuss partnership matters.

Impediments

Impediments to the partnership program include the following:

- Transitions in leadership have denied the program continuity of effort. The program has had three clinical coordinators in three years.
- There has been a failure to sustain the initial enthusiasm for the program. This has resulted from the personnel changes within the partnership and the program's voluntary nature.
- Changes in the directorship of teacher education and other leadership within the partnership—superintendencies and principalships—necessitated a reestablishment of contacts in the partnership schools.
- Untimely transition in personnel did not ensure synchronization between the schools and the university. A certain amount of preparation is required to place students in internship settings at the beginning of the school year.
- Many students were unwilling to take on the voluntary commitment of a yearlong internship, which was required to participate in the partnership program. In fall 2002 the yearlong internship will be mandatory for all students.
- Loss of nine lateral-entry students to employment precluded their completing the internship.

Lessons Learned

Partnership personnel, including faculty, staff, teachers, supervisors, and students, have learned the following lessons:

- College students need assistance from all participants in the partnership if they are to become exemplary professionals.
- Recruitment, retention, and advisement of new students must be top priorities for the teacher education program. The partnership, churches, and community groups (e.g., fraternities and sororities) are essential in facilitating expansion of recruitment and retention efforts. Also, other programs in the university, such as the Maynard Scholars Program and the Vikings Scholars Program, must effectively promote teaching as a profession.
- A diverse group of teachers is needed to meet the challenges of today's multicultural schools.
- The university must increase the passing rate of all students taking the Praxis I examination.



An ECSU student shares her portfolio with faculty evaluators.

The percentage of majority and minority students who take and pass the examination should be within 1% of the percentage of majority and minority students who enroll in the senior internship year and complete student teaching.

- School districts, the community college system, and other education institutions, both private and public, must articulate with the university if ECSU is to become a vibrant leader in teacher education. These institutions are the pipeline for a fully functioning system of higher education. Supportive leadership from their administrators is needed to ensure a wholesome relationship.
- The present shortage of teachers, special area personnel, and administrators must be met with an extensive, intensive, and comprehensive response. The shortage of teachers is so severe that school districts are offering lateral-entry options to students before they complete their student teaching obligations at the university. This undermines the total process of teacher education.

Next Steps and Future Aspirations

Next steps for the partnership include the following:

- Review the existing partnership and give new leadership to its goals and objectives
- Prepare for the transition in fall 2002 to a mandatory yearlong internship for all prospective teachers at ECSU; ascertain the number of students in the pipeline to determine school placement needs as the mandatory internship is implemented; confer with the clinical coordinators at East Carolina University and Fayetteville State University on lessons learned in their institutions' transition to required yearlong internships
- Develop a plan that includes the mandatory yearlong internship
- Recruit a sufficient number of students to reduce the shortage of teachers
- Reconvene the multisite partnership council to review the goals of the program and make necessary changes to ensure program effectiveness
- Expand program activities for all aspects of the teacher education program, from selection through induction
- Prepare a research agenda on student achievement in the 21 counties and determine the implications for the teacher education curriculum

Fayetteville State University

in partnership with Cumberland and Hoke County Schools

Seldom are successes in any career field achieved in isolation. Recognizing this axiom has laid the foundation for the successes experienced by the University-School Teacher Education Partnership based at Fayetteville State University (FSU). Each partner has accepted the challenge of improving learning climates in classrooms through an enriched teacher preparation program that prepares preservice teachers for the expectations of the classroom and creates enhanced learning opportunities for school students. Each partner shares with the other its areas of expertise vital to preparation, development, and nurturing of preservice and lateral-entry teachers. Furthermore, collaboration has led to each partner's respecting, appreciating, and validating the other's contributions.

The year 2000–2001 was a productive one for the partnership. Prior years' planning resulted in multiple professional development opportunities for preservice and inservice partners, increased participation of arts and science faculty through active contributions in curriculum planning and course delivery, augmented community service projects, and innovative changes in instructional delivery. Each effort resulted in improved academic opportunities for students enrolled in partner schools. An increased number of partners, more collegial contributions outside the School of Education, and the maturation of professional development schools (PDSs) made growth evident.

Activities

Improvement of Teacher Education and Betterment of Student Learning
In its initial year, the partnership developed 3
PDSs in one school district, Cumberland County
Schools. In its fourth year, the partnership operated 9 PDSs in two school districts, Cumberland and Hoke county schools. The 9 included 7
elementary schools, 1 middle school, and 1 high school. Further, the partnership was negotiating establishment of an additional PDS with Fort
Bragg Schools, to serve both FSU's elementary education and middle-grades majors and the

school district's upper-elementary school and middle-grades students. In established PDSs, administrators and career teachers supervising and nurturing preservice teachers take ownership and pride in the development of new educators.

In support of its primary purposes, the improvement of teacher education and the betterment of student learning, the partnership provided access to current knowledge bases in teaching and learning through a wide range of professional development activities. Twenty-five opportunities for professional growth were provided to preservice teachers. Following is a partial list of the topics covered by workshops in which they participated, and the themes or the sponsors of the conferences they attended:

- · Legal issues in education
- Promoting success in the elementary class-
- Successful strategies for teaching in the middle-grades classroom
- Project CRISS: Creating Independence Through Student-Owned Strategies
- Crisis intervention for classroom teachers
- Integrating technology across the curriculum
- · Classroom management systems
- Newspapers in education
- Teaching techniques for the primary-grade classroom
- Character Education Partnership Conference, Fayetteville, N.C.
- Closing the Gap: Improving Minority and At-Risk Student Achievement Conference, Greensboro, N.C.
- North Carolina Reading Association Conference, Greensboro, N.C.
- Seizing Opportunities Advancing Research Scholars (SOARS) Conference, Winston-Salem, N.C.
- Middle Schools Conference, Greensboro, N.C. The partnership also funded 26 requests from partnership teachers to attend conferences and workshops. One such request allowed six part-

nership teachers, three teacher interns, and a partnership principal from Teresa C. Berrien Elementary School (Cumberland County) to attend the American Society of Quality International Koalaty Kid Conference in Raleigh, North Carolina. Koalaty Kid is a method for improving the quality of education for children through a systemic approach involving community partnerships. Koalaty Kid training enables teachers to manage the demands of the elementary school curriculum with understandable tools to use for and with their students. Teachers learn to involve students as partners and, as a result, begin to see instructional strategies as tools for increased problem-solving skills both in the classroom and in their lives.

According to the school's principal, Beverly Scott,

Our teachers and interns gained significant knowledge of the quality process in education and had opportunities to network with educators and leaders from around the world. They came away from the conference excited about implementing various ideas and tools in their classroom instruction.

The teachers attended myriad sessions, including The Art and Science of Writing, which focused on how to nurture competent, skilled, and creative writers; and a site visit to an area Koalaty Kid elementary school that used quality tools to enhance academic programs. Through conference activities, Chris Owens, second-grade teacher, studied cross-grade planning, rubric development (an evaluation tool used to guarantee equity), and alignment of writing processes with state standards. Other teachers concentrated on teaching tools, such as consensograms, literacy assessments, and relations diagrams, all designed to enhance student learning.

The Koalaty Kid Conference presentations, workshops, and seminars supported and enhanced the instructional goals already in place at Teresa C. Berrien Elementary. The school, once designated by the North Carolina Department of Public Instruction as low-performing, now is included on the department's list of exemplary schools (those exceeding expected growth). Such successes link the partnership to improved student learning.

For interns, partnership teachers modeling expected behaviors was an extra benefit of conference attendance and in addition to participation in other professional development activities. Ninety percent of the education and arts and science methods faculty modeled professional development behaviors for preservice teachers. They attended conferences with students, organized professional growth workshops for students, and served as presenters at workshops for students. All the previously listed workshops and conference visits were suggested or organized by university faculty and partnership staff. Faculty role models promote the partnership's efforts to encourage career development as a lifelong component of professional growth.

A Satellite Methods Classroom

Integration of university and school resources led to the establishment of a satellite methods classroom in the Ferguson-Easley Elementary School, equipped with networked computers. FSU purchased and installed the equipment and software; Cumberland County Schools provided the space. Methods professors use this room to teach on-site courses; partnership teachers, to conduct workshops for preservice teachers; and preservice teachers, to provide remediation services for students.

Teaching methods classes on site enhanced the clinical experiences of FSU's preservice teachers. A major benefit was that university students learned and practiced the art of teaching amid classroom realities while building on the knowledge conveyed by their university professors. They learned early what knowledge, skills, and abilities are needed in order to communicate high expectations and deliver effective instruction to students. These preservice teachers provided one-on-one tutoring in such key academic areas as reading, writing, and mathematics. They



The principal of Teresa C. Berrien Elementary School, some students from the school, and an FSU preservice teacher attend the American Society of Quality International Koalaty Kid Conference in Raleigh, N.C.

planned and delivered small-group instruction to academically challenged students and developed strategies for helping students who were not performing on grade level. Further, they actively participated in planning and preparation for administration of mock end-of-grade tests and later the actual end-of-grade tests. They became stakeholders in the academic careers of the students and active participants in their successes and failures. Theory and practice were meshed in the partnership classroom, and university students learned to appreciate the role they would soon play as agents of school improvement.

University-School Collaboration in Teaching Methods Courses

Instruction that prepares preservice and lateralentry teachers theoretically and pragmatically, supports the partnership's goal of an enriched teacher preparation program. A member of the university faculty, a partnership teacher, and a university supervisor/clinical instructor delivered instruction through a triangulation of efforts. The university faculty member guaranteed the theory, the partnership teacher meshed theory with practice, and the university supervisor/ clinical instructor (also a retired public school administrator) added the administrative perspective to the triangular presentation.

The results were exceptional. Students were elated. The following kinds of comments appeared in their narrative evaluations of the learning experienced in EDUC 450, Classroom Management, during FSU's 2001 second summer session:

I am a lateral-entry teacher in my third year of teaching. I must honestly say that this class was one of the best classes that I have had at Fayetteville State University. I feel that, because of the triangulation of different efforts, it gave me a broader perception of education's scope. I was able to learn from the views of a partnership teacher, a public school administrator, and a member of the School of Education faculty.—Student A

I am thankful for the opportunity I have been given to learn and be advised by excellent professionals who not only take their profession seriously, but also enjoy it. I have really enjoyed this class. I have learned more in it than I have learned in any other education course I have taken. I like the way experienced teachers were brought in to teach and to share. I will be consistently and constantly using what I have learned bere.—Student B

This class has been a great benefit to me as a senior elementary education student. Not only did I learn how to manage my classroom, but I also learned about the school system as a whole. As a preservice teacher, I think I now am better prepared to go into the classroom. Mrs. Hill [Mellotta Battle Hill, the student's partnership teacher] is an excellent teacher. She and Dr. Munn [Geraldine Munn, a university faculty member], and Mr. Dixon [Donald Dixon, a university supervisor/retired principal] really made a wonderful team.—Student C

Recruitment

In 2000-2001, FSU implemented several strategies to recruit preservice teachers. Through the university's partnerships with Fayetteville Technical and Sampson community colleges, elementary education majors had the opportunity to complete the course requirements for their freshman and sophomore years at a community college. FSU guaranteed transfer of courses from schools meeting accreditation standards set by the Commission on Colleges of the Southern Association of Colleges and Schools. FSU did not reduce academic requirements for these students but, through its partnership with the two community colleges, did offer them increased financial support, advisement, and course offerings at varying times and locations increasingly convenient to students. Further, the partnership provided opportunities for teacher aides or PATH (Professional Academic Training Highway) Fellows to complete their degree requirements in education. These efforts made the bachelor's degree more accessible to nontraditional students, who are more likely to be laden with responsibility than traditional students.

The partnership also undertook recruitment efforts geared to middle-grades and high school students in FSU's service area. University Day and High School Day were examples. Now annual events, the 2001 University Day and High School Day attracted more than 1,500 students from the sixth grade through the community college level. Students and their teachers spent an entire day on campus. As part of a tour of the School of Education, students watched preservice teachers demonstrate science experiments, attended interactive content-area workshops presented by elementary education interns, and viewed exhibits of learning centers created by preservice teachers enrolled in methods courses. Each activity was designed to encourage the visiting students to consider education as a career.

Vignettes

Gray's Creek Elementary School

Teacher interns (preservice students registered in FSU's full-time internship) have become a part of the learning environment at Gray's Creek Elementary School. Standard operating procedure is for them to help partnership teachers prepare classrooms for the first days of school. Their presence and participation validate School of Education and partnership goals to improve teacher education while improving learning experiences for students in the service area. The yearlong internship program provides them with an experience not available to students prepared in traditional teacher education programs. Although Sheri Bain's first day as a teacher intern at Gray's Creek Elementary did not officially begin until the following day, nervous tension mixed with extreme excitement kept schoolcentered thoughts racing through her mind. After reporting to her school and completing her first full day as a teacher intern, she remained excited. In her journal she wrote,

I have had the opportunity to spend the week before school started building strong relationships with my mentoring teacher, the assistant teacher, and other faculty and staff members. I have been made a welcome part of the Gray's Creek Elementary School family.

Bain and her partnership teacher discussed the curriculum and its implementation in the class-room. Bain met school administrators, other teachers, and parents; attended an open house; learned students' names; and helped prepare the classroom for the students' arrival.

Another member of Bain's cohort, Sherry Haves, did not realize until she reported to her partnership school the numerous tasks that teachers had to perform in order to prepare for students and a new school year. During teacher workdays, Hayes attended school-based workshops with her partnership teacher on brain-compatible learning (learning theory based on the structure and the function of the human brain, leading to learning opportunities that are consistent with normal brain processes), literacy circles, and strategies for creating a caring classroom. Hayes not only valued her experiences but also was encouraged by comments from partnership teachers, who praised FSU's yearlong internship and the value that it added to interns' preparation for the classroom.

Ferguson-Easley Elementary School

A hushed silence fell on the audience. Bill Withers sang "Lean on Me" as the auditorium curtain

opened to reveal the silhouettes of nine young men, all college students. They were at least 6 feet tall—giants to the third-, fourth-, and fifth-grade students enrolled at Ferguson-Easley Elementary School, who had anxiously been awaiting the arrival of their new role models and academic counselors.

Ferguson-Easley Elementary, one of FSU's original partnership schools, has a high number of students from homes with just one parent, who is of low socioeconomic status. Typically the students have few positive male role models in their day-to-day lives. During the 2000-2001 academic year, the partnership initiated a malementor program to help change that reality. This constituted a new outreach effort, dubbed the M&M Project (for males and mentors). Recruited from FSU's basketball team, the nine volunteers— John Bennette, Stephen Bernard, Joe Edwards, Kenneth Haywood, Ronald Hill, Gerald Johnson, Darielle Robinson, James Short, and Tony Taylor-served as mentors to nine classes of Ferguson-Easley's students. The men positively influenced the young students' attitudes about their studies and themselves. Although all the men were not education majors, their other accomplishments came to represent personal possibilities to the youngsters. As basketball players, they were heroes in their own right. More important, they were pursuing a college education, and this fact communicated that college was a goal their protégés too could reach.

A Partnership Teacher's Perspective

In 1998-99 I began a rewarding journey serving as a partnership teacher. As a fourth-grade teacher at Ferguson-Easley Elementary School, I had the opportunity to work consecutively with four teacher interns. For the first semester, students worked in my classroom one to two days per week. A full-time internship followed in the second semester.

The university offered support, valuable resources, and experiences for me to grow as an educator. Professional development opportunities (attendance at conferences, participation in discipline-specific workshops, etc.) were funded through the university. Additionally, serving as a partnership teacher gave me the opportunity to conduct workshops and staff development sessions (for example, on promoting success in the elementary classroom) for preservice teachers.

This partnership made a difference for the teacher interns as well as for our students. The teacher interns benefited from a yearlong internship instead of the traditional one semester of student teaching. Our students received extra help with assignments, small-group instructional sessions were conducted, and remediation efforts increased because another educator was in the classroom.

FSU welcomed our praises of, as well as our suggestions for improvement in, all facets of the teacher education program. Serving in this partnership with FSU was an opportunity and a privilege.

—Mellotta Battle Hill, teacher, Ferguson-Easley Elementary School

Evaluation

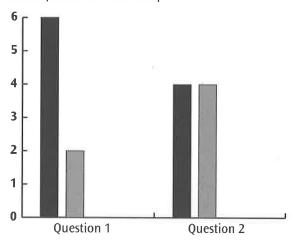
The partnership asked 23 elementary education interns completing the yearlong internship to evaluate the elementary school teacher education program. For the semester before their full-time internship, these interns were required to spend a minimum of one day a week in their partnership school in conjunction with their methods courses. The interns then completed the full-time internship in the same classroom with the same teacher. Two of the evaluation questions pertained to partnership-sponsored activities.

Eight interns out of 23 completing their internship in spring 2001 returned the evaluation form. Employing a Likert scale, the form asked interns about their satisfaction with the first semester's professional development activities. Six were very satisfied, and two satisfied. The form also asked interns about their satisfaction with the yearlong internship. On this question the responders were evenly split, four being very satisfied, and four, satisfied. The findings, used to launch interviews with program completers in an effort to gain additional insight, are displayed in Figure 1.

Impediments

Maintaining existing partnership programs and planning future endeavors remain time-consuming and labor-intensive. Although the partnership has acquired the part-time services of an additional staff member, more is needed. The partnership continues to expand services and offerings to the university community, with measurable results, including improved performance on end-of-grade

Figure 1 Interns' Satisfaction with Professional Development and Internship



- Very Satisfied
- Satisfied
- Dissatisfied
- □ Very Dissatisfied

Please rate your level of satisfaction with the following: Question 1: The professional development activities offered prior to your internship. Question 2: Your participation in the yearlong internship.

tests. Four of the nine partnership schools achieved expected growth in accordance with North Carolina's ABCs accountability system. Moreover, two achieved exemplary growth. FSU's partnership must continue to provide academic support to partnership schools, especially to those whose majority student population is not performing on or above grade level.

Lessons Learned

The most valuable lesson learned through FSU's partnership with two local school districts is one of mutual benefit. For the university to prepare the strongest, most capable teachers for children, it needs to use effectively the most valuable resources available, primarily the partnership teacher and his or her classroom of students. The partnership teachers and administrators benefit from the research and scholarship offered by university personnel. Each partner has as its overriding goal increased learning opportunities for the student population—a shared and achievable goal.

Other lessons include the following:

• Support of College of Arts and Sciences faculty is fundamental to success.



A board-certified partnership teacher and a student prepare to demonstrate learning activities designed to enhance student performance.

- Circulation of partnership successes enhances recruitment efforts.
- Support of partnership teachers' professional development improves retention.
- Endorsement by key school administrators is vital to partnership success in the schools.
- A university presence in the local schools is an invaluable recruitment tool.

Next Steps and Future Aspirations

Next steps for the partnership include the following:

- Increase the partnership's presence in middle and high schools
- Initiate funding for action research projects
- Seek external grants to support the partnership's efforts to improve student learning
- Expand professional development and enrichment opportunities for beginning teachers and lateral-entry teachers

Dissemination of Promising Practices and Research Findings During 2000-2001

Presentations

Munn, G. C., Thomas, F. A., Jordon, E., & Manarino-Leggett, P. (2000, October 6). *Multiple avenues, one destination: An examination of teacher preparation and renewal strategies.* Paper presented at the 18th Annual North Carolina Teacher Education Forum, Raleigh, NC.

Publications

Munn, G. C., Thomas, F. A., Jordon, E., & Manarino-Leggett, P. (2001, Spring). Multiple avenues, one destination: An examination of teacher preparation and renewal strategies. *The Facilitator* (newsletter of FSU, School of Education), 10–11.

North Carolina Agricultural and Technical State University

in partnership with Alamance-Burlington and Guilford County Schools

On November 4, 1993, about 40 teachers, parents, and administrators from six Guilford County Schools and around 30 faculty members from the School of Education of North Carolina Agricultural and Technical State University (NC A&T) met to discuss establishment of professional development school (PDS) arrangements. At NC A&T, this was the official conception of the University-School Teacher Education Partnership, which for many other universities started almost four years later. Today the partnership among NC A&T, Guilford County, and Alamance-Burlington Schools operates at 19 schools. More than 13,000 students and about 250 teachers participate.

The vehicles for implementing the partnership's goals are six well-defined components: preservice field experiences, action research, faculty development, faculty exchanges (schoolteachers and university professors periodically exchanging roles and sharing their knowledge and expertise), clinical faculty (schoolteachers on loan to the university serving as full-time liaisons to the schools), and support services (assistance to partnership schools in producing programs to meet their needs). A governing body, the coordinating council, oversees all the activities of the partnership. It consists of representatives from the 19 partner schools, the 2 school districts, and NC A&T.

The partnership continues to influence the total teacher education program, as assessment of students' abilities in teacher education courses and field placements feeds back into program revisions and improvements. Interfaces with graduate-level education in counseling, reading, and instructional technology are being enhanced with more practicums in partnership schools.

There is unwavering acceptance of the partner-ship by all the stakeholders involved: teachers, principals, education faculty, and central administrators. The coordinating council's advocacy and involvement have been major factors in bringing about changes in the attitudes of university professors and school personnel regarding teacher education. The council has provided opportunities for stakeholders to work together on the resolution of problems. This type of interface on teaching and learning has given each

partner a greater appreciation for what other partners are doing. Stakeholders and others have access to the partnership's Web page at http://prometheus.educ.ncat.edu/users/pds.

Activities

Improvement of Teacher Education Participants think that the partnership serves as a vehicle to improve the overall teacher education program. Survey information supporting this statement is included in the evaluation section.

Although the university has a general recruitment program, in which the School of Education participates, the partnership also is actively involved in recruitment in its middle and secondary partner schools through the Pro Team and Teacher Cadet programs (programs offered through the school district to direct high school students toward a career in education). The partnership has tracked 83 students from the Teacher Cadet Program in the Alamance-Burlington Schools since they were juniors in the 1999-2000 school year. Only four of these students enrolled in the university as education majors, but the partnership's proactive involvement with middle and high school students certainly enhances the selection process, as these candidates now have a definite interest in teaching. This, at a minimum, makes preparation more seamless because it lays the groundwork of relationship-building and orientation to both the university and the teacher education program.

The partnership takes an active role in the induction of teachers in its two partner school districts and in two other surrounding school districts, Randolph and Rockingham county schools. The partnership considers the Coach²Coach Teacher-in-Residence position to be an arm of its clinical faculty component. This position has provided mentor teachers and cooperating teachers with a unique professional development experience that enhances induction. The Coach²Coach Teacher-in-Residence has contributed to induction in the following ways:

 Assisting in development of materials on effective coaching skills for mentor teachers, as well as assisting with development of the portfolio for performance-based licensure and determining what information is appropriate for the portfolio and its evaluation

- Working with mentor teachers in identifying resources and specialists to assist beginning teachers
- Working with cooperating teachers in preparing student teachers for their role as effective educators

The partnership uses its faculty development component to enhance career-long professional development of teachers. The collaborative efforts of the clinical faculty and the Coach²Coach Teacher-in-Residence have been effective in this area. Following are brief descriptions of three professional development activities:

- The School of Education, in collaboration with the Alamance-Burlington and Guilford County schools, provided coaching for teachers interested in pursuing certification by the National Board for Professional Teaching Standards. One goal was to increase minority participation in board certification. The partnership provided funds to the two districts to hire three coaches. Approximately 40 teachers participated in the program.
- A workshop conducted in June 2001 provided introductory information to 123 prospective candidates for board certification. Each participant received a standards book. Staff from the national board headquarters and board-certified teachers from one of the partnership schools made presentations.
- The partnership based at NC A&T devised a special collaborative feature that involved its joining forces with the partnership based at The University of North Carolina at Greensboro to sponsor the attendance of 10 teachers at the latter's 2001 Summer Leadership Institute, which focused on closing the minority achievement gap. The NC A&T-based partnership also provided presenters and other support personnel for the institute.

Betterment of Student Learning and Improvement of School Program

A conviction of both the School of Education and the PDS partnership is, through various collaborative efforts and opportunities, to play an essential role in partnership schools' continuing efforts to raise student achievement levels. Bringing academic specialists from partnership schools into university content courses to lecture and demonstrate current practices improves NC A&T interns' performance. They

use the information to enhance their public school involvement during field experiences and student teaching. Thus the instruction undertaken by interns strengthens and reinforces the initial instruction by the classroom teacher and provides consistency for school students.

Placing more individuals in the classroom also aids in reducing the student-teacher ratio. In some situations it even provides individualized instruction and tutoring for students.

One administrator has acknowledged that afterschool tutoring by interns was a key reason for the rise in test scores among students identified by state proficiency standards as performing at the two lowest levels of academic performance.

Involvement of Arts and Science Faculty This year 28 faculty from the College of Arts and Sciences and the Schools of Agricultural Education, Technology, and Business worked with teacher education licensure programs. Each licensure area coordinator is a member of the partnership's coordinating council. Coordinators keep their faculties apprised of partnership activities and coordinate interactions with classroom teachers and other school personnel. These faculty members are active in all components of the partnership, to the same extent as the elementary, physical, and special education faculty members. They engage in policy making, curriculum assessment, and program review. They also are an integral part of the teacher education program: They are involved with clinical faculty and preservice students in field experiences; they participate in faculty development activities in the schools; they attend and present at local, state, and national professional meetings; and they work with support services.

Attempts to Secure Outside Funding The partnership continues to submit letters of endorsement for grant proposals developed by teacher education faculty. Following 2000-2001 endorsements of \$5.63 million in grant proposals, the partnership is benefiting from faculty development and other support services sponsored by the grants. The adaptive physical education grant now employs a former elementary school partnership teacher as a full-time adjunct. This year the partnership endorsed a proposal for a \$400,000 Preparing Tomorrow's Teachers to Use Technology Grant, which was funded, and it received its own \$104,000 grant from Hewlett Packard. Both grants are designed to enhance preservice and inservice teachers' use of technology in instruction.



Intern Renee Reynolds, a special education major, works with a student at Sumner Elementary School.

Use of Technology in Instruction

The partnership was heavily involved in the Catalyst Technology Grant. In conjunction with this funding, 12 teacher education faculty members and 63 teachers from the two partnership districts participated in three two-day workshops during summer 2001. Teachers received information, had opportunities to practice with colleagues, and obtained materials for classroom use of technology in all academic areas. They also shared their own classroom innovations and experience with technology. Each participant was required to complete a product that could be taken back to his or her school or licensure area. Beginning in fall 2001, methods students and student teachers assigned to partnership schools will be direct recipients of the knowledge gained by the workshop participants.

Vignettes

Following are brief accounts of projects funded through the partnership.

Co-Teaching

The university's involvement with 19 partnership schools in two school districts has aided in the development of many joint activities. One such activity was a pilot project on co-teaching. Members of partnership schools were invited to plan and teach a methods course with a university professor. This collaborative effort involved not only school teachers and administrators but also their students. Methods students interacted meaningfully with the school personnel, whom they viewed as "frontline experts" helping students reach the achievement levels set by the state. Methods students also interacted with students during weekly visits to the school to supplement and enhance their college instruction. This co-teaching project erected an invaluable bridge between theory and practice for preservice teachers, one that could be built only through actual engagement with people and issues in a public school.

Instructors and students were surveyed at the conclusion of the pilot project. The instructors' comments were all favorable. They praised the opportunity for growth that co-teaching offered them and applauded the real-life exposure it gave students. All who were surveyed concluded that the program was a viable component of the curriculum for preservice teachers.

Some representative comments from students were "The class has been a definite springboard for me as a lateral-entry teacher" and "Hearing it from a practicing principal was most useful."

Although the pilot project was extremely well received overall, partnership personnel did hear suggestions for improvements. Specifically, teachers requested interaction with other university faculty as well, and a more detailed orientation program of development workshops before the joint-planning component. Such inservice sessions are currently in the building process for the next cycle of co-teaching.

Minigrants

The partnership uses minigrants to enhance learning and instruction in partner schools, requiring that the funds be spent on resources that assist in meeting the partnership's goals and objectives. During 2000–2001, partners created many learning opportunities through their requests for funds. For example:

- Hampton Elementary Year-Round School sponsored its first-grade teachers' attendance at an annual state conference devoted to enhancing the literacy and math curriculum. Teachers reported to the coordinating council the benefits they gained as well as the amount of valuable planning and instruction their students received because of their involvement in the conference. As a result, "the teachers plan more together and work more as a team in instruction and assessment of all students according to flexible grouping strategies," the project director stated.
- Monticello-Brown Summit Elementary School received funds to help close its achievement gap by providing additional tutors for one-on-one/individualized academic assistance. University students already assigned to the school for preservice field experience and student teaching became fully involved in the school's tutorial program for students in grades 3–5 performing at the two lowest levels. Not only did the elementary school students gain

from the assistance, but, as noted in an evaluation by the principal, the university students "benefited from the 'real' experience of helping students who are at risk, and actually seeing their efforts make a positive difference." The principal stated, "Our overall percentage of students achieving at or above grade level rose by 8%. We believe this can be attributed to the tutoring provided by university students and these funds."

- A special education university instructor, in conjunction with two special education teachers in partnership schools, conducted an all-day workshop entitled How to Write an IEP [Individualized Education Plan] and Manage Your Paperwork. The goals were to engage students in mock IEP conferences, conduct conferences with diverse parents, synthesize data from case studies, and develop an action plan. Overall evaluation of the program by participants (special education majors) was overwhelmingly positive. All participants gathered valuable information and were willing to attend a series of workshops on Saturdays throughout the school year to gain greater knowledge. One participant commented, "Being able to have the mock conferences . . . and fill out the paperwork . . . was the strongest aspect of this seminar."
- The partnership assisted Guilford County candidates for board certification in developing their portfolios. Three board-certified teachers in the Greensboro area (one from a partnership school) were selected through a formal interview as coaches. The coaches met monthly with the candidates, discussing problems the candidates had encountered, reviewing candidates' reflections, and determining the best artifacts for candidates to include in their final portfolio. The coaching also gave candidates time to share and discuss issues among themselves. November 2001 is the official notification date for these candidates.

Evaluation

To verify the progress of the partnership and to identify areas needing improvement, a survey for the 2000-2001 academic year was developed and distributed to the administrators at school sites and the teachers who serve as coordinating council representatives for their schools. The survey was designed not only to evaluate the current program but also to solicit input on new programs and emphases for 2001-2002. It sought information regarding the performance of established programs and activities, the effectiveness of communication, the adequacy of meetings, and other issues. The results revealed the school partners' pleasure and satisfaction with partnership programs and efforts to keep them informed. All members of the teacher education faculty of NC A&T also were asked to evaluate the effectiveness of the partnership. This survey covered eight areas, among them, efficiency of communication, involvement of the teacher education faculty, and overall effectiveness of the partnership program as it relates to the teacher education program and the entire School of Education. An overwhelming majority of those surveyed expressed satisfaction with the partnership and the involvement of teacher education faculty. A representative comment was

The PDS program is a vital/integral part of the Teacher Education Program. Its [the Teacher Education Program's] success and the competence of our candidates depend on the PDS program. Clinical faculty have provided much leadership and the practitioner aspect needed to keep university faculty on target.

The partnership is using the data from both surveys to plan and implement activities and programs for 2001-2. The ultimate goal is continuous enhancement of the quality of education in partner schools.



Spring 2001 student teachers share experiences as they present at the National Scholars Conference in Fayetteville.

Impediments

During the past academic year, there were several changes in school and university personnel and programs. These changes sometimes blurred the partnership's focus and slowed its progress toward goals because it had to reintroduce existing activities in schools where new administrators were unfamiliar with partnership purposes. In some instances it even lost activities. There also were some changes in partner schools' curricula or foci: One became a Montessori school, another an extended-day academy. A third is relocating, and the greater part of its faculty will be brand-new to the partnership. Such developments presented obstacles. Nevertheless, the partnership still is focused on its mission and purpose of enhancing education at all levels.

Lessons Learned

Lessons are learned continually, and there are many. Identifying the thread that runs through all of them is more appropriate than listing them individually. For sure, all people in the partnership have learned that conversation and dialogue must permeate every component and aspect of the program. They will lead to the realization of the partners' shared vision and the accomplishment of the partnership's mission.

Next Steps and Future Aspirations

The partnership anticipates adding a new partner from the Guilford County Schools, Allen Jay Elementary School, in 2001–2. This will bring the total number of school partners to 20 and add approximately 25 teachers and 380 students to the partnership family. The addition will aid in the development of both the university and the school setting.

Although partnership personnel think that the number of schools in the partnership is adequate, the partnership aspires to broaden knowledge of it in each school. It would like to establish such ingrained knowledge that changes in administrators or key faculty members would in no way affect the continuity of programs.

Dissemination of Promising Practices and Research Findings During 2000–2001

Presentations

Vickers, L., & Guy, K. (2000, October 6). *Creating caring classrooms in preservice preparation: Character and moral education.* Paper presented at the 18th Annual North Carolina Teacher Education Forum, Raleigh, NC.

Whitfield, P. B., & Chapman, B. (2000, October 6). *Mentoring in teacher education programs at HBCUs [historically black colleges and universities]*. Paper presented at the 18th Annual North Carolina Teacher Education Forum, Raleigh, NC.

North Carolina Central University

in partnership with Durham and Piedmont Technical Community Colleges, and Durham Public, Franklin County, Person County, Wake County, Warren County, and Weldon City Schools

The partnership housed at North Carolina Central University (NCCU) was established in June 1997 with six participants: NCCU and Durham Public, Franklin County, Person County, Wake County, and Warren County schools. Since then the partnership has expanded to include Weldon City Schools and Durham and Piedmont technical community colleges. Its goals remain the same, however: (1) to improve school teaching and learning for an increasingly diverse student population; (2) to provide and support a continuum of professional development for university, preservice, and inservice educators; and (3) to engage the community as active participants in education. Many projects and activities have become established practices, and new activities have emerged as the seeds of partnership continue to take root in the university, the schools, and the greater community.

Activities

Recruitment of Minorities to Teaching To recruit minorities to teaching, the partnership obtained a Title II grant from the U.S. Department of Education that provides full scholarships to high school students and community college transfers entering teacher education. In return, the scholarship recipients must commit to teach in high-need areas, preferably in partnership districts, for four years. In 2000-2001 the first class of scholarship recipients, called Ron Edmonds Scholars, included 25 minority students: 23 African-Americans (5 male, 18 female), 1 Vietnamese (female), and 1 Caucasian (male). These students entered NCCU in fall 2000 with a four-year scholarship valued at \$30,000 per student. They had a Scholastic Aptitude Test (SAT) score average of 963 and a high school grade-point average of 3.17.

In 2001–2 the second class of Edmonds Scholars, already selected, will include 26 minority students: 8 African-American males and 18 African-American females. They posted an average SAT score of 918 and a high school gradepoint average of 3.11.

Thus there now are 50 Edmonds Scholars (1 from the first class having failed to meet expectations). Over the next two years, the partnership will recruit about 50 more (25 each year). So 100 minority teachers from this program alone will enter the teaching force between 2004 and 2008.

The North Carolina Teaching Fellows Program provided the general model for the Edmonds Scholarship Program. Like members of each cohort of Teaching Fellows at NCCU, members of each cohort of Edmonds Scholars have similar experiences. Weekly seminars and advising provide opportunities for the program director to monitor students' progress and for students to develop close interpersonal connections, collegial support, and study groups. Also like the Teaching Fellows, the Edmonds Scholars have a different focus for their professional development seminars each year, as follows: freshman year, adjusting to college life; sophomore year, early field experiences; junior year, multicultural education; and senior year, professional development.

Edmonds Scholars differ from Teaching Fellows in some ways. One difference is in selection. Edmonds Scholars are viewed holistically, receiving ratings in several categories, including test scores, grade-point averages, recommendations, interviews, and writing samples. Teaching Fellows also receive ratings on these elements. However, Edmonds Scholars are selected from various academic levels on the basis of their commitment to teaching. Another difference between the two groups is that, whereas all education students (including Teaching Fellows) receive technology training, Edmonds Scholars also receive laptops to support the integration of technology into their professional development.

Twenty-four of the Edmonds Scholars starting in fall 2000 demonstrated success in their first year based on their grade-point averages (an overall average of 3.1) and their attendance at and participation in a variety of university programs. They also took on roles as student leaders. Further, they performed 1,500 clock hours of service with students at a low-performing school.

Professional Development Schools

The partnership currently operates three professional development schools (PDSs) and is planning two more. The established PDSs are (1) NCCU's Visual Impairment Training Program (NCCU-VITP) and Governor Morehead School for the Visually Impaired; (2) the Elementary Education Program and C. C. Spaulding Biosphere Magnet School; and (3) the Elementary Education Program and Pearsontown Elementary School. PDSs in the early planning stages include (1) the Behavioral and Emotional Disabilities (BED) Program and the Wright School, a private school that specializes in serving BED students; and (2) the Middle Grades Education Program and two middle schools in Durham.

The Visual Impairment Training Program and Governor Morehead School

The PDS pairing NCCU-VITP and the Governor Morehead School is a model one. The two cultures (university and school) have merged, and personnel from both work jointly to prepare teachers to meet the needs of visually impaired students. The collaborative agreement creates a sharing of facilities, materials, equipment, resources, and qualified personnel, which ensures a well-rounded training program with a dynamic infusion of theory into practice. Resources, decision making, and responsibilities are shared. NCCU-VITP faculty spend the majority of their time at Governor Morehead School providing professional development and support to teachers and students. Also, NCCU-VITP faculty play active roles in school faculty and staff meetings, as well as in parent, teacher, and student organization meetings and programs.

The Elementary Education Program and C. C. Spaulding and Pearsontown Elementary Schools

The elementary PDSs—C. C. Spaulding and Pearsontown—have been in operation for three years. They serve as sites for student teachers to work with trained mentors. In collaboration with university faculty, a well-trained mentor/site-based liaison (a classroom teacher) conducts weekly on-site seminars with student teachers for support and reflection. Teachers from the two PDSs occasionally co-teach methods classes with university faculty, providing real-life examples of how to teach various concepts to elementary school students.

Three cooperating teachers (two from the Pearsontown PDS and one from a regular school) recently completed NCCU's three-hour

graduate course in mentoring and supervision (modeled after North Carolina State University's curriculum), and one of them now is taking the related practicum, thus increasing the level of training of mentors at the partnership's PDSs. (In the practicum each teacher is mentored as he or she supervises a student teacher or a beginning teacher.)

A significant PDS accomplishment at Pearsontown Elementary (a year-round school, with alternating 9-week regular sessions and 3-week intersessions) was that student teachers provided enrichment for students during two of the three weeks of intersession. The data provided by the school indicated that the students who attended these sessions were more successful in the classroom after the sessions than they were before, and that they performed better on the end-of-grade tests than was expected from their performance before the intersession enrichment.

Behavioral and Emotional Disabilities Program and the Wright School

In 2000–2001, faculty in the BED Program worked closely with personnel in the Wright School co-teaching classes and providing clinical experiences. Subsequently the two faculties agreed to pursue a more formal relationship as a PDS.

As happened in the other PDSs, the BED and Wright School faculty co-taught classes at the university. Additionally, interns were placed at the Wright School for clinical experiences under the supervision of well-trained mentors.

Middle-Grades Program and Professional Development School Activities

In 2000–2001 the partnership was in the early stages of developing a middle-grades PDS in the Durham Public Schools, with middle-grades faculty working closely with school administrators and teachers to assign student teachers to well-trained mentors there. Also, a middle-grades faculty member was working on induction of beginning teachers at the school.

Additionally, master teachers from another Durham school, Lowe's Grove Middle School, co-taught middle-grades methods courses with middle-grades faculty on the NCCU campus and provided related clinical experiences at the school.

Evaluation

PDS personnel reported a high degree of satisfaction with the presence of teacher candidates and university faculty in the schools. Teacher candidates rated their experiences high overall. During the full-time semester of the yearlong

internship, university faculty and school administrators conducted mock employment interviews and portfolio reviews. The interviewers and the student teachers rated this process high. As a result of the limited usability of the survey data for giving information about teacher candidates, the partnership developed instruments for collecting quantitative data in 2001–2.

Other Significant Partnership Activities NCCU-NCSU Model Clinical Teaching Program and Mentor Network Partnership

NCCU and North Carolina State University (N.C. State) have had a longstanding connection through the latter's Model Clinical Teaching Program and Mentor Network. However, a more formal partnership between the two universities has developed in the last two years, based on a shared vision of supporting teachers across the professional life span (preservice, induction, and career stages). The partnership involves the following elements:

- Collaborative planning of two daylong conferences yearly (one per semester)
- Co-facilitating of conference sessions
- Increasingly shared responsibility for *Connections*, a newsletter
- Sharing of human, material, and financial resources
- Co-presenting at a national conference

The partnership was strengthened in 2000–2001 by NCCU's adoption of the mentoring and supervision course and practicum and N.C. State faculty's mentoring of NCCU faculty as they implemented the course and practicum for the first time.

This year, as in the past few years, the NCCU/ N.C. State partnership sponsored two conferences, one in the fall at NCCU and one in the spring at N.C. State, on retention and revitalization of educators across their professional lifespan. The conferences brought in mentors, novices, and administrators from partnership schools and faculty from the two universities, providing growth and support activities for all in their various educational roles. There were about 85 participants in the fall and 50 in the spring.

Each semester, with assistance from NCCU, N.C. State's Mentor Network published the newsletter *Connections* for the network partners (primarily school districts, which then reproduced the newsletter and distributed it to mentors and others). Regular features of the newsletter are



Eric Bowens is a lateral-entry teacher who was hired at C. C. Spaulding, one of the PDSs. He is mentored by Vivian Jeter, who has had some mentor training at NCCU.

Our Partner's Voices, which communicates innovative practices across the network, and Research and Practice, which updates readers on the research base that supports the work of mentors.

Middle School Achievement Project

Since 1998, with grant support from NCCU, the partnership, the Z. Smith Reynolds Foundation, and Title III, the NCCU School of Education and regional public schools have sponsored the North Carolina Middle School Achievement Project (NCMAP). The aim of the project is to identify, understand, and support replication of programs and practices in North Carolina middle schools that are associated with exemplary student achievement. The intention is to improve achievement of all middle schools in the state but especially those in rural counties and those with high minority populations or histories of underachievement.

According to NCMAP's final report to the Z. Smith Reynolds Foundation, it accomplished the following over the last three years:

- Investigated and identified essential characteristics of North Carolina's exemplary middle schools (1998–2001)
- Trained 900 teachers and administrators to enhance curricula, structures, student motivation, and ABC test performance (1998–2001)
- Intervened in nine middle schools in five counties to bolster student achievement (1998-2000)
- Provided ongoing technical assistance to 540 targeted school teachers and core teams (1998–2000)
- Identified and studied exemplary middle schools in which the black-white achievement gap had been significantly narrowed (1999)

- Disseminated findings to educators at major state meetings and conferences (1999-2001)
- Worked with legislators and legislative commissions on developing Closing the Achievement Gap initiatives (2000–2001)
- Trained 60 middle school teachers in the NC Teach program in the curricula, structures, motivation, and ABC preparation models, which were based on the best practices of exemplary middle schools as determined by the NCMAP research (summer 2001)
- Facilitated two model middle-school programs in two of the lowest-performing middle schools in the target counties (2000–2002)

Clearly the project has had a significant impact on the education community in a variety of ways. Its findings have been disseminated in many venues—for example, teacher training workshops, publications (handbooks and journal articles), and conferences. In this way the findings can reach teachers and administrators and ultimately affect student achievement.

Community Partners

The goals of the Community Partners project are (1) to increase the number of licensed special education teachers of BED students by recruiting graduate students from underrepresented (minority) populations; (2) to prepare graduate students as teachers to provide a schoolwide program for BED students; (3) to develop collaborative demonstration programs in partnership with the Durham Public Schools, the North Carolina Re-Education Center, and NCCU; (4) to develop a portfolio model for evaluation of graduate students in the BED program at NCCU; and (5) to prepare schools and teachers to meet the needs of students from culturally diverse populations who are, or are at risk of becoming, behaviorally and emotionally disabled.

In 2000–2001 the Community Partners project supported, on average, 35 graduate students per semester in their work toward licensure in special education of BED students. Also, the project placed and supported 5 graduate assistants (4 African-American and 1 Euro-American) in the Durham Public Schools for one or two semesters. Each graduate assistant worked 20 hours a week during the semester in assigned schools.

Each of these schools sent a team of an administrator, a counselor, a regular education teacher, special education teachers, and another educator or parent to participate in six Caring Community workshops. Each team developed a

schoolwide discipline plan, a mediation program, and a proactive approach to behavior problems. The schools then received \$6,000 each from the Community Partners Grant to implement their plan. The schools also participated in a research project involving a series of focus-group interviews in which male African-American BED students, their African-American teachers, and their white teachers were asked about issues of cultural difference that might affect the students' school success.

Evaluation data from an outside reviewer, gathered through surveys and focus-group interviews with various stakeholders (school personnel, students, and community members), revealed that the program was successful in recruiting and training highly qualified teachers, particularly with respect to increasing the number of African-Americans and males in the program. From 1998 to 2000, 14 (52%) of the 27 BED graduates were African-Americans, and 14 (52%) were males (8 African-American). In 2000–2001, 33 (72%) of the 46 graduate students enrolled in the BED program were African-Americans, and 17 (37%) were males (14 African-American).

The data also indicated a positive impact on the six schools in the project. Respondents reported a close working relationship between the school and the university, through which they felt that their needs were addressed. They also reported that the project had resulted in the creation of a community of educators that was more knowledgeable about and understanding of BED students and in which fewer BED referrals were made. From the data it appeared that there was not the same depth of collaboration with the public schools as there was with the Wright School. However, all participants benefited from the nationally recognized speakers brought in to share their expertise.

Although respondents felt positive about the impact of the project and each school team developed a schoolwide plan for classroom management, turnovers in administrators, teachers, and even school students in the BED program made consistency in implementation difficult.

Other Community and School Projects

Many partnership projects supported the professional growth of teachers and the academic achievement of students. For example:

Weldon City Schools: In an ongoing project with this school system, faculty from NCCU's School of Education and Mathematics Department (in the College of Arts and Sciences) and trainers from the Southern Initiative of the Algebra Project (SIAP) provided a series of professional development workshops and classroom visitations to support the introduction of new strategies for teaching the mathematics curriculum in grades 6-12. The Algebra Project uses a five-step curricular process and a cooperative learning model. The five-step curricular process involves (1) physical event; (2) pictorial representation; (3) intuitive language (people talk); (4) structured language (feature talk); and (5) symbolic representation. The cooperative learning model includes (1) individual work; (2) team work; and (3) whole-class report and discussion. The middle and high school mathematics teachers were taught how to use the Algebra Project's process and model to facilitate specific lessons they would be teaching.

Also in 2000–2001 NCCU's Mathematics Department began planning with Weldon City High School for a distance-education course, calculus II, to be offered in Fall 2001 via live, real-time, interactive software. (Calculus I already was taught by a teacher at the school.) Partnerships using distance-education technology enable school districts like Weldon City to expand their offerings and benefit from the expertise available through universities.

Additionally, during and after school and on weekends, numerous faculty coordinated tutorial programs and service projects with schoolchildren in the community. For example, in the twoyear Services-to-Youth Adopt-a-School Program, two activities were conducted at Eastway Elementary School in the Durham Public Schools. First, 10 students received baskets containing a Thanksgiving dinner for a family of about five. These baskets were contributed by the Triangle Park Chapter of LINKS, Inc. Second, a Black History Essay Contest was held. Twelve students submitted essays. Essays were shared and prizes awarded. The prize for first place was \$75 worth of school supplies, for second place \$50 worth, and for third place \$25 worth. A pizza party was held for all participants.

Sustained effort has resulted in greater student achievement. The four students from Weldon High School who will take the calculus II course were in the first group of 24 students who had an Algebra Project-trained teacher in the sixth grade and support from university faculty and SIAP trainers. In the following years, two of the



Tara Bowens has worked with the NCCU NC Catalyst person, Deborah Eaton, and is at a partnership school.

four, along with some others from the first Algebra Project, participated as youth leaders in Algebra Project support activities, such as summer youth leadership academies and afterschool, weekend, and summer tutorials. This participation involved continued development to prepare them to tutor peers and younger students. The four students successfully completed algebra I in the 8th grade, geometry and algebra II in the 9th grade, and advanced mathematics and calculus I in the 10th grade.

Impediments

The partnership faced several impediments:

- Integrating the work of schools and universities was difficult with all the pressures for testing and accountability at both levels.
- High turnover among teachers and administrators (almost 100% in one elementary PDS) called for continuous professional development, sometimes with the same goals and topics. Turnover sometimes resulted in a new foundation having to be laid.
- Turnover among university faculty also was a barrier to establishing and maintaining partnership initiatives.
- Partnership work placed an extra demand on new university faculty, who were trying to develop their courses, learn the programs, and understand the ropes of working at the university.

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Lessons Learned

As the PDSs continue to evolve, the many changes affect school-university partnerships. For example:

- Teachers and administrators in both the schools and the university retire or seek new opportunities. This affects the leadership and the direction of the institution and sometimes its stability temporarily.
- New teachers are hired and change the dynamics of a school. With more new teachers, there is a greater need for mentors to support them. Also, the number of eligible mentors at a site is decreased when veteran teachers leave and are replaced by new teachers. Often the result is that remaining mentors are stretched to serve initially licensed teachers and student teachers.
- Teacher candidates (primarily candidates for a second degree) are hired before or during student teaching because of the critical shortage of teachers. Therefore, they do not get the full benefits of working in PDSs.

These changes create challenges for universities, their teacher candidates, and school faculty and administrators as they try to meet the needs of all stakeholders, particularly students in the public schools and outside accrediting bodies (program area, state, and national).

Next Steps and Future Aspirations

The partnership plans to establish the middle-grades and Wright School PDSs. In both cases it should fully explore the possibilities of the relationships between these schools and the university to increase the achievement of students in the schools, benefit the preparation and the achievement of teacher candidates, and revitalize career professionals. Although there has been significant involvement between university faculty and teachers at these future PDSs, the goals and the plans for the partnerships must be clearly delineated.

Dissemination of Promising Practices and Research Findings During 2000–2001

Presentations

George, P. G. (2000, December). Findings for the NC Middle School Achievement Project and implications for closing the gap. Statement presented to the Legislative Commission on Minority Achievement and Closing the Gap, Raleigh, NC.

George, P. G. (2001, March). Fundamentals of research: Helping students choose good research questions. Paper presented at the North Carolina Research in Education Conference, Charlotte, NC.

George, P. G., May, J., Wilson, C., & Kempf, L. (2001, March). *Third time's the charm: Exemplary middle schools in their third year.* Paper presented at the North Carolina Middle School Association Conference, Greensboro, NC.

Publications

George, P. G., in collaboration with UNC Center for African American Studies and S. Garity. (2001, May). Representation of minority students in gifted and remedial programs in North Carolina Middle Schools and implications for closing the achievement gap. Raleigh, NC: North Carolina Department of Public Instruction

George, P. G., May, J., Wilson, C., & Kempf, L. Z. (2000). *The exemplary middle school in North Carolina*. Southern Pines, NC: North Carolina Middle School Association.

North Carolina State University

in partnership with Franklin, Johnston, and Wake County Schools

Triangle East Partners in Education (TEPIE) and its professional development partner, the Model Clinical Teaching Program (MCTP), foster collaborative educational innovations for educators across the career spectrum. TEPIE, the University-School Teacher Education Partnership based at North Carolina State University (N.C. State), and MCTP, an innovative program supporting design, implementation, and evaluation of a curriculum for preparation of mentors and clinical faculty, work in concert. They are linked through a coordinating council. Program outcomes for each are described in the following section.

Activities

Triangle East Partners in Education
Since the inception of TEPIE, the leadership has
focused on school sites, following a model
already in place with Cary High School. TEPIE
selected as partner schools Cary High, Martin
Middle, and Apex High schools in Wake County;
Bunn and Cedar Creek middle schools in
Franklin County; and Smithfield-Selma High
School in Johnston County. In January 2000,
Centennial Campus Middle School, in Wake
County, formally joined the partnership. Apex
High and Martin Middle are science department
sites; all others are whole-school partnerships.
Because N.C. State does not employ the professional development school model for education

sional development school model for education of preservice teachers, there was not, at the outset, a formal relationship with particular schools that would lead to a collaboration. For this reason, the original leadership chose to concentrate on a small number of schools. Also, the number of teacher education faculty at N.C. State is relatively small, so limiting the partnership to seven schools has been a necessity. Because most of TEPIE's efforts have centered on funding projects that support student achievement, service to beginning teachers, and professional development, there has been a more dramatic effect on a concentrated population.

The partnership continues to enjoy a high level of acceptance by the leadership of the three school districts and the seven school principals and faculties. The three districts contribute to the partnership's operating budget. Their total contribution in 2000–2001 was \$24,000, representing 21% of the operating budget. The faculty liaisons, the school site coordinators, and the school committee members continue to develop innovative ways to use the partnership's financial resources to better their programs, teachers, and students.

In contrast to the first years of the partnership, TEPIE now is an integral part of the programs of the seven schools and of the workload of the N.C. State faculty members who participate in the partnership. Although the partnership continues to evolve through addition of sites and changes in personnel, it has achieved a level of comfort. In the early days, participants at some school sites naturally felt that the university presence was intrusive. However, as the partnerships have been forged, trust has developed, with both the university and the school sites benefiting from the formal relationship. Consequently, as the fourth year wound down, school site coordinators and faculty liaisons eagerly anticipated the beginning of the fifth year to continue ongoing projects and to embark on new initiatives.

Among TEPIE's strategic initiatives in 2000–2001 were systematic investigation and action research; attempts to secure outside funding; integration of university and school resources; improvement of teacher education; and a product development workshop.

Systematic Investigation and Action Research

During the 2000–2001 school year, TEPIE schools initiated three significant research projects:

• Glenda Carter, an assistant professor of science education at N.C. State, and Angelia Reid, a doctoral student, developed and taught an elective, Exploring Technologies, for one semester at Martin Middle School. This course was part of a research project examining the effect on student learning of a system of data collection and analysis. Before the course began, students took paper-and-pencil tests to measure their understanding of

such concepts as motion and temperature change. They then used Casio's Data Analysis System while performing science experiments as a part of units on motion and temperature change. The Data Analysis System relies on the EA100, a data analyzer, as well as graphing calculators and probes or sensors to collect and make sense of data accumulated during an investigation. At the end of each unit of study, the students took another set of paper-and-pencil tests to measure changes in their understanding of the concepts covered. The data collected by the researchers is currently being analyzed and will be included in Reid's dissertation.

- Susan Butler, an assistant professor of science education, and Eric Wiebe, an assistant professor of graphic communications, worked on a two-part project involving preservice teachers and Flash, an interactive software that makes two-dimensional animations on the Web. The first component consisted of a pilot study implemented in fall 2000. Five student teachers placed at Smithfield-Selma High School were given laptop computers and instruction in the use of Flash. They then developed visual demonstrations of scientific concepts, used these demonstrations in teaching, and collected data on student achievement. The pilot study led to a second and larger research project in spring 2001. During this phase, sophomore-level preservice teachers enrolled in Introduction to Teaching Mathematics and Science created Flash demonstrations to illustrate abstract scientific concepts and then used the demonstrations in Wake County high school classrooms. They too collected data on student achievement, which are currently being analyzed.
- Barry Croom, an assistant professor of agriculture and extension education, along with



Preservice teacher Jennifer Taylor uses a Flash demonstration while teaching a lesson on genetics.

Smithfield-Selma High School mathematics teacher Holt Wilson and approximately 100 students in algebra I and geometry, initiated a pilot study to determine if the use of Geometer's Sketchpad (a software program) as part of classroom instruction would improve students' scores on unit tests. The Sketchpad allows a student to draw geometric figures and see the applicable formulas. As the student manipulates the figure, the formula changes accordingly; this graphically represents to the student how the formula changes as the dimensions of the figure change. The software was purchased with financial support from TEPIE in spring 2001. During fall 2001, Wilson will use the software in his algebra I and geometry classes to present selected mathematical concepts. He will report the aggregate unit test scores for the students who used the software, and compare their scores with the scores of students from the previous two years who did not use the software. No data have been analyzed yet.

Attempts to Secure Outside Funding

In 1999, John Park, an associate professor of science education, and the Science House, a learning outreach program of N.C. State, secured a grant from Lucent Technologies. They used it to fund a two-year partnership with Cumberland County Schools. In its first year, 1999-2000, this project involved instructing and supporting teachers (most of them lateral-entry) in the implementation of inquiry-based physics, chemistry, and biology using calculator- and computerbased technologies. The goal for the second year, 2000-2001, was to develop, test, and revise Web-based instructional modules for remote use by science teachers. This instruction has resulted in improved skills, knowledge, and use of technology in the participating classrooms.

On the basis of the success of these grant-funded activities, Park extended the project to Cedar Creek Middle School, where he serves as faculty liaison. He used some grant funds to set up a photography darkroom there. Teachers at Cedar Creek Middle are developing Web-based instructions on building a darkroom, as well as interdisciplinary lesson plans on the darkroom. The ultimate goal is that this module developed by Cedar Creek Middle teachers be accessible to other teachers via the Web. The instructional modules from both the Cumberland and the Franklin county efforts are posted on the N.C. State Web site Science Junction, one of many links to Online Tools for Schools (http://cep.

ncsu.edu/onlinetools/index.html#Science Junction).

Several other partnership schools have applied for and received grants from various sources:

- Cedar Creek Middle received three grants totaling \$4,144 from the United Way of Franklin County to purchase Great Books and Junior Great Books and to establish a social club to motivate students to enhance their social skills with peers. It also received a Bright Ideas Grant of \$950 from Wake Electric to develop an interdisciplinary unit on mathematics and reading for high-achieving and academically and intellectually gifted students.
- Martin Middle received a \$750 grant from Wake Ed Partnerships to purchase Ecolog pH sensors for use in science.
- · Centennial Campus Middle received grants of \$1,500 from Micell Technologies to purchase Geographic Information Systems software that will allow students to access information about specific geographic areas; \$2,500 from Ericsson to support the adviser-advisee program, which promotes the development of interpersonal relationships and nurtures students' abilities to problem-solve, progress academically, and explore personal interests and skills; \$1,500 from Electronic Data Systems to purchase CD burners and a hard drive for storing music, as well as software to support the integration of technology and music; and \$1,000 from the Project Tomorrow Environmental Grant to purchase library materials for use in the multidisciplinary wetlands project, an eighth-grade study of the land and the hydrosphere that includes subtopics such as environmental changes over time, living systems, and animal
- Smithfield-Selma High School received \$102,470 from the U.S. Navy to start a Naval Junior ROTC program. The funds are for materials, uniforms, equipment, and so forth.

Integration of University and School Resources

In the spring semester of 2001, Centennial Campus Middle School became a new partnership site. The school evolved from collaboration between Wake County Public Schools and N.C. State dating back to 1993. This unique educational institution is located on N.C. State's Centennial Campus, an advanced science, engineering, technology, and research community of university, corporate, and government partners. The inclusion of Centennial Campus Middle

School in TEPIE will strengthen the existing connection between the school and the university. It also will allow other TEPIE schools to benefit from the research and development facilities located on the Centennial Campus.

This collaboration will be further extended by the Centennial Campus Center for Educational Innovation (CCCEI), which is to be built adjacent to the school. The CCCEI will be an integral part of the school, focusing on research and development for school-based development of educators, innovative practice, and outreach to partner schools. The school and the center will significantly influence middle-grades education in North Carolina and the nation.

TEPIE also has joined forces with the Wake County Public Schools to support a Cooperating Teacher Institute, held each summer. The institute is an intensive four-day mentor-training workshop conducted by practicing classroom teachers who have completed two semesters of graduate work at N.C. State, including a theory phase and a practicum. Participants in the institute develop clinical coaching and communication skills to promote growth in student teachers; they also learn and practice a coaching cycle of assistance. Further, they discuss phases of concern for student teachers in conjunction with specific strategies for easing the transition from student to teacher. They then learn about, and use their understanding of, adult conceptual development to create appropriate coaching plans for student teachers. The institute held June 11-14, 2001, included nine participants. All of them successfully completed the training and performed well on the coaching-cycle-of-assistance module. This program results in intensive professional development for selected career teachers, improved mentoring for student teachers, and increased collaboration between the school districts and the university to involve teachers in the education of undergraduates for teaching.

Improvement of Teacher Education

Barry Croom, an assistant professor of agriculture and extension education, worked with initially licensed teachers at Smithfield-Selma High School on improving methodology and classroom management. During spring 2001, Croom spent two months observing 11 beginners, some of whom were lateral-entry teachers. Once a week visits to their classrooms allowed him to observe them teaching 55-minute classes. He then provided them with feedback in individual 30-minute conferences designed to improve

the quality of their lesson planning, methodologies, and classroom management. The observations and the subsequent conferences helped the teachers diagnose classroom management issues in their classes. As a result, they gained insights into the origins of students' disruptive behaviors and learned new strategies for managing those behaviors. As a follow-up, Croom conducted a workshop on discipline and behavior management for initially licensed teachers at Smithfield-Selma High School in August 2001.

Cary High School has instituted several programs to improve teacher education and recruit teachers. One of these is the Teacher Apprenticeship Program, piloted in 2000-2001. The mission of the program is to identify promising high school students and to encourage them to pursue careers in education. Seniors in the program participated in a yearlong course that met for 55 minutes, five days a week. The class consisted of two components. On Mondays, the seniors participated in seminars in which they explored topics such as effective teaching skills, education theories, current issues in education, diversity, educational policy making, and the roles of educators. On Tuesdays through Fridays, they paired with classroom teachers and performed various tasks, such as grading papers, maintaining classroom appearance, duplicating materials, tutoring individual students, teaching minilessons to small groups, and leading seminars. After school they engaged in other schoolrelated activities—for example, attending school board meetings, participating in inservice training, reading and discussing articles in professional journals, and attending faculty or departmental meetings. One of the 17 class members received a Teaching Fellows Scholarship. Twelve others have enrolled in general studies in their respective universities and have expressed interest in majoring in education. On the basis of support from both the faculty and the students through anecdotal data, this program will be expanded in 2001-2.

Two other programs at Cary High School are the Student Teacher Academy, consisting of student teachers assigned to the school, and the New Teacher Institute. In 2000–2001 these programs aided both preservice and initially licensed teachers with answers to frequently asked questions, and explanations of daily procedures and routines. In addition, the preservice and initially licensed teachers participated in seminar discussions and benefited from class presentations by mentor

teachers on topics such as classroom management, discipline, lesson planning, and conferencing.

Product Development Workshop

Performance-based licensure for second-year teachers was implemented statewide in 2000-2001. To assist such teachers in completing their portfolios, TEPIE sponsored a Product Development Workshop on February 23, 2001, for 52 of them, 18 from partnership schools and 34 from Johnston County Schools generally. The performance-based product is designed to support the development of skills needed for successful interaction with students, parents, and others in the initially licensed teachers' communities. The three components of the product work together to help initially licensed teachers develop a holistic view of curriculum and instruction while meeting individual needs of unique learners in classrooms that are conducive to learning. The TEPIE coordinator and assistant coordinator worked in conjunction with N.C. State's two Coach²Coach Teachers-in-Residence to review the standards of INTASC (the Interstate New Teacher Assessment and Support Consortium); communicate information on constructing and completing an Individual Growth Plan (a plan for professional growth developed by the teacher and supported by the mentor and principal); suggest videotaping techniques for the required videotaped lesson; and assist in a peer review of drafts of product components. In addition, Tina Brown-Moore and Michelle Gaskins, the performance-based licensure coordinators for central North Carolina, reviewed a successful three-component product with the participants. Participants saw examples of each component: Instructional Presentation, Meeting the Needs of the Diverse Learner, and Classroom Climate.

The success of the workshop was confirmed by a survey as well as by the high passing-rate of second-year teachers in the constituent school systems (97%, on average). TEPIE will sponsor a second Product Development Workshop on October 25, 2001.

Model Clinical Teaching Program The 2000–2001 school year was an extraordinary one for the school partners of MCTP. Accomplishments included the following:

• Two hundred teacher-leaders completed the two-semester curriculum to become mentors to new teachers in partner school districts (Durham, Franklin, Granville, Johnston, Lee, Moore, Vance, Wake, and Warren counties).

- Ten teacher-leaders completed coursework at the university that prepared them to be mentor educators.
- Distance-education mentor-training programs were initiated in Moore and Vance counties.
 Debbie Andrews, director of teacher education and TEPIE coordinator, co-facilitated the program for Moore County.
- Collaboration continued with North Carolina Central University on integrating the clinical mentoring curriculum into its advanced master's program.
- Also in collaboration with North Carolina Central University, the MCTP organized two regional network meetings for policy makers, school district personnel, and mentor educators.
- The mentor-training curriculum was incorporated into the Master of School Administration program for new principals.
- With the support of a \$12,000 Distance Education and Learning Technology Applications Grant, work began on a mentor video series for school district personnel, mentor teachers, beginning teachers, cooperating teachers, and policy makers. The series will be made available to school-based mentor educators to complement mentor training they are conducting in their respective school districts. As well, the MCTP plans to integrate elements of the series as streaming video into a Web site for mentors and their protégés.

Evaluation

Triangle East Partners in Education
The retreat of all University-School Teacher
Education Partnership sites in Asheville in April
2001 served TEPIE as a catalyst for informal
reflection on the effectiveness of its efforts.
Hearing how other partnerships handled issues
such as governance, preparation of preservice
teachers, support for veteran teachers, data
collection, and evaluation gave TEPIE leadership
cause to consider how best to measure the
effects of its various initiatives.

At the end of the 2000–2001 academic year, TEPIE asked site coordinators and committee members to address the following issues in their annual school-site reports:

 Review the goals established for your school in 1999. Which of these objectives have you accomplished?

- What remaining objectives do you still wish to accomplish?
- Provide a revised statement of objectives and prioritize a wish list for 2001–2.

From these reports, TEPIE has gained a qualitative indication of the effectiveness of partnership efforts. Two examples of accomplishments reported by the sites informally validate the work that TEPIE did during the 2000–2001 reporting period:

- Faculty of the Apex High School science department prepared unit lesson plans and hands-on activities and labs to present to N.C. State's fall 2001 science education methods class. Faculty members thus participated in the planning and the design of preservice teacher education courses.
- Several articles published by the Smithfield Herald on Smithfield-Selma High School's involvement with TEPIE have increased community awareness of partnership efforts to improve student learning.

As described in the activities section of this report, research projects are in progress at Martin Middle, Smithfield-Selma High, and Apex High schools. Results of all three studies should reveal interesting trends in student achievement.

Clearly, there is a need for a comprehensive evaluation of the partnership. An objective analysis of data from surveys, focus groups, and a sampling of teachers, students, school administrators, and university personnel, would likely reveal information leading to improvements in the partnership's overall performance.

Model Clinical Teaching Program
The MCTP made two significant efforts to document the effects of its initiatives:

• It completed research on the effects of the mentoring curriculum. Teacher-leaders who



Students in a science elective at Martin Middle School use probeware and graphing calculators to examine changes in temperature while they are making ice cream.

took the mentoring curriculum made significant positive gains in conceptual change and ethical reasoning. In effect, they showed significantly more positive changes in their ability to solve complex "human-helping problems" than teacher-leaders in comparison groups. As well, they showed significantly greater positive gains in their ability to use principles, judgment, and reasoning when faced with complex educational problems.

• The results of a four-year study of a role-taking curriculum for prospective teachers were compared with the results of national longitudinal samples. Moderately strong effects were found for this innovative curriculum as applied in teacher education.

Impediments

Although partnership funding for 2000–2001 was consistent with that of past years, TEPIE has been challenged to do more. In January 2000, when Centennial Campus Middle School joined the partnership, it became necessary to reallocate funding from six to seven schools. Consequently, limited financial resources became an even greater impediment to progress, severely curtailing the scope of TEPIE's initiatives.

In addition, limited faculty commitment, both at the university and at the school sites, continues to hamper efforts. A core of university faculty and school site personnel remains dedicated. However, without adequate release time and rewards, human resources are not likely to increase dramatically.

Lessons Learned

The University-School Teacher Education Partnership retreat in Asheville gave current TEPIE leadership the impetus to attempt to effect change, not for its own sake but to improve TEPIE's performance as a collaborative. By restructuring the coordinating council into subcommittees that focus on goal-oriented projects such as professional development, student achievement, and induction, TEPIE could sponsor more whole-partnership activities, such as the Product Development Workshop. Although several TEPIE schools have grown comfortable with the partnership and see it as an integral part of daily school life, others still strive for this level of ease and may not embrace change at this time. An important lesson learned is that it is time for TEPIE to reexamine its goals and perhaps move toward fostering a stronger spirit

of partnership collaboration and discouraging the insular nature of seven minipartnerships.

Next Steps and Future Aspirations

To enrich and improve partnership efforts, TEPIE and the MCTP want to give serious consideration to the following objectives:

- · Increase involvement of arts and science faculty
- Increase the partnership's impact on the teacher preparation program
- Encourage more collaboration between methods faculty and school faculty
- Restructure governance to establish more whole-partnership collaboration and decrease isolation
- Document the impact of partnership activities more systematically
- Provide more incentives for university and school faculty to become involved in partnership activities
- Increase support for lateral-entry teachers and teachers seeking certification from the National Board for Professional Teaching Standards
- Find additional funding to develop a mentor Web site for mentors and teacher-leaders who are assisting novice teachers

Although meeting several of these objectives requires more financial resources than are currently available, TEPIE leadership believes that with creative energy, such as seeking outside funds, it can achieve most if not all of the objectives in the coming years.

Dissemination of Promising Practices and Research Findings During 2000–2001

Reiman, A. J. (2001, April). Longitudinal effects of a role-taking and guided inquiry program in teacher education. Paper presented at the annual meeting of the American Educational Research Association, Seattle.

Reiman, A. J., & Oja, S. N. (2001, August). *Moral, epistemological, and ego changes in teachers across the career span: A quantitative synthesis.* Paper presented at the meeting of the European Association for Research on Learning and Instruction, Fribourg, Switzerland.

The University of North Carolina at Asheville in partnership with Asheville City, Buncombe County,

in partnership with Asheville City, Buncombe County, and Henderson County Schools

The continued integration of all aspects of teacher licensure with ongoing support of area schools makes it difficult to separate the aspects of the program at The University of North Carolina at Asheville (UNCA) that are specifically related to the University-School Teacher Education Partnership program. Although one could argue that this report should cover only the activities funded directly by a partnership account number, doing so would be a misrepresentation of the breadth and the depth of the partnership. Funding, personnel, facilities, other support services, and other resources are shared fluidly between the university and the three participating school districts. These include money and people for tutoring and mentoring, tutors' salaries, computers and software purchases, stipends for presenters and participants in training sessions and workshops, printing and mailing, registration and travel costs for conferences, stipends for school district guests and co-presenters in courses, and purchase of teaching materials.

Partnership responsibilities are shared by all Education Department faculty and staff, preservice students, school teachers and administrators, arts and science faculty, the partnership's Coach²Coach person, its "Spangler person," and two educational technology faculty. Funding for partnership activities comes from annual Education Department allocations, partnership funds, educational technology money, a grant from the Appalachian Rural Teacher Technology Alliance (ARTTA), Teaching Fellows funds, Matching Incentive Grants, and grants cosponsored with area school districts.

More important than the specific people or funding sources contributing to any given aspect of the partnership is the sense of shared ownership and equal voice. This is most evident in the establishment of a new university standing committee that emanated from the work previously carried out by the partnership's steering committee. The University-School Teacher Education Committee (USTEC) is officially sanctioned by the Faculty Senate and is described in the UNCA faculty handbook as advisory to the Education Department chairperson. Members in-

clude school district, community, and Education Department faculty appointed by the Education Department chairperson, and arts and science faculty appointed by the vice chancellor of academic affairs. Three subcommittees previously established under the partnership—on initial preparation, induction, and professional preparation—build on earlier work. Their efforts and other selected activities of the partnership are described in the following sections.

Activities

Initial Preparation

To prepare students to enter the classroom with a broader, better-informed support base, clinical faculty (master teachers) team-teach or model up-to-date, integrated, hands-on teaching strategies in methods classes and workshops. In their capstone methods course, students try out strategies in classrooms under the guidance of an experienced teacher. Also, in consultation with their cooperating teacher, they design an action research project based on the school improvement plan. Clinical faculty subsequently serve as cooperating teachers for the student teaching semester and supervise the implementation of the research project.

In 2000–2001 the Initial Preparation Subcommittee collected and examined data on the alignment between performance-based licensure, university class assignments, and the standards of INTASC (the Interstate New Teacher Assessment and Support Consortium). One outcome was the establishment of a database that tracks the diversity of field placements, ensuring that preservice students gain experiences with school students of various needs and backgrounds. Another outcome was the establishment, beginning with a preservice student's first education class, of a teaching portfolio that demonstrates fulfillment of INTASC standards.

Induction

On two Saturdays in January 2001, between 50 and 60 first-year teachers from five surrounding counties came to UNCA to participate in the third annual New Teacher Orientation, a variety

of sessions designed for beginning teachers hired after their schools had offered new teacher orientation. Topics included lesson planning, classroom management, parent conferencing, end-of-course testing, the gateways (criteria for promotion), exceptional children, the INTASC standards, and stress management.

The number of lateral-entry teachers hired each year by partnership districts has been increasing. Lateral-entry teachers indicated an immediate need for strategies that they could take directly into their classrooms. In response, the Induction Subcommittee assembled a network of support for these new teachers, drawing on the talents of master teachers and administrators in each of the three partnership districts. One new teacher commented,

I value the real tips and tools [I received] for the classroom. I will try to implement the strategies, the valuable suggestions and ideas for test preparation, the useful knowledge on parent conferencing, and the good yoga stretch. I valued the opportunity to meet and talk to fellow new teachers in and outside the school system.

In 2000–2001 the partnership provided funds for substitutes so that second-year teachers could work on their performance-based licensure product (portfolios prepared by teachers to achieve regular certification). More than a dozen teachers in Asheville City and Henderson County schools benefited from this opportunity.

The partnership also hosted some second-year teachers in a three-day summer institute on the UNCA campus. Originally limited to 25 participants, the institute drew such a response that the cap was raised to 31. One participant remarked,

I wish more [second-year teachers] could get the advantage of this jump start! I received useful information, ideas, and conversation on what is expected of the product. I found out that there is more involved than submitting a lesson to be reviewed. I got to meet people, discuss objectives, and get the big picture. The INTASC discussions were great. I really valued this experience and a new network of teachers to collaborate with. I feel more relaxed and prepared to do the best job I can on my performance-based licensure product.

Professional Development

This year the partnership hosted an institute for teachers seeking certification by the National

Board for Professional Teaching Standards. This two-day event provided 25 teachers from Asheville City, Buncombe County, and Henderson County schools with an opportunity to learn about curriculum design, assessment, videotaping techniques, board standards, and ways to complete portfolio exercises. The trainers were board-certified teachers from the partnership school districts.

The response was overwhelmingly positive. One teacher reported that, for her the outcomes included "modification of classroom practices [to] conform to national standards, better preparation and less stress about the national board process, and beginning now, reading, thinking, doing, and believing that I can do this!" Support for the institute participants will continue throughout the coming school year, with monthly meetings that focus on specific sections of the board-certification process.

Recruitment

Recruitment of teacher candidates has been strengthened through a Teacher Cadet Program (a high school program that promotes teaching as a career), recruitment of tutors and mentors from an African-American colloquium on campus, and increased outreach to middle and high school students who may qualify to attend UNCA on a Legislative Opportunity Grant (a four-year scholarship for students tracked from middle school through higher education, providing tuition, student fees, and texts). The Teacher Cadet class at Asheville High School is in its third year, and discussion is under way to expand the program to three more high schools. Two African-American Teacher Cadet graduates currently attend UNCA.

Opening Doors to Teaching, a recruitment event in its second year sponsored by the Teaching Fellows, brought 75 high school seniors from 12 North Carolina school districts to campus to explore teacher education. Five students who attended this event as high school seniors last year now are attending UNCA.

Retreat

On April 3-4, 2001, UNCA hosted a statewide retreat of the University-School Teacher Education Partnership program at the Grove Park Inn. This provided a working forum for representatives from 15 UNC partnerships to share successes and to develop strategies to address challenges. Each university brought a team of faculty, administrators, and school district personnel. Participants engaged in two days of lively

discussion based on an agenda of items submitted ahead of time by each institution. Some of the topics were governance structure, meeting the original five goals of the program, inclusion of arts and science faculty, the standards of the National Council for Accreditation of Teacher Education, data collection and analysis, and effects of partnership activities on teacher licensure. A Web site was developed to report the proceedings of the retreat: http://www.unca.edu/ustep/retreat.html.

An Archaeological Dig

In summer 2001, three pairs of cooperating teachers and student teachers joined with university supervisors in an archaeological dig of Cherokee artifacts. This four-day workshop, offered by the ARTTA on the campus of Warren Wilson College, introduced participants to the work of archaeologists and the methods of inquiry that they use when working with artifacts. Participating teams from each ARTTA institution (Appalachian State University, UNCA, Warren Wilson College, and Western Carolina University) had an opportunity to use a variety of technologies and to apply what they learned to the content that they teach. The products included units in social studies, literature, mathematics, and science. For example, students enrolled in U.S. history at Asheville and North Buncombe high schools will work collaboratively during fall 2001 to investigate how warfare influenced the development of America in the 18th, 19th, and 20th centuries. Additional information is posted on the ARRTA Web site, http://www.unca.edu/ education/arrta.

Building of Mathematics Skills

At Buncombe Community School West, an alternative school for at-risk middle school students, a creative mathematics assignment resulted in student teams building elaborate miniature structures. These were replete with interior rooms fully designed to scale, even including such luxuries as a Jacuzzi and a game room. A fourth-year Teaching Fellow tutor served as an intern and a program liaison. He coordinated with teachers and guidance counselors to match five trained UNCA tutors with seventh- and eighth-grade students. The tutors provided assistance with the mathematics project and served as judges for the students' contest. They were pleased to see students' mathematics grades improve as interest levels rose over the course of the year.

Tutoring and Mentoring

The partnership's tutoring and mentoring programs had another successful year in 2000–2001, providing more than 65 tutors and mentors for area K-12 students. Tutors came from Partners-in-Learning (a program in the middle grades), Asheville-to-Asheville (a program in the high schools), and two methods courses (Reading and Writing in the Content Area 6–12 and Reading Methods K–6). Among the in-school programs served were Advancement via Individual Determination (AVID) and Communities in Schools (CIS).

Tutoring results for Asheville Middle School were impressive. The 2000–2001 end-of-grade test scores showed 78.5% of sixth graders (after one year of tutoring) to be proficient in reading; 94.1% of seventh graders (after two years of tutoring); and 95.6% of eighth graders (also after two years of tutoring).

Data for North Buncombe Middle School showed consistent gains in test scores for students working with UNCA tutors over the last four years. For example, from 1999 to 2001, actual growth in reading for all students was 3.7%, compared with 7.1% for those working with a UNCA tutor.

Asheville-to-Asheville again supported high school juniors and seniors by matching them with UNCA mentors. Thirty high school students participated in this program, which helped them investigate colleges, create résumés, fill out college applications, and explore college life. These students are eligible for the Legislative Opportunity Grant. UNCA admissions and enrollment staff met with families of eligible students and guaranteed them funding through four years of college if they met scholarship requirements.

For 2000-2001, UNCA partnered with the AVID program at Asheville Middle School and Asheville High School to support students who demonstrated college potential but lacked the financial resources to pursue postsecondary education. Thirty-one UNCA tutors completed AVID training last year and tutored in AVID classrooms for up to two 90-minute periods a week. This program emphasized note-taking and organizational skills, writing inquiry, and collaboration, all intended to steer students into college preparatory courses. Seven veteran tutors followed their eighth-grade Asheville Middle students into Asheville High last year, as the ninth grade initiated an AVID program. Next year, 17 high school students will continue AVID in their sophomore year, and one of their former tutors will student-teach in the ninth-grade AVID classroom.



Students from an environmental science class at UNCA share their research projects with youngsters at Erwin Middle School.

At the end of the year, AVID students hosted a Tutor Appreciation Day for all the tutors, with everything from hip hop music to fried chicken and mashed potatoes. An AVID parent commented,

I wanted to let you know how much I have appreciated all of the UNCA tutors who have taken the time to tutor. I am thankful for the extra help they have given my son; it really helps me as a single working mother for my son to have this support when he needs it, and to have it offered during school time is a big plus.

A letter from an AVID student to his tutor said, I am glad I had the chance to know you. You taught me that I really need to try harder than I have been doing. I believe you said you were going back to college to be a teacher. I think you would make an awesome teacher. I hope you will teach at Asheville High School before I get out of school.

Several UNCA students and their school district partners shared their involvement in these programs through presentations at the Education Trust in Washington, D.C., and at the North Carolina conference on closing the achievement gap. Tutors also were involved in historical research that resulted in an exhibit, An Unmarked Trail, at the Black Cultural Center. It documented contributions of African-Americans in the 19th and 20th centuries to the development of western North Carolina.

Minigrants In 2000-2001 the partnership awarded 30 schoolteachers minigrants to attend conferences of such organizations as the Association of People with Severe Handicaps, the Foreign Language Association of North Carolina, the International Reading Association, the National Council of Teachers of Mathematics, the North Carolina Council for the Social Studies, and the North Carolina Middle School Association. They also participated in a singing and reading

connection workshop, the Closing the Gap conference, and a technology workshop. Minigrants applied fully toward registration costs, partially toward travel to such places as Anaheim, California; Chapel Hill and Greensboro, North Carolina; Indianapolis; New Orleans; and Washington, D.C.

Book Club Model of Staff Development In fall 2000, with staff development funding from the partnership, a book club on multicultural literature for eighth-grade teachers was established. Fifteen participants met monthly to discuss group-selected literature, talk about strategies for teaching literature and reading, and share their experiences with adolescent readers. This project is designed to record the experience of these teachers and to analyze how they are changing as a result of the book club model of staff development, particularly in regard to their knowledge of multicultural literature. A UNCA professor has conducted interviews with teachers and traveled with two teachers to the state conference of the North Carolina Reading Association, at which they presented preliminary findings about the effects of the model—how it has influenced teacher practice and how it matches current models for adolescent literacy development, which emphasize choice in independent reading and opportunities for response to reading. Participants also shared results with colleagues at the national conference of the International Reading Association.

Evaluation

The results of partnership activities were summarized in each of the three subcommittee end-of-year reports to the steering committee. Highlights are as follows:

- The partnership coordinator collected test data from principals for students in several tutoring programs. The data indicated that reading and mathematics skills had improved
 - through tutoring and mentoring programs.
- The outreach coordinator tracked the number of tutoring hours, the number of students and schools served, and the number of tutors and mentors participating.
- Action research involved each student teacher and cooperating teacher in a project designed around the school district's school improvement plan. Results were presented at the UNCA Undergraduate Research Symposium, held at the end of the fall and spring semesters and attended by Education Department faculty and students, and cooperating teachers. Presentations are graded as part of the requirements for Guided Research, a course necessary for licensure.
- Recipients of minigrants were required to submit summaries of their uses of the funding, the benefits to their own teaching, and the benefits to their students' learning. These were anecdotal narratives.



A UNCA professor reads a Dr. Seuss story to elementary school children.

 Summaries of each subcommittee's activities were compared with its goals set during the annual summer retreat. This comparison is done at the end of the first semester to determine whether an activity should be continued, discontinued, or expanded.

Impediments

The partnership has temporarily resolved budgetary limitations by combining all related funding sources, including department, partnership, Matching Incentive Grant, Coach²Coach, and educational technology accounts. Several of these sources are soft money and cannot be counted on for the future. Also, some of the softmoney sources fund positions, which also may disappear. These include Coach²Coach and a Preparing Tomorrow's Teachers to Use Technology federal grant covering educational technology preservice and professional development programs. Additionally the Matching Incentive Grant was cut in half this year.

Although the funding for these programs has decreased or will disappear, the mandates to provide the services they support remain, and the high-stakes accountability for the quality of their implementation keeps increasing. At the same time, faculty members now are practically demanded to recruit their own students actively in order to increase enrollment in licensure areas. This has essentially redefined education faculty members' basic job description by adding responsibilities to an already full teaching load and supervisory role. The supervisory role has expanded to include field components for every methods course, requiring instructors to spend large amounts of time in the schools meeting with teachers and administrators, and observing and evaluating preservice teachers. There has been no compensating adjustment elsewhere in the faculty workload.

On the contrary, the resulting increase in teacher candidates (via traditional routes, but increasingly by lateral entry) has necessitated the offering of every education course every semester. This already has required the hiring of more adjunct instructors, at additional cost to the university. The ramifications of this cost are not lost on the vice chancellor for academic affairs.

Therefore the partnership subcommittees have felt compelled to seek grants to cover ongoing program costs; the Education Department has been forced to seek grants; and UNCA's Development Office has had to include the Education Department in its fund-raising considerations. Although these are positive and necessary steps, they will not produce results soon enough to satisfy the immediate needs for funding.

Next Steps and Future Aspirations

The annual summer planning retreat identifies specific goals for each subcommittee. Budgetary concerns severely limit expansion of current programs or development of new ones, so the partnership will have to do more with less, or at least maintain present levels of operation with less. However, several key issues remain imperative:

- Recruitment of licensure candidates, especially from underrepresented populations
- Preparation of candidates to complete the performance-based licensure process successfully
- Provision of support for lateral-entry teachers
- Solidification of performance-based assessment in the initial preparation program

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The University of North Carolina at Chapel Hill in partnership with Chapel Hill—Carrboro, Chatham County,

Durham Public, and Orange County Schools

The Research Triangle Professional Development Schools Partnership (RTPDSP), which includes The University of North Carolina at Chapel Hill (UNC-CH) and the Chapel Hill-Carrboro, Chatham County, Durham Public, and Chatham County schools, serves as the University-School Teacher Education Partnership based at UNC-CH. The partnership is dedicated to enhancing learning opportunities for all children and to four objectives:

- Renew and restructure the public school curriculum
- Renew and improve professional preparation programs
- · Establish continuing professional development opportunities for both school and university educators
- Conduct an organized program of schoolbased research designed to improve practice

To accomplish these objectives, the RTPDSP engages P-12 school faculty and administrators, parents, community members, business leaders, and university faculty, staff, and students in professional development school (PDS) activities. These activities affect not only the preservice training of teachers and other educators (such as administrators, school counselors, and school psychologists) but also the induction of beginning-level educators and the professional development of career educators.

The 2000-2001 year of operations represented an important milestone for the partnership. The six-year contractual agreement that established the RTPDSP officially ended this year. To date, a formal contractual agreement has not been renegotiated, but the partnership has selected new sites to join the first-generation sites for four years. The second-generation sites include two elementary schools (E. K. Powe and Club Boulevard) in the Durham Public Schools, one elementary school (Cameron Park) in the Orange County Schools, and a K-12 site (Seawell Elementary, Smith Middle, and Chapel Hill High schools) in the Chapel Hill-Carborro Schools. The new sites were to begin operation in fall 2001. The firstgeneration sites consist of two elementary

schools, one (Forest View) in the Durham Public Schools and one (Grady A. Brown) in the Orange County Schools; one middle school (McDougle) in the Chapel Hill-Carrboro Schools, one high school (Orange) in the Orange County Schools; and one multischool site (the Intercede to Succeed program and the Administrators' Forum) that encompasses the entire Chatham County school system.

The RTPDSP also offers three initiatives in which all four of the partnership districts participate: the High School Literacy Project, AmericaReads, and Teacher Mentoring.

Activities

The following examples are illustrative of partnership activities during the 2000-2001 academic year.

Teacher Mentoring

Through the 2001-2 academic year, the RTPDSP has a Mentor Teacher-in-Residence, whose goal is to support and assist each partnership school district in teacher development and retention by enhancing and complementing the programs already in place. The Mentor Teacher-in-Residence and a university faculty member have designed a needs assessment instrument and conducted an assessment with the coordinators of initially licensed teachers in each of the four partnership districts. The assessment was designed to accomplish the following:

- · Learn what each system was doing to mentor new teachers
- Explore what each system would like to do to mentor new teachers better
- Determine what role the partnership could best perform in this endeavor
- · Collect and share resources with the partnership school districts

On the basis of the assessment results, programs that will be offered in 2001-2 include new teacher orientation and mentor training; workshops for first-year teachers on classroom management, parent conferencing, reflective writing, active listening, and stress management; support and training in the performance-based

licensure process and certification by the National Board for Professional Teaching Standards; support and training for NC TEACH (a program for lateral-entry teachers); organization of new-teacher support groups; development of an on-line mentoring site; publication of a mentor handbook; newsletters on mentoring for UNC-CH faculty and school coordinators of initially licensed teachers; and development of a graduate-level mentoring course.

High School Literacy Project

Having successfully completed its third year of operation with UNC General Administration funds, the High School Literacy Project continues to address two key areas:

- Contextualizing literacy experiences within the high school so that literacy is not treated as an isolated skill
- Preparing teachers to deliver content to students who do not read or do not read well

Two original goals guided the project's efforts this year:

- To improve teachers skills' in working effectively in all curriculum areas with students of low (and all levels of) literacy skills
- To shape the preparation of new teachers to work effectively with students of low (and all levels of) literacy skills through the teacher education curriculum of PDS partners

Many accomplishments highlighted the project's third year of operation. First, three more high schools were recruited to the project, bringing the number of participating schools up to six.

Second, the Day of the Poet, an activity organized by local poets to promote writing skills, was expanded to include more participants. Approximately 120 students, a dozen teachers, and several parents and administrators participated over two days. Survey data indicated that students valued learning from poets or seeing poets perform, thought the information presented was very useful, and would come to a similar event again. A project Web page, http://www.unc.edu/depts/literacy/, published student poetry from the Day of the Poet.

Third, on Learn NC, an innovative Web site (http://www.learnnc.org) was piloted that involved students submitting papers for feedback from teachers and students within or outside their schools, in order to improve their writing skills. Learn NC is a UNC-CH program that supports a statewide network of educators using the power of the Internet to improve K-12 education in North Carolina.

Fourth, the project began work with the Center for Performance and Education to offer project teachers the opportunity to explore classroom-based projects designed to enhance the performance of literature across the disciplines.

Fifth, more than 60 teachers across two participating schools learned specific instructional techniques to address the needs of academically diverse learners.

Sixth, additional teachers were recruited for and participated in site-based inquiry teams at participating schools.

Seventh, more UNC-CH faculty became involved in researching culture and system change at the participating schools.

Finally, a grant proposal was submitted for external funding.

Forest View Elementary School Activities
The activities at Forest View Elementary School
illustrate a number of the purposes of the partnership, particularly its emphasis on creating
a greater sense of shared responsibility and
accountability for student learning and curriculum renewal. This year Forest View operated numerous projects that were nested in four broad
components:

- Centers of exploration: Participants designed and delivered to all third-grade students an interdisciplinary, inquiry-based approach to teaching and learning. In small groups apart from their regular classrooms, the students learned about the culture of Australia. Specialist teachers (e.g., those in art, music, and physical education) collaborated with third-grade teachers to deliver this program using a variety of teaching methodologies. There were nine sessions, each about an hour long.
- Student support: Three projects were conducted: the Conflict Resolution Curriculum, Fifth Grade Clubs, and the Falcon Patrol. The substantive aspects of these projects were different, and the projects were offered to different groups of students, but they shared a common goal: creation of a caring community to support learning at Forest View.
- Teacher study groups: Forest View operated three teacher study groups this year: teaching mathematics, supervising student teachers, and teaching literacy. Student teachers participated in the mathematics study group. The supervising study group involved nine teachers, who worked with student teachers and a professor from UNC-CH. Its objectives were to improve

the teachers' supervisory skills with student teachers and to improve their own teaching. The literacy study group involved all faculty at Forest View, student teachers from UNC-CH, and parents. School visits by two renowned authors of children's literature were used as a catalyst for teachers, students, and parents to work on integrating literature into the curriculum.

School Governance
 Committee: This site-based
 decision-making committee
 attempted to ensure good
 communication among all

stakeholders, to inform sound governance decisions, and to help faculty and staff create partnerships with parents. One of its goals, which it achieved, was to help integrate PDS projects into the ongoing operation of the school.

Impact of the PDS on Forest View

Three broad-based outcomes at Forest View merit mention. First, the component PDS projects interfaced closely with the RTPDSP's goals and objectives. There were projects related to curriculum renewal, continuing professional development for faculty, initial preparation, and classroom-based research. Second, the PDS projects encouraged the entrepreneurial spirit of faculty, rewarding and recognizing them for searching out and trying out innovative ideas. Third, the projects have been integrated into Forest View in such a way that their spirit will live beyond them. These conclusions are based on the observations of Forest View faculty and administrators and university faculty who have had long-term affiliations with Forest View.

Impact of the PDS on UNC-CH Training Programs

Students from UNC-CH who have interned at Forest View have had the opportunity to observe and work with faculty involved in innovative and state-of-the-art practices. Perhaps more important, these students have been exposed to a school that has an entrepreneurial mindset, looking favorably on change that will improve the lives of children.

McDougle Middle School Activities
McDougle PDS faculty concentrated on engaging
in continuing professional development, renewing



Third graders at Forest View Elementary School work in a center of exploration.

the curriculum, and operating an innovative undergraduate professional preparation program for middle school teachers. This program and the undergraduates have been integrated into a number of aspects of the McDougle PDS project through inclusion in Collaborative Inquiry Partnership groups (CIPs; study groups). McDougle operated 13 CIPs designed to conduct inquiry and action research into educational issues and practices related to professional development and curriculum renewal. Teachers were able to select a CIP that best fit their professional needs. The 13 CIPs were Aesthetic Reflections on Teaching, Cultural Arts in the Community, Cultural Diversity, Literature Integration Unit, Math/Internet, Middle School Sports/Healthy Competition, Middle Grades Literature, National Board Certification, New Teachers, Performance-Based Licensure, Resiliency/Mentoring, Schools Attuned, and Wield the Web.

Impact of the PDS on McDougle

A major outcome was McDougle faculty's discovery of a new and improved way to conduct staff development. There is widespread support among them for the CIP approach to staff development, as opposed to the traditional approach, used before this PDS project. The major reasons for their preferring the CIP approach are (1) the ability of faculty and staff to choose a topic of interest and value; (2) collegial collaboration; (3) the active, learner-centered nature of the approach; (4) the opportunity to work in small groups with people of similar interest; and (5) the staff development being conducted at the school. Although McDougle teachers and staff recognize the importance of producing new knowledge

using original data-based studies, too much time and expertise are needed for teachers to be able to do this as part of their existing workloads.

Impact of the PDS on UNC-CH Training Programs

The increased collaboration between McDougle and UNC-CH faculty has resulted in student interns experiencing a more professional environment in which both university and McDougle faculty work together to continue to learn and improve their craft. Also, student interns have participated in some of the CIPs, and this involvement has increased their professional experience while interning. Further, McDougle's being a PDS has increased both the amount of contact and the amount of communication between UNC-CH and McDougle faculty.

Chatham County Schools Activities
The Chatham County PDS project is unique in
that it extends the school-university partnership
to the training of preservice school counselors,
psychologists, and social workers as well as to
educational leadership interns and inservice
education administrators.

The project focuses on students at risk for academic failure. It has two basic components, each supported by inservice programs:

- Educational Case Management, which links staff of Intercede to Succeed (an early intervention program for low-literacy first and second graders) to UNC-CH's School Psychology, School Counseling, and School Social Work programs, provides the structure for preservice educators to serve needy students directly, while becoming better prepared for their fields.
- The Administrators' Forum, which links system administrators to UNC-CH's Educational Leadership Program, supports principals and central office staff in promoting academic success for all school-aged children, with an emphasis on the most vulnerable students. The forum is currently divided into two groups, the Principals' Forum and the Central Office Forum, each meeting several times per semester.

Within the Educational Case Management component, PDS interns were trained in the Peace Club classroom guidance program for social skills and conflict resolution. They implemented it with all first graders and some second graders at Pittsboro Elementary School. The Peace Club graduation ceremony was well received by parents. About 10 asked to assist the Peace Club in

subsequent years. PDS interns also provided direct services to many Intercede to Succeed students through group and individual social-skills training. Benefits were extended to all their classmates through follow-up training and practice in the regular classroom setting. In addition, faculty and project staff provided the interns with about 10 hours of training in homevisiting and parent-conferencing skills.

PDS interns also updated the *Chatham County Schools and Community Resource Directory*. They were provided with about 20 hours of training in creating the Internet-accessible directory. Interns learned how to collect, organize, and distribute systematic information on school and community resources and how to enter it on a Web page. The directory was distributed throughout the Chatham County Schools, thus benefiting all students and teachers in the system. It is available on-line through the Chatham County Schools Web site, http://www.chatham.k12.nc.us/programs.nsf.

A UNC-CH professor of school psychology developed a model of systematic risk analysis and resource allocation for principals to use with all at-risk first and second graders in projecting needs for staffing and student services. The objectives of this project were to provide school principals with the following:

- Knowledge of current staffing needs, based on a best-practice model
- Systematic information about the academic needs of at-risk first- and second-grade students, and knowledge of school district programs and services available to meet those needs
- Ways that programs and services can be organized for preventive planning

Using this model, interns learned to create staffing projections for each of the nine Intercede to Succeed schools. Administrators refer to this information throughout the year to inform their decision making. Through this process all first and second graders at risk-levels I or II (the highest and the next-highest levels) were systematically identified for the first time in Chatham County. Also, graduate students identified services and programs being used with at-risk students; identified students needing additional services and programs; consulted with principals; and prepared plans for serving those students.

The Administrators' Forum was conceived to promote collaborative administrative leadership between principals and central office staff. A faculty member and a graduate student from UNC-CH's

Educational Leadership Program. facilitate it. One of the major objectives of the Principals' Forum is to create a learning community for sharing new ideas and examining systemic challenges. This year, much of the discussion in the meetings centered on building-level practices to facilitate school transitions for students. Principals reviewed their transition practices, looked at the data they had collected on the transitions of their at-risk students, examined the at-risk management data from the interns, and continued to modify transition practices for at-risk students in an effort to support the students more effectively. The group's discussion focused on establishing an equitable process for allocating funding for program development for these children.

The Central Office Forum is a tool to help build lines of communication between departments and to help departments use resources more efficiently. In 2000–2001 the Central Office Forum addressed its goal of improved communication. That focus enabled the group's joint meetings with the Principals' Forum to run smoothly and productively.

Impact of the PDS on Chatham County

The UNC-CH/Chatham PDS has made progress, yet each of the components is at a different stage of development. The Intercede to Succeed program has expanded continually and now includes all schools in the county with primary grades. The Principals' Forum probably would not have been formed without the influence of the PDS. This forum has had a positive impact on the principals' degree of influence over systemwide decisions, especially as they relate to special populations. Principals are taking a broader view of the school district and its needs, rather than limiting their concerns to their individual schools. The Central Office Forum is setting goals and building a team relationship based on mutual respect and trust. These are some of the new structures that have been created or expanded as a result of the partnership with the university. Through the discussions and the collaboration they stimulate, the PDS continues to provide the political impetus needed to encourage change.

Overall Impact on UNC-CH Training Programs

Ongoing staff development related to Intercede to Succeed has provided training opportunities for university graduate students. Professional development topics have included case management, family connections, home visits, a multidisciplinary approach to planning for students with multiple risk factors, community organizing, conflict resolution, classroom presentation and management techniques, the effective use of volunteers, and more. Interns have learned techniques for classroom instruction and management, teaching of social skills and social responsibility, mediation, anger management and coping, friendship development, positive self-image, and problem-solving. The Administrators' Forum has provided an opportunity for a doctoral student in educational leadership to coordinate professional activities and learn important leader-ship skills.

This PDS project also has influenced the academic curriculum at UNC-CH. A Model for Projecting Resource Staffing Needs in School Psychology, School Counseling, and School Social Work is being taught as a module in school psychology



Third graders at Forest View Elementary try on sombreros during a unit on

at UNC-CH and is being developed for on-line instruction with training programs across the country. Progress with the on-line instructional module can be viewed at http://class.learn.unc.edu:80/courses/EDSP299.

Evaluation

All the evaluations during the past year were internal ones conducted by people associated with the individual sites. Many involved surveys of the PDS participants or questionnaires completed by them. Examples of the findings appear in the preceding sections.

In addition to the internal evaluations, the RTPDSP has undergone three external evaluations since its inception. In April 1999, John Oehler, dean of the School of Education at Virginia Commonwealth University, evaluated the partnership. In April 2000 a team from the National Council for Accreditation of Teacher Education (NCATE) evaluated the Chatham County site, which was one of 20 nationally that tested NCATE's draft standards for PDSs. Also in April 2000, Ismat Abdal-Haqq, formerly with the Clinical Schools Clearinghouse of the American Association of Colleges for Teacher Education and an authority on PDSs and university-school partnerships, completed an evaluation of the entire partnership. The recommendations from the reports were used during 2000-2001 to begin a restructuring of the RTPDSP. That restructuring, which continues, is discussed under "Lessons Learned" and "Next Steps and Future Aspirations."

Impediments

The same impediments that the partnership has faced in the past-time, cultural differences, and financial resources—continue to affect it. These are not unique to the RTPDSP, affecting schooluniversity partnerships nationally. Lack of time to participate in PDS activities, which are considered by both school and university participants as add-on responsibilities, impedes longterm commitment. Regarding cultural differences, as discussed in earlier reports and as reconfirmed by the McDougle Middle School participants, teachers do not perceive that they have time or training for research, or that it is integral to their responsibilities. University faculty find collaboration on research difficult under such circumstances. In addition, it is a challenge to sustain university faculty's interest in a school-university partnership when their activities are not a formal part of their job description. Finally, financial resources for release time, materials, personnel, research expenses, and the like remain in short supply.

Lessons Learned

Many of the lessons learned focus on the structure of the partnership. Four are highlighted:

- The first-generation PDS sites were quite successful in building stronger relationships between the university and the four school districts. However, they were not particularly successful in stimulating cross-site and cross-district sharing of professional development, etc. Thus the impact of partnership activities was localized to a few schools rather than the partnership having broader influence within a district or across districts. In addition, the sites chosen were not among the neediest in their districts.
- The amount, the scope, and the influence of the research that has been generated are limited. A research project may have addressed a question that was important at one site but had little or no applicability beyond the local level. In addition, the research was not of sufficient importance and quantity to sustain the long-term involvement of university faculty, whose careers are influenced by the scholarship they produce.
- Although the university was involved in preservice teacher education and the preparation of other professionals such as school counselors, school psychologists, school social workers, and educational administrators, this preparation was not always intertwined with or integrated into the other activities occurring at the site.
- From its inception the RTPDSP has been governed by a 36-member policy board that includes a variety of stakeholders, such as superintendents, deans, and school and university faculty. Although this board played an important role in the early stages of the partnership and in the initial site-selection process, it is remote from the day-to-day operations of the partnership and increasingly appears to be an unwieldy decision-making body.

Next Steps and Future Aspirations

Next steps are to build on the lessons learned. In that regard the partnership has added several sites, as discussed earlier. They include two low-achieving inner-city schools. These schools, coupled with the other new sites and continued work with the first-generation sites, will help broaden the impact of the partnership.

Efforts also are under way to cluster the sites into several curriculum or research projects. Participants at sites in a common curriculum or research project (e.g., integration of the arts and aesthetics into the curriculum) will collaborate with one another and university faculty who have demonstrated interests in these areas. If successful, this change will increase cross-site and cross-district dissemination of professional development and should increase both research productivity and the impact of research, given that questions of broader significance can be addressed across sites. It also should help sustain and increase university faculty interest in research that benefits the partnership.

With UNC-CH's newly developed MEd program for experienced teachers in place in many of these sites, the partnership has an increased opportunity to integrate professional development into the other training and partnership activities occurring at the sites. For example, the action-research requirements for the MEd represent one way of integrating professional development and research. In addition, the training of student teachers can be more fully integrated with the professional development of experienced teachers.

Finally, as a maturing partnership, the RTPDSP needs to develop a new governance structure that is closer and more responsive to the challenges that participants face in working together on a daily basis.

Dissemination of Promising Practices and Research Findings During 2000–2001

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Mebane, D. J. (2000). Factors in a collaborative inquiry partnership group affecting perceptions of team and organizational learning outcomes in a professional development school. Unpublished doctoral dissertation, The University of North Carolina at Chapel Hill.

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Wilhoit, M. D. (2000). The relationship between case management components and student achievement in early intervention. Unpublished doctoral dissertation, The University of North Carolina at Chapel Hill.

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The University of North Carolina at Charlotte

in partnership with Cabarrus County, Charlotte-Mecklenburg, and Gaston County Schools

In the University-School Teacher Education Partnership based at The University of North Carolina at Charlotte (UNC Charlotte), the university has partnered with various schools and programs in three school districts to carry out eight projects. At UNC Charlotte these projects are called *partnerships*. Therefore, in this report, *partnership* (with a lowercase *p*) refers to projects, and *Partnership* to the overall effort.

In 1997, when the Partnership was originally funded, UNC Charlotte initiated partnerships with 10 nearby schools in two school districts, with the idea of placing cadres of preservice students in schools that shared programmatic or curricular themes. Evaluations at the end of the two-year funding cycle indicated a need to reexamine organization and focus: Some of the partnerships were functioning well, with a high degree of support from administration or leadership, but others had suffered because of changes in leadership and school priorities.

In spring 1999, as a result of the evaluations, the College of Education's executive committee examined the Partnership program carefully. On the committee's recommendation, in fall 1999 the Partnership issued a call for partnership proposals to all teacher education and arts and science faculty and to all principals and superintendents in the university's service area. The call stipulated that each proposal (1) describe what value the partnership would add to personnel preparation efforts and school improvement projects; (2) describe how the partnership would address a subset of the 12 Partnership program components (as proposed in 1997 by North Carolina's Deans' Council on Teacher Education); (3) include an evaluation and dissemination plan; (4) include a budget for a two-year period; and (5) contain letters of support specifying the commitments of both the university and the partnership schools. An overarching requirement was that schools commit themselves to a yearlong internship for preservice students.

The partnerships that were selected have enlarged the number of teachers and children served. For example, some partnerships include only one school, but others, such as Expanding

Curriculum Options for Students with Mental Disabilities and Autism and the West Mecklenburg Feeder Area Schools Partnership, involve multiple schools. Two questions guide all the partnerships, however: (1) What value does the partnership add to the university's teacher education programs? and (2) What value does it add to programs, teachers, and students in the participating schools?

The eight partnerships, representing an array of activities and foci, are as follows:

- Expanding Curriculum Options for Students with Mental Disabilities and Autism, with the Exceptional Children's Services Program (Charlotte-Mecklenburg)
- UNC Charlotte Writing Project, with Mt.
 Pleasant High School (Cabarrus County), and
 Vance High School and Elizabeth Lane and
 Nathaniel Alexander elementary schools
 (Charlotte-Mecklenburg)
- Mathematics and Reading Project, with Central Cabarrus High School (Cabarrus County)
- Science and Math Cooperative Initiative Project, with Hunter Huss High School (Gaston County)
- Professional Development, with Thomasboro Elementary School (Charlotte-Mecklenburg)
- Multi-School Partnership, with David Cox Road, University Meadows, Blythe, and Berryhill elementary schools (Charlotte-Mecklenburg) (see the first vignette in the next section)
- Balanced Literacy Program, with Concord Middle School (Cabarrus County) (see the second vignette)
- West Mecklenburg Feeder Area Schools Partnership, with 12 schools (Charlotte-Mecklenburg)

Each partnership has at least one university liaison and one school or program liaison. These liaisons are the "lifelines," organizing planning activities and coordinating budgets and communication between university personnel and school teachers and administrators.

Activities

Through the variety of partnerships, the Partnership is committed to addressing the two primary purposes of the statewide university-school teacher education program:

- 1. The improvement of teacher education, including recruitment, selection, preparation, induction, and career-long professional development
- 2. The betterment of student learning and the improvement of school program

The multischool effort described in the first vignette that follows provides teachers with numerous opportunities for professional growth, increases awareness of preservice teacher education and school programs, improves school program, and supports research. The literacy program described in the second vignette offers an array of clinical opportunities for preservice students to work with master teachers at the middle school level. The last two vignettes describe two of the major activities of the Partnership: the yearlong internship for teacher education students at UNC Charlotte and the minigrant program, which encourages P-12 school professionals and university faculty to engage in action research for the improvement of school and university programs.

Multi-School Partnership

The Multi-School Partnership has enjoyed a series of successes, connections, and collaborations throughout its history. It began with the well-established relationships of David Cox Road and University Meadows elementary schools and UNC Charlotte. In the first funded partnership, in 1997–98, emphasis was on the newly formed concept of the yearlong internship. Both schools hosted the largest number of preservice students in their histories, 10 at David Cox Road and 8 at University Meadows.

New to the partnership effort in 1997–98 was an induction program for the 18 teachers at these two schools who were in their first three years of teaching. The beginning teachers attended five meetings, which served as a means of support. Topics included stress relief, working with high achievers, and instruction through learning centers in the elementary classroom. Involvement of the cooperating teachers as clinical instructors (a new role) was vital in this early partnership.

An unusual feature of this collaborative effort was the involvement of teacher assistants. One teacher assistant served on the planning team

before implementation of the partnership, and meetings with teacher assistants were held at both schools to obtain their feedback regarding the internship experience.

The partnership involving these two schools and the university continued for the 1998-99 school year. The focus areas remained, with refinements made to strengthen collaboration. Also, undergraduate classes for preservice teachers were taught at both school sites.

The success of the partnership led to expansion of the collaboration. The partnership's grant proposal for the 1999–2001 funding cycle involved two more elementary schools in the partnership effort, Berryhill and Blythe. The four areas of focus were as follows:

- 1. *School improvement*, highlighting differentiation of instruction and integration of curriculum
- 2. *Induction*, carrying on the support for beginning teachers, with particular emphasis on second-year teachers and what was expected of them for performance-based licensure
- 3. *Preservice teacher education*, focusing on the yearlong internship
- 4. Ongoing professional development, supporting clinical instructors as they work with interns and beginning teachers

Because of staff and curriculum changes at Blythe Elementary, the senior administrator decided to discontinue full involvement in the partnership yet maintain the yearlong internship program.

The successes of the three remaining schools and UNC Charlotte continue to be revitalizing and exciting to school and university participants. The school improvement focus was realized in a partnership workshop held on October 3, 2000. Two consultants offered sessions on differentiation of instruction and instructional planning. Evaluations of the sessions were extremely positive, centering on how useful the information was going to be in working with grade-level team members and students in the schools.

The induction focus has been a highlight of the partnership. First- and third-year teachers benefited from individual conferences/work sessions and support, while second-year teachers participated in a series of four workshops to assist them in completion of the North Carolina performance-based licensure requirement. At the final workshop, held on April 26, 2001, feedback from participants showed that it was helpful to have guest speakers, time during the school day to focus on performance-based licensure, and the

camaraderie of other teachers going through the process.

In addition to the partnership holding meetings and workshops, it produced a directory of telephone numbers and e-mail addresses of all teachers in their first three years of teaching. This simple idea provided linkage among beginning teachers in the three schools.

The focus on preservice teacher education has continued, with yearlong interns being hosted at all three schools.

The fourth focus, ongoing professional development, has involved participation of clinical instructors in internship orientations and professional seminars. David Cox Road and University Meadows elementary school teachers also have been involved in minigrant opportunities.

—Joyce Frazier and Janet Finke, university faculty liaisons

Balanced Literacy Program

Concord Middle School and the Middle Grades Education Program at UNC Charlotte have enjoyed an active partnership for several years. During this time, university students have had a host of experiences unmatched by any textbook. In turn, the administration and the faculty of Concord Middle have engaged in a variety of opportunities that have strengthened their existing programs, a portion of which can be credited to UNC Charlotte's presence.

The Balanced Literacy Program is an extension of this partnership. Specifically, Concord Middle has been concerned with the lack of growth in reading among its students and with the lack of understanding of adolescent literacy issues expressed by teachers. Therefore this project has focused on exploring, designing, and implementing a balanced literacy program. Stakeholders include Concord Middle students, parents, teachers, and administrators, and university preservice teachers and professors.

The partnership has accomplished many of its primary objectives and is working on others, as follows:

Objective 1. Seek out and engage in a variety of opportunities that will lead to a better understanding of what components are present in an effective literacy program and how these must



At the April 2001 conference at UNC Charlotte, all Partnership faculty liaisons made presentations, some involving children.

be adapted for Concord Middle School. Accomplishing this objective involved observations and dialogue with stakeholders, other professionals, and the North Carolina Department of Public Instruction's consultants; attendance at National Middle School Association and North Carolina Middle School Association conferences; intense training in Thinking Maps (a series of graphic organizers to help students see relationships among concepts), with a focus on literacy in the content areas; staff development led by both the school and the university liaison and others; and ongoing work by the partnership's leaders with North Carolina Department of Public Instruction consultants, which emphasized the revised English/Language Arts Standard Course of Study and creation of an accompanying handbook.

Objective 2. Design and deliver to staff the best practices involved in this program. Arrange for consultants. Several experts from Concord Middle School, UNC Charlotte, the North Carolina Department of Public Instruction, Cabarrus County Schools, and elsewhere provided input into the question, What components are necessary in a balanced literacy program? They then served as consultants. For example, David Pugalee of UNC Charlotte has been a vital link in incorporation of literacy into the mathematics curriculum.

Objective 3. Purchase materials needed for implementation. Both software and publications were purchased, as were copies of Thinking Maps materials and a strategies book. (The latter two accompanied staff development.)

Objective 4. Draft a plan for an effective and balanced literacy program at Concord Middle School. Accomplishment of this objective is in its initial stages. Thoughtful development of a fully written plan is a large task!

Objective 5. *Implement*. This objective cannot be pursued until the written plan is completed. However, teachers now routinely discuss literacy issues in team, grade, and whole-faculty settings. UNC Charlotte students are a part of these meetings as clinical students and yearlong interns.

-Jeanneine Jones, university faculty liaison

Yearlong Internships

Before 1997 and the onset of funding for the partnership, student teachers, cooperating teachers, and university faculty reported in evaluations that 15 weeks of student teaching was not long enough or sufficiently comprehensive to prepare teachers as beginners in the teaching profession. In other evaluations the consensus was that preservice teachers needed more time in school classrooms and a stronger link between campus courses and experiences with children. Also, university education faculty wanted early clinical experiences to be richer and better connected to the realities of school.

The yearlong internship was planned and piloted in 1997-98 to address the concerns just mentioned. At first, student participation was voluntary. Full implementation was achieved in 1999-2000; that is, all prospective teachers except those in fine and performing arts were required to participate. Full implementation brought increased value, clarity, and structure to clinical experiences. It led university faculty to look more closely at course sequencing, early field experiences, and the quality of supervision. Overall, the collaboration required to implement the yearlong internship has had a positive ripple effect (value added) at both the university and the school level.

The yearlong internship entails two semesters, the first involving university students in part-time clinical experience in a classroom, side by side with college courses, and the second involving them in full-time student teaching. Throughout the two semesters, interns work with the same cooperating teacher. In the first semester, they observe, assist the cooperating teacher and children in multiple ways, and engage in clinical activities required as part of campus courses. They also attend teacher workdays at the beginning of the school year, become familiar with the total school environment, take part in schoolwide activities, and participate in

parent meetings. The cooperating teachers play an active role in identifying meaningful activities and experiences for interns and in helping interns become an integral part of the faculty.

In the second semester, interns typically move swiftly into the role of student teacher and concentrate more fully on the dynamics of the classroom. This includes trying out effective teaching strategies, classroom and student management techniques, and options for overall classroom organization.

Once the yearlong internship was implemented, the role of the cooperating teachers was both expanded and advanced in responsibility. This led to the creation of a new role for teachers. clinical instructors, to distinguish them from the traditional cooperating teachers. Clinical instructors are selected for their effectiveness as teachers, their skill in mentoring prospective teachers, their demonstrated professionalism, and their dedication to giving back to the profession by coaching future teachers. They work with the same students for two semesters, modeling exemplary professional performance and behaviors and remaining fully involved in the classroom. They do not receive formal mentor training, but the partnership does conduct orientations on their responsibilities.

The results of a quasi-experimental study following the first two years of implementation provided evidence of the benefits of a yearlong internship over traditional student teaching. Feedback since then, collected annually by the Office of Field Experiences from the various stakeholders (e.g., interns, clinical instructors, and principals), has supported continuation of the internship.

Feedback from the interns indicated that they found their clinical instructor to be an invaluable component of the internship. They also noted that the internship made it possible for them to become a part of the school community, to see the full school year in progress, and to achieve a better understanding of school policies and procedures.

School personnel indicated some similar and some different reactions. Clinical instructors reported that important improvements in learning to teach were accomplished by having interns participate in teacher workdays and the opening of school and by exposing them to school procedures and the ways in which classroom rules and procedures are established. Most important, interns learned more, firsthand, about the individual needs of students.

School administrators reported that the yearlong internship helped create better-qualified teachers. It provided prospective teachers with a smoother transition to student teaching, gave them more hands-on experience, and helped them understand the day-to-day operations of school better. Also, it helped teachers become more aware of current trends in education and enhanced the professional development of clinical instructors. Principals reported selecting clinical instructors more carefully and claimed that such teachers became more thoughtful about their role in working with interns. The principals also said that they valued having more adults in classrooms to assist with student learning and that they watched the professional growth of interns with an eye to future employment.

> Vicki Jaus, director of field experiences, and Melba Spooner, faculty coordinator of the Partnership, UNC Charlotte

Collaborative Research Financed by Minigrants

An original expectation of the Partnership was that research would increase emphasis on collaboration, applied research, and evaluation in schools to improve teaching and learning. Another expectation was that it would increase the access of teachers, administrators, counselors, and others in schools and universities to current knowledge on teaching and learning, thereby narrowing the research-practice gap and contributing to more effective school programs.

In 1998-99 the Partnership piloted 10 minigrant research projects to encourage collaboration between university and school faculty. In the two years since, it has funded 24 additional projects.

An example of one of the projects funded in 2000–2001 is a Comparison of Two Direct Instruction Reading Programs on the Achievement of Elementary Students with Mild Disabilities. Its goal is to compare the effectiveness of two Direct Instruction reading programs, Reading Mastery: Fast Cycle and Horizons: Fast Track, on the literacy growth of students with mild disabilities. (*Direct instruction* is systematic explicit phonics instruction.) The objectives of the study are as follows:

- 1. To increase the reading skills of children with disabilities
- To compare the reading growth of students with mild disabilities in two Direct Instruction programs
- 3. To provide preservice teachers with oppor-

- tunities to practice instructional strategies that are effective in addressing skill deficits in reading, and to participate in classroombased research
- 4. To sponsor training sessions on the correct implementation of the two reading programs and on data collection using the North Carolina Kindergarten-Second Grade Literacy Assessment
- 5. To collect data on teacher satisfaction with salient features of each program and anecdotal data regarding conditions for choosing one program over the other

Two special education teachers in Cabarrus County Schools who were using the Reading Mastery program and were interested in comparing it with the Horizons program were identified. Materials were purchased, and the teachers were trained to implement the Horizons program. The two teachers identified, as participants in the study, two groups of four students each who placed at an instructional level appropriate for Reading Mastery and Horizons. A yearlong intern working with one of the teachers pretested the identified students on the Cabarrus County K-2 Literacy Assessment and the reading subtests of the Woodcock-Johnson Psychoeducational Battery. Students at each school then were randomly assigned to either Reading Mastery or Horizons.

Throughout the school year, the special education teachers provided daily instruction for the students. Checks were conducted regularly to determine how reliably the teachers were following correct instructional procedures. In May 2001 the tests were administered again. The teacher assessment and teacher satisfaction data are currently being analyzed. If funded, a second phase of the study will be conducted during the 2001–2 school year, and the data from it will be aggregated with the data collected during the first year.

Alhough the research for this project is not yet complete, preliminary results indicate that its implementation has been of value. The partnership has benefited by having a strong placement for a special education intern that has coincided with the strategies taught in the university's curriculum for special education majors. The intern has benefited by having the opportunity to participate in the research. Teachers have benefited by having the extra assistance of the intern, who has made the additional requirements of the study more manageable. The students have benefited from instruction that includes elements

identified by a large body of research as essential to the successful acquisition of beginning reading skills for students with disabilities.

—Susan Gibbs and Nancy Cooke, university faculty liaisions, and Melba Spooner, faculty coordinator of the Partnership, UNC Charlotte

Impediments

The Partnership has identified two impediments to successful collaboration: time and resources. University-school team efforts such as the liaison roles, minigrant action-research projects, and teaching of university courses on school campuses call for changed roles and responsibilities. The work of the Partnership faculty cannot be a duty added to an already heavy workload. The size of the existing faculty in both education and arts and sciences is not sufficient to meet the magnitude of needs.

As roles and responsibilities change, the issue of adequate funding to support the time commitment looms larger. The limited resources also mean that the "wealth" does not get spread to as many schools and school districts as the Partnership would like. Without funding, faculty, and especially university students, cannot travel to more remote schools and districts whose involvement would certainly add value to both university and P-12 school programs.

Lessons Learned

A very important lesson learned is that the Partnership needs committed participants from the P-12 schools and from the university. The most successful partnerships have been those in which the university liaisons and the school administrators and teachers have made the partnership goals professional priorities. Partnership work must be a natural and authentic part of the



Beginning teachers attend the final meeting of the Multi-School Partnership's induction program.

day-to-day workload and not an add-on responsibility. Feedback from participants indicates that the yearlong internship and minigrant program have provided both personnel and funds to support instruction and learning for P-12 students. The value added must be balanced between the two entities—the university and the P-12 school.

Two components of the Partnership that began with its original funding are the yearlong internship for teacher education students and the minigrant program. The internship provides prospective teachers with a smoother transition into the "solo" phase of their career. This transition positively affects learning outcomes for P-12 students. The minigrant program enables university and P-12 faculty to engage in short-term projects and research that provide data about children's learning needs, and it provides resources to supplement instruction to accommodate those needs.

Next Steps and Future Aspirations

As explained earlier, UNC Charlotte's partnerships are two-year projects. Seven partnerships will begin in fall 2001 and continue through spring 2003. These include two former projects that are being continued and expanded, the Balanced Literacy Program and the Multi-School Partnership. Five collaborations are wholly new:

- 1. Support for teachers, particularly lateralentry teachers, in addressing student performance issues, with Randolph Middle School (Charlotte-Mecklenburg Schools)
- 2. Inquiry and effective science instruction at the middle-grades level, with Gaston County Schools
- 3. *Kinder* training (a professional development program) for teachers of at-risk preschool children, with Thompson Child Development Center
- An institute for preparing teachers for certification by the National Board for Professional Teaching Standards, with Cabarrus County Schools
- Support for the professional development of teachers through candidacy for certification by the National Board for Professional Teaching Standards, with Charlotte-Mecklenburg Schools

The minigrant program continues to be successful and is a good avenue for engaging education and arts and science faculty with multiple teachers on projects focused on specific instructional

programs or techniques. The 2001-2 minigrant awards (10 at \$1,500 each) will be announced in mid October.

Through continuation of Partnership funds, the yearlong internship program will remain an integral part of most undergraduate teacher education programs.

The Partnership advisory council will continue to guide Partnership efforts. Last year the council began a discussion regarding a beginning teacher initiative. During this critical time of teacher shortage, the need is not only to support beginning teachers so that they sustain their energy, enthusiasm, and effective instruction, but also to recruit and attract more talented young people into the teaching profession. During the past year, a focus group was conducted with former graduates to discuss what they perceive to be the most basic and major needs of beginning teachers. In 2001-2 the council will create a task force to study ideas related to supporting teacher development (especially beginning and lateral-entry teachers) and issues related to behavior management programs. It then will undertake activities to develop teachers' ability to manage learning situations so that student behavior improves and teachers can promote learning and high-level academic performance in all classrooms.

A very successful First Annual UNC Charlotte University-School Teacher Education Partnership Conference was held in April 2001. All Partnership participants were invited—advisory council members, P-12 faculty liaisons and teachers engaged in Partnership activities, and university faculty liaisons and other faculty engaged in Partnership activities. About 100 people attended. A daylong event, the conference was both an opportunity for partnerships to share assessment data in creative ways and a celebration of teachers and teaching. It also was a great way to disseminate ideas and programs and to acknowledge the achievement of participants. All minigrant and partnership project participants presented evaluation and valueadded data. A second annual conference will be held in spring 2002.

Dissemination of Promising Practices and Research Findings During 2000–2001

Presentations

Jaus, V. P. (2001, April 5). Yearlong internships: Improving preservice teacher preparation.

Paper presented at the First Annual UNC
Charlotte University-School Teacher Education
Partnership Conference, Charlotte, NC.

Jaus, V. P., Cavanaugh, C., Ennis, S., & Rebich, S. (2000, October 6). *Yearlong internships: Improving preservice teacher preparation.*Paper presented at the 18th Annual North Carolina Teacher Education Forum, Raleigh, NC.

Spooner, M. (2000, June 6-9). *Creating successful university-school partnerships*. Paper presented at the Sixth German-American Symposium, The University of North Carolina at Charlotte, Charlotte, NC.

Spooner, M., & Frazier, J. (2001, March 1-4). *Maximizing best practice and learning through mini-grant collaborative research projects.* Paper presented at the 53rd Annual Meeting of the American Association of Colleges for Teacher Education, Dallas, Texas.

Spooner, M., Frazier, J., & Finke, J. (2001, September 27–28). *A multi-school university partner-ship for school improvement*. Paper presented at the 19th Annual North Carolina Teacher Education Forum, Raleigh, NC.

Publications

Spooner, M., Flowers, C., Lambert, R., & Algozzine, R. (2001). *Is more really better? Examining the benefits of a year-long teaching internship.* Manuscript submitted for publication, The University of North Carolina at Charlotte.

Spooner, M., & Frazier, J. (2001, April). *UNC Charlotte and School Partners Conference proceedings journal, 1st Annual U-STEP Conference at The University of North Carolina at Charlotte.* Charlotte, NC: UNC Charlotte. (This publication provides a description of all partnerships at UNC Charlotte during the 2000–2001 academic year.)

The University of North Carolina at Greensboro

in partnership with Guilford and Rockingham County Schools

The reach of the Triad partnership, consisting of The University of North Carolina at Greensboro (UNCG) and the Guilford and Rockingham county schools, is broad. In 2000-2001, collaborative school improvement and research projects, activities of the Clinical Faculty Cadre, the Summer Leadership Institute, and five professional development workshops involved teachers and administrators from 51 schools in Guilford County and 11 schools in Rockingham County. Projects and programs often drew the participation of interdisciplinary and multigrade teams. Although the faculty of the UNCG School of Education initiated many projects, several projects engaged departments in the university's College of Arts and Sciences and School of Health and Human Performance. The partnership continued to support the work of established elementary, middle, and high school professional development schools (PDSs), while encouraging the development of more PDSs. Two schools in Rockingham County initiated PDS activities with universityschool planning sessions and workshops dealing with technology, literacy, and coaching. Placement of interns (preservice teachers) at the new sites will begin in August 2001.

In 2000–2001 the partnership was committed to increasing its emphasis on evaluation. It required people requesting financial support from the partnership to include a detailed assessment plan. Also, at the end of the year, principal investigators were asked to report on their projects' impact.

Activities

Schoolwide Implementation of Balanced Literacy
One of the biggest challenges that educators face in implementing schoolwide change is to find time for planning, especially in elementary schools. Because of the press of daily duties, teachers rarely have time to focus

on and implement new instructional strategies, much less to collaborate with their colleagues.

During spring 2001, Jamestown Elementary School (Guilford County) used partnership funds to hire substitutes so that all of its classroom teachers could meet in grade-level groups with the school's curriculum facilitator to plan and develop materials. The focus of the meetings was collaborative planning for more efficient implementation of the Guilford County Schools' new balanced-literacy program, a teaching approach in which all elements of reading, writing, and language are woven into the students' learning to read. All the grade-level groups did long-range planning and discussed the use of graphic organizers (pictorial, sequenced presentations of information) and newly adopted publications. Also, the groups developed learning materials and compiled them in resource notebooks for teachers and interns.

To evaluate the impact of partnership funds, the literacy facilitator and a university faculty member collected three types of data. Both before and after their grade-level work, teachers completed questionnaires based on the Concerns-Based Adoption Model (a reliable evaluation tool that identifies shifts in teachers' concerns about instructional programs). The teachers also responded to open-ended questions about the grade-level planning sessions and conducted analyses of the students' end-of-grade test scores.

The teachers' level of concern was high for most



At a workshop, mentors and cooperating teachers prepare a guide for new teachers

of the items on the questionnaire. Their concerns, however, were professional and proactive. As the teachers worked together, they became comfortable and appreciative of collaborative activities with other teachers, university faculty, and interns. They continued to be concerned about the amount of paperwork that they were required to do, students' readiness to be independent learners, and evaluation of the impact of the balanced literacy program on their students.

An examination of the end-of-grade scores on reading tests showed that, in the third grade, 73.2% of the students passed in 2001, compared with 70.6% in 2000, and in the fifth grade, 90.0% passed in 2001, compared with 72.4% in 2000. Among fourth graders, the passing rate in reading dropped by 2%; however, fourth-graders' writing test scores increased by 30%.

A number of factors were involved in the improved performance, among them, the collaborative planning time that this project provided; a tutoring program started two years ago with partnership funds; and development or acquisition of reading materials for students and instructional materials for teachers, also supported by the partnership during the last several years.

Network of English-as-a-Second-Language Teachers

In 2000-2001, faculty members from the School of Education and the College of Arts and Sciences initiated a program of professional development and curriculum assessment that will have an impact on students in English-as-a-second-language (ESL) courses for a number of years to come. As the faculty members explained, in elementary and secondary schools, there often is only one ESL teacher per school. So ESL teachers may have the opportunity to share information about methods and resources only when they take courses or attend meetings of professional organizations. The overarching purpose of the project, then, was to provide the teachers with an opportunity for intraprofessional and interinstitutional dialogues while sharing information about ESL teaching resources.

With support from a partnership grant, 12 ESL teachers at the elementary, middle, and high school levels purchased instructional materials. They then reviewed and evaluated the materials, using the same assessment instrument. Afterward they met to present information about the effectiveness of the instructional materials and to share suggestions on the use of the products that they had chosen. The teachers' evaluations

of the resources are available on the Web at http://www.uncg.edu/cui/courses/antonek/605/syllabus.htm. The site will be maintained as a vehicle for future communication and collaboration among ESL public school teachers and UNCG students in the ESL Master of Education and licensure programs. Finally, the workshop participants planned to present their findings at professional meetings.

The project participants reported that they had benefited from having the opportunity to share evaluations of the new materials and to examine ways to adapt instruction to meet the learning needs of all students. In addition, they had benefited from their discussions on other issues of ESL teaching, such as state assessment, funding and activities for field experiences, and identification of ESL learners who also have special needs. Most important, the participants—teachers and university faculty members—reported that they appreciated the opportunity to interact with other professionals and to form collaborative relationships. All the participants expressed interest in maintaining communication through a listsery (an electronic distribution list) and the Web site, in meeting for inservice workshops, and in collaborating on professional development and student achievement projects.

Reading Renovation

Reading Renovation, a project involving tutoring and research, encompassed many of the goals of the Triad partnership. It was collaborative; it improved the yearlong internship; and it improved P-12 teachers' ability to use test data to modify instruction. Also, it attended to individual differences among students, and it enhanced student achievement through tutoring. Further, it evaluated its efforts and disseminated the findings.

Jesse Wharton Elementary School has a long history as a PDS and a strong commitment to collaboration among university faculty, school administrators, and school faculty. Faced with helping at-risk students pass the fifth-grade gateway (criteria for promotion to sixth grade), university and school faculty together developed an assertive plan for involving interns and teachers in a tutoring program.

Under the guidance of on-site teacher educators (master teachers who supervise interns and student teachers), 21 interns in the Master of Education program served as tutors for fifth-grade students who were reading below grade level. The interns based their interventions on the students' performance on fourth-grade end-of-grade

tests, results from an informal reading inventory, and personalized education plans written by classroom teachers.

As the interns worked with the fifth graders, they applied the knowledge and skills that they were acquiring in their university methods courses on literacy and differentiated instruction, interweaving theory with what they were experiencing in the classroom. To further the collaboration and to make use of both academic and practical expertise, Jesse Wharton teachers and the university PDS supervisor co-taught the UNCG teaching methods courses.

Twenty-three students were identified at the beginning of the school year as reading at the two lowest levels. At the end of the year, 19 had moved up one grade level, and 3 had moved up two grade levels. Fifteen of the students passed the fifth-grade end-of-grade reading test. The teachers reported that the one-on-one relationships and the consistent, individualized tutoring had resulted in gains for their students.

Professional Development Workshops

The Triad partnership is committed to collaboration among professionals and community members who have an influence on the academic achievement of students. To that end, in 2000–2001 the partnership developed and presented a number of workshops in which university faculty, teachers, researchers, and policy makers shared information about current research and best practices. All the workshops included opportunities for conversations and networking among the participants.

At a meeting early in the 2000–2001 academic year, teachers, administrators, and university faculty determined that one area of need was support and skill-building for on-site teacher educators. In response, in collaboration with the Coach²Coach program, the partnership developed a two-part workshop, Cooperating Teachers Forums. Schoolteachers and university faculty led conversations about orientation, communication, evaluation, and classroom management.

Also, with the contemporary emphasis on evaluating student learning, it was timely to offer an Assessment and Achievement Workshop. This event, presented by faculty members in UNCG's Department of Educational Research Methodology, involved professional education students, university faculty, and schoolteachers in examining the structure of standardized testing and the ways in which testing scores could be interpreted and used as guides for curricular changes.

The Summer Leadership Institute, on the theme "Understanding Diversity, Eliminating the Achievement Gap," was a four-day seminar. The keynote speaker, Dwight Pearson of the North Carolina Department of Public Instruction, presented compelling research findings about the achievement levels and the academic needs of students in North Carolina. University and school faculty members spoke about best practices for meeting the educational needs of all students and shared information about teaching methodologies, after-school programs, and tutoring initiatives that have improved student learning.

Collaboration was an invaluable aspect of the Summer Leadership Institute. UNCG and North Carolina Agricultural and Technical State University developed the institute together. Participants came from 16 schools in three school districts. At each session, teachers, administrators, professional education students and faculty, and community leaders shared their experiences and made connections for future work together. On the closing day of the institute, principals from 12 schools joined the teachers to learn and talk together.

Clinical Faculty Cadre

The Clinical Faculty Cadre of the Triad partner-ship provides expert teachers with an opportunity to share their knowledge and skills. They teach professional education courses, assist in the development of curriculum, and participate in other professional activities, such as review of standards, assessment of portfolios, and presentations at professional meetings. At the same time, the partnership provides professional development opportunities for the members of the cadre and recognizes their work with stipends and certificates of appreciation.

During 2000–2001, 14 public school educators taught university courses, often with university faculty members or school colleagues. In many cases they taught the courses in the schools in which interns and student teachers were working. The clinical faculty members brought to the courses not only their practical experience but also their thorough knowledge of the school setting. Clearly this arrangement bridged the gap between theory and practice.

In other cases, members of the Clinical Faculty Cadre participated in the initiation of programs with long-term value for preservice teachers and continuing educators. For example, faculty members of UNCG's Department of Library and Information Studies and Department of Curriculum and Instruction teamed with schoolteachers to

explore ways of assisting people who were seeking certification by the National Board for Professional Teaching Standards (NBPTS). As a first step, with funding from the partnership, the group attended the Third Partnership Conference for Graduate Programs, held in Washington, D.C., and sponsored by NBPTS and the National Council for Accreditation of Teacher Education. Building on that experience, the members of the group plan to attend other training sessions in order to develop workshops at UNCG to assist candidates for NBPTS certification.

Impediments

Clearly there are significant demands on personnel and financial resources, yet there also are limits to what people and money can accomplish. Although many university and school faculty members are fully aware of the work of the partnership and participate in its activities, others require more information and support. The coordinator must devote considerable time to ensuring that the partnership expands its involvement in collaborative activities, that projects are well connected to the goals of the University-School Teacher Education Partnership program, and that the results of partnership activities are disseminated. In the 2001-2 academic year, the coordinator, along with a field supervisor, will increase the amount of time that she spends working with partnership schools, both in communication and in the field.

In addition, the financial support of the partnership is essential for many projects. Although funding provided important resources for many of the schools, all the projects could have had a greater impact if more funds had been available. In the 2001–2 academic year, the coordinator will encourage partnership schools to find additional sources of funding for their projects, and assist them in doing so.

Lessons Learned

In the 1999–2000 academic year, participants in partnership activities expressed concern that one of the partnership's programs, Collaborative School Improvement and Research Projects, did not have sufficient funds to support its work. To address that concern, the limit on awards was increased from \$1,500 in 1999–2000 to \$5,000 in 2000–2001. This change seemed to alleviate the concern.

At the same time, however, the partnership required that proposals include (1) a description of the ways in which the project would address partnership goals, (2) a detailed budget, and (3) a plan for evaluating the impact of the project. Initially, potential participants expressed dissatisfaction with the requirements. Some said that the requirements were too demanding of their time. Others (who were not on the university faculty and did not have research experience) said that they did not have the skills to write proposals in the required format. The coordinator provided guidelines and information about proposal procedures and, in some cases, worked with project leaders to define their research questions, budgets, and assessment processes. All the proposals that were initiated were ultimately submitted.

Despite the increase in funding, however, proposals came in slowly. Only six had been submitted by the original proposal deadline. The coordinator continued to explain partnership activities and to solicit proposals at professional meetings throughout the academic year. Frequent communication and a strong on-site presence by the coordinator and the field supervisor were appreciated by the participants and might well have encouraged expanded participation in partnership activities.

Finally, all the projects involved schools in Guilford and Rockingham counties. In some cases, however, the nature of the teaching field may require that schools in other counties be included. For example, there are not large numbers of ESL and physical education teachers in the partnership counties. The partnership will examine the appropriateness of including teachers from other local school districts in order to increase opportunities for collaboration and communication within these disciplines.





Elementary school students participate in a collaborative literacy program.

Next Steps and Future Aspirations

In the 2001–2 academic year, the partnership wants to expand its reach. It would like to provide programmatic support for more projects and to involve more participants. Most important, it would like to emphasize collaboration on programs that improve student outcomes, preservice preparation, and ongoing professional development.

Specifically, the partnership will continue to do the following:

- Support projects that emphasize the goals of the University-School Teacher Education Partnership and that carefully evaluate their impact on student achievement, preservice preparation, and continuing professional development
- Emphasize collaborative activities that involve more of the professionals who work at PDSs
- Encourage professionals who are not involved directly in PDS activities to adopt PDS models for their work
- Support the development of new PDSs that include interns and faculty in elementary education, middle-grades education, secondary education, K-12 specialty areas, school administration, and counselor education

• Engage in collaborative activities with the coordinators of other education initiatives to align the work of the partnership, Coach²Coach, NC TEACH, and others

In addition, the partnership will undertake these activities:

- Encourage participants in previous projects to expand their research scope and develop extensions of their original projects when appropriate
- Encourage additional faculty and teachers from the arts and sciences to develop and implement partnership projects
- Encourage interdisciplinary projects
- Encourage participants to disseminate their findings through presentations at professional meetings and through publications
- Expand the schedule of professional development workshops, with programs designed to
 meet the needs of classroom teachers, preservice teachers, and university faculty, and with
 emphasis on supporting cooperating teachers, mentors, and beginning teachers
- Provide expanded on-site support, including workshops on proposal writing, for faculty members and interns as they develop and implement collaborative school improvement and research projects
- Increase the membership and the involvement of the Clinical Faculty Cadre, including providing professional development workshops for members of the cadre
- Investigate and request funding from additional sources

The University of North Carolina at Pembroke

in partnership with Anson, Bladen, Columbus, Cumberland, Hoke, Moore, Montgomery, Richmond, Robeson, and Scotland County Schools, Whiteville City Schools, and Fort Bragg Schools

During 2000-2001 the University-School Teacher Education Partnership based at The University of North Carolina at Pembroke (UNCP) focused on strengthening the teacher education program and the quality of education for children in the partnership area. Operating under a newly restructured format, the partnership included three major initiatives: (1) the Professional Development Collaborative, (2) Services and Programs for Children and Youth, and (3) School Improvement Collaborative Projects. The partnership selected the Professional Development Collaborative (PDC) as its first priority for development. The PDC is organized into three committees reflecting the full range of professional development: preservice, induction, and career. Cochaired by a school teacher or administrator and a teacher education faculty member, each committee determines its own membership, constructs its own budget, and develops a plan of action for the school year. The Preservice Committee is made up of five subcommittees representing the various teacher education programs: birth to kindergarten, elementary K-6, middle grades, K-12 programs, and secondary 9-12. School teachers and administrators, program graduates, and university faculty are represented on all of them. In 2000-2001 each subcommittee had a plan of action related directly to the needs of its particular area. The

The Induction Committee's mission is to develop ways to support beginning teachers in the UNCP service region. The committee includes initially licensed teachers, school administrators, university faculty, school district administrators, and master teachers.

common goal of all five subcommittees is to strengthen education in the public schools and

in teacher preparation through collaboration.

The Career Committee's mission is to improve the quality and the delivery of professional development programs and services for experienced teachers in the UNCP service region. The committee consists of schoolteachers, teachers certified by the National Board for Professional Teaching Standards, school administrators, university faculty, and university administrators.

Activities

Action Research

A major emphasis of UNCP partnership efforts during 2000-2001 was action research. Action research is seen as a useful methodology for teachers to test new ideas and participate in professional development that goes beyond the routine inservice experience offered through the local school district. The goal is to allow teachers to follow their interests and address their needs while expanding their repertoire of teaching skills and improving student learning.

To promote action research, the partnership offered minigrants to individual teachers or teams of teachers within the service region. The Office of University-School Programs solicited proposals for action research projects from all schools in the southeastern region of North Carolina. Grant proposals were received from 18, and grants of \$1,000-\$1,500 were awarded to 8. Special consideration was given to projects designed to close the achievement gap and to improve students' performance on state tests. The eight projects took place in 2 high schools, 1 middle school, and 5 elementary schools in six North Carolina counties, all classified as "lowwealth." Each project had the involvement and the collaboration of a UNCP faculty member.

Four of the eight projects are described in the following sections.

Differentiated Instruction

Project goals: to increase academic achievement, to decrease the student dropout rate, and to close the achievement gap between minorities and nonminorities

Description: Some students entering East Columbus High School have been found to have deficiencies in reading, writing, and mathematics. As a result, they struggle with the North Carolina Standard Course of Study. Tenth-grade teachers thought that constructivist classrooms might provide instruction intensive enough to eliminate or reduce some of the students' academic deficiencies. The constructivist approach presents students with opportunities to build on prior knowledge and understanding to construct

new knowledge and understanding from authentic experience. Students confront problems full of meaning because of their real-life context. In solving these problems, students are encouraged to explore possibilities, invent alternative solutions, collaborate with other students (or external experts), try out ideas and hypotheses, revise their thinking, and present the best solution they can derive.

Selected teachers agreed to redesign their teaching strategies to incorporate elements of constructivism, including layered curriculum (a completely student-centered teaching method that uses a triangular-shaped model containing three layers, each requiring a higher level of understanding) and differentiated instruction (meeting each student where he or she is and helping the student progress, usually by offering several different learning experiences in response to varied needs). Seven teachers worked with groups of seven students. The teachers assessed each student's readiness to learn, interests, learning styles, experiences, and life circumstances through this project. Then they provided instruction intended to maximize students' growth by meeting each student where he or she was and helping the student progress. Learning activities and materials were varied by level of difficulty (to challenge students at different readiness levels), by topic (in response to students' interests), and by students' preferred ways of learning or expressing themselves. In practice, the approach involved offering several learning experiences in response to students' varied learning styles and needs.

Materials obtained through the grant made this small-group instruction possible. The teachers documented the progress made by their students and shared the information with the student assistance team monthly. (The student as-



Susan Williams of C. Wayne Collier Elementary School in Cumberland County works with students using Math Fun Packs as part of an action research project.

sistance team evaluates and addresses difficulties encountered by students that interfere with their academic performance. When students experience problems in their lives, school achievement and peer relationships often are affected.) Also, the teachers communicated daily with the assistant principal regarding each student. Each teacher reported satisfaction with this method of instruction and with students' learning gains as evidenced through performance on classroom exercises, homework assignments, and inclass testing.

One of the grant recipients described her involvement and its outcomes this way:

We have known for some time that no two students are alike or learn in the same way. Through the action research grant, I sought to further develop my classroom to provide multiple paths to learning so that students of differing abilities and needs were afforded equally appropriate ways to understand and apply the material. The outcomes obtained through the action research were students becoming more responsible for their own learning, increased student performance, and increased excitement for learning.

Math, Family Style

Project goals: to increase end-of-grade assessment scores, to promote overall family interest in mathematics, and to provide parents with instructional mathematics tools that will enable them to work better with their children at home

Description: Math, Family Style at Union Chapel Elementary School in Robeson County was designed to help meet the needs of second-grade students in mathematics. Sixty-four students participated, almost half of whom were identified as at-risk. Mathematical concepts were introduced slowly with lots of repetition of what was previously learned. Reteaching and remediation were seen as important parts of classroom instruction.

Each teacher devoted two hours per week to a mathematics night for parents. During the mathematics night, teachers showed parents how to use everyday-living routines to teach logical thinking and various other mathematical concepts and how to make mathematical games and exercises from everyday items that they use around the home.

Parents responded favorably to the program. Student achievement increased, and teachers reported gains in mathematics skills in all classes and increased parent involvement. Following is a representative comment from a participating teacher:

Despite what we often think, parents do want to be involved in their child's learning and will if given the opportunity. Your grant gave us a way to provide parents with that opportunity.

Improving Organizational Skills and Reading Performance Through Formula Three Reading

Project goals: to improve students' organizational skills and reading performance

Description: South Scotland Elementary School in Scotland County has found the Formula Three reading program successful in working

with students from varying academic backgrounds. Formula Three is an intensive phonicsbased program that centers on written communication. It emphasizes decoding, encoding, and processing the written word. The program is based on two levels: first skills, then application. To help students decode words in their reading, they are taught different letter combinations that make certain sounds. By learning rules that apply to phonetic structure and word spellings, students are able to improve in reading, writing, and spelling.

Working with a group of 40 students who had demonstrated a lack of participation and a lack of organizational skills, the Formula Three reading coordinator developed an action research project designed to counter both problems. During the first week, teachers collected baseline data for time on task for each student. Time on task was recorded through a series of preand post-evaluations. After students received instruction on how to improve their study habits, students who had poor study habits and those who spent less time on task were paired with stronger students.

To improve individual organizational skills, students were issued a variety of items, such as three-ring binders, page dividers, tabs, zipper pouches, dictionaries, thesauruses, and daily planning pages, and received directions on the use of these items in self-management and organization. Additionally, student seminars included such sessions as Getting the Point: Taking Good Notes, in which students learned about a tech-



Students at Prospect Elementary School in Robeson County receive instruction from their third-grade teacher, Garcie Locklear, on the computerized Starr Reading Program. The software was obtained through an action research project conducted by the school.

nique to help them take better notes; Seeing the Big Picture: Strategies for Learning and Thinking, which presented critical thinking strategies that would improve school performance; and Time Management: Discover Strategies for Using Your Time More Effectively, which involved students in assessing their use of time.

Participating teachers administered a pre- and postevaluation for each student. An increase in time on task was evident in an average pre-evaluation score of 4.25 and an average post-evaluation score of 5.00. A similar increase was shown for paying attention in class: an average pre-evaluation score of 4.33, an average post-evaluation score of 5.63.

Classroom teachers made positive comments on all the students participating in the project. For example:

Our project was a big success. The action research provided direction and allowed us to focus on a specific problem and work toward its resolution. Students have benefited greatly from the project. Their organizational skills have improved, which we think will benefit them throughout their educational careers. Although [it is] too early to show substantial gains in reading improvement, we think that over time, improvement will be shown in several areas because of their increased organizational skills.

Improving and Extending Grade-Level Skills in Language Arts and Mathematics at the K–3 Level

Project goals: to improve grade-level skills in language arts and mathematics at the K-3 level, to