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University of North Carolina Education Schools:

Helping or Hindering Potential Teachers?

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EXECUTIVE SUMMARY

Most people believe that the purpose of schools is to ensure that young people learn the skills and knowledge they will need to succeed in life. Accordingly, they expect teachers to impart skills and knowledge to their students. The objective of our teachers, first and foremost, should be their students' academic achievement. That view, however, is not generally accepted in schools of education, where the great majority of teachers receive their training. The philosophy that dominates schools of education—in North Carolina and across the nation—stresses the importance of objectives other than academic achievement, such as building self-esteem and multicultural awareness.

The dominant "progressive/constructivist" philosophy in education schools leads to teacher training that prescribes a student-centered classroom where the teacher's role is to serve mainly as a facilitator for student-directed learning. Under that philosophy it is regarded as bad practice for teachers to actually do much teaching. They are supposed to act as "the guide on the side" rather than "the sage on the stage."

Unfortunately, the progressive/constructivist approach is markedly inferior to traditional, "teacher-centered" pedagogy, particularly when it comes to teaching students important skills like reading and math. Most students do better if they are taught with traditional methods, such as "direct instruction." This investigation of education schools in North Carolina reveals that they are dominated by people who are deeply committed to progressive/constructivist theories. Consequently, students taught by teachers who have absorbed that approach are unlikely to progress as fast or as far as they would if their teachers were more appropriately trained.

The state government should adopt a policy statement that places academic achievement as the goal of its public schools and then revamp the missions, curricula, and personnel in the schools of education it oversees to bring them into alignment with that goal.

ABOUT THE AUTHOR

George K. Cunningham has a bachelor's and a master's degree in special education from the University of Virginia and a Ph.D. in educational psychology from the University of Arizona. From 1975 until 2005 he was a professor in the department of educational and counseling psychology at the University of Louisville. He is the author of two textbooks, *Educational and Psychological Measurement* (MacMillan) and *Assessment in the Classroom: Constructing and Interpreting Tests* (Falmer Press), and he co-authored *Measurement and Evaluation in Psychology and Education* (5th Ed.) (MacMillan) with R. M and R. L. Thorndike and Elizabeth Hagen. He spent three years in the U. S. Army, including a tour in Vietnam. The author appreciates the editorial assistance of George C. Leef, Jane S. Shaw, and an anonymous reviewer.

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By George K. Cunningham

> According to [a recent poll], there is a "staggering" disconnection between the educational aims of parents, teachers, and students and those of the professors who train teachers. The public wants schools with orderly classrooms that produce mastery of conventional knowledge and skills. Teacher-educators, by contrast, consider the public's expectations "outmoded and mistaken." (Stone 1998, 72)

The No Child Left Behind Act, which became law in 2001, requires state education leaders to ensure that all of their teachers are "highly qualified." The U.S. Department of Education has chosen to incorporate state licensure or certification in its definition of the term "highly qualified teacher." The chief way to become licensed or accredited in North Carolina is to complete a teacher education program at an accredited education school.

The Department of Education's decision is unfortunate, however. Graduation from an accredited teacher education program does not necessarily mean that a teacher is "highly qualified." As the opening quotation indicates, many of those who train our future teachers have embraced and pass along to their students a view of education that is far different from that favored by most parents and public leaders. This is the case in North Carolina as well as in most of the rest of the country.

For these teacher-educators, a student's experience as a learner is more important than what that student actually learns. As the author quoted above says, these teacher-educators "want classrooms in which the top priorities are positive attitudes toward learning and the presence of activities intended to encourage 'learning how to learn.' In their view, learning how to read, write, and do math is secondary to whether students find their classroom experience a satisfying one" (Stone 1998, 72). A child's education is successful if the child is exposed to the right attitudes by teachers, even if he or she does poorly in measures of learning on reading, math, history, science, and so on.

Taught by adherents of this approach, students in North Carolina education schools often receive instruction that is weak and ineffective with respect to the goal of high academic achievement among their students. This paper will outline the nature of the two contrasting educational cultures and indicate how they affect the training of K-12 (now, more often, pre-K-12) teachers in the University of North Carolina system.

Two Distinct Cultures

Readers may be surprised to learn that there are strikingly different views regarding the purpose of education. Most people are confident that they know the proper purpose of schools, and they assume that everyone agrees with them. But fundamental differences exist. Vocal debates over the proper forms of instruction (such as the debate over teaching reading through phonics or "whole language") can mask critical differences in educational philosophy.

Many of those who train our future teachers have embraced and pass along to their students a view of education that is far different from that favored by most parents and public leaders.

There are two distinct educational cultures, each with a different belief about the fundamental purpose of schools. The first culture believes that the most important thing that our schools can do is ensure the academic achievement of their students—that is, to make sure they learn the skills and acquire the knowledge they need to succeed in life. Effective schools will have high scores on standardized achievement tests. The existence of accountability programs using standardized achievement tests by 49 states (including North Carolina) is evidence for the support of this culture by the public, governors, and legislatures.

The second educational culture emphasizes objectives other than academic proficiency as the foremost goals of schooling. Members of this group believe that a set of non-academic goals including diversity, self-esteem, "critical thinking," and efforts at promoting social justice should take precedence. Education school faculties, NCATE (the major accrediting body for education schools), teacher education organizations, and most of the education staff at the state and district level agree with this position, rejecting academic achievement as the most important purpose for schools.

The two approaches to education have been described by the late Jeanne Chall, long a professor at Harvard University's Graduate School of Education, as "teacher-centered" and "student-centered."

To illustrate this second viewpoint, and the conviction with which it is held, here are several comments by educators.

- An education professor at Michigan State University says, "The aim is to foster personal and social responsibility, to learn to work with others in egalitarian ways, respecting diversity and integrating everyone for the future of the country. There has to be an emphasis on acquiring new information, not just absorbing the old, not a body of content, of facts. Teaching is not telling" (quoted in Kramer 1991, 75).
- "It is my belief that the fundamental purpose of schooling is to liberate the goodness and genius of children by giving them all the tools they need to become fearless and self-directed learners, to learn how to continuously learn and to reengage and reconnect their thinking in holistic, systemic, and wise ways," writes Stephanie Pace Marshall, founding president of the Illinois Mathematics and Science Academy (Marshall 2000, 15).
- Gloria Ladson-Billings, former president of the American Educational Research Association, a national organization that reflects current trends in education, describes her personal vision of good teaching as promoting an "anti-racist, anti-sexist, anti-homophobic … anti-oppressive social justice pedagogy" (quoted in Kumashiro 2004, xiv-xvi).

It is this second culture that controls the accreditation of education schools and dominates their faculties. In fact, an education school that placed its primary attention on preparing teachers to raise their students' academic achievement would find it difficult to meet accreditation requirements in North Carolina.

The Effect on Teachers

The two approaches to education have been described by the late Jeanne Chall, long a professor at Harvard University's Graduate School of Education, as "teacher-centered" and "student-centered" (Chall 2000, 6). Although Chall conceded that this distinction may be oversimplified, she and others have found that it helps clarify the conflict in education today.

Proponents of academic achievement want students to increase their reading ability, to become more skilled in mathematics, to know history, and to understand science. They believe that there is a set of knowledge and skills that all students must acquire in their twelve years of schooling. A teacher is only successful to the extent that his or her students acquire that set. In turn, an effective school of education is one that prepares teachers to ensure that their students learn the key material. The content standards that every state has published define the target knowledge that teachers are expected to help students attain.

This view of education places teachers in the central role in the education process. A good teacher is one who knows and has a love for his or her field, who recognizes that students need drill and practice to master lesson content, who has a commitment to high standards, and who focuses first and foremost on the academic progress of his or her students. According to this teacher-centered philosophy, elementary and high school students do not differ so much in their ability as in their motivation and exposure to the correct instructional methods. Therefore, it is perfectly reasonable to expect all students to reach a functional level of performance if they receive the appropriate instruction and have the right motivation.

In this teacher-centered approach, as Chall describes it, "learning is seen as the responsibility of not just the student but also of the teacher. Students are conceived of as being neither good nor bad. Through education, training, and discipline, students acquire the knowledge, values, and skills that will guide their thoughts and actions in adult life. In teacher-centered approaches to educational instruction, facilitating in and of itself is not enough, and interest alone cannot be relied upon" (Chall 2000, 7).

The other culture is student-centered and often falls under the label of "progressive education." Instead of teaching traditional academic content, the progressive education culture emphasizes what it views as the needs of the

student, making sure that students can get along with others, that they are sensitive to different cultures, that they display "critical thinking skills," and that they have been imbued with a commitment to the promotion of social justice. This culture is often called "constructivist" because its advocates believe that students need to "construct" their knowledge. It is believed that this construction will occur naturally if their interests are captured with "rich and varied" assignments (Ravitch 2000).

In Chall's description, the student-centered approach "tends to view learning as good in and of itself and as a source of pleasure. If learning is not controlled too much by teachers, schools, and parents, it will come naturally to the learner" (Chall 2000, 6). A good teacher is a facilitator, a "guide on the side," rather than a director of the learning process, which is derogatorily referred to as "the sage on the stage" approach by progressive/constructivist theorists.

As she points out, "[i]n the ideal student-centered school, the teacher remains in the background, the child's learning mainly arising from natural curiosity and desire to learn. If the teacher teaches too much, that is, too directly, it may inhibit the learner, diminishing curiosity and deflating creativity. Thus, the teacher is advised to be a facilitator, a leader, or a coach—as opposed to one who talks at length in front of the whole room" (Chall, 2000, 6).

Because the progressive education culture is most concerned with the learner and his or her unique way of incorporating experience into learning, it places little emphasis on content knowledge, basic skills, improved test scores, whole class instruction, drill and practice, cumulative review, curricular objectives, sequences of instruction, specific skills, or homework. Proponents routinely characterize these elements of schooling as "traditional," passive, rigid, rote, even lockstep (Gross and Stotsky 2000, 134). As Stephanie Marshall says, "reductive" learning (her term for the teacher-directed method) "is grounded in a detached way of knowing that exclusively honors the objective, the analytical, and the experimentally verifiable." The problem, in her view, is that it "fails to recognize that learning occurs when meaning is constructed and that meaning is constructed when emotions are engaged and conceptual relationships and patterns are discerned and connected" (Marshall 2000, 7). Theorists like Marshall therefore insist that it is bad educational practice for teachers to concern themselves much with student mastery of academic material.

The Impact of the Two Cultures

Evidence indicates that the traditional or teacher-centered approaches are more effective in helping students achieve academic goals than the learner-centered or "progressive" approaches. Thus, the second culture, while very popular in education schools, shortchanges students if the goal is academic achievement.

One teacher-centered instructional program that has met with great success is Direct Instruction. During the 1960s and 1970s, federal education agencies conducted studies of several instruction models in a search for the most effective methods of improving the achievement of disadvantaged students. "Direct Instruction" produced the greatest academic achievement gains for its students among those studied (Carnine 2000; Watkins 1988). The term "Direct Instruction" (capitalized) refers to a program developed by Siegfried Englemann at the University of Oregon and University of Illinois during the 1960s. This is a carefully sequenced and comprehensive skills-and-knowledge curriculum, which includes extensive manuals and testing materials. "Direct instruction" (lower case) is a generic descriptor for teacher-centered instructional methods that have been shown empirically to be effective.

Direct instruction is teacher-centered because it operates under several assumptions: students need direction and close supervision in order to maximize their learning, the amount of instructional and engaged time should be maximized, classrooms should be structured in such a way that the teacher is in control, and appropriate questioning techniques should be employed. Analysis of research by Jeanne Chall led her to conclude that "the traditional, teacher-centered approach generally produced higher academic achievement than the progressive, student-centered approach" (Chall 2000, 171). However, for student-centered educators, higher academic achievement is not a high priority.

Evidence indicates that the traditional or teacher-centered approaches are more effective in helping students achieve academic goals than the learner-centered or "progressive" approaches.

In contrast to direct instruction, learner-centered techniques do not have a record of increasing academic achievement; they may, in fact, impede its development. Chall found them to be inferior (Chall 2000, 171) and, as indicated below, the National Reading Panel found that teacher-oriented reading instruction was more effective in teaching reading (National Institute of Child Health and Human Development 2000).

Writing about her personal observations, New York teacher Louisa Spencer found that the "attractive and colorful" student-centered classrooms did not live up to expectations. "Group work takes up much of the morning, a teacher visiting each group, guiding joint reading, while the rest of the children guide each other or read to themselves," she wrote. During such group work, however, she observed "many unsupervised children daydream or fool around. . . . [T]he result too often is a rising tide of noise and disorder. The upshot is the most fearful waste of time in the school day" (Spencer 2001, 29).

Nancy Ichinaga, principal of Bennett-Kew Elementary School in Inglewood, California, which serves primarily low-income students, says that most teachers who come from education schools do not have a clear understanding of what they are supposed to be teaching. "Until you get a clear idea of what it is you have to teach the how doesn't make any sense, it just floats away" (quoted in Izumi 2001, 66). The only goal that many teachers from education schools have is "to get kids to work cooperatively." As a result, Ichinaga prefers to hire teachers who have emergency certification, which generally means that they did not study at education schools.

Phonics, which emphasizes "sounding out" words based on the sounds of letters, is not a complete instructional method, either, but it is a critical part, as indicated by the findings of the National Reading Panel.

The Reading Wars

Nothing is more central to education than reading. The clash between traditional, teacher-centered instruction and the progressive, student-centered philosophy has erupted into what has been called the "reading wars." But again, the "war" is not really between two methods of teaching reading but rather between two approaches to education. Neither phonics nor "whole language"—the two chief current competitors for approval—is in itself a complete method of teaching reading.

Whole language is a student-centered approach that emphasizes creative thinking and guessing the meaning of words through their context. Louisa Moats explains how this approach to the teaching of reading works: "Instead of teaching children how to read and comprehend, teachers using these approaches engage in 'shared reading' of books. They read books aloud until students can repeat the language and 'read' by osmosis, imitation, and/or memorization. These practices offer little or no direct teaching about reading words or making sense of language structure. That children who are so taught aren't actually learning to read becomes clear when they attempt to read an unfamiliar text for the first time and are stymied" (Moats 2007, 19).

Whole language is not actually a method of teaching reading. Rather, it consists of activities built on the assumption that reading is a natural process that does not require instruction. The advocates of whole language assert that systematic reading instruction such as memorizing the sounds that letters stand for actually interferes with the natural process of learning to read.

Advocates of whole language often use the analogy of a child learning to speak, noting that children do not need to be taught to speak. The analogy is a poor one, however. As John Bruer (1999) has written, humans have possessed the ability to speak for hundreds of thousands of years, while the ability to read is a relatively new acquisition for humans. Speech is *experience expectant*, meaning that the child's brain only needs the proper and minimal exposure to human speech in order to acquire it, while reading is *experience dependent*. The capacity to represent speech with symbols is a relatively recent cultural acquisition and it did not exist throughout most of our evolutionary history. This means that learning to read is not "natural," and acquiring this skill can be very difficult for some children.

Phonics, which emphasizes "sounding out" words based on the sounds of letters, is not a complete instructional method either; it is just one part of instruction in reading. But it is a critical part, as indicated by the findings of the National Reading Panel (NRP).

The National Reading Panel was convened under the auspices of the director of the National Institute of Child Health and Human Development at the National Institutes of Health. Over a two-year period after its authorization by Congress in 1997, the National Reading Panel conducted an exhaustive review of literature on how children learn to read and the best methods of teaching them this skill. Strict rules for determining which research to include were employed to ensure that only scientifically valid studies were included. The panel's goal was to identify the most effective approaches to teaching reading. According to its report, issued in 2000, a complete reading program requires, in addition to phonics, attention to phonemic awareness (that is, awareness that words are composed of a series of sounds), fluency, vocabulary, and comprehension (National Institute of Child Health and Human Development 2000).

Given the comprehensive study conducted by the National Reading Panel as well as its apparent objectivity

(as a body convened by the National Institutes of Health, it was independent of the education establishment), the panel's recommendations should be taken seriously. Teacher education programs need to ensure that their graduates are well trained in the principles of reading instruction. Yet, as will be evident below, most education school faculties, including those in North Carolina, have paid little or no attention to the findings of the NRP. As a result, our future teachers are not being prepared well to teach students how to read.

The Math Wars

Not only has a "war" broken out between the two educational camps over the best way to teach reading, one has also been going on over the teaching of mathematics. During the 1980s, concern about the need to improve the nation's educational performance focused especially on science and math. Many people felt that poor student preparation in those areas was diminishing this nation's competitive economic advantage. National standards and a national exam were proposed as strategies for addressing this problem.

When the National Council of Teachers of Mathematics (NCTM) first proposed the creation of national math standards, the news was received with optimism (Baker and Linn 1997). National standards in math seemed to be a feasible and useful idea. Unfortunately, ideology intruded and the setting of math standards was distorted by the commitment of the standards' authors to goals completely unrelated to mathematical achievement.

In part, the new standards were designed to be more "student-centered." Robert Reys, a professor of mathematics education at the University of Missouri-Columbia, wrote in 2002 that the old way was "dominated by memorization and drill, without any meaningful context." In contrast, with reform math, "students are challenged to find ways to solve problems based what they know and understand" (Reys 2002).

But the standards-setting process was sidetracked even further, into promotion of aims such as multiculturalism and radical constructivism. A major purpose of the NCTM standards was the redefinition of mathematics as a way to correct social inequities (Gardner 1998; Hayes 2006). The authors of these standards asserted that traditional mathematics instruction was a vehicle for the perpetuation of socio-economic privilege. They pointed out that math performance often functions as a gatekeeper, preventing students with poor math ability from advancing academically. Acceptance into college programs and jobs often depends on a student's success in acquiring high-level functioning in math.

The authors of the NCTM standards wanted a math instruction curriculum that would allow all students to do high-level math without mastering "low-level" problem-solving skills. To achieve this goal, the 1989 NCTM math standards decoupled advanced math performance from the mastery of math fundamentals. They did this by eliminating traditional algorithms, or sequences of rules, for performing such mathematical operations as long division, multiplication, and dividing fractions. Instead of requiring students to learn these algorithms, students were given the opportunity to "discover" creative ways of finding the answers. Supposedly, they would acquire fundamental math skills along the way to discovering how to solve higher-level problems.

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For example, the standard algorithm for long division is the familiar exercise of placing the number to be divided (the dividend) under a line with a short curved line to the left and placing the "divided by" number (the divisor) on the left of the curved line. To do long division, a student must possess the basic math skills of addition, subtraction, multiplication, and simple or short division. The student also must have the eye/hand coordination to put the problem on paper and the sequencing skills to complete the task.

This algorithm can be illustrated with the following problem. A teacher has 184 pieces of candy and wishes to divide them equally among 13 students. How many pieces of candy does each student get if the candy is divided equally among the students and how many pieces would be left over? For anyone old enough to have gone to school before the advent of reform math, this would be easy. The illustration is below. (The term "r 2" means a remainder of 2.)

```
    14 r2
13)184
   13
   54
   52
    2
```

Most of us were assigned pages of such long division problems in fourth grade. However difficult they might have been when we started, we did them until solving such

problems was automatic. We did not have to understand the underlying mathematical principles that make this algorithm work.

In the reform math, getting the right answer is not as important as the processes employed. Reform math even discourages parents from teaching this algorithm to their children (Schmid 2000). Rather, the goal is to discover novel ways of solving long division problems. Students think through the problem rather than memorize a series of steps that lead to the correct answer without understanding why it works. For example, the student might discover the alternative of making 184 marks on a piece of paper and repeatedly counting off 13 of them to determine how many 13s are in 184. Precision is not mandatory, the ability to estimate is prized, and larger numbers can be divided with a calculator.

Pedagogical progressivism, associated with the ideas of John Dewey, includes ideas such as learner-centered instruction, the focus on the whole child, the emphasis on learning to learn, and discovery learning.

Ironically, other more awkward and time-consuming algorithms are acceptable in reform math, such as creating a series of cluster problems. To use the cluster problem method the student multiplies 13 by various numbers until the total is as close to 184 as possible and the remainder is less than 13. This is time-consuming and likely to lead to computation errors. *The Everyday Mathematics Teacher's Reference Manual 4-6* concedes that the use of this process does not lead to a better understanding of the underlying processes than the standard algorithm (*Everyday Mathematics* 2001).

Ken Gorell (2007), a business executive writing in the Concord (New Hampshire) *Monitor*, defends the importance of having students master meaningful computational algorithms: "If by 'meaningful computational algorithms,' we mean simple, accurate and repeatable—things like the traditional addition algorithm, or long division, then the average student will never develop such an algorithm and should not have to try. Universal mathematical algorithms were developed ages ago by Archimedes, Euclid, Descartes and Pascal. There are not many budding Pascals in our school districts, but there are plenty of children capable of learning from the methods discovered by the great mathematicians in history."

Everyday Mathematics is an instructional curriculum based on NCTM reform math. The authors explain the rationale for eliminating traditional techniques for division problems.

> The authors of Everyday Mathematics do not believe it is worth students' time and effort to fully develop highly efficient paper-and-pencil algorithms for all whole number, fraction, and decimal division problems. Mastery of the intricacies of such algorithms is a huge endeavor, one that experience tells us is doomed to failure for many students. It is simply counter-productive to invest many hours of precious class time on such endeavors. The mathematical payoff is not worth the cost, particularly since quotients can be found quickly and accurately with a calculator (*Everyday Mathematics* 2001, 132).

In the past, most students learned all of the traditional algorithms in fourth and fifth grades without great difficulty, as do students in other countries. Students who enter college without the ability to multiply or divide multi-digit numbers without the use of a calculator will quickly find themselves enrolled in remedial math, where they will be taught what they should have learned in fourth grade. Reform math educators respond by saying that math professors need to change their teaching methods to fit with this new math. Beginning algebra, which requires solving for unknown variables, is highly dependent on a thorough understanding of how to multiply and divide fractions, something else eschewed by reform math.

In the fall of 2006, the NCTM did alter its policy. It released *Curriculum Focal Points for Prekindergarten through Grade 8 Mathematics: A Quest for Coherence*, which presents three major mathematics topics for emphasis at each grade level. NCTM has now decided that students actually need to memorize their times tables, do long division, and know how to multiply and divide fractions. This publication seems to be a rejection of the standards of the previous seventeen years in which teachers were urged not to have their students learn these things. What the response of education schools will be remains to be seen. To this point, there has been no widespread repudiation of NCTM's earlier approach and a corresponding acceptance of more teacher-centered math instruction.

Recognizing that there are big gaps in mathematics performance among ethnicities and socio-economic levels, reform math makes an implausible assumption. It notes that in traditional math systems, some students cannot progress to higher-level math because they cannot grasp and move beyond the fundamentals. Instead of focusing on teaching the fundamentals better, they assume that it

will be easier for low-performing students to understand the more abstract higher-level math concepts than to grasp the fundamentals. There is no evidence to support that counter-intuitive idea.

Progressive Education Theory in North Carolina

Progressive approaches to education can be divided into two kinds (Labaree 2004). Administrative progressivism, which has its roots in the ideas of Edward L. Thorndike, is associated with structural changes that took place in public schools during the twentieth century such as the consolidation of small schools into larger schools, the grouping or tracking of students, and the reorganization of specific subjects such as history and geography into social studies. Pedagogical progressivism, associated with the ideas of John Dewey, includes ideas discussed in this paper, such as learner-centered instruction, the focus on the whole child, the emphasis on learning to learn, and discovery learning.

David Larrabee concludes that administrative progressivism changed public schools, but pedagogical progressivism primarily resides within education schools and fuels their rhetoric. Why? He cites the historically low status of education schools within universities. Any focus on giving prospective teachers the specific skills necessary for effective teaching would cement the perception that teacher educators were involved in a low-level *training* activity that would be inconsistent with the nobler pursuits of the rest of the university. Overwhelmingly, the education establishment remains wedded to Dewey's ideas and disdains traditional, teacher-centered approaches to teaching.

North Carolina is no exception to the general trend. An examination of the state's education schools reveals that they are strongly influenced by "progressive" theory. Thus, there is serious reason to doubt that they are doing the best job possible in preparing future teachers.
All schools of education in North Carolina are accredited by NCATE, the National Council for Accreditation of Teacher Education. Until 2004, accreditation by NCATE was mandatory; it is now optional, but all schools in North Carolina have maintained it.

In reviewing an education school for accreditation, NCATE demands a conceptual framework, a statement that "establishes the shared vision for a unit's efforts in preparing educators to work effectively in P–12 schools. It provides direction for programs, courses, teaching, candidate performance, scholarship, service, and unit accountability" (NCATE 2002, 1). For both the Department of Public Instruction, which supervises the state's Pre-kindergarten-12 schools, and NCATE, this conceptual framework is the most important part of the accreditation process. NCATE sees its job as evaluating whether the education school is true to the ideals set forth in its conceptual framework.

The North Carolina Board of Education, which formally oversees the Department of Public Instruction, emphasizes accountability based on performance on standardized academic achievement tests. But the NCATE standards articulate a different set of educational values.

The conceptual frameworks of education schools in North Carolina show a strong orientation toward progressive/constructivist educational theory. They support Labaree's assertion that education schools are mired in ineffective educational rhetoric, which serves no other purpose than raising the self-esteem of education school faculty. They are rife with such terms as empowerment, reflective teaching, life-long learning, social justice, social construction of learning, diversity, technology, and the community of practice.

Ten conceptual frameworks were reviewed for this report (see the Appendix, which summarizes them and gives online sources for the frameworks). The Reich College of Education at Appalachian State University has the conceptual framework that is the most revealing of the progressive, learner-centered way of teaching.

The conceptual framework at Appalachian State illustrates academic commitment to a "reflective" and "transformative" approach to education. Other conceptual frameworks also reveal the influence of progressive theory.

Here is an example of typical progressive rhetoric from Reich's conceptual framework.

> We view learning as a shared process growing out of interactions among teacher, learner, knowledge, and context. Both faculty and candidates are coactive learners, working to transform information into knowledge that is meaningful, imaginative, and useful. The ability to ask provocative questions and seek out creative answers is valued and encouraged. The faculty's role is re-conceptualized as the management of complex intellectual and interpersonal activities rather than the management of candidates, clients, students, and lessons. This conceptualization focuses on the transformation of knowledge, the ability to

apply what has become known to relevant problems, puzzles and predicaments, rather than learning, acquiring, and reproducing facts.

We believe that theory should guide practice in all aspects of our work. While we use a variety of theoretical perspectives in the preparation of educators, sociocultural and constructivist perspectives (e.g., Vygotsky, Piaget, Bruner, Dewey) are central to guiding our teaching and learning. Our core conceptualization of learning and knowing—that learning is a function of the social and cultural contexts in which it occurs (i.e., it is situated) and that knowledge is actively constructed—emerges from the intersection of these two perspectives.

The biggest problem with these conceptual frameworks is that they devalue what most people view as the most important role of teachers—the promotion of academic achievement.

This conceptual framework is not only abstract and arcane, but also explicitly rejects the teaching of the particular skills that make a teacher effective in increasing a student's academic achievement. The framework notes that "[h]istorically, models of educator preparation have emphasized the acquisition and mastery of individual competencies or skills, usually through courses containing extensive listings of predetermined objectives, competencies, and content. In such courses, the professor transmits packages of knowledge assumed to be related to listed competencies and skills." It discards this approach. "Although such models may have had their place at one time, the rapidly changing dynamics of our society, the incredible pace at which knowledge is being discovered, and the need for more flexible approaches to learning call for a shift in philosophy and practice related to the preparation of educators for the 21st century." This education school believes "that a more powerful conceptual view of teaching, learning, and preparation is possible, one that is reflective and based on a social constructivist perspective that recognizes the constructive, integrative, and transformative nature of knowledge and practice." Thus, the conceptual framework at Appalachian State illustrates academic commitment to a "reflective" and "transformative" approach to education.

Other conceptual frameworks also reveal the influence of progressive theory. For example, East Carolina University's conceptual framework states that "our efforts to prepare reflective education professionals dedicated to democratic principles and practices, including the empowerment of all learners in all aspects of educational decision-making, define the core of this vision." That is not the language of teacher-centered pedagogy where student achievement is paramount.

The need for teachers to be "reflective" is a common theme among the conceptual frameworks. This term represents a rejection of the idea that there are specific instructional techniques that students should learn in an educational school that would make them effective teachers. If such techniques existed, education school faculty would be required to spend their time ensuring that their students had acquired them. This would make education school professors mere technicians, responsible only for passing on concrete skills, an idea that progressive education theorists do not find appealing since it diminishes their status within the university and their impact on society.

At UNC-Chapel Hill, the conceptual framework reveals an effort to juggle educational "equity"—an effort to challenge existing social hierarchies—with educational excellence:

> Attending to the challenge of promoting both equity and excellence is imperative. To address only one of these goals would, on the one hand, sacrifice those put at risk by social and cultural hierarchies in society or would, on the other hand, fail to press for the highest possible levels of accomplishment. Equity and excellence must be pursued concurrently to assure that all students are well served and that all are encouraged to perform at their highest level.

Thus, schools and teachers should not merely try to help each student make as much academic progress as possible, but must—somehow—also try to remedy past social wrongs by promoting the vague notion of educational equity.

The biggest problem with these conceptual frameworks is that they devalue what most people view as the most important role of teachers—the promotion of academic achievement. Teacher educators do not like to think of themselves as mere technicians, providing the concrete teaching skills that new teachers need to have. It appears that they would much rather discuss esoteric educational philosophies and their imagined role in social redemption than concern themselves with the best means of teaching students the knowledge and skills they will need.

Critical Pedagogy: Beyond "Learner-centered"

These conceptual frameworks give education school faculty members an open invitation to teach their students about progressive theory. This advocacy of rhetoric as

opposed to practical learning leads education students into realms far afield from normal education as most people understand it. It leaves precious little time to teach the subjects—such as how to teach reading, writing, and arithmetic—that most people expect from a school of education.

One direction that this approach leads to is toward "critical pedagogical theory." This theory is a Marxian approach to understanding educational problems. It identifies economic inequities caused by capitalism as the primary reason for the existence of achievement gaps. Racism is also seen as a symptom of the economic system. Barry Kanpol, author of *Issues and Trends in Critical Pedagogy,* says that critical pedagogy offers an opportunity "to challenge the ever-present and ongoing alienation, subordination, and oppression of various peoples, in particular teachers and students" (Kanpol 1997, 4).

Two North Carolina professors who advocate critical pedagogy are Svi Shapiro and David Purpel of the education school at UNC-Greensboro. They have written a series of books titled *Critical Social Issues in American Education*. In the introduction to the first of the three books, they describe the state of the country as a society "faced with a range of critical, sometimes catastrophic issues and problems such as poverty and growing social injustice, racism, and sexism, and other form of exclusion, the depersonalization of social and political life; the moral and spiritual decay of the culture, and the ecological deterioration of the planet. Our concern is not only American society (although this is the emphasis) but also the larger global community" (Shapiro and Purpel 1993, xiii).

To Shapiro, Purpel, and others who adhere to the tenets of critical pedagogy, the key role of education is to help overcome socio-economic inequities. A number of courses at UNC-Greensboro deal with this theory. "Introduction to Critical Pedagogy" discusses several "key themes." According to the course syllabus, "These include the relationship of education to power; issues of difference and pluralism; the crisis of democratic culture; what it means to teach for democratic citizenship; the social construction of knowledge; dialogic relations in the classroom; teaching for social justice; teaching history against the grain; education and the existential life; popular culture and the curriculum; education and the public space; postmodernism and the end of certainty; and the moral and spiritual dimensions of education" (Shapiro 2006). Exactly what this means for classroom teaching is unclear.

In another course, "Selected Critical Social Issues in American Education," Shapiro uses a book she wrote with Purpel, *Critical Issues in American Education: Transformations in a Postmodern World* (Shapiro and Purpel 1993). Topics covered include "The Hidden Curriculum and Ideology: What is the Role of Schools in Transmitting Social Values, Beliefs, and Morality?" "Social Class: Tracking and the Production of Inequality," and "The Moral Crisis: Traditional vs. Consumption Values in Contemporary America."

The UNC-Greensboro "Seminar in Teaching Social Foundations of Education" is doctoral-level. As listed in the catalog description and in the prospective student outcomes, this course is designed to teach about critical pedagogy. According to the course description, students "will gain awareness and sensitivity to the problematics of developing a critical social and educational awareness among undergraduates (around issues such as grading, racism, sexism, homophobia, and more politically sensitive material)" (UNC-Greensboro 2007).

At UNC-Chapel Hill, we similarly find courses that promote critical pedagogy and its allied belief systems. A good example is "Gender, Policy, and Leadership." According to the syllabus, "The course will point to the way education policies maintain gender, race, and class divisions while offering examples of ways to change those policies." Furthermore, "It will critique dominant knowledges that lead to narrowed leadership theory favoring white elite males or unquestioned assumptions about good teaching and learning" (Marshall 2006). Teachers are not expected to simply transmit information to students, but to play an active role in reconstructing an inequitable society.

This advocacy of rhetoric as opposed to practical learning leads education students into realms far afield from normal education as most people understand it. It leaves precious little time to teach reading, writing, and arithmetic.

Another revealing course at UNC-Chapel Hill is "Cultural Aspects of Leadership and Instruction in School Reform," which is intended for students who plan to become school-based administrators, educational system administrators, teacher educators (including instructors in foundations courses), educational leadership educators, psychologists, or social workers. The course syllabus states, "While the Educational Leadership faculty believes that school leaders must be proficient in a wide variety of technical skills and tasks to be successful educational administrators, we are first and foremost concerned with the agenda of constructing democratic learning communities which are positioned in the larger

society to support an agenda of social action which removes all forms of injustice" (Malloy 2007). The ideological underpinnings of the course are clear.

The syllabus goes on to say that the faculty "are committed to fashioning and infusing our courses with critically reflective curricula and methodologies which stimulate students to think beyond current behavioral and conceptual boundaries in order to study, research, and implement leadership practices that will fundamentally and holistically change schools in ways and in manners which are consistent with this vision."

Again, we see the progressive belief that schools should be oriented toward social change, not mere teaching. The progressive educational mindset is certainly flourishing at Chapel Hill.

Courses that explicitly teach critical pedagogy and allied theories tend to be graduate courses, but they still have an effect on students preparing to go into teaching. In some cases, these courses are taken by teachers coming back to school to get their master's degree, which is often required for teachers to maintain their certification or be eligible for increases in salary. In other cases, teachers seeking advanced certification in administration, counseling, special education, or school psychology take the courses. These courses also are intended for students who themselves will eventually be training teachers in education schools. The faculty who teach those courses frequently also teach undergraduate courses and likely infuse these ideas into their content.

The faculty "are committed to fashioning and infusing our course with critically reflective curricula and methodologies which stimulate students to think beyond current behavioral and conceptual boundaries…" says the syllabus of a UNC-Chapel Hill course.

Without actually sitting in classes and recording what is being taught, it is difficult to know exactly what is going on in education school classes. Much insight can be gained, however, by reading materials such as those just presented, which indicate that, at the very least, discussion of critical pedagogy and related ideologies takes up valuable class time. It is difficult to see how that could have a favorable impact on what students do when they become teachers.

Still more troubling than the forays into critical pedagogy is the emphasis on progressive/constructivist instructional approaches. Many education school professors emphasize literacy and math instruction theories that have proven ineffective in increasing student academic achievement. Furthermore, there is little evidence that students are being taught how to use the pedagogical approaches, such as direct instruction, that have been shown to be the most effective teaching methods. The conclusion that emerges from this examination of North Carolina education schools is that—like most around the country—they are not doing a good job in preparing future teachers.

That conclusion is reinforced when one looks at the instruction students receive in teaching the two most important subjects students need to master, namely math and reading.

Math Instruction in North Carolina

North Carolina Standard Course of Study, K-12 (NCDPI 2004) is a document released by the Department of Public Instruction that defines the math content that schools should be teaching and thus guides the North Carolina education schools in their selection of teaching methods. It borrows extensively from the 1989 and 2000 National Council of Teachers of Mathematics (NCTM) standards. *The North Carolina Standard Course of Study* does not require memorization of the multiplication tables, teaching of the standard algorithm for long division, or multiplying and division of fractions. Here is how the standards treat long division. In grade 4, the objectives include "Develop fluency with multiplication and division," which includes: "[t]wo-digit by two-digit multiplication (larger numbers with calculator)" and "[u]p to three-digit by two-digit division (larger numbers with calculator)."

Yet, as NCTM now recognizes, students at this grade need to know how to divide any multiple-digit numbers using the standard division algorithm, not by calculators.

This grade 4 standard also includes: "[s]trategies for multiplying and dividing numbers" and "[e]stimation of products and quotients in appropriate situations."

These two objectives are troubling. Students need to learn how to do multiplication and division with large numbers. They do not need to discover "strategies" for doing long division, nor should they focus on estimation. Students need to know how to obtain correct answers. Whether a builder is computing how much lumber is needed for a job or an accountant is working on a budget, it is not acceptable to estimate 432 divided by 23. And even though calculators are available, any educated

person should be able to do this computation without one. But the *North Carolina Standard Course of Study* suggests that this ability is not necessary.

Here is an excerpt from the catalogue description of a course taught in the education school at UNC-Chapel Hill. It clearly differentiates between traditional ways of teaching math and what is characterized as a "more current view." It represents all that is wrong with the NCTM's approach.

> Educ 512: Teaching Mathematics in the Elementary Grades (4 credits). The traditional view of mathematics teaching and learning holds that the teacher is the source of mathematical knowledge. School mathematics is viewed as a fixed set of facts and procedures. A teacher is the primary source of knowledge, providing clear, step-by-step instructions on how to do procedures and support through "telling" students what to do when they do not understand. . . . A more current view of mathematics teaching and learning (NCTM, 1989, 1991, 1995, 2000), and one to which we subscribe, is that mathematics is learned through reasoning. Mathematics learning involves a focus on concepts and processes, with much less attention given to developing procedures. Students are able to understand and reason about mathematics and to solve a variety of problems as part of the process of developing their own mathematical power. A teacher is a classroom facilitator and mediator of learning, posing questions, coaching student thinking, and stimulating classroom discourse. . . . (Friel 2005)

The strong student-centered/constructivist slant of this course is impossible to miss. A good math teacher does not tell students, but rather facilitates their own developing "mathematical power."

Another illustration of the "progressive" approach to teaching mathematics is in the syllabus for a math education course taught at Appalachian State, CI 4040, "Mathematics in the Middle Grades." Noting that "[o]ver half of all mathematics has been invented since World War II" and thus "[i]t is impossible for any one person to know all there is to know or to be able to predict the specific mathematical content of problems that one might encounter," the author claims that "[s]uccess in the 21st century will be available to students who possess more than a large number of facts and computational skills" (Lynch-Davis 2006, 1) The author of the syllabus goes on to discuss "social constructivism," asking these questions:

> How do diverse students learn mathematics? What role does social interaction play in their learning? How do learners construct understanding? In what ways am I similar to or different from the learners I will teach (e.g., race, ethnicity, culture, socio-economic, ability linguistic, gender)? What implications do these comparisons have for my teaching and my students' learning? (Lynch-Davis 2006, 2)

The author disavows any intent to show his or her students how to teach math. Instead, they are to be provided with a background that allows them to discover how to "make good instructional decisions." Moreover, the emphasis on social constructivism betrays the common view among education school professors that teaching facts and skills is less important than trying to deal with perceived social wrongs.

The emphasis on social constructivism betrays the common view among education school professors that teaching facts and skills is less important than trying to deal with perceived social wrongs.

Reading Instruction in North Carolina

In contrast to math, the *North Carolina Standard Course of Study* (NCDPI 2004) does include some of the scientific basis for reading from the National Reading Panel report (National Institute of Child Health and Human Development 2000). For example, it includes the five components of beginning reading that this document recommends.

Although only a limited number of syllabi from North Carolina are available for examination, and recognizing that syllabi do not always provide a complete picture of what is being taught, we can come to some conclusions about how reading is taught in this state's education schools. The picture that emerges is mixed, with some schools teaching scientific approaches to reading, but others adhering to ineffective methods.

The syllabi for some reading instruction courses reflect an emphasis on scientifically based reading instruction as specified in the *North Carolina Standard Course of Study,* while other syllabi largely ignore it. For example, Education 513, "Teaching Reading and Language Arts (K-6)," taught at UNC-Chapel Hill (Lloyd 2006), contains nothing that would suggest any recognition of the scientific basis for reading as derived from the National Reading Panel. At Appalachian State, however, one of the courses offered, RE3030-419, "The Foundations of

Literacy," does cover the five components of beginning reading recommended by the National Reading Panel (Schlagal 2006).

At UNC-Wilmington, complete syllabi are not available online, but several courses are listed that cover the Reading Recovery system. This is a one-on-one, whole language tutoring method. It has a poor record of effectiveness (Grossen, Coulter, and Ruggles 1997). It is based on principles of reading instruction very different from those recommended by the National Reading Panel. The company that promotes this program does a good job of selling it and it is financially lucrative for trainers and teachers who are certified to use it (Groff 1996). It is disturbing to see an education school with such a large commitment to such a problematic approach to reading instruction.

UNC-Greensboro was the only school (out of four North Carolina schools) to receive a passing mark on reading instruction from the National Council on Teacher Quality, an educational reform group.

Perhaps the best assessment of how well North Carolina education schools do in reading instruction is a study done by the National Council on Teacher Quality (NCTQ), an educational reform group (Walsh, Glaser, and Wilcox 2006). This study is an extensive look at how education schools across the nation teach their students how to teach reading. The study specifically examined the degree to which syllabi and textbooks reflect the findings of the National Reading Panel. Their sample included 70 education schools, including four from North Carolina—UNC-Greensboro, UNC-Chapel Hill, Elizabeth City State University, and Fayetteville State University.

Of these four, UNC-Greensboro was the only school to receive a passing mark, where passing required that all five principles of sound reading instruction as identified by the National Reading Panel be covered. (Nationally, only 11 of the 70 education schools surveyed merited passing scores. UNC-Greensboro's score was the next-to-lowest of the 11.) The other three North Carolina schools were given failing marks. Elizabeth City State and Fayetteville State were found not to be teaching any of the five components of reading; UNC-Chapel Hill also failed because it did not supply enough information for NCTQ to compile a complete score.

The results of the National Council on Teacher Quality study are consistent with the author's examination of syllabi from North Carolina education schools. Some North Carolina education schools include these principles in their syllabi, while others ignore them altogether. This likely reflects the messages received from the North Carolina Department of Public Instruction, which acknowledges the existence of these principles but does not demand that they be comprehensively taught.

The ability to teach students math and reading is essential. Students who do not learn these mental foundations will struggle in school. Unfortunately, it is quite possible for a prospective teacher to graduate from an education school in North Carolina without having received solid training in either reading or math teaching. When that fact is combined with the widespread advocacy of constructivist theory and ideological exhortations to use the classroom to combat social problems, we can only conclude that the state's future teachers are not well trained for their very important work.

Teacher Licensure Tests

The dominance of the student-centered approach to learning is strengthened in North Carolina by the state's choice of PRAXIS as the teacher licensure assessment. Previously known as the National Teacher Exam and published by the Educational Testing Service, this is the most widely used teacher licensure test. Thirty-eight states, including North Carolina, require a passing score on one or more of the 147 PRAXIS II subject area tests. Each state selects the tests that will be required for each specialty area. Currently, the PRAXIS II tests are required in North Carolina for elementary and special education. (Previously, they were required for other areas of concentration as well.) The twelve states that do not use PRAXIS either use tests developed by the individual states or contract with National Evaluation Systems (NES), which designs teacher licensure tests tailored to the needs of states.

Sandra Stotsky (2006) conducted an in-depth analysis of teacher licensure tests, including PRAXIS tests designed by National Evaluation Systems for use in individual states and the American Board for Certification of Teacher Excellence (ABCTE) test. Based on her examination of the preparatory materials and sample items provided by the publishers, she found that PRAXIS and most of the NES tests were based on progressive education principles. On a typical item, a teaching scenario is presented to the candidate and he or she must select the correct response. To get a question correct, the candidate must respond with answers that reflect a student-cen-

tered/constructivist viewpoint. Incorrect responses are usually examples of teacher-centered or direct instruction teacher responses. The wording of the questions sends the message that student-centered teaching is always preferred over direct instruction.

Stotsky was particularly interested in how teacher licensure tests assessed student understanding of the scientific principles of reading instruction. The science of reading instruction, as outlined in the work of the National Reading Panel, focuses on five reading instruction principles: (1) phonemic awareness, (2) phonics, (3) fluency, (4) vocabulary, and (5) comprehension. The tests developed for PRAXIS, Stotsky found, devoted such a small part of the test to the scientific principles of reading that a student could miss all of them and still pass the test. What Stotsky found is consistent with the NCTQ study discussed above. Most states, including North Carolina, do not use a test that requires knowledge about the scientific principles of reading, so it isn't surprising that most schools of education place little emphasis on those principles.

Because success on these tests depends on progressive/constructivist instructional methods, any education school professors who believe that students need to know and understand the principles of direct instruction and other techniques that increase student academic achievement are placed in an awkward position. Students who are taught those principles and techniques are apt to do poorly on PRAXIS exams since they are written to favor constructivist, student-centered teaching. Thus, North Carolina's choice of licensure exam further militates against instruction of future teachers in ways that will enhance student academic achievement.

Conclusion: Recommendations for Improving Teacher Preparation in North Carolina

The foregoing analysis leads to the conclusion that North Carolina's education schools, like most throughout the United States, are very much in the thrall of the progressive educational culture. Most professors, apparently reflecting their own education-school experience, embrace pedagogical methods that are not effective in maximizing student achievement, especially in reading and math. To make matters worse, many professors also embrace the idea that schooling has social justice implications that take priority over academic success for students. Consequently, newly trained and certified teachers are not likely to be ready to help their students make the best progress they can.

What steps should the state take to improve this situation? The author recommends the following:

1. Develop a consistent message regarding the purpose of North Carolina's public schools.

In North Carolina, the Department of Public Instruction (NCDPI) sets the tone and has a great effect on educational policies throughout the state. The state of North Carolina is the biggest supporter of the National Board of Professional Teachers Standards (NBPTS) of any state, requires education schools to meet the NCATE standards, and supports the Interstate New Teacher Assessment and Support Consortium (INTASC) standards for new teachers. All three of these organizations support rigidly progressive/constructivist positions on education. The *North Carolina Standard Course of Study* (NCDPI 2004) includes the following statement about what its authors value:

> To become productive, responsible citizens and to achieve a sense of personal fulfillment, students must develop their ability to think and reason. It is no longer adequate for students to simply memorize information for recall. If graduates are to function effectively now and in the 21st century, they must be able to acquire and integrate new information, make judgments, apply information, and reflect on learning.

The language may be alluring, but this is typical progressive rhetoric with its emphasis on process rather than content or outcomes. In contrast to the Department of Public Instruction, the State Board of Education, which officially oversees it, does seek to hold schools accountable for student progress in reading, writing, and mathematics. Consider the mission statement from the Accountability Services Division (part of the Department of Public Instruction) and contrast it with the above statement from the *North Carolina Standard Course of Study*:

> **DIVISION MISSION**: The mission of the Accountability Services Division is to promote the academic achievement of all North Carolina public school students and to assist stakeholders in understanding and gauging this achievement against state and national standards. The major thrust of this mission is threefold: the design and development of reliable and valid assessment instruments, the uniform implementation of and access to suitable assessment instruments for all students; and the provision of accurate and statistically appropriate reports. (NCDPI 2005)

This mission statement reflects a historical commitment to educational accountability in North Carolina and recognition of the importance of academic achievement as measured by standardized achievement tests It sends the clear message that the foremost goal is

academic achievement. The preceding statement from the *North Carolina Standard Course of Study* sends a different message, one that is more congenial with current practices in education schools. As long as the DPI supports the ineffective practices promoted in education schools and in their own documents, little can change.

The Department of Public Instruction's commitment to progressive education theory is inconsistent with the student achievement orientation of the State Board and the North Carolina General Assembly. The first step the state should take is to announce clearly that improving student skills and knowledge in the vital academic areas is its foremost concern.

2. Sever the connection between teacher preparation programs in North Carolina and NCATE.

Although accreditation by NCATE (the National Council for Accreditation of Teacher Education) is not mandated in this state, every education school is NCATE-accredited, and state accreditation is based on NCATE standards. According to those standards, academic achievement is, at best, of secondary importance.

NCATE is firmly in the grip of progressive education theorists who believe that there are other goals of greater importance, such as promoting diversity, working with others, being reflective, using technology, and having a commitment to social justice. As long as education schools are evaluated using criteria that fail to emphasize academic achievement, they will not be effective in ensuring that their graduates have the skills to help students achieve.

If North Carolina were to abandon NCATE, it would be following the lead of one of the nation's most esteemed schools of education, Boston University. In 1994, Boston University withdrew from NCATE, its dean, Edwin Delattre, writing to the president of NCATE, "We withdraw not merely because of NCATE's doctrinal substitute for standards, but also because many of the so-called standards for NCATE accreditation are set too low to insure even institutional commitment to the minimal standards of competency we would expect and demand from teachers of our own children. We regret that NCATE standards do not meet this test." (Letter from Edwin Delattre to Arthur Wise, October 11, 1994; copy in possession of author.)

Rather than continuing to follow NCATE's poor standards, the state should write new accrediting standards for education schools that place the emphasis where it should be—preparing teachers who are able to help students master the subjects they need to learn. A good place to start would be to require all education schools to thoroughly cover the five principles of reading identified by the National Reading Panel.

3. Cease requiring a passing score on the PRAXIS tests for certification.

The PRAXIS tests, because of their strong student-centered/constructivist orientation, do not reliably differentiate between candidates who have the necessary abilities to teach and those who do not.

A better choice for elementary level teacher candidates would be the American Board for Certification of Teacher Excellence (ABCTE) test, which requires an understanding of effective, empirically based pedagogy. As an alternative to the ABCTE test, North Carolina could have a test custom-designed by National Evaluation Systems. The state could follow the lead of California and Massachusetts and have NES create an assessment that is in agreement with the state goal of promoting effective instructional methods that ensure higher academic achievement.

If licensing tests are geared toward effective pedagogy and education schools face unfavorable consequences if their graduates do poorly on those tests, then the faculty will have a strong incentive to make adjustments in their courses.

4. Find and hire good professors.

If we are to make academic achievement the foremost goal of public schools, change will need to start with the professors in education schools. Those schools must begin to hire faculty with a commitment to something other than the prevailing progressive rhetoric and theories. This can only occur if the Department of Public Instruction and the State Board of Education send the message to education schools that, consistent with the State Board's accountability system, teachers must be prepared to increase student academic achievement and not just espouse progressive education rhetoric. As noted above, this will require that the North Carolina State Board of Education mandate standards for accreditation that are different from those of NCATE. At the education school level it will require not only careful evaluation of applicants to make sure that their educational philosophy is aligned with the student achievement culture, but a change in the standards that applicants must meet in order to be considered. Applicants who demonstrate a preference for progressive/constructivist pedagogy over traditional approaches should not be hired.

5. In the preparation of secondary teachers, focus on content knowledge.

Prospective teachers should be expected to meet the highest standards of performance that their university or college offers in their particular area of expertise. A future biology teacher should, for example, be as well versed in biology as are the school's biology majors. To accomplish that goal, the amount of coursework in conventional education school activities must be reduced. The large investment in courses on diversity, the use of technology, and inculcating students with politically correct views should be greatly decreased. One of the often-cited reasons why individuals with extensive knowledge and skills in needed subject matter areas choose not to become teachers is the heavy dose of education school courses they are required to take. Secondary school teachers would be far better at instructing their students in academic subjects if they spent more time learning those subjects and less time taking courses in educational theory which, as this paper has argued, often do nothing except set the future teacher in the progressivist/constructivist direction.

A Final Note

The question that this paper addresses is whether North Carolina's education schools are effectively preparing teachers to work in the state's public schools. The answer depends on whether one views them through the perspective of the academic achievement culture or the progressive education culture. For people who accept the academic achievement culture and believe that schools must strive to maximize student learning in the key skills of reading, writing, and math, and in knowledge of crucial disciplines such as history and science, University of North Carolina education schools are not doing a good job.

Students—our future teachers—receive too much instruction in failed student-centered theories and little (or none) in direct instruction, scientific reading principles, and other traditional approaches. Instead, they are immersed in the progressive education culture, which turns out graduates who to a substantial degree favor constructive, student-centered pedagogy and the belief that the prime goal of schooling is to solve social problems.

The author strongly believes that most people in the state agree that academic achievement is the goal to aim for. Accordingly, the General Assembly, university leaders, and the public should take steps to bring the state's education schools into alignment with the academic achievement culture.

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APPENDIX: Conceptual Frameworks

Appalachian State University,
Reich College of Education
http://www.ced.appstate.edu/about/conceptualframework.aspx

The conceptual framework created by Appalachian State University is lengthy, detailed, and very political. For example, the school is committed to "[a]pproaching teaching and professional service as dynamic, social activities which reflect our commitment to both the value of cultural diversity and to the identification and solution of social problems." As specified by NCATE, there is a large emphasis on promoting diversity. The framework includes a quote from John Dewey, and the work of Vygotsky is used to support the conceptual framework. Much of the Appalachian State conceptual framework is devoted to obscure philosophical discussions of activity theory, specifically on the community of practice model as developed by Etienne Wenger of the Knowledge Ecology University that he helped found. Activity theory is a Russian approach to psychology. It was popular in in the U.S. during the 1990s, but it has returned to obscurity.

East Carolina University
http://www.ecu.edu/cs-educ/admin/ConceptualFramework.cfm

If one wished to select one conceptual framework to be representative of all of the frameworks for education schools in North Carolina, or for that matter, across the United States, the one created by East Carolina University would serve well. Here is an excerpt that captures its essence.

> The essence of the unit's conceptual framework is the empowerment of all learners. The reference to "all learners" includes the unit's candidates, the students in P-12 school programs, beginning and career educators and administrators, and education-related professionals. This definition of "all learners" recognizes and embraces the diversity in race, ethnicity, culture, gender and ability that is present in our society and in any learner population. The unit focuses on empowering these learners to play meaningful roles in the ongoing processes of democracy and to support the role of public education in support of democratic principles and practices.
>
> And
>
> The preparation of reflective education professionals establishes the foundation of the conceptual framework and underlies the unit's efforts in all educational endeavors. In order to empower all learners, educational professionals must be willing to analyze and modify their practices. They need to assess learner needs and learning styles, plan and implement programs that are aligned with standards and learner needs, evaluate and analyze learner outcomes, and modify practices based on this reflective process. They also need to reflect on how those practices contribute to the larger purposes of education in a democratic society.

There is no mention of the importance of teaching education students how to increase academic achievement or any suggestion that having students learn to read well, excel in math, and understand science might be empowering.

North Carolina State University
http://ced.ncsu.edu/about/conceptual_framework.htm

The conceptual framework for NC State is unnecessarily cute. Its theme is "lead and serve"; the letters in these words are listed down the left hand side of the page and each letter starts off a principle. The matches are forced and it seems silly to constrain the conceptual framework to points that line up with the letters. The A in "lead" begins "Apply discipline knowledge." This could have been a place for "academic achievement."

University of North Carolina at Chapel Hill
http://soe.unc.edu/about/framework.php

This is a relatively brief conceptual framework. It reiterates the NCATE standards and most of NCATE's emphasis on the promotion of equity and excellence, even though these are often in conflict. Equity seems to imply

equality while excellence seems to suggest superior performance. It is not impossible to reconcile the two, but this reconciliation is not included here. The following assertion about equity is made:

> Within the School of Education, equity is seen as the state, quality, or ideal of social justice and fairness. It begins with the recognition that there is individual and cultural achievement among all social groups and that this achievement benefits all students and educators. Equity acknowledges that ignorance of the richness of diversity limits human potential. A perspective of equity also acknowledges the unequal treatment of those who have been historically discriminated against based on their ability, parents' income, race, gender, ethnicity, culture, neighborhood, sexuality, or home language, and supports the closure of gaps in academic achievement. Decisions grounded in equity must establish that a wide range of learners have access to high quality education in order to release the excellence of culture and character which can be utilized by all citizens of a democratic society.

Equity is also equated with diversity. This only works if equity does not really mean equity and diversity does not really mean diversity.

University of North Carolina at Charlotte
http://education.uncc.edu/mdsk/MDSK-COE_Conceptual_Framework.htm

This conceptual framework reiterates the NCATE standards. Here is a summary statement:

> In summary, UNC Charlotte develops excellent professionals who are knowledgeable, effective, reflective, responsive to equity and diversity, collaborative, and who are leaders in their profession.

University of North Carolina at Greensboro
http://www.uncg.edu/soe/ncate/frameworkConceptual%20Framework.pdf

This conceptual framework can be summed up in the following paragraph:

> The mission of professional education at UNCG is to prepare and support the professional development of caring, collaborative, and competent educators who work in diverse settings. This mission is carried out in an environment that nurtures the active engagement of all participants, values individual and cultural diversity and recognizes the importance of a strong knowledge base, reflection, and integration of theory and practice.

The conceptual framework also specifies that graduates from this program are supposed to be self-efficacious. Below is the school's commitment to cultural relevance:

> Education is a culturally-relevant, caring enterprise that engages students, candidates, faculty, as well as school and agency partners in opportunities to collaboratively construct meaningful and productive futures. Educators must be responsive to the varied racial, ethnic, linguistic, gender, disability, and socioeconomic experiences of all learners. Therefore, all candidates must acquire content and pedagogical knowledge, utilize current evidence-based practice, and make ethical decisions in a changing and culturally diverse world. UNCG's professional education programs present candidates with opportunities to master the knowledge base, acquire the skills, and develop the dispositions that are the foundation of competent professional practice.

Performance expectations are aligned with standards, principles, or core propositions from the:

- Interstate New Teacher Assessment and Support Consortium (INTASC)
- North Carolina Professional Teaching Standards Commission (NCPTSC)
- National Board for Professional Teaching Standards (NBPTS)
- Interstate School Leaders Licensure Consortium (ISLLC)
- International Society for Technology in Education (ISTE)

University of North Carolina at Pembroke
http://www.uncp.edu/soe/usp/policies/TEP_CF.htm

The UNC-Pembroke conceptual framework includes the following vague statement about the purpose and goals of the school and a second statement that more directly addresses diversity:

> Believing that the quality of education directly influences the quality of life both for those served and for those serving, the UNC Pembroke Teacher Education Program has as its mission to develop and nurture competent and caring communities of public school professionals who dedicate themselves to the education and welfare of all students, and whose understanding of the dynamic interrelationship among theory, practice and reflection compels them to actively influence positive change with sensitivity and integrity. The UNCP Teacher Education Program shares the University's commitment to academic excellence, cultural diversity, and lifelong learning within a balanced program of teaching, research, and service.

Here is the diversity statement:

> In congruence with the mission of the University of North Carolina at Pembroke in providing the setting and environment for the University experience and to graduate students prepared for global citizenry, the Teacher Education Program at UNCP is committed to the development of teachers who embrace the diversity of ideas, learning styles, racial and ethnic differences, and gender issues of difference and who possess the knowledge, skills and dispositions necessary to promote living and learning in a global society. To this accomplishment the Teacher Education Program will seek to
>
> 1. recruit students from among diverse backgrounds, cultures and races;
> 2. recruit faculties from among diverse populations who possess a knowledge base for teaching diverse populations;
> 3. develop, teach and assess a curriculum that embraces learning and teaching for diverse populations; and,
> 4. provide (field) experiences and clinical settings which enable students to test, adapt and adopt paradigms of learning for diverse populations.

Western Carolina University
http://www.ceap.wcu.edu/conceptualframework.htm

The Western Carolina University conceptual framework faces the awkward problem of trying to include all the programs that are in its education school, which includes programs besides teacher preparation. This statement describes its approach to doing this:

> Previously, our emphasis was on educators and the ways in which they affect students and educational settings. In the year 2000, we have moved to a more collaborative model in which educators, through partnerships between the University and the public schools, facilitate student development through a strong knowledge base, an examination of values and dispositions vital to teaching and based on students' experiences in schools. We have embraced the propositions of the National Board for Professional Teaching Standards (NBPTS) for experienced teachers and the standards of the Interstate New Teacher Assessment and Support Consortium (INTASC) for initially licensed teachers. The reflective aspect has become stronger and more explicit over the last decade, and we reaffirm the importance of reflective decision-making with an added emphasis on the continuous cycle of learning through teaching, knowledge, values and experiences.

University of North Carolina at Wilmington
http://www.uncw.edu/ed/pdfs/cf.pdf

The conceptual framework for UNC-Wilmington consists of a figure that cannot by reproduced in Microsoft Word. To see it, the reader will need to go to the above Web site. It does include the expected buzz words such as "serve in leadership positions, ethical & professional standards, informed decision making, reflective practice, pedagogy, diversity, content knowledge, effective communications, and technological competence."

North Carolina A & T
http://www.ncat.edu/~schofed/newsite/gen_admin_cf.html

The conceptual framework for North Carolina A&T is brief and can be included here in its entirety.

> The School of Education has selected as its program theme "The Professional Educator: A Catalyst for Learning." From the theme, a conceptual framework has been developed which included a rationale and organizing principles that guide the development of the curriculum for professional education including the categorization of knowledge.
>
> The Unit's vision, mission, and dispositions emerged directly from the university's mission. Both the Unit and University strive to transmit a cultural experience for our candidates to be transformed into catalysts for learning. Candidates learn to create their own learning from the experiences of the faculty, curricula and field experience opportunities, and other educational leaders. Thus, because candidates create their learning outcomes from the interaction with their faculty and curricula, candidates are philosophically constructivists. While the constructivist view is primarily the philosophy by which education programs are structured, content specialists and school personnel programs might have other philosophical basis.
>
> The conceptual framework is sufficiently broad as an umbrella to embrace all of the programs. The conceptual framework is the guiding force for program development and performance assessment. The outcome of the framework is the development of unit standards for all programs, which are Diversity, Assessment, Reflection and Technology (Dart).

ABOUT THE POPE CENTER

The John William Pope Center for Higher Education Policy is a nonprofit institute dedicated to improving higher education in North Carolina and the nation. Located in Raleigh, North Carolina, it is named for the late John William Pope, who served on the Board of Trustees of the University of North Carolina at Chapel Hill.

The center aims to increase the diversity of ideas taught, debated, and discussed on campus, and especially to include respect for the institutions that underlie economic prosperity and freedom of action and conscience. A key goal is increasing the quality of teaching, so that students will graduate with strong literacy, good knowledge of the nation's history and institutions, and the fundamentals of mathematics and science. We also want to increase students' commitment to learning and to encourage cost-effective administration and governance of higher education institutions.

To accomplish these goals, we inform parents, students, trustees, alumni, and administrators about actual learning on campus and how it can be improved. We inform taxpayers about the use and impact of their funds, and we seek ways to help students become acquainted with ideas that are dismissed or marginalized on campuses today.

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University of North Carolina Education Schools: Helping or Hindering Potential Teachers?

The University of North Carolina is placing great emphasis on increasing the number of teachers in the state. But how good is the education that these future teachers are receiving?

We know that the high schools of North Carolina have high dropout rates and that the academic success of our K-12 students varies tremendously. These problems may, perhaps, be traced to the education of their teachers.

This paper looks at a major problem found in schools of education throughout the country, including the UNC system. That is the overemphasis on what is politely called "student-centered learning," but is also known as "progressivism" and "constructivism." As this report reveals, that approach to learning has major weaknesses when it comes to educating potential teachers.

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George K. Cunningham has a bachelor's and a master's degree in special education from the University of Virginia and a Ph.D. in educational psychology from the University of Arizona. From 1975 until 2005 he was a professor in the department of educational and counseling psychology at the University of Louisville. He is the author of two textbooks, *Educational and Psychological Measurement* (MacMillan) and *Assessment in the Classroom: Constructing and Interpreting Tests* (Falmer Press), and he co-authored *Measurement and Evaluation in Psychology and Education* (5th Ed.) (MacMillan) with R. M and R. L. Thorndike and Elizabeth Hagen. He spent three years in the U. S. Army, including a tour in Vietnam.