This paper presents a research-based evaluation of the gaps plaguing the preparation and ongoing professional development of reading teachers, suggesting that to improve literacy, it is necessary to comprehensively redesign reading teachers' preservice curriculum and inservice training. Programs preparing preservice teachers are not providing courses or classroom experiences necessary to teach future teachers the knowledge and skills base to teach diverse pupils in a variety of contexts. Teacher preparation programs do not meet the International Reading Association's literacy standards for teaching elementary school or recommendations for credit-hour standards in teacher preparation programs. The states regulate preservice and inservice teacher preparation very differently. Some states rely on content area standards, while others have specific course requirements. Several organizations and reports have described the characteristics of effective professional development and the content necessary to improve reading instruction for reading teachers. Policy recommendations include requiring teacher education institutes to align curriculum and course requirements with research-based standards for teaching reading and requiring states to align teacher testing for each consecutive stage of certification/licensure to research-based standards for teaching reading. A sidebar presents four critical areas that must be addressed to promote effective preservice and inservice teacher training programs (e.g., understanding the psychology of reading development and knowledge of language structure and its application). (Contains 14 references.) (SM)
Improving Reading in America: Are Teachers Prepared? NCREL Policy Issues.

Edyth E. Young
A Research-Based Analysis of Education Issues

About This Issue
Stable employment, academic achievement, and entrepreneurial success all depend on reading proficiency. Every American child has the right to the same opportunities for achieving success. Likewise, every teacher has the right to the in-depth training and support necessary to meet the challenge of developing America's youth into proficient, literate citizens who will contribute to a global economy and a democratic society.

Research shows that 95 percent of all children can be taught to read at a level that is constrained only by their reasoning and listening comprehension abilities (Fletcher & Lyon, 1998). Studies show that when students are placed in schools with effective principals and well-prepared teachers—teachers with comprehensive knowledge about reading instruction, ongoing support, and professional development—high-risk, high-poverty students learn to read as well as their not-at-risk peers (Nicholson, 1997).

Building teacher capacity and expertise in reading will better equip teachers to handle the challenges of the increasingly diverse, multicultural, and multiability needs of students. This edition of Policy Issues examines whether it is possible to fill the gaps that now plague the preparation of reading teachers and their ongoing professional development.

A Message From Gina Burkhardt, NCREL Executive Director

Welcome to the latest edition of Policy Issues—a research-based analysis of education issues. Our focus this year is on teacher quality and closing the achievement gaps. NCREL’s work in literacy links survey research on teacher preparation in the Midwest with applied research on gaps in students’ reading abilities in schools. NCREL strongly believes that building teacher capacity and expertise in reading will better equip teachers to handle the challenges of the increasingly diverse, multicultural, and multiability needs of students.

Improving Reading in America:
Are Teachers Prepared?

By Edyth E. Young

The quality of teacher training and classroom instruction are major factors in preventing reading difficulties in our children. To improve literacy, we need a comprehensive redesign of the preservice curriculum used to prepare teachers to give reading instruction. At the preservice level, the curriculum must have at its center a set of core standards aligned to research, and it must be extensive enough to give teachers mastery of the knowledge base and science of teaching reading. Once teachers are in the field, a targeted program of professional development is required that provides opportunities for continuous learning and practice related to teaching reading. Inservice teachers must receive extensive ongoing support in order to translate current research findings into effective teaching practices. (See “Preservice and Inservice Teacher Training Programs: What Must Be Required,” page 4.)

Preservice Education

According to the National Commission on Excellence in Elementary Teacher Preparation for Reading Instruction (International Reading Association, 2001), beginning teachers who graduate from teacher preparation programs with a strong focus on reading instruction tend to provide richer literacy experiences for their students than those who attended institutions without such an emphasis.
Current research shows that the programs preparing preservice teachers are not providing courses or classroom-based experiences necessary to develop in these future teachers the knowledge and skills base to teach a diverse group of students under a variety of contexts (Moats & Lyon, 1996).

Moats (1999) outlined a set of core curriculum standards that provides an extensive in-depth, content-driven training model to systematically inform preservice training and inservice professional development for effective classroom practice. In this curriculum, the four core curriculum components for quality teacher preparation and continuous professional development are:

- Understanding the psychology of reading development.
- Knowing English language structure and its applications.
- Effectively using best instructional practices.
- Using a variety of assessments to inform classroom teaching.

The International Reading Association (IRA) recommends that the preparation for teaching elementary school (Grades K-5) should include at least 15 credit hours in basic reading and language arts courses, children's literature, and developmentally appropriate practices (Berger, 1998). For secondary certification, the IRA recommends a minimum of three, preferably six, credit hours in basic reading and language arts courses, strategy instruction, and content literacy.

What Teacher Preparation Programs Lack: Locating the Missing Links

NCREL examined teacher preparation programs in 50 public and private universities and colleges throughout its seven-state region: Illinois, Indiana, Iowa, Michigan, Minnesota, Ohio, and Wisconsin (Young, Grant, Montbriand, & Therriault, in press). Programs were selected from large and small institutions in both rural and urban areas representing geographical locations within the northern, southern, eastern, and western portions of each state.

Reading course requirements in elementary education, secondary education, and reading specialist programs were evaluated. Among the areas examined were the types of courses required:

- Knowledge courses in which students study a body of information about reading (i.e., the psychology of reading development, English language structure and its applications, and diagnostic and corrective instruction).
- Methods courses in which future teachers study teaching methods, often practicing with groups of students.
- Clinical experiences in which future teachers spend a significant amount of time working with students and teachers in schools.

After examining courses, catalog descriptions, and syllabi when available, NCREL compared the findings to state department of education regulations, the standards of the IRA, and the standards of the National Council of Teachers of English (NCTE). Among the findings:

- Not one of the 50 preservice programs examined in the seven-state NCREL region meets the IRA's literacy standards for teaching elementary school (Grades K-5).
- Out of these 50 preservice programs, one institution—Ohio University—meets the IRA's recommendations for credit-hour standards in its teacher preparation program. Twenty-two other schools meet the criteria but not the number of recommended credit hours, possibly due to differences in how credit hours are calculated.

Furthermore, each state within NCREL's region regulates elementary and secondary teacher preparation differently. Some states rely on content-area standards; others have specific course requirements. For example, at the elementary level:

- Illinois requires a two-hour methods of teaching reading course. Teachers meet content-area standards.
- Indiana requires that all teachers at all levels of certification (kindergarten, elementary, and secondary) must demonstrate knowledge and skills in reading instruction. Currently, all teacher education programs within the state require a minimum of six hours of reading instruction to prepare elementary teachers to meet the state-mandated standards.
- Iowa requires nine hours in methods of elementary language arts, elementary reading, and children's literature.
- Michigan requires six hours in teaching reading for elementary teachers.
**Inservice Education**

Both preservice and inservice teacher education help develop teacher expertise. Once in the classroom, both elementary and secondary teachers must continually update and refresh their expertise and knowledge about reading instruction to ensure that all student needs are met.

Any comprehensive professional development program focused on building K-12 teachers' capabilities to teach reading must have at its foundation the notion that to prevent or address reading difficulties in students, teachers must understand how children develop and learn (Snow, Burns, & Griffin, 1998). Teachers need to be able to apply effective strategies and teaching techniques to enhance the literacy achievement for all students. Teachers must be able to identify students' strengths and weaknesses. Diagnostic training is required to empower teachers in their efforts to link meaningful student assessments to instruction. Such training must support the teachers' ability to plan instructional programs that help students make continuous progress. The IRA (1998), in partnership with the National Council for Accreditation of Teacher Education (NCATE), has created a list of standards for reading professionals, describing the literacy knowledge and teaching proficiencies necessary to teach reading effectively.

Several organizations and reports have described the characteristics of effective professional development and the content necessary to improve reading instruction for reading teachers. The National Research Center on English Language and Achievement provides one framework for professional development in English language arts that has the following characteristics:

- [It] is problem-based, involving teachers in activities that have authentic educational change as its goal.
- [It] is also practice-based, focusing on the goals, materials, curriculum and students that are part of the teachers' daily professional realities.
- A professional discourse community involving diverse groups of professionals provides a context within which debate, examination of assumptions, exploration of existing practice, and formulation of new possibilities moves the group toward greater coherence.
- A dual focus on both conceptual and pedagogical tools enables teacher to deepen their own understandings of the ways they teach while also broadening their repertoire of successful classroom techniques.

**NCREL's region regulates elementary and secondary teacher preparation differently. Some states rely on content-area standards; others have specific course requirements.**

Two states in the NCREL region have course requirements related to secondary reading: Michigan requires three hours. Wisconsin requires six hours in content-area reading with a clinical in language arts emphasizing writing, speaking, and listening, which is more rigorous than standards recommended by the IRA. Even though the states mandate the number of credit hours in reading that are required before a candidate should graduate from the teacher preparation program, not all colleges and universities meet those state requirements. When asked how they account for the missing hours in reading, many university officials said they incorporate these into other education courses. But upon examination, the descriptions of these other courses do not specify how reading and literacy are incorporated.

**continued on page 5**
Having a set of core curriculum standards for the teaching of reading is necessary to establish common high standards and comprehensive in-depth preservice and inservice training at the federal, state, higher education, district, school, and classroom level. These components are essential to meet the needs of the two million new teachers projected to enter the field over the next decade (Moats, 1999).

There are four critical areas that must be addressed to ensure the alignment between teacher requirement standards in higher education, state departments of education, teacher certification tests in the area of reading, and inservice literacy professional development training programs. The four areas discussed below are adapted from Teaching Reading Is Rocket Science: What Expert Teachers of Reading Should Know and Be Able to Do (Moats, 1999), and further amended by the author (Young, 2000, 2001).

I. Understanding the Psychology of Reading Development
   - How students learn to read.
   - Cognitive characteristics of proficient and poor readers.
   - Environmental and physiological factors in reading development.
   - The development of reading, writing, and spelling.

II. Knowledge of Language Structure and Its Application
   - Phonetics
   - Text Structure
   - Phonology
   - Communication
   - Morphology
   - (Speaking, Listening, Reading, and Writing)
   - Orthography
   - Semantics
   - Syntax
   - Evaluating
   - Text-for-Quality

III. Understanding and Effectively Using Best Instructional Practices
   - Recognizing and implementing research-based strategies and programs for appropriate developmental levels for all students to learn to read.
   - Establishing balanced literacy programs for multicultural and multiability children, including:
     - Methodologies and theories of reading.
     - Instructional processes and strategies for the teaching of reading.
     - Oral language development.
     - Concepts of print, letter recognition, and phonological awareness (such as phonemic awareness, linguistic awareness, and syllabication awareness).
     - Decoding and word-attack skills.
     - Spelling generalizations.
     - Fluency.
     - Vocabulary.
     - Reading comprehension development and monitoring reading strategies.
     - Reading enrichment and motivation/affective factors.
     - Environmental and sociocultural factors.
     - Reading and writing connections, and writing development and processes.
     - Effectively managing and evaluating reading programs.

IV. Using a Variety of Assessments to Inform Classroom Instruction.
   - Understanding formal and informal assessments at the developmental level in which one teaches.
   - Understanding diagnostic profiling for children with learning difficulties.
   - Understanding assessment for culturally and linguistically diverse populations.
   - Linking assessment to meaningful, student-engaged instruction to improve students' learning and to improve their performance on state and national reading assessments.
Successful professional development provides teachers with ongoing opportunities to reflect on their own practices.

Successful professional development provides teachers with ways to assess their own progress in instructional development activities (National Research Center on English Learning and Achievement, 1998).

The National Reading Panel report commissioned by Congress identified the need for clear, objective, and scientifically based information on the effectiveness of different types of reading instruction. The following topics were identified as essential components of a professional development program for reading teachers:

- **Alphabetics**
  - Phonemic Awareness Instruction (awareness of the smallest sound units composing spoken language)
  - Phonics Instruction (a method of teaching reading that emphasizes the acquisition of letter-sound correspondences and their use in reading and spelling)

- **Fluency**

- **Comprehension**
  - Vocabulary Instruction
  - Text Comprehension Instruction
  - Teacher Preparation and Comprehension Strategies Instruction

- **Teacher Education and Reading Instruction**

- **Computer Technology and Instruction**

Historically, the seven states in NCREL's region have subscribed to the traditional mode of relicensing teachers: Every five to six years, teachers holding standard teaching certificates must accumulate anywhere from six to eight credits from a college or university or from approved district-sponsored activities to renew their certificates. Until recently, these credit hours did not need to be related in any way to the teachers' content-area expertise. For example, courses in school administration were sufficient for language arts teachers seeking recertification.

Some significant changes are on the horizon. Illinois, Indiana, Iowa, Michigan, Ohio, and Wisconsin now grant initial or provisional certificates to beginning teachers. Teachers holding these certificates must continue to participate in professional development and accumulate credits before they can receive the standard professional licenses.

In Illinois, teachers with professional certificates must, in addition to completing coursework, submit a Certificate Renewal Plan that describes personal goals for improvement, proposed activities to meet these goals, and a projected timeline for completing the activities.

A similar program will begin in Indiana for those teachers issued certificates after January 2002. New state requirements for professional development aligned with teacher recertification provide opportunities for individuals' ongoing education to be more closely tied to their content-area expertise. (See "Certification/Recertification Requirements in the NCREL Region," page 6.)

Conclusions and Recommendations

**Policy Recommendations: What Needs To Be Done Now**

President George W. Bush's educational proposal entitled *No Child Left Behind* recommends that $5 billion be allocated over a five-year period to ensure that the research base espoused by the National Reading Panel (2000) is implemented into classroom practice. The proposal calls for rigorous screening instruments, diagnostic classroom-based instructional assessments, programs that include major components of reading instruction (i.e., phonemic awareness, decoding instruction, fluency, fostering background knowledge, vocabulary, comprehension development, and motivation) as well as ongoing high-quality professional development (Learning First Alliance, 2000). Policymakers can support this proposal by considering the following recommendations:

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# Certification/Recertification Requirements in the NCREL Region

<table>
<thead>
<tr>
<th>Levels</th>
<th>Standards-Based</th>
<th>Types</th>
<th>Years Valid</th>
<th>Requirements</th>
<th>Renewal</th>
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<tbody>
<tr>
<td>IL*</td>
<td>Early Childhood Elementary Secondary</td>
<td>Yes</td>
<td>Initial</td>
<td>4 Completion of approved program</td>
<td>Nonrenewable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Standard</td>
<td>5</td>
<td>4 years teaching experience; basic skills and subject-area tests</td>
<td>Approved Professional Development Plan, 8 credits or equivalent CPU/CDPU</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Master</td>
<td>10</td>
<td>NBPTS Certification</td>
<td>Approved Professional Development Plan, 8 credits or equivalent CPU/CDPU</td>
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<td>IN**</td>
<td>Elementary: Primary Elementary: Intermediate Middle School/ Junior High High School</td>
<td>Yes</td>
<td>Initial</td>
<td>2 Completion of approved program</td>
<td>Nonrenewable</td>
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<tr>
<td></td>
<td></td>
<td>Standard</td>
<td>5</td>
<td>Performance-based portfolio</td>
<td>Professional Growth Plan and Professional Portfolio</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Accomplished</td>
<td>5</td>
<td>NBPTS Certification or PGP and Professional Portfolio</td>
<td>Professional Growth Plan and Professional Portfolio</td>
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<td>IA</td>
<td>Endorsements in different areas</td>
<td>Some are performance-based</td>
<td>Initial</td>
<td>2 Completion of approved program</td>
<td>Can be renewed once</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Standard</td>
<td>5</td>
<td>2 years teaching experience</td>
<td>6 credits</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Master Educator</td>
<td>5</td>
<td>5 years teaching experience, master's degree</td>
<td>4 credits</td>
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<td>MI</td>
<td>Elementary Secondary</td>
<td>Yes</td>
<td>Provisional</td>
<td>6 Completion of approved program</td>
<td>1st Renewal–10 credits</td>
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<tr>
<td></td>
<td></td>
<td>Professional</td>
<td>5</td>
<td>18 credits (6 credits in reading for elementary and 3 credits in reading for secondary)</td>
<td>6 credits</td>
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<tr>
<td>MN</td>
<td>Elementary Middle Level Secondary</td>
<td>No</td>
<td>Professional</td>
<td>5 Completion of approved program</td>
<td>125 clock hours of professional development</td>
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<td>OH***</td>
<td>Early Childhood Middle Childhood Adolescence to Young Adult</td>
<td>Yes</td>
<td>Provisional</td>
<td>2 Completion of approved program</td>
<td>Nonrenewable</td>
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<td></td>
<td>Professional</td>
<td>5</td>
<td>Performance-based assessments</td>
<td>1st Renewal–Professional Development Plan</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2nd Renewal–Professional Development Plan and master's degree</td>
<td></td>
</tr>
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<td>WI</td>
<td>PK-3 Elementary: 1-6 Elementary: 1-9 Middle: 5-9 Middle/Secondary: 6-12 Secondary: 9-12</td>
<td>Yes</td>
<td>Initial</td>
<td>5 Completion of approved program</td>
<td>Nonrenewable</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Professional</td>
<td>5</td>
<td>Professional development plan, documentation portfolio</td>
<td>Professional development plan, documentation portfolio</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Master</td>
<td>10</td>
<td>NBPTS certification or master's degree, 5 years teaching, contribution to profession, pupil learning</td>
<td>Professional development plan, documentation portfolio</td>
</tr>
</tbody>
</table>

* Proposed certificate changes begin July 2003.
** Applies to all students entering higher education institutions after 6/30/02 and to practicing teachers renewing licenses issued after 1/1/02.
*** Rules change for Provisional License in 9/1/02 and for Professional License in 9/1/06.
Recommendation 1:
Require that teacher education institutes align curriculum and course requirements with research-based standards for teaching reading.

Action Plan
- Use the new Title II reporting requirements established under the Higher Education Reauthorization Act of 1999 to hold teacher preparation institutions accountable for showing evidence of having integrated research-based reading principles into their preservice programs. Funding awarded to teacher preparation programs should be dependent on the development and implementation of such course requirements.

Recommendation 2:
Require K-12 districts and schools to provide professional development opportunities targeted at building teacher capacity to teach reading within all content areas.

Action Plan
- Tie state funding for professional development in schools and districts to the development and implementation of comprehensive professional development plans. These plans must include a primary focus on building teacher capacity to teach reading within content areas. Schools should be able to demonstrate that their professional development program results in improved teaching practices and enhanced and successful learning opportunities for all students (i.e., reflected as a measure of adequate yearly progress).
- Require schools and districts to integrate research-based reading practices into their professional development plans. These plans should have mechanisms for assessing whether teachers are proficient at teaching reading (i.e., practices that demonstrate an understanding of well-established reading principles, theories of child development, and their relationship to the implementation of practical instructional strategies).

Recommendation 3:
Require states to align teacher testing for each consecutive stage of certification/licensure to research-based standards for teaching reading.

Action Plan
- Require that state-based teacher certification and licensure tests at the elementary level expect teachers to demonstrate a strong working knowledge of teaching reading in specific content areas (i.e., instructional strategies for integrating reading in their curriculum as well as strategies for developing reading comprehension skills in students).

Conclusion
The demands placed on today’s teachers are considerable. The balance between what is required of teachers, how they were trained, and what is offered to them as professional development opportunities has a significant effect on the quality of their classroom teaching. Educational researchers and policymakers should respond with vigor to connect the missing links in preservice and inservice teacher training in literacy development.
References


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