

OSEP Research Institutes: Bridging Research and Practice



In this column, *Bridging Research and Practice*, three of the federally funded special education research institutes report to you, the practitioner, on their progress in areas that will be particularly helpful to you in working with your students. The U.S. Office of Special Education Programs (OSEP) has funded these three research institutes to study specific curricular and instructional interventions that will accelerate the learning of students with disabilities in curricular areas:

Center on Accelerating Student Learning (CASL) focuses on accelerating reading, math, and writing development in Grades K-3. The Directors of CASL are Lynn and

Doug Fuchs of Vanderbilt University. Principal Investigators include Joanna Williams at Columbia University and Steve Graham and Karen Harris at Vanderbilt University.

Research Institute to Accelerate Content Learning Through High Support for Students With Disabilities in Grades 4-8 (REACH) is examining interventions that reflect high expectations, content, and support for students. The Director of REACH is Catherine Cobb Morocco at Education Development Center in Newton, MA. Research partners include the University of Michigan (Annemarie Palincsar and Shirley Magnusson), the University of Delaware

(Ralph Ferretti, Charles MacArthur, and Cynthia Okolo), and the University of Puget Sound (John Woodward).

The Institute for Academic Access (IAA) is conducting research to develop instructional methods and materials to provide students with authentic access to the high school general curriculum. The Institute Directors are Don Deshler and Jean Schumaker of the University of Kansas, Lawrence. Research partners include the University of Oregon and school districts in Kansas, California, Washington, and Oregon.

This issue features the CASL.

The Content Literacy Continuum: A School Reform Framework for Improving Adolescent Literacy for All Students

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Recently, there has been evidence that policymakers and advocates of high school reform are taking seriously the problems of adolescent literacy and are turning their attention to supporting research-based efforts to improve it. This attention is partnered with an emphasis on students successfully completing more rigorous secondary core content courses, meeting standards as measured on state assessments, increasing the success of students with disabilities in the general education curriculum, and addressing the needs of an increasing number of English language learners in classrooms.

Considering these forces, researchers at the University of Kansas Center for Research on Learning and the University of Oregon joined to conduct a series of research studies under an umbrella project called the Institute for Academic Access. The studies have focused on how to increase the success of high school students with disabilities enrolled in rigorous academic courses. As this arena was studied, several factors emerged as important to consider in developing secondary literacy initiatives:

1. Requirements for teachers to ensure that all students meet these standards have

put pressure on teachers to teach more content faster. This has led to an instructional focus of breadth of coverage, rather than depth of understanding. Consequently, students are required to be more independent and self-sufficient learners, leaving students who have limited literacy skills and strategies unable to acquire the content and, as a result, meet standards.

2. Because many students do not have the literacy skills and strategies necessary to meet these standards, core curriculum teachers must face the challenge of compensating for the lack of these skills and strategies to ensure mastery of critical content, regardless of literacy levels.
3. Attention to the connected development of increasingly complex vocabulary and background knowledge is needed if comprehension is to improve and students are expected to benefit from instruction in grade-appropriate comprehension strategies.
4. Students must have authentic and successful experiences using newly acquired literacy skills and strategies in core curriculum courses to solve problems and meet high school course demands if they

are to become motivated to develop literacy skills.

5. Direct instruction, teacher modeling, and practice in literacy strategies must become authentically embedded in the teaching practices of all secondary teachers so that students will have sufficient opportunities to practice and generalize these skills and strategies.
6. Secondary core curriculum teachers can promote literacy by planning and focusing on *critical content* and critical comprehension strategies so that instruction is targeted and mastery is achieved for all learners.
7. Even when instruction, modeling, and practice is provided across secondary courses, many poor readers will need additional intensive instruction and practice in these strategies if they are to master and use them effectively.
8. Students who do not comprehend well, but who have developed fluent word recognition skills through the 4th grade level need opportunities for direct, systematic, and intensive instruction in learning strategies that are appropriate for handling both expository and narrative text.

9. Opportunities for direct, systematic, intensive instruction in sound-symbol correspondence, word automaticity and fluency are needed to address the word recognition skills for those adolescents who are reading below the 4th grade level.

Collectively, these factors challenge secondary schools to make a dramatic shift in the way they organize and deliver instruction, if both content and literacy goals are to be realized. In short, these factors require secondary educators who are seriously concerned about improving the performance of all students to make literacy a central part of its school improvement and reform agenda.

Meeting the Challenge

For the past 15 years, a major research emphasis of the University of Kansas Center for Research on Learning (KUCRL) has been to design and test effective schoolwide literacy instruction in secondary schools. The outcome of this work has been the development of a framework called, the Content Literacy Continuum (CLC; Lenz & Ehren, 1999). This structure provides a vehicle for (a) considering the factors that influence the success of secondary literacy efforts, (b) leveraging the talents of secondary school faculty, and (c) organizing instruction to increase in intensity, as the deficits that certain subgroups of students demonstrate become evident.

The CLC has been used to guide the use of interventions in the Strategic Instruction Model (SIM) developed by the KUCRL over the past 27 years. However, as a framework, the CLC is sufficiently comprehensive in scope to accommodate any research-validated intervention that has been validated with adolescent populations. In short, the CLC is a tool for enabling all secondary teachers and administrators to participate in the development and evaluation of a literacy initiative that is consistent with the goals of secondary education for all students that will also dramatically improve literacy outcomes for those who are at risk of academic failure.

The five levels or types of instruction associated with the CLC are presented and described in Figure 1. These five levels are based on keeping content as a central focus in literacy efforts, defining roles and responsibilities of all school level educators, providing a continuum of instructional intensity for ensuring success for a wide range of students, and providing a framework for integrating a variety of literacy improvement efforts. Each of these levels collectively represent a framework for organizing secondary

reform around the goals of improved literacy. It is important to note that secondary educators must work collaboratively to synchronize instruction across the five levels to ensure the success of a schoolwide literacy effort.

The CLC Adoption and Implementation Process

Adopting the CLC requires a focused schoolwide effort. A school interested in putting the CLC in place needs to take stock of the literacy and content mastery performance of students, as well as the existing efforts to meet the literacy needs. Faculty should consider the efforts already underway fit into each of the five CLC levels and learn how to integrate SIM and other necessary components into current practices. Initial adoption takes place over a 3- to 5- year period as school staff work through activities associated with the phases of planning, implementing, and sustaining a literacy improvement initiative. A commitment for the duration of the adoption on the part of the administration and faculty is a necessary component. A hallmark of the entire adoption process is that it is co-constructed with school leaders, resulting in a growth partnership.

Intensive, ongoing professional development in SIM, including SMARTER Planning (Lenz, Bulgren, Kissam, & Taymans, 2004); Content Enhancement Routines (e.g., Lenz, 1994); the Learning Strategies Curriculum (e.g., Lenz, Schumaker, Deshler, & Beals, 1984; Schumaker, Denton, & Deshler, 1984), along with other programs and services at levels 4 and 5 of the CLC, provide the backbone of the implementation effort. Professional development is designed according to the current standards of the National Staff Development Council and is rolled out in these phases: Learn It, Do It, Refine It, Use It.

Conclusion

Although professional development is required to implement the CLC, it is more appropriate to conceptualize CLC adoption as a school improvement initiative requiring more than professional development. Adopting the CLC is framed in the context of assisting schools to meet their school improvement goals. The current focus of schools and school districts on meeting the No Child Left Behind requirements regarding Adequate Yearly Progress (AYP) typically enhances the motivation of schools to target improvement efforts on behalf of ALL learners, including those from subgroups, such as students with disabilities. Serious attention must be paid to tapping into or creating the

infrastructures to promote individual and systemic change, including data-based decision making, effective leadership activities, and the creation of professional learning communities.

Making the commitment to improve literacy in secondary schools is at the very heart of school reform efforts. Many teachers and administrators in secondary schools systematically discriminate against those who do not have the literacy skills to meet course demands and those teachers and staff involved in advocating for or providing literacy services. Positioning literacy improvement efforts as a sidebar to other goals in secondary education has lessened the importance of secondary schools in preparing our children to compete in society and has consistently and systematically left millions of students behind. Adopting a schoolwide approach to literacy in which every teacher is committed, involved, and championing coordinated literacy improvement efforts is the way we can make our secondary schools count for all students.

References

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Figure 1. The Content Literacy Continuum: A Framework for Guiding the Development of Schoolwide Literacy Services in Secondary Schools

Level of Instruction	Teacher Actions	Example	Professional Competence
<p>Level 1: Enhanced Content Instruction Goal: Students learn critical content required in the core curriculum regardless of literacy levels.</p>	<p>Teachers: (a) ensure mastery of critical core content for all students regardless of literacy levels by leveraging the principles of universal design in explicit teaching routines, (b) ensure that all students acquire the vocabulary and background knowledge required for basic literacy associated with comprehension and communication through classwide accommodations, individual accommodations, or technology, and (c) respond to increasingly complex content demands requiring strategic manipulation of content such as categorizing, developing analogies, comparing, questioning, or evaluating.</p>	<p>Teachers use Content Enhancement Routines such as The Unit Organizer Routine to deliver content. Teachers use standards-based planning models to target critical content that needs to be enhanced.</p>	<p>Teachers responsible for ensuring content mastery must <i>select the critical content</i>, learn how to enhance that content for mastery, and then implement these enhancements through the use of explicit and sustained teaching routines. Special service providers must help core curriculum teachers provide this type of instruction. This facilitates a mindset in which instruction is delivered in ways that students acquire content information as well as active approaches to learning and responding.</p>
<p>Level 2 Embedded Strategy Instruction Goal: Students are presented with opportunities to learn and apply a set of powerful learning strategies for improving literacy across core curriculum classes to learn <i>critical content</i>.</p>	<p>From a small set of powerful learning strategies, teachers select one or two strategies that match the specific demands needed to learn the <i>critical content</i> in their core curriculum courses. Teachers use direct explanation, modeling, and group practice to teach the strategy and then prompt student application and practice in content-area assignments throughout the school year. For students receiving more intensive strategy instruction (Level 3), teachers assist them in generalizing strategy use to core curriculum courses. Instruction in strategies is embedded across a number of instructional settings, including settings where tutoring is provided.</p>	<p>Teachers teach the steps of a paraphrasing strategy (RAP), regularly model its use, and then embed paraphrasing activities in course activities through the year to create a culture of "reading to retell." Graphic organizers (e.g., The Unit Organizer) introduced as part of Level 1 instruction are used to model and prompt paraphrasing of critical chunks of content</p>	<p>Teachers adopt a mindset that is important to embed instruction in learning strategies within content-area instruction. Content teachers learn a shortened form of an Eight-Stage Instructional Sequence for selected learning strategies (e.g., <i>Paraphrasing, Self-Questioning</i>, etc.) that they can use to provide classwide instruction. Teachers assist in the generalization of strategies that may emerge from Level 1 instructional routines; these emerging strategies may guide students in strategic approaches to content literacy demands such as making comparisons, categorizing, or questioning.</p>
<p>Level 3 Intensive Strategy Instruction Goal: Students who need more intensive strategy instruction than what can be provided through embedded strategy instruction are provided with</p>	<p>Special education teachers, reading teachers, and other support personnel provide more intensive instruction through additional learning experiences. These may be provided in the general education classroom, in a pullout program, through the offering of a separate course, or through beyond-school tutoring programs. Assessments for screening and ongoing data-based decision making are put in place to help identify students who may profit from these courses. These students are</p>	<p>Instructional options such as additional courses are created to systematically and intensively teach learning strategies that students need to meet course demands. When core curriculum teachers notice students having difficulty learning and using strategies such as paraphrasing they work with</p>	<p>Special education and other support personnel learn how to provide intensive and explicit instruction, practice, and feedback in specific learning strategies and the process of strategic tutoring that shows students how to apply strategies as they complete assignments. Professional development focuses on helping teachers learn the strategies and course management competencies</p>

Figure 1 (Continued)

Level of Instruction	Teacher Actions	Example	Professional Competence
<p>Level 3 (continued) more intensive and explicit strategy instruction.</p>	<p>generally those who minimally have developed the decoding skills and fluency levels associated with reading proficiency at the third- to fourth-grade level and need to develop the comprehension strategies to successfully meet the reading demands of the core curriculum.</p>	<p>support personnel to provide more intensive instruction.</p>	<p>required to provide the intensive instruction required to ensure student mastery of learning strategies.</p>
<p>Level 4 Intensive Basic Skill Instruction Goal: Students develop the foundational decoding, fluency, and comprehension skills associated with K-3 literacy through specialized, direct, and intensive instruction</p>	<p>Special education teachers, reading specialists, and speech-language pathologists team to develop intensive and coordinated instructional experiences designed to address several literacy deficits. Special education teachers and reading specialists will most likely deliver these services. They also assist content teachers in making appropriate adaptations in content instruction to accommodate severe literacy deficits. Intensive instruction in listening, speaking, and writing can also be part of these services. Services may be delivered in a pullout program, through the offering of a separate course, or through beyond-school programs.</p>	<p>The staff develops course options for support services that directly address deficits that cannot be addressed through less intensive efforts. Students still participated in the history class because the teacher is presenting content in ways that take into consideration literacy problems. Intensive research-based programs such as The Corrective Reading Program are typically chosen.</p>	<p>Special education teachers and reading specialists learn research-based approaches to implement programs that develop foundational literacy skills and strategies to students who read below a fourth-grade level.</p>
<p>Level 5 Therapeutic Intervention Goal: Students with underlying language disorders learn the linguistic, related cognitive, metalinguistic, and metacognitive underpinnings they need to acquire content literacy skills and strategies.</p>	<p>Speech-language pathologists deliver curriculum-relevant language therapy in collaboration with special education and other support personnel who are teaching literacy. Speech-language pathologists collaborate with special education teachers to assist content teachers in making appropriate modifications or accommodations in content instruction to address the needs of students with language disorders. Speech-language pathologists work with special education teachers to assist students with language disorders to acquire learning strategies.</p>	<p>Students identified as language impaired may have difficulty learning <i>The Paraphrasing Strategy</i>. They may need support to provide more language-sensitive instruction or clinical intervention delivered by speech-language pathologists who can address the linguistic and metalinguistic underpinnings of the <i>Paraphrasing Strategy (RAP)</i> and the academic content.</p>	<p>Speech-language pathologists learn curriculum-relevant approaches to language therapy that interface with other intensive intervention provided to students. Speech-language pathologist and special education teachers learn to collaborate to provide coordinated and integrated services.</p>

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