Adolescent Literacy in the Content Areas

Excerpts from

The Knowledge Loom: Educators Sharing and Learning Together

Web site

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The Knowledge Loom: Educators Sharing and Learning Together

http://knowledgeloom.org

The attached document is a user−generated download of selected content found on The Knowledge Loom Web site. Content on The Knowledge Loom is always being updated and changed. **Check online for the most current information.**

What is The Knowledge Loom?

The Knowledge Loom is an online professional development resource featuring specially organized spotlights on high−priority education issues, including:

- a list of promising practices (including an explanation of each practice and a summary of the research or theories that support the practice)
- stories about the practices in action in actual education settings
- lists of related resources found on other web sites.

The site is designed to help educators facilitate decision−making, planning, and benchmarking for improved teaching and learning through collaborative activities.

Are there other resources on The Knowledge Loom?

In addition to printable content, the site features interactive tools that allow users to share information and knowledge, read what panels of practitioners have to say about selected topics, ask questions of content experts, and print custom documents like this one. A companion guidebook, *Using The Knowledge Loom: Ideas and Tools for Collaborative Professional Development* (http://knowledgeloom.org/guidebook), can be downloaded. It offers activities and graphic organizers to support collaborative inquiry about what works in teaching and learning in support of school improvement.

What spotlight topics are currently available?

- Adolescent Literacy in the Content Areas
- Culturally Responsive Teaching
- Elementary Literacy
- Good Models of Teaching with Technology
- Leadership Principles in Technology
- Middle School Mathematics
- Principal as Instructional Leader
- Redesigning High Schools to Personalize Learning
- School, Family, and Community Partnerships
- Successful Professional Development
- Teaching for Artistic Behavior: Choice−Based Art

Overview of Spotlight: Adolescent Literacy in the Content Areas

This overview provides an outline of all content components of this spotlight that are published on The Knowledge Loom Web site. The creator of this document may have printed only selected content from this spotlight. View complete content online (http://knowledgeloom.org/).

Four Key Components of the Adolescent Literacy Support Framework

Practices

Each practice includes an explanation, a summary of each story that exemplifies the practice, a research summary (review of the literature), a reference list of the literature, and a short list of related Web resources (URLs and full annotations provided online or in the Related Web Resources section if it has been printed).

Key Component A −− Motivation:
A successful adolescent literacy initiative takes into account the diverse cultural, linguistic, social, and emotional needs of adolescents.

- Making Connections to Students' Lives
- Having Students Interact with Each Other and with Text
- Creating Responsive Classrooms

Key Component B −− Strategies:
A successful adolescent literacy initiative uses research−based approaches that meet the needs of diverse adolescent learners.

- Roles of the Teacher
- Reading and Writing
- Speaking and Listening
- An Emphasis on Thinking
- Creating a Student−Centered Classroom

Key Component C −−Across the Curriculum:
A successful adolescent literacy initiative supports reading and writing across content areas.

- Vocabulary Development
- Understanding Text Structures
- Recognizing and Analyzing Discourse Features
- Supporting the English classroom through literacy development
- Supporting the math classroom through literacy development
- Supporting the science classroom through literacy development
- Supporting the social studies classroom through literacy development

Key Component D −− Organizational Support:
A successful adolescent literacy initiative relies on key organizational structures and leadership capacity to ensure necessary support, sustainability, and focus.

- Meets the goals for adolescents in that particular community and its various constituents.

- Articulates, communicates, and actualizes a vision of literacy as a priority.
- Utilizes best practices in the area of systemic educational reform.
- Is defined in a way that connects to the larger educational program.
- Involves ongoing support for teacher professional development.
- Has a clear process for program review and evaluation.

[Click here for a graphic of these components.]

Lifelong literacy is a continuum of development, and the "ongoing literacy of adolescents is just as critical and will require just as much attention, as that of beginning readers" if we expect them to engage in learning tasks that involve higher order thinking skills across the content area (Commission on Adolescent Literacy, 1999).

Sustained gains in student performance depend on initiatives that are school−wide or district−wide in design and implementation−−a major challenge and a recognized necessity. Such initiatives are complex and synergistic endeavors that need thoughtful coordination across departments and curricular areas. The success of an adolescent literacy initiative depends on educators who can put distinct and overlapping key components into practice.

Why is it necessary for the entire high school to tackle ongoing support of adolescent literacy head−on?

For a quick overview of this issue, read the brief synopsis of why it is essential to successfully support adolescent literacy development throughout the content areas at the high school level.

Stories

The Stories correspond to the summaries printed as part of each practice published on The Knowledge Loom. These are detailed examples of how the practices look in action in educational settings.

Bobby Marchand's Special Education Class at Central Falls High School
Christine Cziko's Freshman English Class, Thurgood Marshall High School
English Language Learners Share Their Stories, The ArtsLiteracy Project at Central Falls High School
Eulalia Texidor Ortiz's English Language Arts Class at S.U. Bartolom Javier Petrovitch School
Fenway High School's Literacy Program
Muskegon High School &the Strategic Instruction Model
Partnership Creates Path for Students' Future: University Park Campus School

Related Web Resources: 191

This is an annotated list of resources found on other Web sites that relate to the spotlight topic on The Knowledge Loom.

Center for Resource Management (CRM)The Education Alliance at Brown University

Practices

This section presents the Knowledge Loom practices for the spotlight you selected.

Each practice includes an explanation, a summary of each story that exemplifies the practice, a research summary (review of the literature), a reference list of the literature, and a short list of related Web resources (URLs and full annotations provided online or in the Related Web Resources section of this document).

For an overview of additional content presented on The Knowledge Loom Web site that may not have been selected for this print document, see the Overview of Spotlight located earlier in the document.

Key Component A −− Motivation:
A successful adolescent literacy initiative takes into account the diverse cultural, linguistic, social, and emotional needs of adolescents.

The following are promising practices related to Key Component A.

To establish a positive literacy culture means to make reading, writing, speaking, and listening integral parts of the culture of each classroom and of the school. Members of the school community celebrate student writing; they emphasize books and information; they solicit student opinions. A visitor to the school/classroom will notice the active use and incorporation of language into teaching and learning and will see artifacts in the classroom environment. Upon observation of administration, teachers, and students, a visitor will see evidence of **connections, interaction,** and **responsiveness**.

- Making Connections to Students' Lives
- Having Students Interact with Each Other and with Text
- Creating Responsive Classrooms

Making Connections to Students' Lives

What Is It?

Teachers continually make connections between the life experiences of students and texts, texts and films, texts and other texts, previous school experiences, and the topic at hand. The making and sharing of connections is an expectation in written and spoken communication. This expectation fosters an inclusive climate for literacy development and can make an important difference in educating diverse learners such as students with disabilities or special needs, English language learners, and gifted and talented students.

Suggested Strategies and Resources

For a description of how motivation and engagement play an essential part in the reading process and strategies to increase both for unmotivated readers, see http://www.readingonline.org/articles/handbook/guthrie/.

For a program that uses drama to engage students and to develop deep comprehension, see The Arts/Literacy Project at http://www.artslit.org.

For ideas on how to make use of the arts to make connections between students' lives and literary classics, see http://www.pbs.org/teachersource/arts_lit/high−literatureworld.html

For an excellent discussion of the role of school leaders in fostering a school climate that students find motivating, see http://chiron.valdosta.edu/whuitt/files/schlmotv.html.

Good teacher resources to support this approach can be found at http://www.ashp.cuny.edu/mc.html.

Technology can help motivate adolescents as they collaborate with students around the world on content−area projects. Becoming involved in collaborative science inquiry projects, communicating with experts in various areas of social studies, publishing online, and developing collaborative Web sites about issues in their community enable students to make connections and strengthen their literacy skills. Visit the Education with New Technologies site, http://learnweb.harvard.edu/ent/gallery/index.cfm, for project ideas .

Questions to Think About

Before you can implement this Key Component, your stakeholders will need to consider some or all of these questions. The questions could be used in group discussions, needs sensing activities, and informal small−group conversations.

- How does our current school culture explicitly and implicitly promote literacy development as a meaningful and worthwhile activity? How does our current school culture explicitly and implicitly undermine literacy development as a meaningful and worthwhile activity?
- What kinds of literacy identities do our students develop? What can we do to support more students in developing more positive literacy identities? What kinds of attitude shifts on the part of students, teachers, administrators, and parents would that involve? What kinds of structural changes might that involve?
- How well do classrooms across the content areas meet the criteria for connections, interaction, and responsiveness−−and, therefore, set the context for optimal literacy development for diverse learners?
- What are the challenges in creating more classroom experiences that meet the criteria of connections, interaction, and responsiveness? How can these challenges be met?

Story Summaries

Bobby Marchand's Special Education Class at Central Falls High School

- Central Falls, Rhode Island is a high−poverty city with rapidly changing demographics.
- In 2000, 95% of students at Central Falls High School qualified for free or reduced−priced lunch.
- Previously disengaged students have been placed in a self−contained special education class.
- These students and their teachers have been participating in a literacy development opportunity, offered through Brown University, called the ArtsLiteracy Project (ArtsLit).
- The ArtsLit professional development workshops and summer programs (http://artslit.org/programs.html) emphasize the teaching concepts of modeling, apprenticeship, and scaffolding.
- The ArtsLit curricular framework (or Performance Cycle: see http://www.artlit.org/handbook.html) emphasizes high standards, community building, interactive learning, student voice, and connections to life experiences.
- Multi−sensory learning increases these special education students' engagement with school.

Students in a small special education class in Central Falls, Rhode Island are learning literature with a twist. As they read and perform their original scripts on the school stage, they are enthusiastic about showing what they can do. Both attendance and classroom participation have skyrocketed in this group since Central Fall High School's involvement with The ArtsLiteracy Project (ArtsLit) began.

ArtsLit draws on research in language development, literacy, and arts education suggesting that the multi−sensory learning involved in theater work −− acting, speaking, writing, planning and organizing for a performance −− is a powerful tool for improving students' engagement in school, and especially in literacy activities.

The ArtsLiteracy Project, with its unique Performance Cycle literacy development framework, is particularly effective for these special education students. The Performance Cycle provides a recurring, structured, and predictable sequence that supports students' engagement, focus, and attention. Especially relevant to students who experience behavior problems are the elements that engage students socially in a community, that give the students voice and agency, and that provide personally valid purposes for reading, writing, listening, thinking, and speaking. Of particular benefit to these students are the Performance Cycle's enactive learning activities and collaborative structure.

Christine Cziko's Freshman English Class, Thurgood Marshall High School

- Urban school with emphasis on college preparation
- 40% of students with GPAs of 2.0 or below at start of program
- High failure rate attributable to low reading comprehension levels in content areas
- 10−unit, yearlong course for all incoming freshmen that looked for ways to make it "cool" to unlock difficult text
- Reading modeling/apprenticeship
- Sustained Silent Reading that asked students to record what they learned about themselves as readers

At the Thurgood Marshall School, the Academic Literacy course began as a 10−unit, year−long course for all freshmen in Fall 1996. At that time, many students were failing, and reading comprehension was considered part of the problem. Offered through the Strategic Literacy Initiative, a research and professional development effort based in San Francisco, the course builds students' awareness of reading purposes and processes. It also connects them with questions such as "What roles does reading serve in people's personal and public lives?" They make use of Silent Sustained Reading and are asked to reflect on discoveries about themselves as readers. After seven months of instruction, students on average increased their reading comprehension by two grade levels at Thurgood Marshall.

Partnership Creates Path for Students' Future: University Park Campus School

In 1997, Clark University and the local school district partnered to found University Park Campus School (UPCS) and revitalize one of most troubled neighborhoods in Worcester, Mass., providing a way to prepare students for college and a promising future.

One of the greatest challenges UPCS faced was literacy:

- Every year, almost all of the seventh grade students who entered UPCS have read far below grade level.
- A high percentage of students (73% in the class of 2004) do not speak English at home.

UPCS holds students to high standards and helps them reach their goal to attend college.

- Instruction is individualized to each student's particular level of development.
- A literacy initiative permeates the curriculum, instruction, and assessment in addition to offering specialized support programs.

To prepare for college, every student pursues a rigorous academic program consisting of honors−level classes and a traditional transcript: algebra, biology, physics, calculus, elective AP classes, Spanish, art, music, English, history, and geometry. Students may enroll in classes at Clark University during their junior and senior years, on top of their expected high school load. Students can select special seminars at Clark in many areas of interest, such as the arts, technology, world languages, music, theatre, video production, and photography.

Students study in a building that is small, nurturing, intimate, and comfortable, but one that does not have a gym, cafeteria, or library. UPCS students thinks of themselves as young Clark University students as they use the university athletic complex, study at the library, and attend university events.

Making connections is a core element in the daily life of the school: connecting prior knowledge to

new in−depth learning, instruction to assessment, process to content, the classroom to personal meaning, and connecting to one another affectively as well as cognitively.

A sense of community is important at UPCS. Many of the teachers regularly eat breakfast or lunch with students, and they communicate with parents and families. Literacy−rich student work is exhibited proudly throughout the school, and students and teachers often stop to read and comment on one another's work. Other school−wide instructional strategies support the development of literacy skills in all subject areas.

A free college education is the reward and ultimate connection. Any student who has lived in the Clark neighborhood for the last five years of school and has met Clark's entrance requirements may attend Clark University tuition−free. Fifteen of the 31 in UPCS' first graduating class applied to Clark University and were accepted. Seven chose to attend, and others were accepted with full scholarships elsewhere. In 2003, all 31 graduating students are headed to college.

English Language Learners Share Their Stories, The ArtsLiteracy Project at Central Falls High School

- In this English language learners class at Central Falls High School in Rhode Island, most students have spoken English for only a few years or months, some for a few weeks.
- The city of Central Falls ranks the highest in the state of Rhode Island for community−wide limited English proficiency (29.5%, compared to the state average of 6.2%).
- These students and their teachers are participating in a literacy development opportunity, offered through Brown University, called the ArtsLiteracy Project (ArtsLit).
- ArtsLit draws on research in language development, literacy, and arts education. The research suggests that acting, speaking, writing, planning, and organizing for a performance is a powerful tool for improving students' engagement in school, and especially in literacy activities.
- The ArtsLit professional development workshops and summer programs (http://www.artslit.org/programs.html) emphasize the teaching concepts of modeling, apprenticeship, and scaffolding.
- The ArtsLit curricular framework (or Performance Cycle: see http://www.artslit.org/handbook.html) emphasizes high standards, community building, interactive learning, student voice, and connections to life experiences.
- Aspects of the ArtsLit Performance Cycle that contribute to this practice are Building Community, Rehearsing/Revising Text, and Performing Text.

The stage is set with 20 English language learners, their teachers, their ArtsLiteracy Project mentor, and a performance artist. Together they will develop a theatrical performance based on various texts and personal stories that explore the students' lives and their hopes for the future. On performance day, they will share their stories and demonstrate their skills to the whole student body at Central Falls High School in Central Falls, Rhode Island.

The ArtsLiteracy Performance Cycle benefits English language learners by creating a safe, engaging, and welcoming community of learners and by offering an abundance of motivating and purposeful activities for practicing skills in reading, writing, speaking, and listening. Students benefit from the enactive learning activities and collaborative structure of the Performance Cycle. With these supportive elements, English language learners are better able to understand challenging text.

By participating in the ArtsLiteracy Project, these students and their teachers have learned new strategies for literacy development. When students make personal connections between their lives and

their academic reading and writing, they become more engaged in school, and their literacy skills improve. As students participate in ArtsLit activities such as writing and sharing personal stories, they build a sense of community and accomplishment.

Eulalia Texidor Ortiz's English Language Arts Class at S.U. Bartolom Javier Petrovitch SchoolBy participating in the Center for Integration of Technology (CENIT) program, an island−wide initiative designed to help teachers integrate technology into their academic curriculum, schools in Puerto Rico are changing, moving to a more constructivist learning and teaching style.

Each participating school has a lead teacher selected by CENIT staff who works with other participating teachers in the school to get them up to speed on using the new computers and software programs provided by CENIT funding. When schools open in August, teachers participating in the program begin to introduce their students to the new technology, giving them the opportunity to learn how to use it by taking part in technology−rich lessons in a variety of subjects.

At the S.U. Bartolom Javier Petrovitch School of Cabo Rojo, where Eulalia Texidor Ortiz, a sixth, seventh, and eighth grade English language arts teacher, is the CENIT Lead Teacher, students feel comfortable sharing their personal interests and identifying their learning goals. Texidor Ortiz works closely with them to make sure they are actively engaged in using technology and in making decisions about which technologies best support their goals for a given project. Part of what drives the success of this approach is that Texidor Ortiz encourages her students to bring their personal interests into the classroom, often incorporating them into writing assignments and other projects.

Research Summary

Summary

Sections II and III in the research summary below are direct excerpts from Julie Meltzer and Edmund Hamann's Meeting the Literacy Development Needs of Adolescent English Language Learners Through Content Area Learning, Part I (2004). This is a publication of the Education Alliance at Brown University funded by the Northeast and Islands Regional Educational Laboratory.

I. General Research on Component A: Literacy and Motivation
II. Research on Making Connections to Students' Lives
III. Research on Using This Practice With English Language Learners
IV. References

General Research on Component A: Literacy and Motivation

The research is clear that one key to motivating students to develop positive literacy identities involves creating a student−centered classroom. This is a classroom where students feel a sense of belonging, feel competent, feel respected, and feel trusted to make choices−−and, therefore, to strengthen their literacy skills (e.g. Alvermann &Phelps, 1998; McCombs &Barton, 1998). Such an environment allows for 1) formation of meaningful adult and peer relationships; 2) dialogue, collaboration, and the expression of personal and collective views; and, 3) acknowledgement and respect for unique abilities and talents (McCombs &Barton, 1998). Essential aspects of this environment that appear throughout the literature and have proven connections to enhancing literacy development include 1) the availability and use of a wide range of reading materials (e.g. Collins,

1996; Rycik &Irvin, 2001), 2) use of collaborative learning (Langer, 2001; Tinzmann, et. al. 1990), and 3) the importance of a responsive classroom environment where diverse life experiences and perspectives are welcomed (e.g. Oldfather, 1994; Schoenbach et al, 1999).

According to the literature, success depends on the effective use of 1) a critical literacy approach (e.g. Schoenbach et al 1999) and, 2) the teaching, practice and use of specific research−based strategies to structure literacy−related interactions. These include Reciprocal Teaching (Alfassi, 1998; Langer, 2001; Roshenshine &Meister, 1994), Question Generating (Rosenshine, et al. 1996) and Think Alouds (Kucan &Beck, 1997). In combination, these help to create a classroom culture where the expectation is that all students and teachers will be regularly engaged in negotiating co−constructed meanings of texts.

Three best practices encapsulate the research in this critical area: 1) Making connections to students' lives (e.g. Alvermann &Phelps, 1998; Davidson &Koppenhaver, 1993; Langer, 2001); 2) Having students interact with each other and with text (e.g. Langer, 2001; Schoenbach, et al, 1999; Wilhelm, 1995); and 3) Creating responsive classrooms (e.g. Oldfather, 1994; Schoenbach et al, 1999). To facilitate an environment which supports such connections, interactions and responsiveness requires 1) that teachers know their students, 2) know how to teach reading and writing, and 3) know how to optimize the social and motivational needs of adolescents in service of content area learning (e.g. Langer, 2001; McCombs &Barton, 1998; Moore, et al., 2000; Schoenbach et al, 1999; Tierney &Pearson, 1981, 1992).

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Research on Making Connections to Students' Lives

From the Adolescent Literacy Support Framework:

> *Teachers continually make connections between the life experiences of students and texts, texts and films, texts and other texts, previous school experiences, and the topic at hand. The making and sharing of connections is an expectation in written and spoken communication. This expectation fosters an inclusive climate for literacy development and can make an important difference in educating diverse learners such as students with disabilities or special needs, English language learners, and gifted and talented students.* − Meltzer (2001)

To support literacy development, teachers must find ways to motivate learners to substantively engage with text. The literature consistently points to the efficacy, and, indeed, the importance of two strategies to motivate students to do this: (1) activating and building upon background knowledge and (2) making text−text, text−self, and text−world connections. Van den Broek and Kremer (2000) talk about how the mind is in action when reading−how reading comprehension depends upon creating a mental representation of the text through the development of referential and causal/logical relations. Referential relationships depend upon the activation of background knowledge; causal/logical relationships depend upon one's ability to make wide ranging and continuous connections to text. Both of these are strategies which good readers use that simultaneously support reading comprehension and increase engagement. This is an example of the synergy of the affective and cognitive issues vital to supporting literacy development for secondary learners.

Activating background knowledge is seen throughout the literature as a primary strategy, and, for struggling or reluctant readers, serves as a prerequisite for increasing engagement and improving

reading comprehension of content area texts (see, for example, Alvermann, 2001; Kamil, 2003; Curtis, 2002). Although typically situated as a reading comprehension strategy in the literature, it also defines one of the primary ways to engage students with text. This overlap of positioning in the literature is evidence of the necessity to situate reading comprehension within larger mediating contexts for learning. Schoenbach, et al. (1999) discuss the interdependence and simultaneity of the social, personal, cognitive, and knowledge−building dimensions of building academic literacy habits and skills. As Grady (2002) points out, The work of sociolinguists, cultural anthropologists, and critical theorists has shown that it is not possible to separate classroom practices such as strategies for activating background knowledge from the larger social and cultural contexts in which the practices are enacted (e.g., Heath, 1983; Gee, 1996) (p. 3).

The classroom strategy of fostering deliberate connections with text overlaps with, but is not synonymous with, activating background knowledge. *Making text connections* includes connections to other content, world knowledge, and self−knowledge and is therefore not limited by personal experience relevant to the topic or content under discussion or in the text. Further, the *making connections* strategy occurs during and after reading, not just *before reading*, which is how the strategy of *activating background knowledge* is usually discussed.

Activating background knowledge and making text−to−self, text−to−text, and text−to−world connections serves three literacy support objectives−each provides a purpose for reading, sustains engagement with text, and improves reading comprehension, which, in turn, increases students' content area knowledge and improves their achievement. Establishing a purpose for reading motivates students to read and is related to improved reading comprehension. Sustained engagement with text is therefore supported through having a purpose for reading, having adequate background knowledge, and making personal connections to the text. These enable students to persevere through challenging text. (See, for example, Alexander &Jetton, [2000]; Alvermann, [2001]; Davidson &Koppenhaver, [1993]; Guthrie, [2001]; Guthrie &Wigfield, [2000]; Langer, [2001]; McCombs &Barton, [1998]; Moje &Hinchman, [2004]; Moore, Alvermann &Hinchman, [2000]; Swan, [2004].)

Texts therefore become tools for constructing knowledge as opposed to authoritative repositories of facts, and the active connections students make to text become the vehicle for learning (e.g., Alvermann, 2001; Smith &Wilhelm, 2002). This transactional view of reading assumes that the cognitive aspects of schema theory and the motivational aspects of personal interest and relevance actively combine to support a given reader's ability to negotiate meaning from/with text (e.g., Ruddell &Unrau, 1996).

Helping students to make these connections is key because student engagement is determined by personal purpose for reading, the particular texts being read and the links between the texts and students' personal circumstance (Ivey, 1999). Assisting students to make connections between their own goals as readers and their choices of texts and strategies is also important for how students develop abilities and use text to learn (Guthrie, 2001; Swan, 2004). Engaging students in making connections through the use of the arts is another way that teachers can inspire involvement with text (see, for example, Wilhelm, 1995).

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Research on Using This Practice With English Language Learners

The research literature on best practices with secondary−level ELLs includes markedly similar recommendations. We found that there were overlaps in the ELL literature regarding making

connections to students' lives that could be summarized as building upon the familiar, scaffolding the unfamiliar, and honoring and responding to student input.

Building upon the familiar

According to the literature we reviewed, if ELLs are going to be successful at using reading and writing in U.S. schools to learn in supported (ESL or bilingual) and/or mainstream classrooms, their teachers must consciously activate learners' background knowledge to support the comprehension of challenging texts. In general, reading comprehension is positively supported to the extent to which the reader is familiar with the topics, objects, and events described in the text (e.g., Anderson, 1994). Studies indicate that comprehension is higher for second language learners when they are working with texts (e.g., Carrell, 1987; Fitzgerald, 1995) and content (e.g., Garcia, 1991; Godina, 1998) that are more familiar. Comprehension of content area concepts can therefore be enhanced by using culturally familiar contexts and building on students' prior knowledge.

ELLs are more likely to achieve when their teachers use multiple languages and contexts for teaching content (Lucas, 1993). Several studies (e.g., Fernandez &Nielsen, 1986; Kamil, 2003; Royer &Carlo, 1991; Tse, 2001) have found that when adolescent ELLs were first able to review content in their native language, they were able to write more about it in English and to comprehend more from subsequent reading in English. Not surprisingly, when ELLs have limited prior academic content knowledge, it correlates with poor performance (Waxman &Tellez, 2002). Background knowledge is, therefore, doubly important in second language reading because it interacts with language proficiency during reading, alleviating the comprehension difficulties stemming from language proficiency limitations. Building background knowledge on a text topic, through first hand experiences such as science experiments, museum visits, and manipulatives can facilitate success in reading (Peregoy &Boyle, 2000, p. 239).

Research with secondary−level ELLs who have little conventional literacy background in any language shows that untrained teachers can mistakenly assume that, if students lack basic decoding skills and rudimentary writing skills, then they also lack background knowledge that can be built from in literacy tasks (Garcia, 1999). However, as Walsh (1999) illustrates at length in her case study of the bilingual Haitian Literacy Program at Hyde Park High School in Boston and as Martin (2003) describes in his study of two limited−literacy Spanish−speakers, such students do bring to the classroom familiarity with storytelling conventions, genres of presentation, and so on. Heath (1983) and Lee (2004) make a similar observation regarding speakers of non−mainstream dialects of English. The existence of these more advanced literacy skills must not be overlooked especially for students who risk frustration for not yet having developed more rudimentary literacy skills. Identifying and acknowledging these skills may be a key route for gaining student engagement (Ballenger, 1997).

Acknowledging students particular extrinsic motivations for engaging with literacy can also be particularly productive with second language learners. Vald s (2003) has explored the cognitive complexity of students being used as interpreters by their families and the related skill development that this invites. Similarly, working with refugee adolescents, Hamayan (1994) also notes that even though the developed English literacy skills of these students is relatively modest, it may be a key and frequently used family resource as a student's family adapts to their new circumstances. Many ELLs do not play interpreting roles for their families, but some do and, for such students, English reading, speaking, and listening are crucially relevant.

Cultural and linguistic differences can also be reasons for a divide between teachers and students and can contribute to students being skeptical and under−engaged in academic tasks (Erickson, 1987). According to Fillmore and Snow (2000, p. 3), Too few teachers share or know about their students'

cultural and linguistic backgrounds, or understand the challenges inherent in learning to speak and read Standard English. When this is the case, teachers might not know the relevant background knowledge that ELLs bring to reading, writing, and learning tasks. This gap in teachers' knowledge, however, can become an invitation to solicit and respond to ELLs' input.

Teachers can get ideas about what might be most familiar by interviewing students and parents or making visits to their students' communities and homes. One example of this is the Funds of Knowledge work carried out at the University of Arizona for more than a decade. This project has involved pre−service and in−service teacher visits to the Spanish−speaking households of Latino students in Tucson. During the visits, teachers inventory examples of the funds of knowledge (that is, topics and experiences known by members of the household) and uses of literacy in out of school contexts. Later, in their teaching, these instructors can make reference to these topics, experiences, and uses of literacy to make the content of lessons more familiar. (See, for example, Gonzalez, et al. [1995] and Moll, et al. [1992].) As Hamann (2003) has noted in reference to a Funds of Knowledge−like innovative program that sent U.S. teachers to Mexico to learn more about their immigrant students' backgrounds, these types of programs need to carefully preserve an asset orientation, emphasizing what students bring, rather than what they do not have. More recently, Lee (2004) has explicitly tied the Funds of Knowledge work to the domain of adolescent literacy, using it as the grounding for the second of two parts of her cultural modeling framework. She explains that her framework provides a path for linking students' culturally−informed frames of reference and academic literacies. Langer (1997) applies the funds of knowledge concept to her study of Dominican students by having middle−school students participate in a book−writing project focusing on stories from home. Moje, Ciechanowski, et al. (2004) have also used this concept for longitudinal school and community ethnographic work with Latino middle school students, using it to frame their recommendations regarding literacy teaching.

Assuring that students' identities and cultural backgrounds are attended to in the content of the curriculum needs to avoid the hazards of defining cultural identities as homogeneous and unchanging (Gonzalez, 1999; Lucas, 1993). Engaging in home visits or community research allows teachers to see the diversity within the group that they are learning more about. This lessens the chance that people of good intentions but differing backgrounds will assume that sharing a nationality or ethnicity with a literary character, for example, assures that character's cultural relevance (e.g., Freeman and Freeman, 2001). As exciting and useful as it might be to include Sandra Cisneros' novel *Caramelo* in either a language arts or social studies class, it would be inappropriate to assume all Mexican newcomer students would find it relevant (or that all students from Puerto Rican, Bosnian, or Filipino backgrounds would not). From a mental health standpoint, if students feel that teachers are not seeing *them*, but rather a stereotypic template of their 'type,' such students will not feel safe and responded to. The salient consideration here is not what a teacher intends, but how a student understands the actions precipitated by the teacher's intent. Given the heterogeneity among ELLs (G‡ndara, 1997; Garcia, 1999; Sturtevant, 1998), it is important to note that, as is the case with their monolingual peers, different ELLs, even from a common culture, will bring varying background knowledge to new learning tasks.

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Scaffolding the unfamiliar

Sometimes teachers cannot or should not adapt or limit content to the more familiar. Indeed, an important task of secondary school instructors is to teach students the genres and idioms that students have not previously had access to (Christie, 1997; Delpit, 1995). To engage students with the unfamiliar, teachers can build purposeful bridges that help students connect their own experiences to

the unit of study and, specifically, to the assigned reading (Ballenger, 1997). This can include timing the explicit introduction of an unfamiliar theme/topic to overlap students' engagement with that topic in text. It can also mean overtly engaging in compare/contrast activities so that students are positioned to see how their mental schema for an activity/topic match and differ from that intended by an author.

Students tend to be willing to grapple with difficult text if it seems related to their interests or can be made relevant to their experience, even if the context or setting is unfamiliar (e.g., Laliberty, 2001; Maldonado, 2001). Ways to do this include having teachers illustrate how the text is relevant to students' interests through inquiry−based exploration of the text at hand, or through the use of arts−based interpretations of the same book or similar theme. Maldonado recounts having success getting her high school ELLs to engage with Victor Hugo's *Les Mis rables* by scaffolding that reading through attendance at a theatrical performance and multiple classroom conversations about the book's topics of good and bad choices, moral arguments, and personal integrity. Tapping students' interest thus can lead to engagement with a text that is beyond their independent reading level. This creates both an internal impetus on the students' part for further skill development (to get access to the 'interesting stuff') and the opportunity for teacher/student and peer/peer dialogue that makes the classroom environment itself more interesting.

In a different example, Steffensen, et al. (1979) found that Indian students reading about North American weddings tended to have a distorted understanding of the described events; their understanding incorporated elements from the South Asian weddings with which they were familiar. A compare/contrast activity could use the familiar Indian wedding as an engaging starting point with such learners, while illustrating how North American weddings differ. With the North American context understood, the Indian−background readers would be better positioned to accurately comprehend a text about North American weddings. As another example, Valenzuela (1999) and Villenas (2001) have described at length how the Spanish word, *educaci—n*, has moral implications regarding relationships and comportment that its English cognate, *education*, lacks. A compare and contrast activity around this cognate would not only clarify this specific example, but it would also help second language learners gain perspective on the possibilities and hazards of using cognates to aid second language comprehension. Walsh (1999) also describes the successful use of compare and contrast activities with Haitian immigrant high schoolers with limited previous schooling.

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Responding to students' input

Heath and McLaughlin (1993), Mahiri (1998), Moje (2000), and Sarroub (2001), are among the researchers who have established that various groups of young people employ powerful literacy practices outside of school that are unrecognized, untapped, and/or unvalued in school. Supporting students to construct authentic connections between these existing literacy habits and their learning needs can be an effective way to motivate engagement in academic literacy habits and skills as well.

A vivid illustration of making connections to students' lives and using student engagement as a springboard to improve academic achievement can be found in Olsen and Jaramillo's (2000) description of the experience of students' collecting, analyzing, and reporting data to teachers at Alisal High School. In the early 1990s, Alisal was a school of almost all Latino students situated in an agricultural community in California's Central Valley. More than half of the students were ELLs eligible for modified instruction. At the school, a team of six students, supported by a group of reform−oriented teachers, conducted a series of focus groups with a cross−section of classes at the school−from advanced placement to mainstream to ESL at all four grade levels. The student team presented a report of their findings and recommendations, which led to the schools' adoption of a

block schedule, the creation of a tutorial block, and the raising of academic standards in specific response to challenges and struggles that the students had articulated. Teacher collaboration time and a twice−a−week heterogeneously grouped advisory were also added. Each of these changes (and others) was consequential for changing instructional practice and improving student learning. The teachers' new strategies were grounded in an understanding of literacy development and collective acceptance of the need to integrate the development of literacy skills with their teaching of content. The student body's acceptance of the changes necessary to improve instruction was enabled by positioning students as central figures in both the problem diagnosis and the development of solutions. Students could see how their experience and recommendations mattered.

From an urban environment on the other side of the country, Darling−Hammond, et al. (1995) describe a number of efforts at New York City's International High School that were created collaboratively by teachers and students. One of the efforts, the Beginnings program, uses students' autobiographies−where they are from and what their new circumstances are (all students at International High School are immigrants)−as the starting point for a number of academic activities, including goal setting and need assessing regarding English language acquisition. These efforts, too, have succeeded at using student input as a vehicle of engagement.

The literature on the schooling of adolescent ELLs emphasizes that context matters; what works with some ELLs in some places will not work as well elsewhere (e.g., G‡ndara, 1997; Hawkins, 2004; Montague, 1997; Northwest Regional Educational Laboratory, 2004). Teachers need to know specifically which literacy skills and which background knowledge their ELLs bring to the classroom and they need to be able to adapt the promising practice recommendations that emerged from a review of the adolescent literacy literature to the specific needs and language capacities of the students in their classes. Teachers can engage ELLs with content related texts, including advanced texts, by using a variety of strategies to activate background knowledge, help students make connections to text, and solicit and respond to students' input about their literacy and learning needs and interests.

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Related Web Resources

Basic science concepts: How Stuff Works (188)
ELL Resource: Connecting Students to Culturally Relevant Texts (182)
ELL Resource: Twenty−Five Great Ideas for Teaching Current Events (46)
Problem Based Social Studies (96)

Student Achievement for Teachers: Motivation in Instructional Design (67)
Ten Great Activities: Teaching With the Newspaper (45)
The Arts/Literacy Project (68)

Having Students Interact with Each Other and with Text

What is it?

Teachers expect that readers will actively interact with text to transact meaning; that students will interactively explore content and develop common understandings; and that both teachers and students will interact to understand point of view. Teachers consistently expect responses to text and experience as a part of teaching and learning. Teachers foster literacy development in the classroom by using collaborative learning techniques as well as creating a classroom environment where diverse perspectives are welcomed and supported.

Suggested Strategies and Resources

For a discussion of strategies, roles of teachers and students in the collaborative classroom, and explanations for why a collaborative classroom is an effective component of literacy support, see http://www.ncrel.org/sdrs/areas/rpl_esys/collab.htm. Examples across the curriculum are also provided.

For a description of research−based strategies that high school teachers can use to stimulate student interaction with texts, see http://cela.albany.edu/newslet/spring97/miller.html.

For a very interesting description of the use of a critical literacy framework to get students to interact with one another and the material at hand, see http://www.readingonline.org/articles/willis/

For some excellent suggestions of a variety of ways to have students interact with text, see http://www.criticalreading.com/waystoreadtoc.htm

For a description of the process of collaborative strategic reading, a collection of strategies that supports struggling readers to interact with each other and improve reading comprehension, see http://www.dldcec.org/pdf/teaching_how−tos/using_collaborative.pdf. This strategy has been particularly helpful and successful with ELLs.

Questions to Think About

Before you can implement this Key Component, your stakeholders will need to consider some or all of these questions. The questions could be used in group discussions, needs sensing activities, and informal small−group conversations.

- How does our current school culture explicitly and implicitly promote literacy development as a meaningful and worthwhile activity? How does our current school culture explicitly and implicitly undermine literacy development as a meaningful and worthwhile activity?

- What kinds of literacy identities do our students develop? What can we do to support more students in developing more positive literacy identities? What kinds of attitude shifts on the part of students, teachers, administrators, and parents would that involve? What kinds of structural changes might that involve?
- How well do classrooms across the content areas meet the criteria for connections, interaction, and responsiveness−−and, therefore, set the context for optimal literacy development for diverse learners?
- What are the challenges in creating more classroom experiences that meet the criteria of connections, interaction, and responsiveness? How can these challenges be met?

Story Summaries

Bobby Marchand's Special Education Class at Central Falls High School

- Central Falls, Rhode Island is a high−poverty city with rapidly changing demographics.
- In 2000, 95% of students at Central Falls High School qualified for free or reduced−priced lunch.
- Previously disengaged students have been placed in a self−contained special education class.
- These students and their teachers have been participating in a literacy development opportunity, offered through Brown University, called the ArtsLiteracy Project (ArtsLit).
- The ArtsLit professional development workshops and summer programs (http://artslit.org/programs.html) emphasize the teaching concepts of modeling, apprenticeship, and scaffolding.
- The ArtsLit curriculum (or Performance Cycle: see http://www.artlit.org/handbook.html) emphasizes high standards, community building, interactive learning, student voice, and connections to life experiences.
- Multi−sensory learning increases these special education students' engagement with school.

Students in a small special education class in Central Falls, Rhode Island are learning literature with a twist. As they read and perform their original scripts on the school stage, they are enthusiastic about showing what they can do. Both attendance and classroom participation have skyrocketed in this group since Central Fall High School's involvement with The ArtsLiteracy Project (ArtsLit) began.

ArtsLit draws on research in language development, literacy, and arts education suggesting that the multi−sensory learning involved in theater work −− acting, speaking, writing, planning and organizing for a performance −− is a powerful tool for improving students' engagement in school, and especially in literacy activities.

The ArtsLiteracy Project, with its unique Performance Cycle literacy development framework, is particularly effective for these special education students. The Performance Cycle provides a recurring, structured, and predictable sequence that supports students' engagement, focus, and attention. Especially relevant to students who experience behavior problems are the elements that engage students socially in a community, that give the students voice and agency, and that provide personally valid purposes for reading, writing, listening, thinking, and speaking. Of particular benefit to these students are the Performance Cycle's enactive learning activities and collaborative structure. Through this process, they are engaging with text in a variety of ways – including writing original stories, reading their work aloud, listening to each other's work, and offering constructive feedback on their performances.

Christine Cziko's Freshman English Class, Thurgood Marshall High School

- Urban school with emphasis on college preparation
- 40% of students with GPAs of 2.0 or below at start of program
- High failure rate attributable to low reading comprehension levels in content areas
- 10−unit, yearlong course for all incoming freshmen that looked for ways to make it "cool" to unlock difficult text
- Reading modeling/apprenticeship where comprehension is something that can be learned−−not a mystery that you "get" or "don't get"
- Sustained Silent Reading that prompts students to reflect on what they learned about themselves as readers

At the Thurgood Marshall School, the Academic Literacy course began as a 10−unit, year−long course for all freshmen in Fall 1996. At that time, many students were failing, and reading comprehension was considered part of the problem. Offered through the Strategic Literacy Initiative, a research and professional development effort based in San Francisco, the course builds students' awareness of reading purposes and processes. they are prompted to think about their own relationships to reading, reflecting on questions such as "What strategies do I use as I read?" They make use of Silent Sustained Reading and are asked to reflect on discoveries about themselves as readers. After seven months of instruction, students on average increased their reading comprehension by two grade levels at Thurgood Marshall.

English Language Learners Share Their Stories, The ArtsLiteracy Project at Central Falls High School

- In this English language learners class at Central Falls High School in Rhode Island, most students have spoken English for only a few years or months, some for a few weeks.
- The city of Central Falls ranks the highest in the state of Rhode Island for community−wide limited English proficiency (29.5%, compared to the state average of 6.2%).
- These students and their teachers are participating in a literacy development opportunity, offered through Brown University, called the ArtsLiteracy Project (ArtsLit).
- ArtsLit draws on research in language development, literacy, and arts education. The research suggests that acting, speaking, writing, planning, and organizing for a performance is a powerful tool for improving students' engagement in school, and especially in literacy activities.
- The ArtsLit professional development workshops and summer programs (http://artslit.org/programs.html) emphasize the teaching concepts of modeling, apprenticeship, and scaffolding.
- The ArtsLit curricular framework (or Performance Cycle: see http://www.artslit.org/handbook.html) emphasizes high standards, community building, interactive learning, student voice, and connections to life experiences.
- Aspects of the ArtsLit Performance Cycle that contribute to this practice are Building Community, Rehearsing/Revising Text, and Performing Text.

The stage is set with 20 English language learners, their teachers, their ArtsLiteracy Project mentor, and a performance artist. Together they will develop a theatrical performance based on various texts and personal stories that explore the students' lives and their hopes for the future. On performance day, they will share their stories and demonstrate their skills to the whole student body at Central Falls High School in Central Falls, Rhode Island.

The ArtsLiteracy Performance Cycle benefits English language learners by creating a safe, engaging,

and welcoming community of learners and by offering an abundance of motivating and purposeful activities for practicing skills in reading, writing, speaking, and listening. Students benefit from the enactive learning activities and collaborative structure of the Performance Cycle. With these supportive elements, English language learners are better able to understand challenging text.

ArtsLit teachers use strategies that improve literacy and build a classroom community in which adolescents develop the skills and habits of mind to convey meaning through−−and recover meaning from−−print text. ArtsLit believes that adolescent learning is enhanced by productive risk−taking and "upping the stakes."

As students in this English language learners class read their stories aloud, they practice pronouncing and decoding the printed word. As the class works toward performing its original scripts on the school stage, the students learn to project their voices. It is clear that they are motivated and excited to present their stories to their classmates. Through this process, they are engaging with text in a variety of ways −− including writing original stories, reading their work aloud, listening to each other's work, and offering constructive feedback on their performances.

Research Summary

Summary

Sections II and III in the research summary below are direct excerpts from Julie Meltzer and Edmund Hamann's Meeting the Literacy Development Needs of Adolescent English Language Learners Through Content Area Learning, Part I (2004). This is a publication of the Education Alliance at Brown University funded by the Northeast and Islands Regional Educational Laboratory.

I. General Research on Component A: Literacy and Motivation
II. Research on Having Students Interact With Each Other and With Text
III. Research on Using This Practice With English Language Learners
IV. References

General Research on Component A: Literacy and Motivation

The research is clear that one key to motivating students to develop positive literacy identities involves creating a student−centered classroom. This is a classroom where students feel a sense of belonging, feel competent, feel respected, and feel trusted to make choices−−and, therefore, to strengthen their literacy skills (e.g. Alvermann &Phelps, 1998; McCombs &Barton, 1998). Such an environment allows for 1) formation of meaningful adult and peer relationships; 2) dialogue, collaboration, and the expression of personal and collective views; and, 3) acknowledgement and respect for unique abilities and talents (McCombs &Barton, 1998). Essential aspects of this environment that appear throughout the literature and have proven connections to enhancing literacy development include 1) the availability and use of a wide range of reading materials (e.g. Collins, 1996; Rycik &Irvin, 2001), 2) use of collaborative learning (Langer, 2001; Tinzmann, et. al. 1990), and 3) the importance of a responsive classroom environment where diverse life experiences and perspectives are welcomed (e.g. Oldfather, 1994; Schoenbach et al, 1999).

According to the literature, success depends on the effective use of 1) a critical literacy approach (e.g. Schoenbach et al 1999) and, 2) the teaching, practice and use of specific research−based strategies to

structure literacy−related interactions. These include Reciprocal Teaching (Alfassi, 1998; Langer, 2001; Roshenshine &Meister, 1994), Question Generating (Rosenshine, et al. 1996) and Think Alouds (Kucan &Beck, 1997). In combination, these help to create a classroom culture where the expectation is that all students and teachers will be regularly engaged in negotiating co−constructed meanings of texts.

Three best practices encapsulate the research in this critical area: 1) Making connections to students' lives (e.g. Alvermann &Phelps, 1998; Davidson &Koppenhaver, 1993; Langer, 2001); 2) Having students interact with each other and with text (e.g. Langer, 2001; Schoenbach, et al, 1999; Wilhelm, 1995); and 3) Creating responsive classrooms (e.g. Oldfather, 1994; Schoenbach et al, 1999). To facilitate an environment which supports such connections, interactions and responsiveness requires 1) that teachers know their students, 2) know how to teach reading and writing, and 3) know how to optimize the social and motivational needs of adolescents in service of content area learning (e.g. Langer, 2001; McCombs &Barton, 1998; Moore, et al., 2000; Schoenbach et al, 1999; Tierney &Pearson, 1981, 1992).

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Research on Having Students Interact With Each Other and With Text

From the Adolescent Literacy Support Framework:

> *Teachers expect that readers will actively interact with text to transact meaning; that students will interactively explore content and develop common understandings; and that both teachers and students will interact to understand point of view. Teachers consistently expect responses to text and experience as a part of teaching and learning. Teachers foster literacy development in the classroom by using collaborative learning techniques as well as creating a classroom environment where diverse perspectives are welcomed and supported.* − Meltzer (2001)

Having students interact with text and with each other in ways that stimulate questioning, predicting, visualizing, summarizing, and clarifying leads to improved reading comprehension and skill at content area reading (e.g., Alvermann &Moore, 1991; Langer, 1999; NRP, 2000; Palincsar &Brown, 1984; Ruddell &Unrau, 1996; Schoenbach, et al., 1999; Symons, Richards &Greene, 1995; Wilhelm, 1995). This instructional principle acknowledges the effectiveness of a reading as problem solving approach as well as the social nature of literacy development. Both perspectives have implications for motivation because they engage students with text through the use of cognitive and social strategies that align with the developmental needs of adolescents as understood in both cognitive and social learning theories.

Placing students in an interactive stance with text positions them to be active readers of text and negotiators of meaning. This stance results in improved reading comprehension (Alvermann, 2001, Ruddell &Unrau, 1996). Many adolescent literacy researchers also advocate that students be taught and encouraged to take a critical approach to literacy; that is, to actively question authorial position, credibility, audience, language, and validity. Critical literacy, which involves the cultural and political analysis of text, clearly motivates the engagement of adolescents with text and, according to some researchers and literacy theorists, is an essential component of adolescent literacy growth and development (see, for example, Appleman, 2000; Alvermann, 2001; Reed et al., 2004; Schoenbach et al., 1999).

There also seems to be a connection between motivation and strategy use in that intrinsic motivation seems to predict strategy use, and strategy use seems to increase motivation (e.g., Curtis, 2002; Guthrie &Wigfield, 2000; Roe, 2001). Most research−grounded literacy strategies are directly connected to increasing strategic or focused interaction with text. (See, for example, Duke &Pearson, 2002; Rosenshine, Meister, &Chapman, 1996.) This can subsequently create a cycle of motivation where interaction with text, increasingly autonomous use of literacy support strategies, and growing confidence and competence as a reader reinforce one another (e.g., Jetton &Alexander, 2004).

Using collaborative learning structures to discuss and negotiate text positively correlates with students' engagement, reading comprehension, and content area learning (e.g., Biancarosa &Snow, 2004; Guthrie, 2001; Ruddell &Unrau 1996; Langer, 1999; Guthrie, 2001). In Langer's (1999) study of high performing secondary English language arts classrooms, one of the six distinguishing characteristics was the extent to which the classrooms were organized to provide students with a variety of opportunities to learn through substantive interaction with one another as well as with the teacher...English learning and high literacy (the content as well as the skills) were treated as social activity, with depth and complexity of understanding and proficiency with conventions growing out of the shared cognition that emerges from interaction with present and imagined others (Langer, 1999, p. 32). It is through participating in a social community of literacy learners that students are motivated to read and write and to develop positive literacy identities (Curtis, 2002; Guthrie, 2001; Oldfather, 1994; Ruddell &Unrau, 1996).

There is evidence of effectiveness for academic literacy development when these strategies are used strategically in conjunction with one another. For example, there are two strategies that combine structured interaction with text and collaborative learning which have been shown to improve both student engagement and reading comprehension: Reciprocal Teaching (Palincsar, 2003; Palincsar &Brown, 1984, 1989; Rosenshine &Meister, 1994) and Collaborative Strategic Reading (Klingner &Vaughn, 1996; Klingner, Vaughn, &Schumm, 1998). (There are a variety of cognitive strategies addressed in the research summaries for Components B and C that pertain to improved literacy and learning across the content areas, but that are not specifically associated with improved literacy motivation and engagement.) There is a further motivational outcome in classroom cultures where the social expectation is that students will read, discuss, and share books. Social motivation for reading is correlated with increased reading and higher achievement (Guthrie, 2001).

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Research on Using This Practice With English Language Learners

Text−based discussion and collaborative learning also emerge in the ELL literature as two key instructional approaches for engaging ELLs with content area learning and literacy development. There is a lot of evidence that interactional learning encourages cooperation and discourse, which, in turn, drive language learning (Waxman &Tellez, 2002). This seems to be the case even where all the students in the group lack full English proficiency (e.g., Joyce, 1997). Discussion−based English language arts classrooms support greater academic achievement than those that do not use discussion as a primary instructional strategy; this is true for both ELLs and their monolingual English−speaking peers (Applebee, et al., 2003).

Such learning conditions are more common in higher track classes (Oakes, 1985) where, unfortunately, ELLs and former ELLs are less likely to be enrolled (Vald s, 2003). Still, when ELL high school students do manage to successfully advocate for their placement in more advanced tracks where these best practices are present, evidence suggests that they thrived (see, for example, Dwyer,

1998; Harklau, 1994a, 1994b; Lucas, 1993).

Text, itself, also emerges in the ELL literature as a key instructional aid to content area learning. The reviewability of text and the act of producing text (writing), supplemented by speaking and listening activities, seem to be more effective than lecture or discussion alone for enhancing content area learning and academic literacy development (Harklau, 2002).

Opportunities and expectations for interactions with text

Creating the expectations that students will make text−to−text, text−to−self, and text−to−world connections with all reading they encounter must be scaffolded by opportunities to do so and assignments that require it. Too often the classrooms encountered by secondary−level ELLs lack these rigorous but appropriate expectations (Ochoa &Cadeiro−Kaplan, 2004; Vald s, 2001). Beyond just discussion of content, there is also need for teacher−led attention to, and exploration of, the languages used in texts for rhetorical and aesthetic effect (Fillmore &Snow, 2000).

Providing frequent opportunities for students to engage in interactive discussion supports reading comprehension, content understanding, and spoken academic language development. Such instructional conversation provides extended dialogue opportunities, supports student construction of meaning, and involves teachers in promoting connected language and expression, responding to and using students' contributions, and creating a challenging and non−threatening atmosphere (Waxman &Tellez, 2002 p.1). Not only does this support academic success, but it provides crucial opportunities for ELLs to use academic language in meaningful ways (Echevarria &Goldenberg, 1999). Indeed, according to Hall and Verplaetse (2000a) the need for an abundance of written and oral interaction opportunities may be even greater for ELLs in their acquisition of academic language. Through classroom interaction, the student simultaneously develops socially, communicatively, and academically, while sharing in the co−construction of classroom knowledge, establishing his/her identity and membership in the classroom community (Corson, 2001; Norton, 1997; Toohey, 2000; Zuengler, 1993), and engaging in the requisite practice that leads to higher levels of academic communicative competence (Hall, 1993; Rosebery, Warren, &Conant, 1992). Dšrnyei (2001b) identifies all of these as prerequisites or co−requisites for motivated and engaged reading, writing, speaking, and listening in a second language.

Text−based discussion supports interactive exploration of themes, ideas, and opinions with required connections back to the text: *Where in the text is the evidence for what you just described? Where in the text does the character say those things that give you that impression? Does the language used by the author support your contention?* Effective strategies to support text−based discussion include: the use of essential questions to set purpose for reading; two−column note−taking, or coding, with subsequent discussion; extended wait time; think−pair−share; reciprocal teaching; small−group−to−large−group responses to questions and prompts (where the small group discusses the question first and then reports out to the larger group); group comparison and contrast of text with visual material or another text through collaborative completion of graphic organizers; and use of quick writes before opening up the discussion (e.g., Anstrom, 1997, Adger &Peyton, 1999).

Harklau (2002) notes that the bulk of secondary−level ELLs' acquisition of academic literacy skills and content knowledge comes through textual rather than oral means. Of the high school students she studied, she writes, The learners I was observing might only interact with the teacher once or twice during the entire school day...On the other hand, teachers routinely provided learners with explicit feedback on language form on their written language output (pp. 331−332). Harklau also observed that these students often preferred to work with written as opposed to oral sources of input because texts were reviewable, unlike the talk of teachers and peers. She (2002) further notes:

> There are many potential incentives for literate learners to make use of writing and reading in their [English language] acquisition process. At a basic level, writing is handy. It serves as a mnemonic strategy; e.g., lists of vocabulary or common phrases. It can also serve analytic purposes; e.g., writing down examples of grammatical rules or diagramming sentences. On a broader level, a distinguishing characteristic of print is the possibility for language learners to interact without the pressures of face−to−face communication, allowing them to slow the pace, make exchanges reviewable and self−paced, and to put contributions in editable form. (p. 337)

Text, therefore, becomes an even more important vehicle for engaging adolescent ELLs than for other adolescents. For ELLs, thus, there is an additional imperative for creating challenging environments for learning that expect students to respond in meaningful ways to text and to create meaningful texts themselves. Lower expectations do not support ELLs' co−development of literacy skills and content area understanding; a rigorous, challenging environment does (Echevarria &Graves, 2003; Walqu', 2000a). What is needed is in direct contrast to the watered−down diet of isolated skills practice and low expectations for written output and higher order thinking that most high school ELLs currently experience as part of their schooling (Jimenez &Gersten, 1999; Ochoa &Cadeiro−Kaplan, 2004).

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Collaborative learning

There is also evidence that the purposeful use of cooperative learning structures in content−area classrooms motivates ELLs' participation and supports their achievement (e.g., Montes, 2002). Well−designed cooperative learning is an important literacy development strategy for adolescent native and non−native speakers, because it allows the social construction of meaning through collaborative effort (Montes, 2002; Waxman &Tellez, 2002). Effective cooperative grouping strategies include purposeful assigning of students to groups (mixing native and non−native speakers; creating groups around interest/inquiry; choosing group membership based on strengths brought to bear on project completion); using inquiry−based authentic or project−based tasks; scaffolding tasks so that check−in is required at different points in the process; requiring group and individual assessment; and establishing working group routines around particular types of tasks, for example, reciprocal teaching and collaborative strategic reading (e.g., Anstrom, 1997). To maximize literacy development, assignments should require students to use reading, writing, and speaking to learn and should contain aspects that draw students' attention to both spoken and written language use (their own and others) and content (Fillmore &Snow, 2002).

Cooperative learning can also be usefully extended to having peers review each others' written work. In their study of second language learners at the secondary level, Tsui and Ng (2000) found that while students preferred feedback on their writing from their teacher, most found peer comments to also be helpful. In particular, peer comments enhanced a sense of audience, raised learners' awareness of their own strengths and weaknesses, encouraged collaborative learning, and fostered the ownership of text. This was true for both less experienced and more experienced second language writers.

Student−directed activities, cooperative learning, peer coaching, and opportunities for practice were all associated with more effective classrooms for ELLs (August &Hakuta, 1997; de Felix, Waxman, &Paige, 1993; G‡ndara, 1997; Ortiz, 2001; and Walqu', 2000a). In a quasi−experimental study comparing two college−prep algebra classes with high ELL enrollments in Southern California, Brenner (1998) found that, in the classroom where students regularly engaged in small group discussions, students more frequently communicated about math (i.e., were more often engaged in the learning task) and were more comfortable participating in large−group communication about math. In

a review of the Cognitive Academic Language Learning Approach (CALLA), a dual language immersion math and science instruction model, Chamot (1995) found that the program regularly promoted active student participation−such as hands−on experiences, cooperative learning, and higher−level questioning−and that it consistently yielded above−average student achievement.

Again, the value and importance of the use of this promising practice for ELLs was affirmed through our review of the ELL literature. Teachers who focus on engaging their students in substantive interactions with text and with one another about text/content will be serving the learning and literacy development needs of their ELL students, as well as of their other students.

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Related Web Resources

Literature Learning and Thinking in High School Classrooms (69)
A Horizon of Possibilities: A Critical Framework for Transforming Multiethnic Literature Instruction (70)
Lesson Plan Index of Read Write Think (170)
Using Collaborative Strategic Reading (38)

Creating Responsive Classrooms

What Is It?

Teachers are responsive to adolescent students' needs for choice and flexibility and offer clear expectations and support for higher achievement. A variety of materials and resources are available for teaching and learning. Engagement can be the key to motivating learners previously caught in a cycle of failure in reading and writing. Teachers are also responsive to differing cultural perspectives, making these perspectives clear through their facilitation of discussion, choices of literature, structuring of assignments and assessment strategies. Teachers encourage students from all backgrounds and from diverse perspectives to participate in supportive classroom discussions.

The Knowledge Loom provides research and case studies of culturally responsive practice. It makes explicit the work of teachers who use and respect their students' languages, cultures, and life experiences through the following principles, which can also be found on the Culturally Responsive Teaching Spotlight.

Suggested Strategies and Resources

For a list of research−based strategies for supporting minority student achievement, see http://www.mcps.k12.md.us/departments/dsd/documents/diversity_article.pdf.

For research and strategies related to supporting the academic achievement of Asian−American students, see http://sll.stanford.edu/projects/tomprof/newtomprof/postings/244.html

A scholar reviews the research on factors that affect the academic achievement of Latino versus Asian immigrants. See http://www.ncrel.org/gap/library/text/differentfactors2.htm

To learn why it is critical to include multicultural literature in the classroom, see http://www.ncela.gwu.edu/pubs/jeilms/vol15/crossing.htm.

There are many good Web sites listing books and resources by genre, intended audience, cultural perspectives, and theme, which target young adult readers. You might want to check out the following to broaden the reading materials you provide or recommend to engage learners:
http://falcon.jmu.edu/%7Eramseyil/yalit.htm

http://isomedia.com/homes/jmele/joe.html

http://scholar.lib.vt.edu/ejournals/ALAN/fall95/Ericson.html

Questions to Think About

Before you can implement this Key Component, your stakeholders will need to consider some or all of these questions. The questions could be used in group discussions, needs sensing activities, and informal small−group conversations.

- How does our current school culture explicitly and implicitly promote literacy development as a meaningful and worthwhile activity? How does our current school culture explicitly and implicitly undermine literacy development as a meaningful and worthwhile activity?
- What kinds of literacy identities do our students develop? What can we do to support more students in developing more positive literacy identities? What kinds of attitude shifts on the part of students, teachers, administrators, and parents would that involve? What kinds of structural changes might that involve?
- How well do classrooms across the content areas meet the criteria for connections, interaction, and responsiveness−−and, therefore, set the context for optimal literacy development for diverse learners?
- What are the challenges in creating more classroom experiences that meet the criteria of connections, interaction, and responsiveness? How can these challenges be met?

Story Summaries

Bobby Marchand's Special Education Class at Central Falls High School

- Central Falls, Rhode Island is a high−poverty city with rapidly changing demographics.
- In 2000, 95% of students at Central Falls High School qualified for free or reduced−priced lunch.
- Previously disengaged students have been placed in a self−contained special education class.
- These students and their teachers have been participating in a literacy development opportunity, offered through Brown University, called the ArtsLiteracy Project (ArtsLit).
- The ArtsLit professional development workshops and summer programs (http://artslit.org/programs.html) emphasize the teaching concepts of modeling, apprenticeship, and scaffolding.
- The ArtsLit curricular framework (or Performance Cycle: see http://www.artlit.org/handbook.html) emphasizes high standards, community building, interactive learning, student voice, and connections to life experiences.
- Multi−sensory learning increases these special education students' engagement with school.

Students in a small special education class in Central Falls, Rhode Island are learning literature with a twist. As they read and perform their original scripts on the school stage, they are enthusiastic about showing what they can do. Both attendance and classroom participation have skyrocketed in this group since Central Fall High School's involvement with The ArtsLiteracy Project (ArtsLit).

ArtsLit draws on research in language development, literacy, and arts education suggesting that the multi−sensory learning involved in theater work −− acting, speaking, writing, planning and organizing for a performance −− is a powerful tool for improving students' engagement in school, and especially in literacy activities.

The ArtsLiteracy Project, with its unique Performance Cycle literacy development framework, is particularly effective for these special education students. The Performance Cycle provides a

recurring, structured, and predictable sequence that supports students' engagement, focus, and attention. Especially relevant to students who experience behavior problems are the elements that engage students socially in a community, that give the students voice and agency, and that provide personally valid purposes for reading, writing, listening, thinking, and speaking. Of particular benefit to these students are the Performance Cycle's enactive learning activities and collaborative structure.

When students make personal connections between their lives and their academic reading and writing, they become more engaged in school and their literacy skills improve. As they work toward their final project, teachers and students create a responsive atmosphere in which students feel comfortable sharing and developing their stories.

Christine Cziko's Freshman English Class, Thurgood Marshall High School

- Urban school with emphasis on college preparation
- 40% of students with GPAs of 2.0 or below at start of program
- High failure rate attributable to low reading comprehension levels in content areas
- 10−unit, yearlong course for all incoming freshmen that looked for ways to make it "cool" to unlock difficult text
- Reading modeling/apprenticeship where comprehension is something that can be learned −− not a mystery that you "get" or "don't get"
- Sustained Silent Reading that asked students to record what they learned about themselves as readers

At the Thurgood Marshall School, the Academic Literacy course began as a 10−unit, year−long course for all freshmen in Fall 1996. At that time, many students were failing, and reading comprehension was considered part of the problem. Offered through the Strategic Literacy Initiative, a research and professional development effort based in San Francisco, the course builds students' awareness of reading purposes and processes. They are prompted to think about their own relationships to reading, reflecting on questions such as "What strategies do I use as I read?" They make use of Silent Sustained Reading and are asked to reflect on discoveries about themselves as readers. After seven months of instruction students at Thurgood Marshall on average increased their reading comprehension by two grade levels.

Fenway High School's Literacy Program

- 58% of Fenway High School's 270 students are eligible for free or reduced−price lunch and 8.2% are English language learners.
- Over the past five years, the faculty and administration at Fenway High School have worked hard to create a school−wide culture of literacy.
- Foundations of Literacy course supports ninth graders' development as independent readers and writers.
- Since the inception of its literacy program, students' performance on the English Language Arts test of the Massachusetts Comprehensive Assessment System (MCAS) has risen steadily. The school consistently ranks among the top performing urban high schools in the state.

Fenway High School is a small, urban, public high school that has been recognized as a New American High School by the United States Department of Education and won recognition from the New England Association of Schools and Colleges and other outside institutions. Its literacy program has evolved over the past five years and will continue to be adjusted to enable it to better meet the needs of students.

The literacy program at Fenway consists of three main components:

- a year−long Foundations of Literacy course, which all ninth graders take three times per week in addition to their humanities course;
- in−service workshops for faculty; and
- co−teaching by the literacy coordinator and core subject area teachers to incorporate literacy strategies and skills.

The school's staff and students also participate in two 30−minute periods of sustained, silent reading ("Drop Everything and Read") each week.

Humanities, science, and math teachers use strategies introduced during in−service workshops, either on their own or through co−teaching experiences with the literacy coordinator in their classrooms. In the Foundations of Literacy course, ninth graders receive individualized diagnosis of their reading and writing skills and ongoing assessment of their progress; through structured instruction of reading and writing strategies and opportunities to respond to texts in a variety of ways, they learn to become independent readers and writers. The literacy coordinator attributes the rising scores on the statewide assessment to: the focus of the humanities department on skill development—developing readers and writers; the Foundations of Literacy course, which offers ninth graders more time for reading and writing and reinforces what is being taught in humanities; and the school's culture of literacy.

English Language Learners Share Their Stories, The ArtsLiteracy Project at Central Falls High School

- In this English language learners class at Central Falls High School in Rhode Island, most students have spoken English for only a few years or months, some for a few weeks.
- The city of Central Falls ranks the highest in the state of Rhode Island for community−wide limited English proficiency (29.5%, compared to the state average of 6.2%).
- These students and their teachers are participating in a literacy development opportunity, offered through Brown University, called the ArtsLiteracy Project (ArtsLit).
- ArtsLit draws on research in language development, literacy, and arts education. The research suggests that acting, speaking, writing, planning, and organizing for a performance is a powerful tool for improving students' engagement in school, and especially in literacy activities.
- The ArtsLit professional development workshops and summer programs (http://www.artslit.org/programs.html) emphasize the teaching concepts of modeling, apprenticeship, and scaffolding.
- The ArtsLit curricular framework (or Performance Cycle: see http://www.artslit.org/handbook.html) emphasizes high standards, community building, interactive learning, student voice, and connections to life experiences.
- Aspects of the ArtsLit Performance Cycle that contribute to this practice are Building Community, Rehearsing/Revising Text, and Performing Text.

The stage is set with 20 English language learners, their teachers, their ArtsLiteracy Project mentor, and a performance artist. Together they will develop a theatrical performance based on various texts and personal stories that explore the students' lives and their hopes for the future. On performance day, they will share their stories and demonstrate their skills to the whole student body at Central Falls High School in Central Falls, Rhode Island.

The ArtsLiteracy Performance Cycle benefits English language learners by creating a safe, engaging, and welcoming community of learners and by offering an abundance of motivating and purposeful

activities for practicing skills in reading, writing, speaking, and listening. Students benefit from the enactive learning activities and collaborative structure of the Performance Cycle. With these supportive elements, English language learners are better able to understand challenging text.

By participating in the ArtsLiteracy Project, these students and their teachers have learned new strategies for literacy development. When students make personal connections between their lives and their academic reading and writing, they become more engaged in school, and their literacy skills improve. As they work toward their final project, teachers and students create a responsive atmosphere in which students feel comfortable sharing and developing their stories.

Research Summary

Summary

Sections II and III in the research summary below are direct excerpts from Julie Meltzer and Edmund Hamann's Meeting the Literacy Development Needs of Adolescent English Language Learners Through Content Area Learning, Part I (2004). This is a publication of the Education Alliance at Brown University funded by the Northeast and Islands Regional Educational Laboratory.

I. General Research on Component A: Literacy and Motivation
II. Research on Creating Safe and Responsive Classrooms
III. Research on Using This Practice With English Language Learners
IV. References

General Research on Component A: Literacy and Motivation

The research is clear that one key to motivating students to develop positive literacy identities involves creating a student−centered classroom. This is a classroom where students feel a sense of belonging, feel competent, feel respected, and feel trusted to make choices−−and, therefore, to strengthen their literacy skills (e.g. Alvermann &Phelps, 1998; McCombs &Barton, 1998). Such an environment allows for 1) formation of meaningful adult and peer relationships; 2) dialogue, collaboration, and the expression of personal and collective views; and, 3) acknowledgement and respect for unique abilities and talents (McCombs &Barton, 1998). Essential aspects of this environment that appear throughout the literature and have proven connections to enhancing literacy development include 1) the availability and use of a wide range of reading materials (e.g. Collins, 1996; Rycik &Irvin, 2001), 2) use of collaborative learning (Langer, 2001; Tinzmann, et. al. 1990), and 3) the importance of a responsive classroom environment where diverse life experiences and perspectives are welcomed (e.g. Oldfather, 1994; Schoenbach et al, 1999).

According to the literature, success depends on the effective use of 1) a critical literacy approach (e.g. Schoenbach et al 1999) and, 2) the teaching, practice and use of specific research−based strategies to structure literacy−related interactions. These include Reciprocal Teaching (Alfassi, 1998; Langer, 2001; Roshenshine &Meister, 1994), Question Generating (Rosenshine, et al. 1996) and Think Alouds (Kucan &Beck, 1997). In combination, these help to create a classroom culture where the expectation is that all students and teachers will be regularly engaged in negotiating co−constructed meanings of texts.

Three best practices encapsulate the research in this critical area: 1) Making connections to students' lives (e.g. Alvermann &Phelps, 1998; Davidson &Koppenhaver, 1993; Langer, 2001); 2) Having students interact with each other and with text (e.g. Langer, 2001; Schoenbach, et al, 1999; Wilhelm, 1995); and 3) Creating responsive classrooms (e.g. Oldfather, 1994; Schoenbach et al, 1999). To facilitate an environment which supports such connections, interactions and responsiveness requires 1) that teachers know their students, 2) know how to teach reading and writing, and 3) know how to optimize the social and motivational needs of adolescents in service of content area learning (e.g. Langer, 2001; McCombs &Barton, 1998; Moore, et al., 2000; Schoenbach et al, 1999; Tierney &Pearson, 1981, 1992).

Research on Creating Safe and Responsive Classrooms

From the Adolescent Literacy Support Framework:

> *Teachers are responsive to adolescent students' needs for choice and flexibility and offer clear expectations and support for higher achievement. A variety of materials and resources are available for teaching and learning. Engagement can be the key to motivating learners previously caught in a cycle of failure in reading and writing. Teachers are also responsive to differing cultural perspectives, making these perspectives clear through their facilitation of discussion, choices of literature, structuring of assignments and assessment strategies. Teachers encourage students from all backgrounds and from diverse perspectives to participate in supportive classroom discussions.* − Meltzer (2001)

Based upon their research, Moje and Hinchman (2004) emphatically make the point that All practice needs to be culturally responsive in order to be best practice (p. 321). Further, they define responsive teaching as teaching that *merges* the needs and interests of youth as persons with the needs and interests of youth as learners of new concepts, practices, and skills (p. 323). They stress that since we are all cultural beings with multiple identities (e.g., student, son/daughter, sibling, peer, worker, male/female) who must navigate the world as bearers and enactors of these identities, *responsive teaching* is not an add on for those from other than mainstream cultural backgrounds but rather a fundamental condition of effective classroom practice for all learners.

Responsiveness to literacy needs must, obviously, take place within the larger context of being responsive to the learning needs of adolescents. Roe (2001) refers to a cycle of engagement and enablement. Motivation and engagement are enhanced as learning needs are met, and students' motivation and engagement support their improvement of academic habits and skills. It is therefore not surprising that adolescent literacy researchers, like those who examine effective instructional practices for adolescents more generally, identify the need for supporting choice, autonomy, purpose, voice, and authenticity as key features of responsive classroom pedagogy that supports adolescents' literacy development (e.g., Guthrie, 2001; Ivey &Broaddus, 2001; Reed, Schallert, Beth, &Woodruff, 2004; Roe, 2001; Ruddell &Unrau, 1996; Smith &Wilhelm, 2002; Swan, 2004).

If students are to develop their academic literacy habits and skills, students need to engage with reading and writing (Guthrie, 2001; Guthrie &Wigfield, 2000), but direct engagement with reading and writing is not necessarily the first or only step. Developmentally, adolescents respond to opportunities to make choices and be independent/have autonomy. These opportunities become important supports, therefore, of their development of healthy identities as readers, writers, and speakers (Moore, et al., 1999; Reed et al., 2004; Swan, 2004). How students respond to opportunities for autonomy depends in part upon whether they carry a task or performance orientation and may require more modeling and mediation from the teacher for those students who typically bring a

performance orientation to literacy tasks (Ruddell &Unrau, 1996).

For some students, goal setting and assessment will encourage or motivate engagement with reading and writing tasks (Guthrie, 2001; Guthrie &Wigfield, 2000; Schunk &Zimmerman, 1997). When teachers use multiple forms of assessment, it allows them to better modulate instruction to match students' literacy needs (Langer, 1999; Peterson, et. al., 2000). Ongoing formative assessment provides teacher and student alike with valid information about the student's literacy habits and skills and/or their content knowledge. (See, for example, Biancarosa &Snow, 2004.) Use of more than one form of assessment makes it possible for assessment to be responsive to student needs, learning styles, and strengths, greatly improving the chances that assessment will accurately reflect learning and signal areas for additional attention (Moore, et al., 1999; Solano−Flores &Trumbull, 2003). Having students choose the assessment format they will use to show what they know and involving them with goal setting are additional vehicles for improving motivation and engagement (Guthrie, 2001). When teachers use multiple forms of assessment, it allows them to better modulate instruction to match students' literacy needs (Langer, 1999; Peterson, et. al., 2000). Involving students in rubric development is another way to respond to students' need for voice and input and to learn what they value and respect in high quality written work or presentations. This kind of formative and frequent assessment is different from that generated by large−scale, often high−stakes standardized tests. Whatever the merit of such tests, they do not provide the just−in−time, individualized, nuanced feedback that is being referred to here (Sarroub &Pearson, 1998).

Authenticity is another frequent theme in the literature related to motivation and engagement (e.g., Roe, 2001; Schoenbach, et al., 1999; Smith &Wilhelm, 2002). Adolescents want to conduct inquiry for real purposes, not just to 'pass it in to the teacher.' They want their work to matter and they are more than willing to put effort into developing literacy habits and skills if they are convinced that it is important and/or that their work will help others. This is why having adolescents read with younger students, design websites, write newspaper articles, write books for younger readers, and conduct and report upon inquiries reflecting real societal concerns (e.g., neighborhood crime, pollution, teen issues, school or city policies that affect them) are often strategies that motivate and engage students to persist with challenging or extended reading and writing tasks (Alvermann, 2001).

Another key feature for fostering motivation and engagement with literacy is safety and inclusion. One issue is the culture of the classroom and whether the collaboratively produced webs of meaning−marking what does and does not matter and who is included and how−−is truly responsive to the needs of struggling readers and writers (Moore, Alvermann, &Hinchman, 2000; Ruddell &Unrau, 1996; Van den Broek &Kremer, 2000). For those who make it to high school without adequate literacy habits and skills, it is often scary to reveal this to others and, therefore, to begin the hard work of addressing the issues. Relevant questions weighed by learners deciding whether to engage include: Is it safe in this class to be a struggling reader or writer? Is it safe to make mistakes? Are all voices equally valued and listened to? Are spaces made for those who are slower to participate or fearful to speak or share? Are there texts that are responsive to learners' needs; texts that match varying interests and/or reading levels? Do students feel that the teacher knows them, is on their side, and is working with them to help them develop their literacy habits and skills? The negative consequences for learning and literacy development when students do not answer these questions affirmatively have been well documented (e.g., Foley, 1990).

For many students with low literacy self−esteem, the motivation to read and write depends on their judgments regarding whether a teacher will give up on them or believes that they are worth the investment of time and encouragement. This emerges again and again in the literature (e.g., Dillon, 1989; Guthrie &Wigfield, 2000; Krogness, 1995; Ruddell &Unrau, 1996; Smith &Wilhelm, 2002; Valenzuela, 1999). This underscores the importance of teacher and student relationships along with

the importance of teacher understanding of adolescent literacy development and issues (e.g., Moore, Alvermann, &Hinchman, 2000; Moore, et al., 1999; Ruddell &Unrau, 1996).

A classroom environment that responds to adolescents' need to feel competent and that provides feedback in a specific and supportive way so competencies are built can result in greater motivation to engage with literacy tasks (Smith &Wilhelm, 2002). Technology use can be of assistance here since many students feel competent with computers and may be more willing to engage with literacy tasks using them (Alvermann, 2001; Biancarosa &Snow, 2004; Kamil, 2003).

The adolescent literacy literature is also insistent that adolescents need and deserve access to a wide variety of types of texts and that the quality and diversity of reading material is related to motivation to read (Biancarosa &Snow, 2004; Curtis, 2002; Guthrie, 2001; Guthrie &Knowles, 2001; Ivey &Broaddus, 2001; McCombs &Barton, 1998; McKenna, 2001; Moore, et al., 1999). While this may be seen as a resource or structural issue, as opposed to a classroom culture or motivational issue, it is both. The presence or absence of a wide variety of texts enables or undermines the potential for a literacy−rich environment within a school or classroom. The availability of texts that mirror students' social realities, interests, and reading levels makes it clear that student learning will be supported and student identities honored. Such a collection should include a wide selection of types of content−related fiction and nonfiction texts written by a variety of authors representing multiple perspectives, cultures, styles, genres, and time periods. Absent an abundant supply of texts, It would be extremely difficult for students to engage in critical analysis−−such as comparing and contrasting conflicting textual information, or interpreting and integrating differing viewpoints of a topic of study−−without having access to multiple texts to read (Guthrie, 2001, p. 6). Having access to a wide variety of literature to support content area learning is therefore not a luxury but a key facet of creating and sustaining a motivating learning environment that supports academic literacy development. It supports students feeling tended to, enabling their engagement and their willingness to use texts to think and learn.

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Research on Using This Practice With English Language Learners

In surveying the secondary ELL literature, three aspects of responsiveness emerge related to the psycho−emotional disposition of students to engage with academic literacy development and content area learning. Although each has ramifications that go well beyond language learning and literacy development, it is these dimensions of each issue which are emphasized here:

- Feeling truly safe to participate even with less than perfect English.
- Having teachers who understand the typical varieties of spoken and written language produced by ELLs and how competencies and errors may vary by different language groups; that is, having teachers who can distinguish content comprehension problems from language comprehension problems and who can effectively address both.
- Seeing choices of texts and hearing examples and discussion of issues that reflect ELLs' social realities.

None of these are currently commonplace in most mainstream content area classrooms. Yet with minor adjustments, teachers can help turn their classrooms from places where ELLs refuse or find it difficult to participate into responsive learning environments where ELLs' academic literacy development can be effectively supported.

Safe spaces

Creating safe classroom spaces where students of varied perspectives and backgrounds feel welcome is essential to the successful participation of ELLs in both supported (ESL or bilingual) and mainstream content−focused classrooms. To be culturally responsive, classrooms must be centered around instruction that emphasizes students' cultural and situational concerns, including critical family and community issues, and incorporates them into the curriculum, textbooks, and learning activities. The approach also stresses social and academic responsibility as well as appreciation of diversity (Waxman &Tellez, 2002, pp. 1−2).

Miramontes et al. (1997) stress that the academic wellbeing of ELLs is the responsibility of all the instructors at a school (not just special program teachers). (See also Dwyer [1998].) The literature suggests that mainstream teachers have the primary responsibility for creating a safe space for interaction where ELLs feel they can participate without fear of ridicule. Several studies have depicted the negative consequences for ELLs when this does not occur (e.g., Early, 1985; Schinka−Llano, 1983; Verplaetse, 1999). Pappamihiel notes:

> The process of moving from an English as a second language (ESL) class to a mainstream class with no supplementary English support can be very traumatic for many ESL students. Even though many have good English skills in terms of social proficiency (BICS), many are still struggling with the type of cognitive academic language (CALP) necessary for success in the mainstream classroom (Cummins 1978, 2000). Add this to situational pressure, associated with interactions with native speakers of English, and one can easily see where the process of moving from the ESL class to the mainstream environment would be anxiety provoking. (2001, p. 2)

It is worth considering the community−like quality of the programs many ELLs participated in prior to being mainstreamed (Minicucci, 2000). A pilot study of eight high schools (Hamann, Migliacci, &Smith, 2004), concerned with how plans to convert large high schools into smaller learning communities was or was not inclusive of ELLs, noted that in many cases the ESL and transitional bilingual education programs that ELLs had negotiated prior to exiting and being mainstreamed were like *de facto* smaller learning communities−i.e., programs where students were well known by adults that they worked hard for and trusted. The researchers also found that ELLs who had acquired enough English proficiency to exit such programs often maintained ties with their former ESL instructors, coming back for help with homework, to announce an academic success, or to seek counsel on school and non−school struggles. Feeling "cared for" matters (Valenzuela, 1999), which includes having an outlet to tackle the stresses, academic and otherwise, that are part of negotiating high school, culturally and linguistically unfamiliar terrain, and coming of age. As an extra stress, many immigrant students often have endured long stretches in the care of someone other than their U.S. guardian (e.g., raised by grandparents in Guatemala while parents found work in the United States) (Sœarez−Orozco &Sœarez−Orozco, 2001). It follows that ELLs would welcome the same sense of safety they found in supported programs within the classrooms of their 'mainstream' teachers.

At the middle school level, the Student Diversity Study (Minicucci, 2000) also found that ELLs did better socially and academically when structural changes−like teacher looping, families (i.e., interdisciplinary teacher teams that share a team of students), and after−school programs−enabled teachers and students to know each other better. In the successful schools, traditional modes of organization and the rigidities of schedule were overturned in ways that built ELLs' senses of safety and community. Walsh (1999) too noted, with the Haitian Literacy Program, that immigrant students with limited prior school experience needed more than traditional 40−minute time slots with an instructor to develop the trusting relationship from which engaged learning could follow.

Mainstream teachers can create a culture of, and expectation for, safe classroom participation of ELLs through the use of such strategies as: flexible grouping, intolerance of ridicule, extended wait time after posing a question, and a focus on inquiry−based authentic projects where students' various backgrounds are seen as strengths. Instructional supports, such as partnering, think alouds, practicing before being asked to read aloud or present, and use of Word Walls and graphic organizers also can assist (e.g., Pappamihiel, 2001; Waxman &Tellez, 2002). Failure to create such spaces can result in high nonparticipation by many ELLs, with participation rates further varying by gender (see, for example, Chang, 1997; Pappamihiel, 2001; Wolfe &Faltis, 1999; Wortham, 2001). Verplaetse (1998) notes that mainstream teachers often fail to enable ELLs' full participation in the classroom and that they usually do so *unwittingly*; suggesting that conscious attending to the issue of ELLs' full participation would be part of solving the problem. Without eliciting maximum participation, teachers have no way of assessing what ELLs know and where they need instructional support.

Assessment, like instruction, should be responsive, rigorous, and safe. Teachers need to keep four ideas in mind as they consider assessment in regards to ELLs' motivation and engagement. First, they should note that assessments affect how students regard a classroom, a subject, and themselves as learners. Unmediated, poor test outcomes can contribute to low self−esteem, diminished engagement, and/or a sense that the teacher or strategy of measurement is unfair.

Second, teachers should account for Connell's (1993) point that curricular justice also requires assessment justice. That means that culturally−bound assessment instruments (that use word problems assuming certain familiarities, for example) will underestimate the proficiencies of those whose experiences poorly correspond with the embedded presumptions of the assessment instrument (Lachat, 1999; 2004). Solano−Flores and Trumbull (2003) offer a vivid illustration of this. They found that a math test question from the National Assessment of Educational Progress (NAEP) was consistently misunderstood by low−income students (obscuring that their math calculations, ostensibly the point of interest, were actually often accurate).

Third, content−area teachers need to remember that all tests are tests for language (even if that is not the target area for measurement) and that interpreting test results from ELLs requires winnowing apart language comprehension issues from content area comprehension issues (Abedi, 2004). For example, Greene (1998) found that bilingual programs resulted in significant student achievement gains in math, when the math achievement was measured in Spanish, but that math gains when measured in English were insignificant. Solano−Flores and Trumbull complicate but reiterate this point with their finding that ELLs vary by subject in terms of which language they test better in, reflecting perhaps differences in the language they were using for acquisition. Therefore it is not safe to presume that a Spanish−speaking ELL, who tests better in math if the exam is in Spanish, will necessarily do better on a social studies exam that is in Spanish instead of English. This inter−lingual dilemma relates to literacy motivation and engagement because students who feel that an assessment did not adequately reflect their content area knowledge are vulnerable to frustration and disengagement.

Finally, teachers need to recognize that adolescent ELLs often bring to U.S. classrooms their memories and understandings of schooling and assessment learned elsewhere (Olsen &Jaramillo, 2000; Vald s, 2001). Thus, students from Hong Kong, for example, where state−funded education beyond the ninth grade ends for students who do not score in the top quartile on a standard assessment, might be particularly anxious about assessments. Similarly, students from systems where poor test outcomes are seen as an affront to the instructor might misinterpret the indifferent response of an instructor to their poor performance on a quiz or test.

Responsiveness to language and identity

Walqu' (2000b) has argued that students' backgrounds should be the point of departure for how teachers respond to ELLs, while Valenzuela (1999) has noted that Latino ELLs and other Latino students rarely encounter curricula and classroom practices that do just this. Teachers can unwittingly sabotage their efforts to create positive learning environments through their unexamined responses to ELLs' spoken and written errors in English. Many middle and high school teachers are missing part of the knowledge base they need to effectively facilitate the language and literacy growth across the content areas (Fillmore &Snow, 2000). Without this knowledge base, teachers tend to (a) become hyper−critical of ELLs' written and spoken language errors, (b) forbid native language usage in the classroom as a scaffold for academic understanding and English language development, or, equally problematic, (c) ignore language errors and provide no way for ELLs to improve their academic English. All three types of responses can be made by well−meaning teachers who think they are being responsive to the needs of ELLs, yet all three are ultimately unresponsive to ELLs' needs. Instead, teachers need to lead classrooms where language and literacy development are seen as part of the task of content area instruction.

Harklau (2002) reminds us that most adolescent second language learners already have some developed literacy skills in a first language that they use as tools for academic tasks. Thus, use of the native language to scaffold literacy development in English is often a productive strategy for ELLs (Fernandez &Nielsen, 1986; Garcia, 1999; Jimenez, 1994; Jimenez &Gersten, 1999; Kamil, 2003; Royer &Carlo, 1991; Sturtevant, 1998; Tse, 2001). For instance, if students are allowed to discuss or draft a response to a question in their native language before crafting a response in English, that may better allow them to reflect upon what they know about the content. Studies show that written responses in English are more complete and reflective of content understanding when based upon students' native language (written or verbal) responses to texts they have read in English, in comparison with the quality of responses students produce when required to respond on the spot in English (e.g., Moll, 1988).

It is not just literacy habits developed in a first language that ELLs can draw on to perform well across the curriculum. As Cummins (2001) has highlighted, many low−incidence English language words, like the technical vocabulary students encounter across the content areas, come from Greek and Latin roots. Once native Spanish, Portuguese, French, Italian, and Haitian Creole speakers recognize that science and math words in their first language have cognates in English, rapid acquisition of important vocabulary can more easily follow. (See Nagy et al. [1993] and Nagy, McClure, and Mir [1997] for more regarding Spanish−English bilinguals' use of cognates.)

Mainstream teachers of ELLs need professional development in the area of second language acquisition and literacy development, particularly with reference to how they can most productively respond to ELLs as they gain proficiency with academic English. Such professional development might include studying how different first languages transfer to English with regard to the alphabetic principle, syntax, and language structures; learning about catalogues of language errors and what they indicate about first language and literacy development; and focusing on how to explicitly teach the text structures and discourse features of various content areas (Fillmore &Snow, 2000). This is not an extra, nor is it irrelevant to content area teaching and learning generally, since language and content area literacy are linked with one another and academic success depends on the ability to ably use reading, writing, speaking, and listening to learn. The reading comprehension and writing skills of all learners are advanced if they learn and master the text structures, discourse features, genre traditions, etc., of the various content areas. Because of this, all mainstream teachers need to have some understanding of language and literacy development and the ways these are particularly important to effectively support the content area learning of ELLs.

There is an unfortunate history in U.S. education of attempting to eradicate a student's native language

(if it is not English) (e.g., Dozier, 1970; Spicer, 1976; Suina, 2004). However, a student's native language is an important aspect of that student's identity (Epstein, 1970; Ochoa &Cadeiro−Kaplan, 2004; Tse, 2001); a communication lifeline to family, peers, and community; and a profound resource to draw upon as s/he learns English. Learning and mastering academic English is a primary goal of American schooling and using English to demonstrate mastery is a standard expectation across the curriculum. Even so, it is counterproductive to create learning environments where ELLs feel they have to sacrifice many assets they bring to the table that can help them learn and develop positive identities as readers and writers.

Acknowledging plural social realities

In truly responsive classrooms, teachers explicitly acknowledge and honor students' life experiences and cultural and linguistic backgrounds because they are building blocks onto which students add and they are sources for the strategies students deploy to learn (Montes, 2002). Successful learning environments for ELLs are created when teachers respect their students' home languages and cultures, and acknowledge students' tasks, responsibilities, and identities beyond school such as *contributor to the family income or caretaker of younger siblings*. (Hamann, 2001; Orellana, 2001; Sarroub, 2001). Teachers can help ELLs make the necessary transitions and build academic language in ways that do not undercut the role that parents and families must continue to play in their education and development (Fillmore &Snow, 2000). As such, they can avoid forcing students into unhealthy choices where they must choose between family, language, and identity or academic success. Biliteracy can be an appropriate and viable goal for ELLs given that they are negotiating social worlds where different languages are dominant (Tse, 2001).

Studying and reading texts that reflect one's ethnic and/or racial identity are known critical supports for healthy adolescent identity development (Tatum, 1997). This is true not only in English class, but across the content areas; in the stories presented in history/social studies and in the thinking and accomplishments underlying math, science, business, technology, and art. Students from various ethnic and/or racial backgrounds must see themselves as part of, not excluded from, the academic world to engage. Studies show (e.g., Darder, 1993) that when students can see themselves in the academic content they are engaging with, they can better imagine their own success/possible futures and tend to do better academically. For example, Reyhmer and Davidson (1992) found that, to improve the education of ELLs, teachers should relate their instruction to the out−of−school life of their students. Concentrating particularly on math and science instruction, they noted that ethno−mathematics and ethno−science could help teachers relate these subjects to students' lives. They also noted that teachers of math and science needed to provide writing and other language development activities for their ELLs. Such responsiveness does not mean that a Mexican immigrant student needs an example of a Mexican immigrant scientist to understand science. What it does mean, however, is that the Mexican immigrant student will do better if, in his/her attempt to understand science, he/she is supported by teachers who endeavor to relate the science curriculum to what the student knows, has experienced, and seeks.

The ELL literature confirms the importance of the promising practices related to *creating safe and responsive classrooms* found in the general adolescent literacy literature. However, added attention and teacher knowledge related to how to implement these practices in ways described in this paper will be critical to truly enact this goal of safety and responsiveness for ELLs.

[top]

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Related Web Resources

Digital library and archives, formerly the scholarly communications project. The ALAN Review (73)
ESL Teacher as a Cultural Broker (172)
Multicultural Book Reviews (72)
Revaluing: Coming to Know Who We Are and What We Can Do (44)
Strategic Literacy Initiative (10)
Young Adult Literature: Middle &Secondary English−Language Arts (71)

Key Component B −− Strategies:
A successful adolescent literacy initiative uses research−based approaches that meet the needs of diverse adolescent learners.

The following are promising practices related to Key Component B.

The research supports the use of a combination of literacy best practices which, when used with one another, result in enhanced literacy for diverse learners. The practices relate to 1) the roles of the teacher, 2) a focus on reading and writing, 3) the importance of speaking and listening, 4) an emphasis on thinking, and 5) the establishment of a student−centered classroom. Students have experienced positive results where teachers have introduced and used these practices throughout the content areas or through a required literacy course that all students must take. The key is to use all of the following five best practices regularly as part of every student's high school program.

- Roles of the Teacher
- Reading and Writing
- Speaking and Listening
- An Emphasis on Thinking
- Creating a Student−Centered Classroom

Roles of the Teacher

What is it?

The research suggests that instructors teach literacy skills and strategies in context rather than in isolation. This suggestion contradicts the practice of using "skill and drill" worksheets for remediation. There is ample evidence to confirm that a number of particular literacy strategies−−when explicitly taught, modeled, and practiced−− enhance the ability of secondary students to read and write across the content areas. These include pre−reading activities, such as the activation of prior knowledge. Research also confirms the effectiveness of modeling and the use of a literacy apprenticeship framework. Finally, it is crucial that teachers and students use information provided by a variety of assessment strategies to inform literacy instruction; this information is critical to the improvement of literacy skills.

Suggested Strategies and Resources: Context

Students learn skills in context.
Research shows that better results occur when students learn skills in conjunction with examples and teachers stress the relevance and usefulness of these skills to students' lives. It does not show strong results for students who learn skills in isolation and are then expected to apply/transfer them appropriately at their own discretion.

For lesson plans secondary teachers can use to teach reading strategies, please see
http://www.ops.org/reading/secondarystrat1.htm

This site also shows how reading comprehension strategies can be used as part of content area learning:
http://www.inspiringteachers.com/classroom_resources/tips/curriculum_and_instruction/reading_strategies.html

Suggested Strategies and Resources: Explicit Instruction

Students learn reading comprehension strategies through explicit instruction.
Research clearly supports the teaching and use of a variety of reading comprehension strategies with adolescents before, during, and after reading. These include: use of Anticipation Guides, Directed Reading and Teaching Activity (DRTA), Reciprocal Teaching, KWL, Graphic Organizers, Think Aloud, Question Generating, Sensory Imagery, Drama, Art, and structured note−taking.

Descriptions of strategies that support reading comprehension can be found at the following websites:
http://www.litandlearn.lpb.org/strategies.html
http://www.howard.k12.md.us/langarts/Curriculum/strategies.htm

http://curry.edschool.virginia.edu/go/readquest/strat/

A description of Reciprocal Teaching can be found at
http://ncrel.org/sdrs/areas/issues/students/atrisk/at6lk38.htm

An example of an Anticipation/Reaction Guide can be found at
http://www.indiana.edu/~l517/anticipation_guides.htm

Collections of Graphic Organizers can be found at
http://www.indiana.edu/~reading/ieo/bibs/graphsec.html
http://ncrel.org/sdrs/areas/issues/students/learning/lr1grorg.htm
http://graphic.org/goindex.html
http://www.sdcoe.k12.ca.us/score/actbank/torganiz.htm
http://curry.edschool.virginia.edu/go/readquest/strat/graphic.html

See examples of vocabulary and concept development through concept mapping for science, math, and social studies at
http://www.strategictransitions.com/educationalapplications.htm

A reading strategies database describing general and specific reading comprehension strategies related to before, during, and after reading, vocabulary, motivation, text structure, and more can be found at
http://www.muskingum.edu/~cal/database/readingcomp.html and
http://www.edletter.org/past/issues/1999−ja/secondary.shtml

Suggested Strategies and Resources: Modeling

Teachers frequently use modeling/apprenticeship as a teaching technique and framework. Reading and writing are complex combinations of skills that vary by context. Reading a scientific journal does not require the same set of skills as reading a historical novel. Writing geometric proofs, lab reports, short stories, poems, and persuasive letters requires overlapping but not identical sets of skills. Moreover, people who are proficient in some aspects of reading and writing are novices at others. It is important for students to see themselves and their classmates as developing readers and writers, continually trying to learn the craft. Teachers can effectively support literacy development by making visible their own processes as more expert readers and writers in their respective fields.

The Strategic Literacy Initiative has developed several strategies that are for both general and discipline−specific use.

−−For a strategy to use across the curriculum, see "Reading Process Analysis" at
http://wested.org/stratlit/ideas/readingprocess.shtml.

−−For a strategy to use in the English classroom, see "This is About..." at
http://wested.org/stratlit/ideas/englishappren.shtml.

−−For a strategy to use in the Science classroom, see "Creating a Twenty−five Word Abstract" at
http://wested.org/stratlit/ideas/twentyfiveword.shtml.

−−For an example from a Social Studies classroom, see "A Metacognitive Double−Entry Journal" at
http://wested.org/stratlit/ideas/whatnhow.shtml.

−−For a list of ideas for how to motivate students to read and suggestions for how to establish a culture of reading in school, see
http://www.bcps.org/offices/lis/models/tips/readingpage/motivation.html

−−For a discussion of implementation factors that affect SSR effectiveness, see
http://www.readingonline.org/articles/art_index.asp?HREF=/articles/nagy/index.html

Suggested Strategies and Resources: Multiple Assessments

Teachers use a variety of assessment strategies and tools.
Literacy assessment tools provide ongoing feedback; teachers use this feedback to plan instruction and students use it to gauge progress in reading and writing. Literacy assessment tools include rubrics, self−assessment inventories, observation, learning logs/journals, Individualized Reading Inventories (IRIs), cloze passages, teacher−created assignments, and (where appropriate or mandated) standardized or standards−based tests.

For descriptions of a variety of reading assessment strategies,
see http://instech.tusd.k12.az.us/balancedlit/handbook/BLHS/blasmths.htm.

For an online tool to assist with developing rubrics,
see http://rubistar.4teachers.org/.

For numerous reading strategies and a guide to the literacy learning needs of bilingual learners, see "RICA &the Literacy Learning Needs of Bilingual Readers" at
http://coe.sdsu.edu/people/jmora/RICAprep.htm#Domains.

Questions to Think About:

Before you can implement this Key Component, your stakeholders will need to consider some or all of these questions. Use them for group discussions, needs−sensing activities, and informal small−group conversations.

- Which of the above best practices typically occur now as part of teaching and learning? Which do not? Why do you think that is the case?
- How would teaching and learning shift if the above best practices characterized education throughout the school? How would time, space, personnel, and materials/resources be used differently?
- What kind of support would teachers need in order to effectively incorporate these practices into teaching and learning on a daily basis?
- If these practices were to characterize what takes place in classrooms throughout the school, would any current instructional benefits be displaced or compromised?

Story Summaries

Christine Cziko's Freshman English Class, Thurgood Marshall High School

- Urban school with emphasis on college preparation
- 40% of students with GPAs of 2.0 or below at start of program
- High failure rate attributable to low reading comprehension levels in content areas
- 10−unit, yearlong course for all incoming freshmen
- Awareness−building of reading purposes and processes
- Reading modeling/apprenticeship
- Sustained Silent Reading

At the Thurgood Marshall School, the Academic Literacy course began as a 10−unit, year−long course for all freshmen in Fall 1996. At that time, many students were failing, and reading comprehension was considered part of the problem. Offered through the Strategic Literacy Initiative, a research and professional development effort based in San Francisco, the course builds students' awareness of reading purposes and processes. It also provides them with a common conceptual vocabulary for thinking about their own cognitive processes. Students learn about schema, metacognition, and attention management. They make use of Silent Sustained Reading and are coached on how to determine which strategies to use for particular types of reading. After seven months of instruction, students on average increased their reading comprehension by two grade levels at Thurgood Marshall.

Fenway High School's Literacy Program

- 58% of Fenway High School's 270 students are eligible for free or reduced−price lunch and 8.2% are English language learners.
- Over the past five years, the faculty and administration at Fenway High School have worked hard to create a school−wide culture of literacy.
- The faculty teaches and models literacy strategies in multiple content areas.
- Since the inception of its literacy program, students' performance on the English Language Arts test of the Massachusetts Comprehensive Assessment System (MCAS) has risen steadily. The school consistently ranks among the top performing urban high schools in the state.

Fenway High School is a small, urban, public high school that has been recognized as a New American High School by the United States Department of Education and won recognition from the New England Association of Schools and Colleges and other outside institutions. Its literacy program has evolved over the past five years and will continue to be adjusted to enable it to better meet the needs of students.

- The literacy program at Fenway consists of three main components:
- a year−long Foundations of Literacy course, which all ninth graders take three times per week in addition to their humanities course;
- in−service workshops for faculty; and
- co−teaching by the literacy coordinator and core subject area teachers to incorporate literacy strategies and skills.

The school's staff and students also participate in two 30−minute periods of sustained, silent reading ("Drop Everything and Read") each week.

Humanities, science, and math teachers teach and model strategies introduced during in−service workshops, either on their own or through co−teaching experiences with the literacy coordinator in their classrooms. The literacy coordinator attributes the rising scores on the statewide assessment to the focus of the humanities department on literacy skill development; the Foundations of Literacy

course, which provides ninth graders with more time for reading and writing and with individualized assessment of their progress; and the school's culture, in which literacy is valued.

Muskegon High School &the Strategic Instruction Model

Muskegon High School is a large, urban public school facing many of the same challenges that schools across the country face today.

- 71% of its students receive free or reduced−price lunches.
- 8% are English Language Learners, a number that has been growing every year.
- Incoming ninth−graders struggle with reading comprehension.
- English teachers were becoming increasingly concerned about students' writing skills and lack of progress.

In the mid−1990s, state assessments indicated that half of the school's 400 ninth−graders read below grade level. Teachers and administrators responded by adopting and implementing several reading and writing strategies from the Strategic Instruction Model (SIM) developed and validated by the University of Kansas Center for Research on Learning:

- Ninth−grade students who read significantly below grade level (two or more years below grade level) receive intensive instruction in the Word Identification Strategy. As a result, reading comprehension gains of three or four grade levels are common.
- A Strategic Reading class offers instruction in several reading comprehension strategies.
- English teachers integrate several writing strategies into their classroom activities. When compared with schools of similar size and demographics, Muskegon High School has consistently scored at or near the top on the state's writing assessment given in the 11th grade.
- Content teachers reinforce instruction in and encourage the use of reading and writing strategies in their classrooms.

English Language Learners Share Their Stories, The ArtsLiteracy Project at Central Falls High School

- In this English language learners class at Central Falls High School in Rhode Island, most students have spoken English for only a few years or months, some for a few weeks.
- The city of Central Falls ranks the highest in the state of Rhode Island for community−wide limited English proficiency (29.5%, compared to the state average of 6.2%).
- These students and their teachers are participating in a literacy development opportunity, offered through Brown University, called the ArtsLiteracy Project (ArtsLit).
- ArtsLit draws on research in language development, literacy, and arts education. The research suggests that acting, speaking, writing, planning, and organizing for a performance is a powerful tool for improving students' engagement in school, and especially in literacy activities.
- The ArtsLit professional development workshops and summer programs (http://www.artslit.org/programs.html) emphasize the teaching concepts of modeling, apprenticeship, and scaffolding.
- The ArtsLit curricular framework (or Performance Cycle: see http://www.artslit.org/handbook.html) emphasizes high standards, community building, interactive learning, student voice, and connections to life experiences.
- During the fifth and sixth elements of the ArtsLit Performance Cycle: Rehearsing/Revising Text, and Performing Text, the role of the teacher is pivotal and dynamic.

The ArtsLiteracy Project, based in the Education Department at Brown University, offers a year−round professional development program that helps teachers and actors link the performing arts to student literacy development. Teachers learn strategies that improve literacy and build a classroom community in which adolescents develop the skills and habits of mind to convey meaning through−−and recover meaning from−−print text.

The ArtsLiteracy Performance Cycle benefits English language learners by creating a safe, engaging, and welcoming community of learners and by offering an abundance of motivating and purposeful activities for practicing skills in reading, writing, speaking, and listening. Students benefit from the enactive learning activities and collaborative structure of the Performance Cycle. With these supportive elements, English language learners are better able to understand challenging text.

At Central Falls High School, teachers Len Newman and Richard Kinslow are conducting activities in the fifth and sixth elements of the ArtsLit Performance Cycle: Rehearsing/Revising Text and Performing Text. They engage the class in a warm−up activity, provide space for students to practice reading their stories aloud, model a technique, and then challenge students to rehearse it on stage. Following these activities, they debrief the rehearsal with the class, noting how well the students' technique has conveyed understanding of the text and how much more the students could project their voices in a performance. As in all ArtsLit activities, the role of the teacher in class is a dynamic one, guiding students to find their voices as well as the meaning in the text.

Research Summary

Summary

Sections II and III in the research summary below are direct excerpts from Julie Meltzer and Edmund Hamann's Meeting the Literacy Development Needs of Adolescent English Language Learners Through Content Area Learning, Part II (2005). This is a publication of the Education Alliance at Brown University funded by the Northeast and Islands Regional Educational Laboratory.

I. General Research on Component B: Strategies
II. Research on the Roles of the Teacher
III. Research on Using This Practice With English Language Learners
IV. References

General Research on Component B: Strategies

The best practices associated with each of the five headings below are based on an extensive research base and must be used synergistically, in combination with one another, in order to be effective (e.g. Alvermann &Phelps, 1998; Davidson &Koppenhaver, 1993; Langer, 1999, 2001; Schoenbach et al, 1999; Tharp, 1999).

Promising Practices Related to the Roles of the Teacher

According to the research, literacy skills and strategies should be taught in context, as opposed to in isolation; this represents a direct contradiction to the "skills and drills" worksheets often advocated for remediation (Langer, 2001; Schoenbach et al, 1999). There is ample evidence that a number of

particular literacy strategies−−when explicitly taught, modeled, and practiced−−enhance the ability of secondary students to read and write to learn across the content areas (e.g. Alvermann &More, 1991; Rosenshine &Meister, 1994; Rosenshine et al, 1996; Rosenshine, 1997; Schoenbach, et al, 1999). These include pre−reading activities, such as the activation of prior knowledge (see, for example, http://www.ericdigests.org/pre−9219/prior.htm), during reading and post−reading strategies (see, for example, Billmeyer &Barton, 1995 and http://www.indiana.edu/~reading/ieo/bibs/rdcompsc.html). Research confirms the effectiveness of modeling and the use of a literacy apprenticeship framework (Schoenbach et al 1999). It also supports using information from a variety of literacy assessment strategies (Langer, 1999, 2001) to inform instruction.

Promising Practices Related to Reading and Writing

Research supports the common−sense notion that time spent reading and writing will help students to improve those skills (e.g. Davidson &Koppenhaver, 1993). Research also shows a link between Sustained Silent Reading (when effectively implemented) and improved reading skills (see, for example, http://www.angelfire.com/ok/freshenglish/ssr.html, http://www.sdcoe.k12.ca.us/score/promising/tips/tipfvr.html). The research also supports the use of the writing process as an integral part of content−area literacy development (e.g. Alvermann &Phelps, 1998; Cotton, 1988; Langer, 2001; Schoenbach et al, 1999).

Promising Practices Related to Speaking and Listening

The evidence is clear: When teachers purposefully integrate speaking and listening into the content−area classroom, students' reading comprehension and writing skills improve. Effective collaborative learning also contributes to adolescent literacy development. This is particularly true for second language learners (e.g. Alvermann &Phelps, 1998; Collins et al; Krogness, 1995; Palincsar, 1986; Tharp, 1999).

Promising Practices Related to an Emphasis on Thinking

Here the research shows strong connections between adolescent literacy development and the deliberate introduction of, and regular use of, cognitive and metacognitive strategies (see, for example, Collins, 1994; Collins et al; Duke &Pearson, in press; Garner, 1992; Haller et al, 1988; Langer, 2001; Paris, et al, 1994; Rosenshine, 1997; Ruddell &Unrau, 1994; Schoenbach et al, 1999; Weinstein &Mayer, 1986).

Promising Practices Related to Creating a Student−Centered Classroom

As discussed extensively in Core Principle A, a student−centered classroom is a key component of effective adolescent literacy development. This is a classroom where background information, interests, and experience are built upon−−and where it is the norm to have experience−based activities that encourage student choice and involvement. Such characteristics will support reading comprehension, student engagement, motivation, and development of positive literacy identities. In such a classroom, interactive discussions regularly occur, and the teacher uses varied groupings to meet the needs of diverse learners and the goals of a variety of types of teaching and learning experiences (e.g. Alvermann &Phelps, 1998; Collins, 1996; McCombs &Barton 1998; Tharp, 1999; Tierney &Pearson, 1981, 1992).

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Research on the Roles of the Teacher: Modeling, Explicit Strategy Instruction in Context, and Use of Formative Assessment

Teachers need to model, explicitly teach, and regularly assess students' literacy habits and skills in order to determine what to further model and teach. This approach to teaching, discussed here in specific relation to developing adolescents' academic literacy habits and skills, is not currently part of most middle and high school teachers' regular repertoire. As the cycle of modeling, explicit teaching, and assessment undergirds the effective implementation of all of the promising practices discussed later in the paper, it is a fitting place to begin the discussion of effective generic literacy support strategies. If the cycle is implemented as described, the research suggests that it can help teachers meet the academic literacy development needs of diverse learners, including ELLs.

Teacher Modeling

Reading and writing are complex skills that vary by context. For example, reading a scientific journal does not require the same skills as reading a historical novel. Likewise, writing geometric proofs, lab reports, short stories, poems, or persuasive letters all require different approaches and skills. Each reading and writing task, therefore, requires overlapping but not identical sets of skills, some of which are highly context, purpose, or genre specific (Grossman &Stodolsky, 1995). Moreover, people who are proficient in some aspects of reading and writing may be novices at others. Yet for all content areas, modeling and using a literacy apprenticeship framework are effective ways to make reading and writing visible and, therefore, to support the development of more sophisticated reading and writing skills (Schoenbach et al., 1999).

Throughout the literature, there is an emphasis on the efficacy of a gradual release model for teaching reading comprehension and other literacy support strategies (Beckman, 2002; Curtis, 2002; Duke &Pearson, 2002; Wilhelm et al., 2001). That is, the teacher models the use of the strategy, practices it together with the students, and has the students try the strategy with one another before expecting them to use the strategy independently. Modeling is a necessary early implementation step for successful strategy instruction. Studies show that teacher modeling has a beneficial effect on student performance (e.g., Alfassi, 2004). According to Curtis (2002), The extent of improvement experienced by learners seems to depend on the degree to which instruction focuses on improving knowledge about when and why to use the strategy−information that seems best gained when teachers and students model the process and talk about its use (p. 8).

The use of think alouds is one clear way that teachers can model how they approach extracting meaning from text. According to Duke and Pearson (2002), studies typically have not examined the effect of teacher think aloud by itself,

> . . . but rather as a package of reading comprehension strategies. Therefore, although we cannot infer directly that teacher think aloud is effective, it is clear that as part of a package, teacher think aloud has been proven effective in a number of studies. For example, think aloud is part of the Informed Strategies for Learning (ISL) program (Paris, Cross, &Lipson, 1984), reciprocal teaching...[and] the SAIL program all of which have been shown to be effective at improving student comprehension. It is also an important part of the early modeling stages of instruction in many comprehension training routines, for example the QAR work of Raphael and her colleagues (Raphael, Wonnacott, &Pearson, 1983) and the inference training work of Gordan and Pearson (1983). These studies suggest that teacher modeling is most effective when it is explicit, leaving the student to intuit or infer little about the strategy and its application, and flexible, adjusting strategy use to the text rather than presenting it as

> governed by rigid rules. Teacher think aloud with those attributes is most likely to improve students' comprehension of text. (pp. 235−236)

Originally, think alouds were used primarily as a qualitative research tool to determine what readers do as they read. They are now seen as ways for teachers and students to communicate how they are thinking as they read and how they are approaching a given reading task. Using think alouds, a teacher can model the practice for students and thus can model expectations of how to complete an academic literacy task by providing questions about the task, how to fix comprehension breakdown, how to connect the task to prior knowledge about the topic, and how one might go about organizing a thoughtful verbal or written response to text (Kucan &Beck, 1997). The ultimate goal is that the practice of thinking aloud becomes an integral part of the way the classroom community approaches text−that is, to change the classroom academic culture.

> From a social constructivist perspective, the potential result of participating in a social situation involving reading and thinking about texts is that individual students can draw upon the teacher and other students to help them construct not only an understanding of text ideas, but also an understanding of what it means to read and think about texts. (Kucan &Beck, 1997, p. 289)

There is increasing evidence that student think alouds also have positive effects on reading comprehension. (See the section on thinking later in this section.)

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Explicit Strategy Instruction in Context

The research recommends that literacy skills and strategies be taught and used in the context of reading, writing, and learning rather than solely or primarily practiced in isolation. This is the direct opposite of the skill and drill worksheets often used for remediation (Langer, 2001; Schoenbach et al., 1999). The research does not show strong results for ELL or other students who learn skills in isolation and then are expected to apply or transfer those skills appropriately on their own. However, there is ample evidence that a number of particular literacy strategies, when explicitly taught, modeled, and practiced in context, enhance the ability of secondary school students to use reading and writing skills to learn throughout the content areas (Alvermann &Moore, 1991; Rosenshine, 1997; Rosenshine &Meister, 1994; Rosenshine et al., 1996; Schoenbach et al., 1999). The research emphasizes that reading comprehension can be greatly improved through regular use of certain strategies before, during, and after reading. Explicit teacher and student use of strategies that support the activation of prior knowledge, questioning, clarifying, visualizing, predicting, and summarizing in context leads to improved reading comprehension and content−area reading skills (e.g., Alfassi, 2004; Bakken et al., 1997; Langer, 1999; National Reading Panel, 2000; Palincsar &Brown, 1984; Ruddell &Unrau, 1996; Symons, Richards, &Greene, 1995; Wilhelm, 1995). Effective strategies recommended in the literature include the use of anticipation guides, KWL, reciprocal teaching, graphic organizers, question generating, directed reading−thinking activity (DRTA), think alouds, sensory imagery, drama, art, and structured note taking (Billmeyer &Barton, 1998; Buehl, 2001; Christen &Murphy, 1991). The research also supports efficacy of explicit instruction in the use of reading and literacy strategies to prepare students to take tests, a context students are finding to be increasingly consequential (Guthrie, 2002; Langer, 1999).

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Uses of Multiple Forms of Assessment

When teachers use multiple forms of assessment, it allows them to better modulate instruction to match students' literacy needs (Langer, 1999; Peterson et al., 2000). If assessment purpose and design are shared with students, multiple forms of assessment can help students understand their literacy strengths and areas of challenge, thereby empowering students to take better charge of their learning. Literacy assessment strategies include writing and presentation rubrics; self−assessment inventories; cloze passages; individualized reading inventories (IRI); teacher−created assignments; and, where appropriate or mandated, standardized or standards−based tests.

Ongoing formative assessment provides teacher and student alike with useful information about the student's literacy habits and skills and/or the student's content knowledge and is recognized throughout the literature as critical for improving academic literacy habits and skills (e.g., Biancarosa &Snow, 2004). Use of more than one form of assessment makes it easier for assessment to be responsive to student needs, learning styles, and strengths, greatly improving the chances that, over time, assessments will accurately reflect learning and alert teachers to additional areas for attention (Moore et al., 1999; Quenemoen, Thurlow, Moen, Thompson, &Morse, 2004; Solano−Flores &Trumbull, 2003). Examples of informal assessments that provide teachers with feedback about students' reading comprehension and concept development include quick writes, written and verbal summaries, completion of concept maps, and analytical graphic organizers. These are vehicles that can be used as assessment strategies and modeled as learning strategies for students to adopt (NCTE, 2004). Involving students in rubric development is another way to respond to students' need for voice and input as well as to learn what they value and respect in high quality written work or presentations.

This kind of formative assessment is different from that generated by large−scale, often high−stakes standardized tests. Whatever the merit of such tests, they do not provide the immediate, individualized, nuanced feedback (Sarroub &Pearson, 1998) that we wish to highlight here. Literacy assessment must be conducted in ways that reflect teachers' understandings of the languages spoken in students' homes and communities lest it incorrectly diagnose spoken and written abilities (see, e.g., Ball, 1998; Ball &Farr, 2003; Lincoln, 2003; Walqu’, 2004). This is critical whether students speak social or regional dialects (e.g., African American English, Appalachian English) or national languages (e.g., Spanish, Hmong) (Lee, 2004, p.16) that differ from mainstream academic English. Teachers cannot provide appropriate feedback and scaffolding of learning without an understanding of what reading and writing assessments are telling them.

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Research on Using This Practice With English Language Learners

Research on Using Teacher Modeling with ELLs

Hamayan (1990) asserts that mainstream teachers should see themselves as models of academic use of English for ELLs (or, as she puts it, potentially English−proficient students). In noting this prospective role, she acknowledges both that ELLs are often isolated from native speakers of English and that, even when they are exposed to L1 (first language) English peers, the peers' English might not be a good model of academic English. Vald s (2001) has also been critical of ELLs' frequent lack of access to good models of academic English, noting that the junior high ESL teachers she has observed were both substantially outnumbered (as the only native English speakers in classrooms of 30 or more students) and often modeled an overly simplified version of English.

Hadaway, Vardell, and Young (2001) describe the effectiveness of using poetry to scaffold oral language development and serve as an entry to content learning for ELLs. In discussing how to best

use poetry as a language, literacy, and learning scaffold, they emphasize the importance of teacher modeling, whether the instructional goal is oral interpretation, analysis or writing of poetry or use of poetry as a bridge between prior knowledge and experience and new content learning.

Curry (2004, p. 7) discusses the necessity of modeling for ELLs within the community college setting with regard to providing examples of the types of texts they are expected to produce, but she stresses that faculty should clarify that students are not simply to imitate exemplars. Curry also discusses the value of modeling questioning strategies as well as types of questions to ask. As with other strategies, it is essential that students practice questioning techniques after they are modeled. She notes that some cultures consider it rude to question the teacher. Referring to Chen, Boyd, and Goh's work (2003) about how to help under−prepared Chinese students negotiate college successfully, Curry notes that many ELLs do not realize that questioning is an expected form of participation in U.S. classrooms.

Hamayan (1990) describes a related role for mainstream teachers of ELLs: that of cultural mediator. She is careful to characterize this role as multi−directional. In other words, modeling academic English should not be viewed as a task of assimilating the students, but rather a task of supporting a student's access to the language, genres, and habits that mark academic success, without sacrificing the student's cultural and linguistic identities. This observation is related to student motivation and engagement (and thus is addressed more in Meltzer and Hamann, [2004]), but it is raised here because of its relevance to effective modeling of academic English.

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Research on Using Explicit Strategy Instruction With ELLs

Montes (2002) describes the successful implementation of the Content Area Program Enhancement (CAPE) model based on the Cognitive Academic Language Learning Approach (CALLA) in one Texas district. Schools that fully implemented the model were more effective with ELLs, including those at risk of dropping out of school, in terms of student achievement outcomes. The model included intensive professional development for teacher teams and required teachers to change their classroom strategies to encourage more collaborative learning. The model also required teachers *to explicitly teach* at least one CALLA strategy as applicable at each class session, either cognitive (resourcing, grouping, note taking, elaboration of prior knowledge, summarizing, deduction, induction, imaginary or making inferences) or metacognitive (organization, planning selective attention, self−management, self−assessment) (p. 699).

In her review of effective instructional practices for ELLs within the content areas, Anstrom (1997) notes the importance of having mainstream teachers make explicit their expectations for student work. Anstrom also notes the special importance for ELLs of learning from purposely varied instructional strategies. That is, ELLs, like many students, learn best when they have a mix of individual, small group, and whole class work. Within those formats, teachers can use direct instruction, guided discovery, cooperative learning, and computer−assisted instruction.

Curry (2004) stresses that effectively communicating requirements and expectations is critical for ELLs' success at the community college level as well. This communication should include the explicit teaching about the meaning of key words in essay questions, modeling and explaining how to approach essay writing, providing written directions and guiding questions for assignments, and explicitly teaching what she terms contrastive awareness. Referring to Steinman's (2003) work, Curry discusses several strategies for explicit instruction in how disciplinary texts differ from one another, how broader genres (letters to the editor, laboratory reports, reflective essays) differ, and how students can be helped to understand how their first languages are similar and different from the discourses of

each of the academic disciplines they are being asked to study.

In their review of effective practices for teaching reading to ESL students, Nurss and Hough (1992) conclude, as one of seven findings, that the research supports the need for teachers to provide instruction in how to comprehend content materials and to acquire study and test taking skills (p. 307). August and Pease−Alvarez (1996) propose that teachers can meet the needs of a wider variety of students through the use of multiple approaches. Walqui (2000b) also argues that, to serve ELLs well, teachers need a flexible curriculum, both in content (relevant to age, abilities, interests, students' cultural backgrounds) and in delivery (project−based, authentic, coherent).

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Research on Using Multiple Forms of Assessment with ELLs

Assessment, like instruction, should be valid, responsive, and safe. That is not always easy with ELLs (Lucas, 1993; Solano−Flores &Trumbull, 2003). Content−area teachers need to remember that for ELLs, all tests are tests of language proficiency and that interpreting test results from ELLs requires separating language comprehension concerns from content−area comprehension issues (Abedi, 2004, 2005; Abedi, Hofstetter, &Lord, 2004; Jeannot, 2004; Vald s &Figueroa, 1994). For example, Greene (1998) found that bilingual programs resulted in significant achievement gains in math when measured in Spanish but that when students were tested in English, gains were insignificant. Solano−Flores and Trumbull found that ELLs' test performances vary by subject, in terms of the language in which they test better, reflecting perhaps differences in the language they were using for acquisition. It is misleading to presume that a Spanish−speaking ELL who tests better in math if the exam is in Spanish will necessarily do better on a social studies exam that is in Spanish instead of English. Also, the validity of a test in one language of knowledge acquired through instruction in another is questionable (Abedi, 2005). In a study of high school students, Allen, Bernhardt, Berry, &Demel (1988) illustrated that the nature of the language used for a task may affect the difficulty of it because of the genres used for that task. Thus, students learning Spanish as a second language found recalling items from a magazine article the easiest in a comparison of four reading genres, but students learning French as a second language found recall from a magazine article to be the hardest.

Abedi (2005) raises a number of important validity and reliability questions about assessment and ELLs, all of which caution against the current trend of subjecting ELLs to high stakes content−area assessments presented in English. He notes that unnecessary linguistic complexity in content−area assessment can create construct−irrelevant variance among ELLs and between ELLs and other students. He adds that this problem is increasingly likely in advanced grades (i.e., secondary school) because the content being tested becomes more complex. Although he recommends that assessment of ELLs should include accommodation, he highlights a number of irrelevant accommodations (e.g., bigger type) that are offered to ELLs and notes that accommodations can raise their own hazards. How appropriate is it to assess ELLs in their native language on content they have been taught in English? How fair is it to compare ELLs' assessment outcomes on a test conducted in their native language (when instruction was in English) to L1 English−speaking classmates' test outcomes?

Teachers should note that assessments affect how students regard a classroom, a subject, and themselves as learners. It follows that assessment feedback needs to be provided thoughtfully: What is the learner hearing about his/her skill level and needed next steps and will the feedback encourage him/her to pursue the most appropriate next steps? Teachers need to recognize that adolescent ELLs often come to U.S. classrooms with preconceived understandings of schooling and assessment (Olsen &Jaramillo, 2000; Vald s, 2001). Jeannot (2004) notes that these understandings can include assumptions about appropriate ways to demonstrate knowledge on a formal assessment−for example,

cultures and schooling systems differ in their embrace of the injunction show your work. ELLs may need explicit instruction regarding both the teacher's expectations and how to meet those expectations.

However, the literature supports the notion that assessment, at least informal assessment, of ELLs should be frequent in order to provide appropriate and adequate support of ELLs' academic progress (Echevarria &Goldenberg, 1999). In content−area classes taught in English, ELLs are progressing along two dimensions−content knowledge and language acquisition. Thus, the maximally responsive teacher wants to know where a given ELL is on both of these dimensions. Moreover, although they are related, it does not follow that a given ELL's language acquisition and content knowledge acquisition will proceed at the same pace. Thus, over the course of a semester a teacher may need to respond to an ELL's varying struggles with language or content.

At the community college level, Curry (2004) notes that faculty need to be aware of the limitations of the diagnostic gatekeeping and placement decisions based upon the testing of ELLs' reading, writing, and grammar skills in English. She notes how ELLs' responses to multiple choice grammar tests may not provide accurate or useful information about students' abilities to write, yet are often used for ease of scoring. She suggests that unfamiliarity with topics, anxiety about time limits, and inauthentic testing conditions that do not reproduce real world social, academic, or professional contexts may also produce invalid information about ELLs' writing ability. Referencing Hall (1991), Curry comments that ELLs in these conditions often have time to produce only one draft, may focus on surface features instead of substance, and often do not have dictionaries and other resources to use. She advocates that portfolio assessments as well as tests should be used when testing ELLs' writing proficiency if the goal is to accurately understand students' skill levels.

In a paper on recommendations for what mainstream teachers can do with ELLs, Hamayan (1990) raises the notion of assessment as a collaborative teacher responsibility. She notes that ELLs (like secondary students generally) often have multiple teachers who independently assess how much a student knows and how that student is progressing. Hamayan suggests that these teachers confer with each other, sharing their assessments, and thus identifying and perhaps troubleshooting assessment discrepancies that may better reflect the limitations of the assessment instead of the limitations of the learner.

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Related Web Resources

A Metacognitive Double−Entry Journal (83)
Anticipation/Reaction Guide (76)
Creating a Twenty−five Word Abstract (82)
District Assessments (84)
Effective Practices for Developing Reading Comprehension. (131)
ELL Resource: Strategies for All Teachers in Working with ELLs (145)
ESL Teacher as a Cultural Broker (172)
ESL Teacher's Role in Intercultural Communication (144)
Graphic Organizers (78)
Graphic Organizers (78)
Graphic Organizers in Secondary Schools (77)
Index of Graphic Organizers (79)
Literacy Strategies: Gradual Release of Responsbility Model for Strategy Instruction (119)
LitSite Alaska: HS Reading Strategies (89)
Metacognition and Reading to Learn (57)
Muskingum College, Center for Advancement of Learning, Learning Strategies Database (2)
Reading Process Analysis (81)
Reading Quest.org Making Sense in Social Studies. Strategies for Reading Comprehension (74)
Reading Strategies: Scaffolding Students' Interactions with Text (94)
Reciprocal Teaching (75)

Reading and Writing

What Is It?

The research supports the common sense notion that time spent reading and writing will assist students to improve those skills. Sustained Silent Reading, when effectively implemented, has been linked to improved reading skills. The research also supports the use of the writing process as an integral part of content area literacy development.

Suggested Strategies and Resources: Time on Task

Students spend a high proportion of time on reading and writing.
This refers to in−class time. Class time spent reading, writing, discussing, and revising is not seen as "wasted," but as an integral part of how one learns. Examples of the strategies that teachers have used to increase the time spent reading and writing in class are Paired Reading, Quick Writes, peer conferencing, creation of Reader's Theatre scripts, use of Jigsaw groups to discuss different short readings on the same topic, rereading assignments for a different purpose, rewriting text from other points of view, and connecting text with other media using a critical literacy perspective.

Suggested Strategies and Resources: Silent Reading

Teachers stress silent reading.
Sustained silent reading (SSR), with required logs and responses, continues to be an effective route to building a literacy culture, supporting practice, addressing the needs and interests of a variety of learners, and developing an expectation that reading is a life−long skill.

A description of sustained silent reading at the secondary level can be found at http://www.sedl.org/cgi−bin/mysql/buildingreading.cgi?showrecord=6>.

It is important to note that it will probably not be effective to use free choice sustained silent reading without asking for sharing, log entries, personal or critical responses, book recommendations, bulletin boards where Best Picks are posted, or other kinds of follow−up. It is also important to see SSR as one strategy of many strategies that must be simultaneously implemented, not as a "magic bullet." A variety of types of materials need to be available (see Key Component A) and teachers must commit to read, not patrol, during this time. Encouragement, stamina, and the establishment of a routine are important to a successful SSR routine. With adolescents, explaining why SSR is key to their literacy development and inviting their participation are key.

One overview of effective components of sustained silent reading programs for English language Learners can be found at http://iteslj.org/Articles/Chow−SSR.html

Suggested Strategies and Resources: Writing

Teachers place an emphasis on student writing.
There is ample evidence that frequent writing that is accompanied by feedback, expectations to revise, and opportunities to edit, results in better writing. Writing is an invaluable way to develop and assess student understanding. Use of rubrics allows students to reflect upon their writing in reference to clearly stated criteria. Providing authentic reasons to communicate in writing and establishing writing as a regular expectation is key. Unfortunately, less and less writing is being expected of many secondary students.

As with reading, the key to developing good writing skills is by writing, and then participating in a reflective process of improving what you have written. Suggestions for ways to incorporate writing across the curriculum can be found at http://writing2.richmond.edu/wac/2entrynb.html

Tips for how best to use writing to learn can be found at
http://www.ucalgary.ca/pubs/Newsletters/Currents/Vol2.3/DougBrent.html.

Online writers' resources for grammar and reference can be found at
http://ume.maine.edu/wcenter/resources.html

A list of best practices for teaching writing can be found at
http://instech.tusd.k12.az.us/Bl/BLHS/blwhs.htm

For a clear overview of the writing process and appropriate expectations for high school writing see,
http://www.lkwash.wednet.edu/lwsd/pdf/6+1Traits.pdf

An online writing laboratory with many resources for effective writing can be found at
http://www.uvsc.edu/owl/writingresources.html

For information about plagiarism: what it is and how to recognize it and avoid it, see
http://www.indiana.edu/~wts/wts/plagiarism.html

Another great set of links related to writing in the secondary classroom can be found at:
http://www.angelfire.com/wi/writingprocess/secwplinks.html

For a description of an authentic writing project for unmotivated learners, see
http://www−ed.fnal.gov/lincon/w98/projects/bbilligmeier/babsum.html

Questions to Think About

Before you can implement this Key Component, your stakeholders will need to consider some or all of these questions. The questions could be used in group discussions, needs sensing activities, and informal small−group conversations.

- Which of the above best practices typically occur now as part of teaching and learning? Which do not? Why do you think that is the case?
- How would teaching and learning shift if the above best practices characterized education throughout the school? How would time, space, personnel, and materials/resources be used differently?

- What kind of support would teachers need to be able to effectively incorporate these practices into teaching and learning on a daily basis?
- If these practices were to characterize what takes place in classrooms throughout the school, would any current instructional benefits be displaced or compromised?

Story Summaries

Christine Cziko's Freshman English Class, Thurgood Marshall High School

- Urban school with emphasis on college preparation
- 40% of students with GPAs of 2.0 or below at start of program
- High failure rate attributable to low reading comprehension levels in content areas
- 10−unit, yearlong course for all incoming freshmen
- Awareness−building of reading purposes and processes
- Reading modeling/apprenticeship
- Sustained Silent Reading

At the Thurgood Marshall School, the Academic Literacy course began as a 10−unit, year−long course for all freshmen in Fall 1996. At that time, many students were failing, and reading comprehension was considered part of the problem. Offered through the Strategic Literacy Initiative, a research and professional development effort based in San Francisco, the course builds students' awareness of reading purposes and processes. It also provides them with a common conceptual vocabulary for thinking about their own cognitive processes. Students learn about schema, metacognition, and attention management. They make use of Silent Sustained Reading and are coached on how to determine which strategies to use for particular types of reading. After seven months of instruction, students on average increased their reading comprehension by two grade levels at Thurgood Marshall.

Fenway High School's Literacy Program

- 58% of Fenway High School's 270 students are eligible for free or reduced−price lunch and 8.2% are English language learners.
- Over the past five years, the faculty and administration at Fenway High School have worked hard to create a school−wide culture of literacy.
- The school provides two 30−minute periods of sustained, silent reading each week.
- A Foundations of Literacy course for ninth graders offers extra exposure to reading and writing.
- Since the inception of its literacy program, students' performance on the English Language Arts test of the Massachusetts Comprehensive Assessment System (MCAS) has risen steadily. The school consistently ranks among the top performing urban high schools in the state.

Fenway High School is a small, urban, public high school that has been recognized as a New American High School by the United States Department of Education and won recognition from the New England Association of Schools and Colleges and other outside institutions. Its literacy program has evolved over the past five years and will continue to be adjusted to enable it to better meet the needs of students.

The literacy program at Fenway consists of three main components:

- a year−long Foundations of Literacy course, which all ninth graders take three times per week in addition to their humanities course;
- in−service workshops for faculty; and
- co−teaching by the literacy coordinator and core subject area teachers to incorporate literacy strategies and skills.

The school's staff and students also participate in two 30−minute periods of sustained, silent reading ("Drop Everything and Read") each week.

Humanities, science, and math teachers use strategies introduced during in−service workshops, either on their own or through co−teaching experiences with the literacy coordinator in their classrooms. The literacy coordinator attributes the rising scores on the statewide assessment to the focus of the humanities department on literacy skill development; the Foundations of Literacy course, which provides ninth graders with more time for reading and writing and with individualized assessment of their progress; and the school's culture, in which literacy is valued.

Muskegon High School &the Strategic Instruction Model

Muskegon High School is a large, urban public school facing many of the same challenges that schools across the country face today.

- 71% of its students receive free or reduced−price lunches.
- 8% are English Language Learners, a number that has been growing every year.
- Incoming ninth−graders struggle with reading comprehension.
- English teachers were becoming increasingly concerned about students' writing skills and lack of progress.

Since the mid−1990s, teachers and administrators have adopted and implemented several reading and writing strategies from the Strategic Instruction Model (SIM) developed by the University of Kansas Center for Research on Learning:

- Ninth−grade students who read significantly below grade level (two or more years below grade level) receive intensive instruction in the Word Identification Strategy.
- A Strategic Reading class offers instruction in several reading comprehension strategies.
- English teachers integrate several writing strategies into their classroom activities.
- Content teachers requested a writing strategies workshop to enable them to reinforce interventions students have learned in English classrooms and to develop consistent expectations for student writing throughout the school. Social studies teachers, for example, require use of the Paragraph Writing Strategy.

When compared with schools of similar size and demographics, Muskegon High School has consistently scored at or near the top on the state's writing assessment given in the 11th grade.

Eulalia Texidor Ortiz's English Language Arts Class at S.U. Bartolom Javier Petrovitch SchoolBy participating in the Center for Integration of Technology (CENIT) program, an island−wide initiative designed to help teachers integrate technology into their academic curriculum, schools in Puerto Rico are changing, moving to a more constructivist learning and teaching style.

Each participating school has a lead teacher selected by CENIT staff who works with other participating teachers in the school to get them up to speed on using the new computers and software programs provided by CENIT funding. When schools open in August, teachers participating in the

program begin to introduce their students to the new technology, giving them the opportunity to learn how to use it by taking part in technology−rich lessons in a variety of subjects.

At the S.U. Bartolom Javier Petrovitch School of Cabo Rojo, where Eulalia Texidor Ortiz, a sixth, seventh, and eighth grade English language arts teacher, is the CENIT Lead Teacher, students feel comfortable sharing their personal interests and identifying their learning goals. Texidor Ortiz works closely with them to make sure they are actively engaged in using technology and in making decisions about which technologies best support their goals for a given project. Part of what drives the success of this approach is that Texidor Ortiz encourages her students to bring their personal interests into the classroom, often incorporating them into writing assignments and other projects.

The students, encouraged by the teacher, discuss in a group setting what topics they would like to write about for their assignments. Once this is done, the teacher, serving as a facilitator, guides them in ways that allow them to become better writers and better readers. Texidor Ortiz's focus is maintaining the students? high motivation level, and she achieves this by giving them control of their own learning environments.

Research Summary

Summary

Sections II and III in the research summary below are direct excerpts from Julie Meltzer and Edmund Hamann's Meeting the Literacy Development Needs of Adolescent English Language Learners Through Content Area Learning, Part II (2005). This is a publication of the Education Alliance at Brown University funded by the Northeast and Islands Regional Educational Laboratory.

I. General Research on Component B: Strategies
II. Research on Reading and Writing
III. Research on Using this practice with English Language Learners
IV. References

General Research on Component B: Strategies

The best practices associated with each of the five headings below are based on an extensive research base and must be used synergistically, in combination with one another, in order to be effective (e.g. Alvermann &Phelps, 1998; Davidson &Koppenhaver, 1993; Langer, 1999, 2001; Schoenbach et al, 1999; Tharp, 1999).

Promising Practices Related to the Roles of the Teacher

According to the research, literacy skills and strategies should be taught in context, as opposed to in isolation; this represents a direct contradiction to the skills and drills worksheets often advocated for remediation (Langer, 2001; Schoenbach et al, 1999). There is ample evidence that a number of particular literacy strategies−−when explicitly taught, modeled, and practiced−−enhance the ability of secondary students to read and write to learn across the content areas (e.g. Alvermann &More, 1991; Rosenshine &Meister, 1994; Rosenshine et al, 1996; Rosenshine, 1997; Schoenbach, et al, 1999). These include pre−reading activities, such as the activation of prior knowledge (see, for example, http://www.ericdigests.org/pre−9219/prior.htm), during reading and post−reading strategies (see, for

example, Billmeyer &Barton, 1995 and http://www.kyoto−su.ac.jp/information/tesl−ej/ej16/r14.html). Research confirms the effectiveness of modeling and the use of a literacy apprenticeship framework (Schoenbach et al 1999). It also supports using information from a variety of literacy assessment strategies (Langer, 1999, 2001) to inform instruction.

Promising Practices Related to Reading and Writing

Research supports the common−sense notion that time spent reading and writing will help students to improve those skills (Davidson &Koppenhaver, 1993). Research also shows a link between Sustained Silent Reading (when effectively implemented) and improved reading skills; Flaspeter, 1995; Ozburn, 1995; Pilgreen &Krashen, 1993; Valeri−Gold, 1995). The research also supports the use of the writing process as an integral part of content−area literacy development (e.g. Alvermann &Phelps, 1998; Cotton, 1988; Langer, 2001; Schoenbach et al, 1999).

Promising Practices Related to Speaking and Listening

The evidence is clear: When teachers purposefully integrate speaking and listening into the content−area classroom, students' reading comprehension and writing skills improve. Effective collaborative learning also contributes to adolescent literacy development. This is particularly true for second language learners (e.g. Alvermann &Phelps, 1998; Collins et al; Krogness, 1995; Palincsar, 1986; Tharp, 1999).

Promising Practices Related to an Emphasis on Thinking

Here the research shows strong connections between adolescent literacy development and the deliberate introduction of, and regular use of, cognitive and metacognitive strategies (see, for example, Collins, 1994; Collins et al; Duke &Pearson, in press; Garner, 1992; Haller et al, 1988; Langer, 2001; Paris, et al, 1994; Rosenshine, 1997; Ruddell &Unrau, 1994; Schoenbach et al, 1999; Weinstein &Mayer, 1986).

Promising Practices Related to Creating a Student−Centered Classroom

As discussed extensively in Core Principle A, a student−centered classroom is a key component of effective adolescent literacy development. This is a classroom where background information, interests, and experience are built upon−−and where it is the norm to have experience−based activities that encourage student choice and involvement. Such characteristics will support reading comprehension, student engagement, motivation, and development of positive literacy identities. In such a classroom, interactive discussions regularly occur, and the teacher uses varied groupings to meet the needs of diverse learners and the goals of a variety of types of teaching and learning experiences (e.g. Alvermann &Phelps, 1998; Collins, 1996; McCombs &Barton 1998; Tharp, 1999; Tierney &Pearson, 1981, 1992).

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Research on Reading and Writing

The second recommendation from the research is an increased emphasis on reading and writing instruction within the context of content−area learning. The research supports the common−sense notion that time spent reading and writing will improve those skills (Davidson &Koppenhaver, 1993; Duke &Pearson, 2002). For example, regularly scheduled time for sustained silent reading, when

effectively implemented either school−wide or as a regular element of a course, has been linked to building a positive literacy culture. Sustained silent reading time supports reading practice, addresses the needs and interests of a variety of learners, and improves reading skills, including among ELL students (Flaspeter, 1995; Ivey &Broaddus, 2000; Mosher, 1999; Pilgreen, 2000; Schoenbach et al., 1999). Effective implementation seems to be a key qualifier, however, because there are some studies in this area that do not show consistent positive gains (e.g., Yoon, 2002).

Chances to practice are not enough; there is growing consensus that to support students' abilities to maximize learning from texts, content−area teachers need to provide content−area reading *instruction* as part of teaching in the content−focused classroom (e.g., Jacobs, 1999; Langer, 2002; Moore, Alvermann, &Hinchman, 2000; Vacca, 2002). Opportunity and expectations to read and write, while essential, will not by themselves ensure the development of academic literacy habits and skills.

Newer scholarship shows an increased understanding of the ways that reading and writing reinforce one another and contribute to content learning (e.g., Yore, Shymansky, Henriques, Chidsey, &Lewis, 1997). This represents a shift; traditionally, reading and writing have been conceptualized as related but sufficiently different that one could be engaged without conscious reference to the other. The literature differentiates between *writing instruction* and *writing to learn*, although both are acknowledged as inextricably related to reading, thinking, and content learning. There is a growing body of research emphasizing the efficacy of using writing to learn strategies. In conjunction with the use of written texts, there is evidence that writing to learn can contribute to improved reading comprehension and content learning (e.g., Boscolo &Mason, 2001; Pugalee, 2002; Spanier, 1992; TePaske, 1982). Thus, both discussion of texts and production of texts are seen as important to developing content−area literacy and learning.

Examples of writing to learn strategies that simultaneously increase content understanding and improve reading and writing skills include paired reading, quick writes, peer conferencing, creation of Reader's Theatre scripts, use of Jigsaw groups to discuss different short readings on the same topic, use of a Readers' Workshop approach, use of a Writers' Workshop approach, rereading assignments for a different purpose, rewriting text from other points of view, use of literature circles, dialogic journals, use of learning logs, and connecting text with other media using a critical literacy perspective. The literature suggests that before, during, and after reading comprehension strategies should be linked to provide scaffolding for struggling and average readers as they work with advanced texts.

Effective writing instruction gives students frequent opportunities to write, accompanied with feedback and opportunities to edit and revise, along with guidance in how to do so (Williams, 2003). However, in lower track high school classes that have more students needing to develop their literacy skills, instruction is much less likely to focus on advanced writing tasks (like revising text and writing based on multiple sources) that would enhance literacy. More likely is a focus on dictations, short answer activities, and other similar tasks that limit writing practice (Harklau et al., 1999; Oakes, 1985). In this context, Callahan's (2005) finding that track placement is a better predictor of ELLs' academic success than their measured English proficiency is not surprising.

Research suggests that opportunities to create, discuss, share, revise, and edit a variety of types of texts helps develop content−area understanding and familiarity with the types of texts found in a particular content area, as well as developing reading, writing, speaking, and listening skills. Encouraging students to pursue these opportunities improves written communication skills, thinking skills, and memory (Alvermann &Phelps, 1998; Cotton, 1991; Langer, 1999; Schoenbach et al., 1999). The literature, however, warns that in order to provide helpful feedback to students about their writing, teachers need to know their students' writing strengths and challenges and they need to have a

plan for helping students develop academic writing skills. This may be especially true for those students who speak non−standard varieties of English−for example, African American Vernacular English or Appalachian English (Ball, 1998; Ball &Farr, 2003; Baugh, 2002; Moore et al., 2000; Perry &Delpit, 1998).

Several researchers have identified essential components of the classroom that successfully supports increased reading and writing (e.g., Duke &Pearson, 2002; Ivey &Broaddus, 2000; Langer, 1999, 2002; Ruddell &Unrau, 1996). Some have provided explicit descriptions of good instruction that elicits quality reading and writing from reluctant readers and writers by engaging students in their own literacy development (e.g., Schoenbach et al., 1999) or building directly on the literacies that students bring with them to school (e.g., Lee, 2004). However, researchers who have studied the ecological interactions−that is, the combined environmental conditions and discourse patterns that characterize classrooms−note that developing and sustaining a classroom that truly fosters critical reading and writing habits is a far more complex endeavor than the lists of elements cited as part of effective reading and writing instruction would suggest (e.g., Nystrand &Graff, 2001).

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Research on Using This Practice With English Language Learners

In a review of 110 articles on reading English as a second language, Fitzgerald (1995b) found that reading instruction targeting specific student knowledge, such as vocabulary knowledge, background knowledge, and text−structure knowledge was generally effective. Au (2002) notes:

> Traditional approaches to teaching reading to students of diverse backgrounds have not been effective. Instead, these traditional approaches, such as grouping and tracking and a heavy emphasis on skill instruction, have formed systems or patterns that put students of diverse backgrounds at a continued disadvantage in learning to read. . . . The solution to the problem seems to be that we must put new systems or patterns in place. . . . We must make sure that students of diverse backgrounds have the opportunity to participate in literature−based instruction and the readers' workshop, following a continuum of teaching strategies that involves them in motivating, meaningful reading experiences. The continuum of strategies is supplemented with intensive instruction, as needed, in areas such as decoding and comprehension (p. 409).

Peregoy and Boyle (2000) note that with intermediate ELL readers, the deliberate and purposeful uses of *before* (e.g., purpose for reading, activating background knowledge, introduction of vocabulary), *during* (e.g., teacher and student co−reading, prediction, paired reading, student response logs, use of graphic organizers such as story maps), and *after* strategies (e.g., mapping, dramatization, creating a mural, writing reader's theatre scripts) are critical for supporting comprehension and content recall (p. 245−246).

Text itself emerges in the ELL literature as a key instructional aid for content−area learning. Scarcella (2002) identifies it as essential input for advanced literacy development. Harklau (2002) notes that the act of producing text (writing) in addition to speaking and listening activities seems to be more effective than lecture or discussion alone for enhancing content−area learning and academic literacy development. She also notes that the reviewability of text is a key and often preferred feature for ELLs. Unlike oral communication (which, unless recorded, disappears as fast as it is spoken), written text is available for ongoing examination, which allows ELLs (and other learners) to reread, to check

emergent interpretive hypotheses, to compare to L1 literacy rules and conventions they may know, and to practice repeatedly.

Peregoy and Boyle (2000) note that transfer of literacy ability from one language to another depends on the similarities and differences between their writing systems, including the unit of speech symbolized by each character, directionality, and spacing conventions. They suggest that specific differences among writing systems must be explicitly addressed when teaching English reading to students who are literate in their primary language (p. 241). At the very least, the fact that there are differences and what the conventions of print are in English need to be explicitly taught.

Schleppegrell (2004) finds that Silva's (1993) synthesis of 72 research reports comparing the composing processes and written text features of native versus second language adult writers of English and a number of reports on writing by speakers of English as a second language or dialect (i.e., Hinkel, 2002; Kutz, 1986; Schleppegrell, 1996; Shaugnessy, 1977; Whiteman, 1981) all raise an interesting point: In developing an academic style of writing, most ELLs rely heavily on oral language features in their writing. In adults, the writings of ELLs are less fluent (fewer words), less accurate (more errors), and less effective. They use longer clauses, more conjunctions as connectors, less noun modification, and fewer lexical ties−less sophistication and overall cohesion. L2 writers of English also rely more on personal anecdotes rather than on reasoned arguments in persuasive writing. Schleppegrell (2004) also notes that second language English writers tend to use *because* clauses more often than L1 English speakers. The use of *because* is often illogical, or makes the writing too informal or underdeveloped (p. 107). She posits that this likely reflects a transfer from oral language habits and notes that Goldman and Murray (1992) also found that second language writers overused causal connectors and similarly suggested that this was likely a transfer of habits developed in informal conversational contexts. Most importantly, Schleppegrell suggests that students who produce such sentences need explicit instruction and new strategies for introducing their judgments and assessments and that they need help recognizing that the forms they are using are less effective in academic writing than in informal interaction. They need to be shown how oral and written registers of English differ from each other. Writing in English often presents a major challenge for ELLs, even for those who have mastered academic writing in their first language. These challenges overlap with those faced by users of non−standard dialects of English. Supportive explicit instruction helps these learners master the conventions of standard, academic language use (Delpit, 1995).

In another example, Schleppegrell (2004) references how ELLs' writing also can reflect common training and activities from ESL classes. For example, if in such settings students are often encouraged to write personal narratives, it follows that a first impulse in writing in any content area is to write as if the genre calls for a personal narrative (p. 150). She cites Hinkel's (2002) work to support this assertion, adding, Teachers need to create opportunities for students to write different types of texts and help them focus on how those texts are most effectively constructed so that students can extend their repertoires and make register choices that realize new and more challenging genres (p. 151).

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Related Web Resources

ABC's of the Writing Process (15)
Beating the Odds: Teaching Middle and High School Students to Read and Write Well (9)
Best Practice in Teaching Writing (90)
Effective Practices for Developing Reading Comprehension. (131)
ELL Resource: OWL Online Writing Lab at Purdue (140)
ELL Resource: Spelling and the Middle School English Language Learner (149)
Evaluating Sustained Silent Reading in Reading Classes (27)
Literacy Strategies: Gradual Release of Responsbility Model for Strategy Instruction (119)
LitSite Alaska: HS Reading Strategies (89)
LitSite Alaska: Newspapers in Education, HS Writing (185)
LitSite Alaska: Workbooks and Peer Work Index (179)
Metacognition and Reading to Learn (57)
Plagiarism: What It is and How to Recognize and Avoid It (21)
Reading Practice and Sustained Silent Reading (33)
Reading Strategies: Scaffolding Students' Interactions with Text (94)
Secondary Content Teacher Reading Strategies (120)
Shared Spelling Strategies (152)
Sustained Silent Reading in Secondary Schools (86)
Technical Writing for Skill Development (22)
What Secondary Teachers Can Do to Teach Reading (19)
Writing (87)
Writing Across the Curriculum (88)

Speaking and Listening

What Is It?

There is ample evidence that purposefully integrating speaking and listening into the content area classroom improves reading comprehension and writing skills. Effective collaborative learning also contributes to adolescent literacy development, particularly for second language learners.

Suggested Strategies and Resources: Integration

Instruction integrates speaking and listening with reading and writing.
This sounds like common sense, but in many secondary classrooms one finds limited discussion, limited opportunities to try out one's thoughts before reading/writing, and limited opportunities to present to others. In many secondary classrooms, the predominant voice is that of the teacher. Regular exchanges and use of spoken language support the development and expansion of ideas.

For an additional description of Think, Pair, Share, see
http://curry.edschool.virginia.edu/go/edis771/notes/THNKPRSH.html.

Suggested Strategies and Resources: Collaborative Learning

Students and teachers value collaborative learning.
Collaborative learning clearly supports literacy development when teachers structure and coach it effectively. Frequent opportunities to collaboratively brainstorm, organize, write, read, share, revise, and present work have many benefits. In secondary classrooms, collaborative learning can build multiple literacy skills, support the establishment of a learning community, result in richer individual work, reinforce the apprenticeship framework of literacy learning, and assist with scaffolding, motivation, and making connections.

For a brief on how to implement Collaborative Strategic Reading (CSR), see
http://www.ncset.org/publications/viewdesc.asp?id=424.

For some suggestions for how to set up productive small group work, see
http://instech.tusd.k12.az.us/balancedlit/handbook/BLHS/blsgwhs.htm and
http://sedl.org/scimath/compass/v01n02/2.html.

For a description of Reciprocal Teaching as a collaborative learning strategy, see
http://instech.tusd.k12.az.us/balancedlit/handbook/BLHS/blrechs.htm.

Questions to Think About

Before you can implement this Key Component, your stakeholders will need to consider some or all of these questions. The questions could be used in group discussions, needs sensing activities, and informal small−group conversations.

- Which of the above best practices typically occur now as part of teaching and learning? Which do not? Why do you think that is the case?
- How would teaching and learning shift if the above best practices characterized education throughout the school? How would time, space, personnel, and materials/resources be used differently?
- What kind of support would teachers need in order to effectively incorporate these practices into teaching and learning on a daily basis?
- If these practices were to characterize what takes place in classrooms throughout the school, would any current instructional benefits be displaced or compromised?

Story Summaries

Christine Cziko's Freshman English Class, Thurgood Marshall High School

- Urban school with emphasis on college preparation
- 40% of students with GPAs of 2.0 or below at start of program
- High failure rate attributable to low reading comprehension levels in content areas
- 10−unit, yearlong course for all incoming freshmen
- Awareness−building of reading purposes and processes
- Reading modeling/apprenticeship
- Sustained Silent Reading

At the Thurgood Marshall School, the Academic Literacy course began as a 10−unit, year−long course for all freshmen in Fall 1996. At that time, many students were failing, and reading comprehension was considered part of the problem. Offered through the Strategic Literacy Initiative, a research and professional development effort based in San Francisco, the course builds students' awareness of reading purposes and processes. It also provides them with a common conceptual vocabulary for thinking about their own cognitive processes. Students learn about schema, metacognition, and attention management. They make use of Silent Sustained Reading and are coached on how to determine which strategies to use for particular types of reading. After seven months of instruction, students on average increased their reading comprehension by two grade levels at Thurgood Marshall.

Research Summary

Summary

Sections II and III in the research summary below are direct excerpts from Julie Meltzer and Edmund Hamann's Meeting the Literacy Development Needs of Adolescent English Language Learners Through Content Area Learning, Part II (2005). This is a publication of the Education Alliance at

Brown University funded by the Northeast and Islands Regional Educational Laboratory.

General Research on Component B: Strategies

The best practices associated with each of the five headings below are based on an extensive research base and must be used synergistically, in combination with one another, in order to be effective (e.g. Alvermann &Phelps, 1998; Davidson &Koppenhaver, 1993; Langer, 1999, 2001; Schoenbach et al, 1999; Tharp, 1999).

Best Practices Related to the Roles of the Teacher

According to the research, literacy skills and strategies should be taught in context, as opposed to in isolation; this represents a direct contradiction to the "skills and drills" worksheets often advocated for remediation (Langer, 2001; Schoenbach et al, 1999). There is ample evidence that a number of particular literacy strategies−−when explicitly taught, modeled, and practiced−−enhance the ability of secondary students to read and write to learn across the content areas (e.g. Alvermann &More, 1991; Rosenshine &Meister, 1994; Rosenshine et al, 1996; Rosenshine, 1997; Schoenbach, et al, 1999). These include pre−reading activities, such as the activation of prior knowledge (see, for example, http://www.ericdigests.org/pre−9219/prior.htm), during reading and post−reading strategies (see, for example, Billmeyer &Barton, 1995 and http://www.indiana.edu/~reading/ieo/bibs/rdcompsc.html). Research confirms the effectiveness of modeling and the use of a literacy apprenticeship framework (Schoenbach et al 1999). It also supports using information from a variety of literacy assessment strategies (Langer, 1999, 2001) to inform instruction.

Promising Practices Related to Reading and Writing

Research supports the common−sense notion that time spent reading and writing will help students to improve those skills (e.g. Davidson &Koppenhaver, 1993). Research also shows a link between Sustained Silent Reading (when effectively implemented) and improved reading skills (Flaspeter, 1995). The research also supports the use of the writing process as an integral part of content−area literacy development (e.g. Alvermann &Phelps, 1998; Cotton, 1988; Langer, 2001; Schoenbach et al, 1999).

Promising Practices Related to Speaking and Listening

The evidence is clear: When teachers purposefully integrate speaking and listening into the content−area classroom, students' reading comprehension and writing skills improve. Effective collaborative learning also contributes to adolescent literacy development. This is particularly true for second language learners (e.g. Alvermann &Phelps, 1998; Collins et al; Krogness, 1995; Palincsar, 1986; Tharp, 1999).

Promising Practices Related to an Emphasis on Thinking

Here the research shows strong connections between adolescent literacy development and the deliberate introduction of, and regular use of, cognitive and metacognitive strategies (see, for

example, Collins, 1994; Collins et al; Duke &Pearson, in press; Garner, 1992; Haller et al, 1988; Langer, 2001; Paris, et al, 1994; Rosenshine, 1997; Ruddell &Unrau, 1994; Schoenbach et al, 1999; Weinstein &Mayer, 1986).

Promising Practices Related to Creating a Student−Centered Classroom

As discussed extensively in Core Principle A, a student−centered classroom is a key component of effective adolescent literacy development. This is a classroom where background information, interests, and experience are built upon−−and where it is the norm to have experience−based activities that encourage student choice and involvement. Such characteristics will support reading comprehension, student engagement, motivation, and development of positive literacy identities. In such a classroom, interactive discussions regularly occur, and the teacher uses varied groupings to meet the needs of diverse learners and the goals of a variety of types of teaching and learning experiences (e.g. Alvermann &Phelps, 1998; Collins, 1996; McCombs &Barton 1998; Tharp, 1999; Tierney &Pearson, 1981, 1992).

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Research on Speaking, Listening, and Viewing

Purposeful integration of speaking and listening skills into the content−area classroom improves reading comprehension and writing skills (Applebee, Langer, Nystrand, &Gamoran, 2003; Wilkinson &Silliman, 2000). Allowing for regular exchanges and use of spoken language, both interactional and transactional, supports the development and expansion of ideas and allows learners to articulate connections between their prior knowledge and the topic at hand. Frequent collaborative opportunities to test ideas for writing, including opportunities to brainstorm, organize, write, read, share, revise, and present work, can build multiple literacy skills. Speaking and listening strategies can also reinforce the apprenticeship framework of literacy learning and can assist with scaffolding, motivation, and drawing connections to texts (e.g., Greenleaf, Schoenbach, Cziko, &Mueller, 2001; Krogness, 1995; Langer, 1999; Schoenbach et al., 1999). Examples of the wide variety of ways in which speaking, listening, and viewing can be built into content−focused teaching and learning include book talks, book commercials, readers' theater presentations, debate, PowerPoint presentations, gallery walks, news briefs, story retelling and summarizing, compare/contrast activities of written texts and visual media, translation of written text to visual representation or vice versa, structured note taking while listening/viewing, website development, website critique, literature circles, peer editing, and pair shares.

The use of classroom talk in conjunction with learning from and creating texts may be particularly useful for supporting academic literacy development in struggling readers and second language learners, especially when opportunities to talk about text are structured as small group discussions (Alvermann &Phelps, 1998; Collins, Brown, &Newman, 1989; Tharp, 1999). Adolescents are generally cognizant of small group dynamics and how small group discussion helps them understand texts (Alvermann et al., 1996). Findings suggest that peer−led discussions produced richer and more complex interactions than did teacher−led discussions and resulted in the internalization of the cognitive processes associated with engaged reading (Almasi, 1995; Almasi &Gambrell, 1994; Almasi, McKeown, &Beck, 1996; Rutherford, 1999; Weir, 1998). Indeed, time to speak and listen is built directly into evidence−based small group reading comprehension routines including QtA (Beck &McKeown, 2002; Sandora, Beck, &McKeown, 1999), Collaborative Strategy Instruction (Anderson &Roit, 1993), Collaborative Strategic Reading (Klingner &Vaughn, 1996; Klingner, Vaughn, &Schumm, 1998), and Reciprocal Teaching (Palincsar &Brown, 1984, 1989; Rosenshine &Meister,

1994).

Although students perceive that small group discussion assists them with text comprehension, Alvermann (2000) cautions that teachers still need to help students learn how to discuss text and conduct conversations that permit all voices to be heard. She also argues that teachers need to help students view texts as offering them positions they can either take up or resist (p. 136−7). Other scholars agree that it is the knowledge creation that comes through the discussion of text from a critical literacy perspective that develops key academic literacy skills: understanding point of view, argument, bias, and underlying assumptions within a text (e.g., Doherty et al., 2003; Schoenbach et al., 1999; Stevens &Bean, 2003). This promotes the authentic development of student voice while improving reading comprehension. There also seems to be a direct connection between speaking and writing. Students who have the opportunity to brainstorm, organize, plan, discuss, and peer edit during writing produce better written products than those who do not (e.g., Williams, 2003).

Helping students to apply these same critical literacy skills to the analysis and discussion of visual media, including political cartoons, graphic novels, films, photographs, and images found online and on television, is also important. In daily life, students are flooded with visual images and need strategies for analyzing and evaluating their meaning and value. Several researchers (e.g., Alvermann, 2003; Leu, 2002) studying the intersections of content−area literacy with new literacies, including online literacies, identify this need.

Despite the demonstrated benefits of the extensive use of speaking and listening/viewing in conjunction with reading, studies have found that such activity is still not common in most secondary classrooms. When it does happen, the discussion is generally teacher controlled and governed, occurring primarily in large groups with only a small proportion of students actively participating (e.g., Alvermann &Moore, 1991; Langer, 1999; Wood &Muth, 1991). About half of the students in grades 7 and 11 report never exchanging ideas in a group discussion after reading (Applebee et al., 2003). Williams (2003) comments on the paucity of student talk overall in today's middle school and high school classrooms, noting that even when teachers believe that they do not lecture, they often do. Referring to a 1997 study by Nystrand and colleagues, Williams recounts how their study of a large sample of eighth and ninth graders revealed that

> . . . teacher−talk dominated the classes they observed. Many participating teachers insisted that their classes were discussion based yet Nystrand et al. observed that discussions actually averaged less than a minute per day per class. In the few classes in which teachers encouraged dialogic interactions and asked authentic questions rather than questions that served merely to test knowledge, there were higher levels of achievement. (p.105)

Bennett (1984) investigated whether teachers consciously and systematically provide a bridge between informal oral language and formal text language and found that proportionally little oral language instruction took place in the classrooms in conjunction with reading. Her conclusions still seem relevant more than 20 years later:

> (1) educators need to be convinced of students' need for instruction in written language and listening opportunities at all levels, (2) classrooms need reorganizing to encourage authentic discussions, and (3) teacher training needs overhauling to include emphasis on the importance of oral language. (1984, study abstract)

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Research on Using this Practice with English Language Learners

Nurss and Hough (1992) concur with many others that oral language is a key aspect of literacy development for ELLs: Oral language competence is needed to actively participate in literacy instruction because most of the directions, explanations, and interactions that make up instruction in elementary and secondary classrooms are oral (p. 281). They note that ELL students need frequent verbal interactions with teachers and with peers. Teachers provide the academic and content−related language that students need, as well as language related to the management of learning and the classroom. Peers can provide socially appropriate ways of using language for communication. Both are necessary in order for ELLs to develop oral language competence in English. These needs can be accommodated within classrooms where language is used for authentic purposes. Saunders and Goldenberg (1999), in a study of fourth and fifth graders, found that when teachers used both literature logs and instructional conversations, ELLs understood the literature being studied better. Fluent English speakers appeared to learn just as well if both or only one of these strategies were applied.

Henze and Lucas (1993) take this a step further, noting that oral explanation and use of text can be complemented by the expanded use of visual material, dramatization, and hands−on activities. Such additional routes to engage with content ease the double load of mastering new language and new content by giving students additional means to gain access to serious content and thus more energy for tackling the new language.

Verplaetse (2000b) notes four underlying reasons for the importance of classroom interaction for ELL students:

> First, the social and communicative strategies needed to gain access to the content are acquired simultaneously during the learning of the academic content (Mehan, 1978). As stated by Green and Harker, curriculum...is tripartite in nature; it is composed of academic, social, and communicative demands (1982 p. 183). In other words, students learn how to communicate and how to express social relationships at the same time that they are learning course content. Second, interaction allows the student the opportunity to share in the co−construction of knowledge (Wertsch &Toma, 1990). Students who take part in the interaction take part in the construction of the knowledge. Third, with regard to higher level academic communicative skills, interaction provides a learner the repeated practice needed to develop this communicative competency (Hall, 1993; Snow, 1990). As an example, Rosebery, Warren, and Conant (1992) describe Haitian middle school students appropriating scientific discourse patterns through a highly interactive classroom practice called collaborative inquiry. Fourth, with regard to social role definition, interaction determines the level of co−membership a student is to experience with the group (Zuengler, 1993). In other words, students establish social roles within the classroom community, in part, through their interactive roles. Consequently, limited interactive roles [limited in type or number] for LEP students could restrict the development of their social and academic communicative skills, limit their opportunities to co−construct knowledge, and simultaneously marginalize their social roles within the classroom community. (pp. 20−21)

Scarcella (2002) notes that ELLs' classroom interaction with speakers of Standard English contributes to the acquisition of advanced English literacy skills. Such interaction exposes ELL students to academically sanctioned forms of English and offers them the practice and feedback needed to develop phonology, lexicon, morphology, syntax, and pragmatics. Anderson and Berger (1975)

describe a tutoring initiative in which 4th grade ELLs were paired with fourth grade native English speakers. Tutors used prepared lessons on basic English syntax, such as the verbs to do and to have, combined with oral exercises and written worksheets. The project was deemed a success. Tutees enjoyed close interaction with peers who were native speakers. Tutors not only understood the written lesson they were given, they created their own techniques to reinforce material and help tutees complete objectives. Extra planning and supervision necessary for this type of teaching/learning was deemed reasonable compared to the end benefit to the students (Gaies, 1985).

Although Anderson and Berger's story provides an example of one−way peer interaction (i.e., toward ELLs' English language development), there is also a literature on two−way peer interactions for language and literacy learning. Some are conventionally between two students who speak different first languages, for example, an L1 Spanish speaking student can teach Spanish to an L1 English student and, reciprocally, learn English from that partner (e.g., August, 1982). Others are still more creative, such as the project described by Price and Dequine (1982) that paired learning−disabled native English speakers (students with attention challenges) with ELLs. In that instance, the tutoring task helped attention−challenged tutors stay sufficiently focused so they could learn organization and attention skills; improve their reading comprehension, sense of syntax, and general verbal ability; increase their self−esteem; and feel the satisfaction of developing a close peer relationship. Tutees improved their general English language skills.

Although this is a point addressed more thoroughly in the next section of the paper, such peer interaction also offers ELLs the chance to practice the vocabularies and genres specific to various content areas. Improving advanced English literacy skills is relevant to improving accomplishment in the content areas. However, if ELLs lack frequent opportunity to learn Standard English forms (from teachers, peers, and community), it is imperative that instruction explicitly correct this deficit (Scarcella, 2002). It should also be clarified that access to oral forms of academic English is likely to have the most influence on oral proficiency development and that the transfer of this learning to reading and writing can still require additional explicit instruction.

If much of the emphasis on speaking and listening can be accomplished at the level of the classroom, Sarroub, Pernicek, &Sweeney (under review) provide a useful reminder of just how individualized explicit speaking instruction must be. They describe a teacher helping a Yezidi Kurdish refugee high school student strategize about appropriate conversation patterns for the workplace, a topic highly relevant to the student who was looking for a job and who risked dropping out if the quest was unsuccessful.

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Related Web Resources

Effective Practices for Developing Reading Comprehension. (131)
ELL Resource: Learning Resources at Literacynet.org (42)
ELL Resource: Sounds of English (150)
Metacognition and Reading to Learn (57)
Reciprocal Teaching: Strategic Reading (93)
SEDL —SCIMAST Classroom Compass —Cooperative Learning. II: Models that Promote Cooperative Learning. (92)
Speaking (91)
Suggested Guidelines for Designing Small−Group Work (12)

An Emphasis on Thinking

What Is It?

Literacy and thinking are inextricably connected. The research strongly supports the connections between adolescent literacy developement and the deliberate introduction of and regular use of cognitive and metacognitive strategies.

Suggested Strategies and Resources: Higher Order Thinking

Instruction focuses on higher order thinking.
The research on developing higher order thinking skills repeatedly refers to the use of reading, writing, speaking, and listening to learn and to present learning. Successful academic achievement −− and lifelong learning −− depends on students being able to effectively use language to analyze, synthesize and evaluate.

To meet content area standards−−and to truly grapple with content−− students need to be able to make judgments based on evidence in text or in a broadcast; create analogies; compare and contrast two or more similar or dissimilar articles, points of view, of films; use creativity to develop new representations or extensions of concepts; and/or use critical thinking to analyze pros and cons and translate that into language that communicates well−reasoned opinion.

Suggested Strategies and Resources: Metacognitive Skills

Instruction deliberately develops metacognitive skills.
Metacognition includes two linked capabilities: the ability to focus awareness and the ability to control or direct mental processing to achieve goals (Presseisen, 1985 as quoted in Clarke, 1990). Being able to effectively monitor one's comprehension and skill at reading, writing, speaking, and listening is key to becoming a self−regulated learner. Distinct metacognitive skills need to be developed for use at different points in the learning process (e.g., how to identify prior knowledge that will be useful to the task at hand, how to monitor comprehension, and how to employ effective problem−solving strategies when reading). Good metacognitive skills are, therefore, necessary to maximize one's ability both to learn and to grow as a learner. For most people, metacognitive strategies must be explicitly taught, modeled, and practiced.

Incorporating metacognitive skill development into the content area classroom requires constant and careful attention to having students process why and how they are learning, and, more particularly, how they read and write, how they could improve their reading and writing, and monitoring of whether or not they have done so. This means building ways to gain this awareness into daily learning so that it becomes habit.

For a list of what metacognitive skills successful students use, see
http://ncrel.org/sdrs/areas/issues/students/learning/lr1metp.htm.

For a website with accessible information about what critical thinking is and is not, go to:
http://www.coping.org/write/percept/critical.htm

For a short article on how to help poor readers become more metacognitively aware when reading textbooks, see
http://www.homestead.com/peoplelearn/MetaRead.htm

Questions to Think About

Before you can implement this Key Component, your stakeholders will need to consider some or all of these questions. The questions could be used in group discussions, needs sensing activities, and informal small−group conversations.

- Which of the above best practices typically occur now as part of teaching and learning? Which do not? Why do you think that is the case?
- How would teaching and learning shift if the above best practices characterized education throughout the school? How would time, space, personnel, and materials/resources be used differently?
- What kind of support would teachers need to be able to effectively incorporate these practices into teaching and learning on a daily basis?
- If these practices were to characterize what takes place in classrooms throughout the school, would any current instructional benefits be displaced or compromised?

Story Summaries

Christine Cziko's Freshman English Class, Thurgood Marshall High School

- Urban school with emphasis on college preparation
- 40% of students with GPAs of 2.0 or below at start of program
- High failure rate attributable to low reading comprehension levels in content areas
- 10−unit, yearlong course for all incoming freshmen
- Awareness−building of reading purposes and processes
- Reading modeling/apprenticeship
- Sustained Silent Reading

At the Thurgood Marshall School, the Academic Literacy course began as a 10−unit, year−long course for all freshmen in Fall 1996. At that time, many students were failing, and reading comprehension was considered part of the problem. Offered through the Strategic Literacy Initiative, a research and professional development effort based in San Francisco, the course builds students' awareness of reading purposes and processes. It also provides them with a common conceptual vocabulary for thinking about their own cognitive processes. Students learn about schema, metacognition, and attention management. They make use of Silent Sustained Reading and are coached on how to determine which strategies to use for particular types of reading. After seven months of instruction, students on average increased their reading comprehension by two grade levels

at Thurgood Marshall.

Fenway High School's Literacy Program

- 58% of Fenway High School's 270 students are eligible for free or reduced−price lunch and 8.2% are English language learners.
- Over the past five years, the faculty and administration at Fenway High School have worked hard to create a school−wide culture of literacy.
- The school's literacy efforts target both students and teachers.
- A Foundations of Literacy course for ninth graders teaches cognitive and metacognitive strategies that are reinforced in content area classes.
- Since the inception of its literacy program, students' performance on the English Language Arts test of the Massachusetts Comprehensive Assessment System (MCAS) has risen steadily. The school consistently ranks among the top performing urban high schools in the state.

Fenway High School is a small, urban, public high school that has been recognized as a New American High School by the United States Department of Education and won recognition from the New England Association of Schools and Colleges and other outside institutions. Its literacy program has evolved over the past five years and will continue to be adjusted to enable it to better meet the needs of students.

The literacy program at Fenway consists of three main components:

- a year−long Foundations of Literacy course, which all ninth graders take three times per week in addition to their humanities course;
- in−service workshops for faculty; and
- co−teaching by the literacy coordinator and core subject area teachers to incorporate literacy strategies and skills.

The school's staff and students also participate in two 30−minute periods of sustained, silent reading ("Drop Everything and Read") each week.

Humanities, science, and math teachers use strategies introduced during in−service workshops, either on their own or through co−teaching experiences with the literacy coordinator in their classrooms. The literacy coordinator attributes the rising scores on the statewide assessment to the focus of the humanities department on literacy skill development; the Foundations of Literacy course, which provides ninth graders with more time for reading and writing and with individualized assessment of their progress; and the school's culture, in which literacy is valued.

Research Summary

Summary

Sections II and III in the research summary below are direct excerpts from Julie Meltzer and Edmund Hamann's Meeting the Literacy Development Needs of Adolescent English Language Learners Through Content Area Learning, Part II (2005). This is a publication of the Education Alliance at Brown University funded by the Northeast and Islands Regional Educational Laboratory.

General Research on Component B: Strategies

The best practices associated with each of the five headings below are based on an extensive research base and must be used synergistically, in combination with one another, in order to be effective (e.g. Alvermann &Phelps, 1998; Davidson &Koppenhaver, 1993; Langer, 1999, 2001; Schoenbach et al, 1999; Tharp, 1999).

Promising Practices Related to the Roles of the Teacher

According to the research, literacy skills and strategies should be taught in context, as opposed to in isolation; this represents a direct contradiction to the "skills and drills" worksheets often advocated for remediation (Langer, 2001; Schoenbach et al, 1999). There is ample evidence that a number of particular literacy strategies−−when explicitly taught, modeled, and practiced−−enhance the ability of secondary students to read and write to learn across the content areas (e.g. Alvermann &More, 1991; Rosenshine &Meister, 1994; Rosenshine et al, 1996; Rosenshine, 1997; Schoenbach, et al, 1999). These include pre−reading activities, such as the activation of prior knowledge (see, for example, http://www.ericdigests.org/pre−9219/prior.htm), during reading and post−reading strategies (see, for example, Billmeyer &Barton, 1995 and http://www.indiana.edu/~reading/ieo/bibs/rdcompsc.html). Research confirms the effectiveness of modeling and the use of a literacy apprenticeship framework (Schoenbach et al 1999). It also supports using information from a variety of literacy assessment strategies (Langer, 1999, 2001) to inform instruction.

Promising Practices Related to Reading and Writing

Research supports the common−sense notion that time spent reading and writing will help students to improve those skills (e.g. Davidson &Koppenhaver, 1993). Research also shows a link between Sustained Silent Reading (when effectively implemented) and improved reading skills (Flaspeter, 1995). The research also supports the use of the writing process as an integral part of content−area literacy development (e.g. Alvermann &Phelps, 1998; Cotton, 1988; Langer, 2001; Schoenbach et al, 1999).

Promising Practices Related to Speaking and Listening

The evidence is clear: When teachers purposefully integrate speaking and listening into the content−area classroom, students' reading comprehension and writing skills improve. Effective collaborative learning also contributes to adolescent literacy development. This is particularly true for second language learners (e.g. Alvermann &Phelps, 1998; Collins et al; Krogness, 1995; Palincsar, 1986; Tharp, 1999).

Promising Practices Related to Emphasizing Thinking

Here the research shows strong connections between adolescent literacy development and the deliberate introduction of, and regular use of, cognitive and metacognitive strategies (see, for example, Collins, 1994; Collins et al; Duke &Pearson, in press; Garner, 1992; Haller et al, 1988; Langer, 2001; Paris, et al, 1994; Rosenshine, 1997; Ruddell &Unrau, 1994; Schoenbach et al, 1999;

Weinstein &Mayer, 1986).

Promising Practices Related to Creating a Student−Centered Classroom

As discussed extensively in Core Principle A, a student−centered classroom is a key component of effective adolescent literacy development. This is a classroom where background information, interests, and experience are built upon−−and where it is the norm to have experience−based activities that encourage student choice and involvement. Such characteristics will support reading comprehension, student engagement, motivation, and development of positive literacy identities. In such a classroom, interactive discussions regularly occur, and the teacher uses varied groupings to meet the needs of diverse learners and the goals of a variety of types of teaching and learning experiences (e.g. Alvermann &Phelps, 1998; Collins, 1996; McCombs &Barton 1998; Tharp, 1999; Tierney &Pearson, 1981, 1992).

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Research on Emphasizing Thinking

The research strongly indicates positive correlations between adolescent literacy development and the deliberate and frequent use of cognitive and metacognitive strategies when reading and producing text (Alvermann &Moore, 1991; Collins, 1994; Duke &Pearson, 2002; Garner, 1992; Haller, Child, &Walberg, 1988; Langer, 1999; Paris, Lipson, &Wixson, 1994; Rosenshine et al., 1996; Ruddell &Unrau, 1996; Schoenbach et al., 1999; Weinstein &Mayer, 1986). As defined by Weinstein and Mayer, learning strategies include rehearsing, elaborating, organizing, and comprehension monitoring. There is substantive evidence that students' combined use of cognitive and metacognitive strategies enhances content−area learning, thereby contributing to student success. For example, teaching students to generate questions is generally effective in supporting improved reading comprehension and content−area learning (e.g., Ciardiello, 1993, 1998; Rosenshine et al., 1996). Good questioning skills need to be explicitly taught and modeled. When students develop these in conjunction with text and/or content, they combine cognitive and metacognitive skills in ways that advance their literacy development.

Anderson (2002) discusses the key role of metacognition in second language teaching and learning. He describes a five−part model of metacognition that combines thinking and reflective processes: 1) preparing and planning for learning, 2) selecting and using learning strategies, 3) monitoring strategy use, 4) orchestrating various strategies, and 5) evaluating strategy use and learning (p. 2−3). He stresses the interdependent nature of the model, its reliance on the use of cognition, and the importance of instruction to develop metacognitive skills for the second language learner. For the remainder of this section, however, we refer explicitly to the use of metacognitive and cognitive strategies in conjunction with content−area texts, that is, thinking strategies that improve students' abilities to use reading and writing to learn.

Collins, Dickson, Simmons, and Kameenue (2001) caution that the terms *cognitive* and *metacognitive* have been used interchangeably throughout the literature. They assert that in some cases, strategies that were formerly considered cognitive, such as activating prior knowledge, modifying reading due to variation in purpose, or compensating for failure to understand the text, are now regarded as metacognitive. Given that these are complex, interrelated constructs of invisible processes, it is not surprising that the distinctions in the literature are not readily clear or consistent. For the purposes of this paper, we have differentiated the terms as follows:

Cognitive strategy instruction: allows students to use higher−order thinking skills. Cognitive strategy research on developing higher−order thinking skills repeatedly refers to the use of reading, writing, speaking, and listening both to learn and to demonstrate learning (Fitzgerald, 1995a, 1995b; Graves, 2000a, 2000b; Rosenshine &Meister, 1994).

Metacognitive strategy instruction: allows students to effectively monitor their own comprehension and skill in reading, writing, speaking, and listening. Although stronger and weaker readers use different metacognitive strategies, the research shows that weaker readers can learn the metacognitive strategies that stronger readers use (Alvermann &Moore, 1991; Pressley, 2001; Weinstein &Mayer, 1986). These strategies help weaker readers improve reading comprehension and, therefore, content−area learning (Collins et al., 2001; Duke &Pearson, 2002; Graves &Graves, 1994; Palinscar &Brown, 1984, 1989).

Cognitive strategy instruction: Successful academic achievement and lifelong learning depend on a student's ability to effectively use language to analyze, synthesize, and evaluate. Meeting content−area standards requires students to:

- make judgments based on the evidence in texts, Web pages, TV shows, advertisements, film, and other media
- create analogies
- compare and contrast similar or dissimilar items, events, or points of view
- use creativity to develop new representations or extensions of concepts
- use critical thinking to analyze pros and cons
- present arguments using language that communicates well−reasoned opinion

These tasks all have a heavy cognitive load and rely on the effective development of reasoning abilities. In one study, reasoning abilities, as opposed to prior experience or courses taken, was the most reliable predictor of success in a college biology course (Johnson &Lawson, 1998).

Cognitive strategies are guided learning procedures for internalizing new information and performing higher level thinking operations (Rosenshine et al., 1996). These strategies must be taught, modeled, and practiced. The infusion of literacy strategies into content−area instruction supports the development of higher−order thinking skills necessary for in−depth understanding of content (e.g., Bulgren, Deshler, Schumaker, &Lenz, 2000; Mastropieri et al., 1996; Moll &Allen, 1982). Further, the application of higher−order thinking skills to the process of reading improves reading comprehension. Strategies that help readers to question the text−such as QtA (Sandora et al., 1999)−or to dissect the text through use of analytical graphic organizers (Braselton &Decker, 2000) are examples of this.

Metacognitive strategy instruction: Beyond learning and using cognitive strategies, students must become aware of themselves as learners. The really good, metacognitively sophisticated reader knows that high comprehension requires active reading: predicting, questioning, imagining, clarifying, and summarizing while reading (Pressley, 2002, p. 305). By monitoring one's own comprehension and skill in reading, writing, speaking, and listening, one becomes a self−regulating learner. Several researchers have found that middle and high school students often lack important metacognitive knowledge or use inefficient or technical approaches to strategy use (Craig &Yore, 1992, p. 23−24). Teaching a variety of goal−setting, problem−solving, self−evaluation, and focusing strategies seems to support improved self−efficacy, reading comprehension, and quality of writing (Greenleaf &Mueller, 1997; Schunk &Zimmerman, 1997). Based on her review of the literature, Garner (1992, p. 236) recommends that teachers interview students about their understanding and memory of what they read, show students how to monitor their comprehension, and give direct instruction in some

broadly applicable comprehension strategies. Deliberately teaching metacognitive strategies related to each literacy skill area and associated with different types of texts appears to benefit students, especially those who do not apply these strategies intuitively. Modeling and explicitly teaching desired literacy skills and behaviors provides students, who say they read but do not always understand, with important strategies to employ when comprehension breaks down (Greenleaf &Mueller, 1997; Schunk &Zimmerman, 1997).

Collins (1994) discusses reading to learn from a metacognitive perspective as it relates to four variables: texts, tasks, strategies, and learner characteristics. She notes the importance of understanding the cognitive and metacognitive skills involved with various reading tasks and texts. Examples of instructional strategies that support the development of metacognitive skills in the arena of reading to learn include reciprocal teaching; two−column note taking; visualization; use of graphic organizers; recognition of text features; assessing and addressing misconceptions; discussion of the reading process; study strategies such as outlining, coding, or underlining; concept mapping; structured questioning of the text; SMART (self−monitoring approach to reading); and use of rubrics (Collins, 1994; DiGisi &Yore, 1992; Greenleaf &Mueller, 1997; Underwood, 1997). Many of these strategies support cognitive development as well because they require embedded higher−order thinking tasks for their effective use. Greenleaf et al. (2001) describe the effectiveness and utility of using metacognitively oriented conversations (i.e., conversations that explicitly draw learners' reflective attention to their learning strategies) with struggling readers, including ELLs:

> The metacognitive conversation occurs through many means−class discussions between teachers and students, small−group conversations, written private reflections and logs, and letters to the teacher or even to characters in books. Such conversations and reflections, if they become routine, offer students ongoing opportunities to consider what they are doing as they read−how they are trying to make sense of texts and how well their strategies and approaches are working for them (Borkowski, Carr, Rellinger, &Pressley, 1990; Kucan &Beck, 1997). These conversations about reading and reading processes demystify the invisible ways we read and make sense of texts, as well as generate them. Through the metacognitive conversation, readers' knowledge, strategies, and ways of reading particular kinds of texts become an explicit part of the secondary curriculum. (p. 9)

Corson (1997) makes a similar observation: [When students talk about text, they engage in] a kind of discourse where learners can talk repeatedly about knowledge gained from texts using an acquired metalanguage set against a meaningful system used to interpret and extend understanding (p. 684).

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Research on Using this practice with English Language Learners

Garcia (1992) illustrates the importance of overt attention to higher−order thinking in effective education for ELLs in his description of the THEME project collaboration between the University of California−Santa Cruz and two seventh grade cohorts in the Pajaro, California district. He notes that because of the strategies employed, one of the cohorts outperformed the control group and the other, taught bilingually, matched the whole control group and outperformed the bilingual students in the control group. THEME had four core strategies:

> Strategy #1: Use of thematic, integrated curriculum, such that academic objectives are achieved through content−integrated instruction Strategy #2: Emphasis on small

> group activities incorporating heterogeneous language grouping and peer tutoring, and emphasizing higher−order linguistic and cognitive processes (in which learning proceeds from the concrete to the representational and then to the symbolic) Strategy #3: Emphasis on literacy activities: interactive journals, silent reading followed by small group discussion, interactive literature study, individual and group−written literature, and mathematics logs Strategy #4: Use of cooperative learning strategies, emphasizing the systematic participation of each student in processing curriculum materials

Describing the Cognitive Academic Language Learning Approach (CALLA) math and science interventions for middle school ELLs in one district, Chamot (1995) found that instructional activities promoting active student participation, such as hands−on experiences, cooperative learning, and higher level questioning, were key reasons for above average student performance in math.

Reasoning strategies can be culturally dependent, however, so the criteria that underlie reasoning must be made explicit. In Luria's classic experiment (1976 [originally 1932]), non−literate individuals (individuals who never had schooling) were shown four objects−hammer, saw, hatchet, and log−and asked to remove the one that did not belong. Instead of throwing out the log (as a non−tool), subjects usually kept the log and discarded one of the tools because it did not make sense to keep tools if one had nothing to build with (i.e., a log). Marshall (1998) has used the Luria example to illustrate how Hmong refugee students might respond differently to a story−writing assignment depending upon whether the teacher prompts students' background knowledge of traditional folktale conventions.

Describing effective reading and writing strategies as part of content instruction with ELLs, Carrasquillo and Rodr’guez (2002) draw our attention back to a key long−term goal of schooling−creating independent, self−starting users of literacy. They note that ELLs need to be taught the skills and the will to monitor their own interpretation and generation of text. If all assignments are teacher driven, learners will not develop decision−making skills, including which skills to apply when, nor will they learn to view literacy as a vehicle for their own thinking and expressive interaction with the world. Carrasquillo and Rodr’guez write:

> Teachers need to encourage students to take risks and to give personal written response when interpreting what they read or heard. Teachers should use questions such as: What did you notice in the story? How did the story make you feel? What does the story remind you of in your own life? (Kelly, 1990). Answers to these questions do not demand correct responses. This allows freedom to explore meaning and to express one's understanding of the text. ...But LEP/ELL students need to be guided in writing answers to open−ended questions. They may be intimidated by the lack of vocabulary and language structures to express their thoughts. (p. 91)

This last point also reminds us that thinking as part of literacy is inseparable from some of its more tangible tasks such as vocabulary and language structure selection. Ultimately, this suggests a virtuous loop for learners schooled in metacognitive strategies; their explicit reflection on comprehension and production tasks motivates them to identify the appropriate vocabulary, text strategies, and even discourse features that will authentically convey their thoughts and understandings in a contextually appropriate manner. The teacher's role is first to assist this process and then to help learners continue to deploy it with increasing independence.

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Related Web Resources

The Metacognitive Process (31)
Crtical Thinking Overview (26)
Effective Practices for Developing Reading Comprehension. (131)
Metacognition and Reading to Learn (57)
Metacognitive skills (8)

Creating a Student−Centered Classroom

What Is It?

The creation of a student−centered classroom is key to effective adolescent literacy development. A classroom dynamic that builds upon students' background information, interests, and experience and that encourages/facilitates experience−based/student choice/involvement activities will support reading comprehension, student engagement and motivation, and development of positive literacy identities. Literacy development thrives in classrooms where 1) students and teachers regularly engage in interactive discussions and 2) teachers use varied groupings to meet the needs of diverse learners.

Suggested Strategies and Resources: Personal Context

Instruction builds upon background information, interest, and experience.
Research suggests that building upon students' background information, interest, and experience is not only key to engaging reluctant readers and writers; it is also key to helping weak readers make connections to the text which they may not make on their own. This is especially important for English language learners.

For strategies on how to activate background knowledge, see
http://www.ericdigests.org/pre−9219/prior.htm.

The Internet is one resource that can provide materials that connect to students' lives and/or inspire an interest in the topic at hand. For a discussion of how hypertext can support content−area, student−centered learning, see
http://www.readingonline.org/articles/art_index.asp?HREF=/articles/mceneaney/index.html

Suggested Strategies and Resources: Experiential Learning

Students frequently participate in experience−based activities which offer choice/involvement.
Such activities encourage students to make connections between their lives and their schoolwork. Teachers frequently arrange for experiential learning experiences, inviting students to get involved with activities that help others and address school, community, or regional issues. Students help decide what they will read, how they will present learning, and how they will work. Students research issues of interest to them and/or write about their experiences in reference to the topics at hand. Research confirms that student investment in learning increases when power in the classroom is shared and hands−on experience is a key facet of learning.

Suggested Strategies and Resources: Facilitation of Discussion

Teachers facilitate rather than "lead" discussions.
Skillful facilitation of discussions is an effective way to generate critical thinking, involve students in their learning, scaffold individual assignments, and assess comprehension. A classroom that is structured to welcome and respect different opinions and perspectives can become a truly supportive learning community. Note that this is very different from the teacher−led, question−and−answer sessions that more typically occur in secondary classrooms.

For a description of classroom strategies that are effective for encouraging classroom discussion with both ELLS and native speakers, see http://www.ncela.gwu.edu/pubs/directions/12.htm.

Suggested Strategies and Resources: Varied Groupings

Teachers use varied groupings.
Fluid and varied groupings are structural keys to meeting the needs of diverse learners. Such groupings also make possible the variety of learning experiences and practices that are effective in supporting literacy development. A mix of whole group, small group, paired, and individual work activities throughout the week is necessary because students are multi−faceted as learners and because literacy development is complex.

Teachers can change grouping strategies to match the needs of learners and the objectives of different tasks. This allows for a variety of working arrangements over the course of each week. Different configurations that allow for heterogeneous and homogeneous groups can give teachers ample time to interact with those needing additional support and to incorporate structured and unstructured literacy development (reading, writing, speaking, listening).

Questions to Think About

Before you can implement this Key Component, your stakeholders will need to consider some or all of these questions. The questions could be used in group discussions, needs sensing activities, and informal small−group conversations.

- Which of the above best practices typically occur now as part of teaching and learning? Which do not? Why do you think that is the case?
- How would teaching and learning shift if the above best practices characterized education throughout the school? How would you use time, space, personnel, and materials/resources differently?
- What kind of support would teachers need in order to effectively incorporate these practices into teaching and learning on a daily basis?
- If these practices were to characterize what takes place in classrooms throughout the school, would any current instructional benefits be displaced or compromised?

Story Summaries

Christine Cziko's Freshman English Class, Thurgood Marshall High School

- Urban school with emphasis on college preparation
- 40% of students with GPAs of 2.0 or below at start of program
- High failure rate attributable to low reading comprehension levels in content areas
- 10−unit, yearlong course for all incoming freshmen
- Awareness−building of reading purposes and processes
- Reading modeling/apprenticeship
- Sustained Silent Reading

At the Thurgood Marshall School, the Academic Literacy course began as a 10−unit, year−long course for all freshmen in Fall 1996. At that time, many students were failing, and reading comprehension was considered part of the problem. Offered through the Strategic Literacy Initiative, a research and professional development effort based in San Francisco, the course builds students' awareness of reading purposes and processes. It also provides them with a common conceptual vocabulary for thinking about their own cognitive processes. Students learn about schema, metacognition, and attention management. They make use of Silent Sustained Reading and are coached on how to determine which strategies to use for particular types of reading. After seven months of instruction, students on average increased their reading comprehension by two grade levels at Thurgood Marshall.

Fenway High School's Literacy Program

- 58% of Fenway High School's 270 students are eligible for free or reduced−price lunch, and 8.2% are English language learners.
- Over the past five years, the faculty and administration at Fenway High School have worked hard to create a school−wide culture of literacy.
- A Foundations of Literacy course helps ninth graders to develop reading and writing skills through a variety of student−centered activities.
- Since the inception of its literacy program, students' performance on the English Language Arts test of the Massachusetts Comprehensive Assessment System (MCAS) has risen steadily. The school consistently ranks among the top performing urban high schools in the state.

Fenway High School is a small, urban, public high school that has been recognized as a New American High School by the United States Department of Education and won recognition from the New England Association of Schools and Colleges and other outside institutions. Its literacy program has evolved over the past five years and will continue to be adjusted to enable it to better meet the needs of students.

The literacy program at Fenway consists of three main components:

- a year−long Foundations of Literacy course, which all ninth graders take three times per week in addition to their humanities course;
- in−service workshops for faculty; and
- co−teaching by the literacy coordinator and core subject area teachers to incorporate literacy strategies and skills.

The school's staff and students also participate in two 30−minute periods of sustained, silent reading ("Drop Everything and Read") each week.

Humanities, science, and math teachers use strategies introduced during in−service workshops, either on their own or through co−teaching experiences with the literacy coordinator in their classrooms. The literacy coordinator attributes the rising scores on the statewide assessment to the focus of the humanities department on literacy skill development; the Foundations of Literacy course, which provides ninth graders with more time for reading and writing and with individualized assessment of their progress; and the school's culture, in which literacy is valued.

Partnership Creates Path for Students' Future: University Park Campus School

In 1997, Clark University and the local school district partnered to found University Park Campus School (UPCS) and revitalize one of most troubled neighborhoods in Worcester, Mass., providing a way to prepare students for college and a promising future.

Personalization is considered key to student success.

- Rigor and high standards set the tone at UPCS.
- Instruction is individualized to each student's particular level of development.
- Teachers, students, parents, and families regularly communicate.
- Students study in a building that is small, nurturing, intimate, and comfortable, but one that does not have a gym, cafeteria, or library. UPCS students think of themselves as young Clark University students as they use the university athletic complex, study at the library, and attend university events.
- Professional development is focused on developing a repertoire of common literacy strategies for all teachers to use as needed in their content−area classes.
- A literacy teacher/coordinator provided UPCS teachers with workshops on effective reading and writing instruction, enabling the teachers to align a coherent approach and commitment to literacy support and development.
- All UPCS teachers use a set of common literacy strategies, as appropriate, in their content−area classes.
- School−wide instructional strategies that support the development of literacy skills include the following:
    - Literacy−rich student work is exhibited proudly throughout the school.
    - Block scheduling
    - Reading and writing across the curricula
    - A writing process model across classrooms, grades 7 − 12
    - Portfolios in all subject areas
    - Self−paced reading and writing workshops that allow teachers to individualize instruction
    - Use of the workshop approach throughout content area classes
    - Common elements of instruction that include: sustained silent reading; quarterly as well as cumulative portfolios; presentations and exhibitions; the use of debate; dialogue journals

English Language Learners Share Their Stories, The ArtsLiteracy Project at Central Falls High School

- In this English language learners class at Central Falls High School in Rhode Island, most students have spoken English for only a few years or months, some for a few weeks.

- The city of Central Falls ranks the highest in the state of Rhode Island for community−wide limited English proficiency (29.5%, compared to the state average of 6.2%).
- These students and their teachers are participating in a literacy development opportunity, offered through Brown University, called the ArtsLiteracy Project (ArtsLit).
- ArtsLit draws on research in language development, literacy, and arts education. The research suggests that acting, speaking, writing, planning, and organizing for a performance is a powerful tool for improving students' engagement in school, and especially in literacy activities.
- The ArtsLit professional development workshops and summer programs (http://www.artslit.org/programs.html) emphasize the teaching concepts of modeling, apprenticeship, and scaffolding.
- The ArtsLit curricular framework (or Performance Cycle: see http://www.artslit.org/handbook.html) emphasizes high standards, community building, interactive learning, student voice, and connections to life experiences.
- One aspect of the ArtsLit Performance Cycle that contributes to this practice is Entering Text.

The ArtsLiteracy Project (ArtsLit) offers a year−round professional development program that helps teachers and actors link the performing arts to student literacy development. ArtsLit's major focus is to construct a classroom community in which adolescents develop the skills and habits of mind to convey meaning through?and recover meaning from?print text.

The ArtsLiteracy Performance Cycle benefits English language learners by creating a safe, engaging, and welcoming community of learners and by offering an abundance of motivating and purposeful activities for practicing skills in reading, writing, speaking, and listening. Students benefit from the enactive learning activities and collaborative structure of the Performance Cycle. With these supportive elements, English language learners are better able to understand challenging text.

In this English language learners class, students have written stories that share a memorable life event and make a reference to the place where students spent their childhood before moving to Central Falls. As students read their stories aloud, few have problems pronouncing or decoding the printed word because they know the text they have created, but most struggle to project their voices. After each story, the class applauds enthusiastically, and teachers comment on individual progress. On performance day, they will share their stories and demonstrate their skills to the whole student body at Central Falls High School in Central Falls, Rhode Island.

Eulalia Texidor Ortiz's English Language Arts Class at S.U. Bartolom Javier Petrovitch SchoolBy participating in the Center for Integration of Technology (CENIT) program, an island−wide initiative designed to help teachers integrate technology into their academic curriculum, schools in Puerto Rico are changing, moving to a more constructivist learning and teaching style.

Each participating school has a lead teacher selected by CENIT staff who works with other participating teachers in the school to get them up to speed on using the new computers and software programs provided by CENIT funding. When schools open in August, teachers participating in the program begin to introduce their students to the new technology, giving them the opportunity to learn how to use it by taking part in technology−rich lessons in a variety of subjects.

At the S.U. Bartolom Javier Petrovitch School of Cabo Rojo, where Eulalia Texidor Ortiz, a sixth, seventh, and eighth grade English language arts teacher, is the CENIT Lead Teacher, students feel comfortable sharing their personal interests and identifying their learning goals. Texidor Ortiz works closely with them to make sure they are actively engaged in using technology and in making decisions about which technologies best support their goals for a given project. Part of what drives the success

of this approach is that Texidor Ortiz encourages her students to bring their personal interests into the classroom, often incorporating them into writing assignments and other projects.

The students, encouraged by the teacher, discuss in a group setting what topics they would like to write about for their assignments. Once this is done, the teacher, serving as a facilitator, guides them in ways that allow them to become better writers and better readers. Texidor Ortiz's focus is maintaining the students? high motivation level, and she achieves this by giving them control of their own learning environments.

Research Summary

Summary

Sections II and III in the research summary below are direct excerpts from Julie Meltzer and Edmund Hamann's Meeting the Literacy Development Needs of Adolescent English Language Learners Through Content Area Learning, Part II (2005). This is a publication of the Education Alliance at Brown University funded by the Northeast and Islands Regional Educational Laboratory.

I. General Research on Component B: Strategies
II. Research on Learner−Centered Classroom
III. Research on Using this practice with English Language Learners
IV. References

General Research on Component B: Strategies

The promising practices associated with each of the five headings below are based on an extensive research base and must be used synergistically, in combination with one another, in order to be effective (e.g. Alvermann &Phelps, 1998; Davidson &Koppenhaver, 1993; Langer, 1999, 2001; Schoenbach et al, 1999; Tharp, 1999).

Promising Practices Related to the Roles of the Teacher

According to the research, literacy skills and strategies should be taught in context, as opposed to in isolation; this represents a direct contradiction to the skills and drills worksheets often advocated for remediation (Langer, 2001; Schoenbach et al, 1999). There is ample evidence that a number of particular literacy strategies−−when explicitly taught, modeled, and practiced−−enhance the ability of secondary students to read and write to learn across the content areas (e.g. Alvermann &More, 1991; Rosenshine &Meister, 1994; Rosenshine et al, 1996; Rosenshine, 1997; Schoenbach, et al, 1999). These include pre−reading activities, such as the activation of prior knowledge (see, for example, http://www.ericdigests.org/pre−9219/prior.htm), during reading and post−reading strategies (see, for example, Billmeyer &Barton, 1995 and http://www.indiana.edu/~reading/ieo/bibs/rdcompsc.html). Research confirms the effectiveness of modeling and the use of a literacy apprenticeship framework (Schoenbach et al 1999). It also supports using information from a variety of literacy assessment strategies (Langer, 1999, 2001) to inform instruction.

Promising Practices Related to Reading and Writing

Research supports the common−sense notion that time spent reading and writing will help students to improve those skills (e.g. Davidson &Koppenhaver, 1993). Research also shows a link between Sustained Silent Reading (when effectively implemented) and improved reading skills (Flaspeter, 1995). The research also supports the use of the writing process as an integral part of content−area literacy development (e.g. Alvermann &Phelps, 1998; Cotton, 1988; Langer, 2001; Schoenbach et al, 1999).

Promising Practices Related to Speaking and Listening

The evidence is clear: When teachers purposefully integrate speaking and listening into the content−area classroom, students' reading comprehension and writing skills improve. Effective collaborative learning also contributes to adolescent literacy development. This is particularly true for second language learners (e.g. Alvermann &Phelps, 1998; Collins et al; Krogness, 1995; Palincsar, 1986; Tharp, 1999).

Promising Practices Related to an Emphasis on Thinking

Here the research shows strong connections between adolescent literacy development and the deliberate introduction of, and regular use of, cognitive and metacognitive strategies (see, for example, Collins, 1994; Collins et al; Duke &Pearson, in press; Garner, 1992; Haller et al, 1988; Langer, 2001; Paris, et al, 1994; Rosenshine, 1997; Ruddell &Unrau, 1994; Schoenbach et al, 1999; Weinstein &Mayer, 1986).

Promising Practices Related to Creating a Student−Centered Classroom

As discussed extensively in Core Principle A, a student−centered classroom is a key component of effective adolescent literacy development. This is a classroom where background information, interests, and experience are built upon −−and where it is the norm to have experience−based activities that encourage student choice and involvement. Such characteristics will support reading comprehension, student engagement, motivation, and development of positive literacy identities. In such a classroom, interactive discussions regularly occur, and the teacher uses varied groupings to meet the needs of diverse learners and the goals of a variety of types of teaching and learning experiences (e.g. Alvermann &Phelps, 1998; Collins, 1996; McCombs &Barton 1998; Tharp, 1999; Tierney &Pearson, 1981, 1992).

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Creating a Learner−Centered Classroom

A learner−centered classroom is deliberately designed to maximize all students' chances for academic development. The creation of a learner−centered classroom is an important aspect of effective adolescent literacy development, particularly for diverse learners. In such classrooms, teachers expect all students to actively use speaking, listening, and thinking skills across contexts. Interactive discussions and experiential learning regularly occur. A learner−centered classroom builds upon students' background, interests, and experiences. Research suggests that this emphasis supports reading comprehension, student engagement and motivation, and the development of positive literacy identities. Again and again, the research refers to literacy learning as being best supported by the role of the teacher as facilitator, not lecturer (e.g., Langer, 1999, 2001; Wilhelm et al., 2001). Williams (2003), in describing the benefits of a student−centered or workshop approach to literacy instruction, notes:

> One result of the workshop approach is that it provides students with the means to assume a more active role in learning. Members of work groups are always busy talking, writing, thinking, researching. Unlike the traditional classroom, in which students assume a passive role as they listen to teacher−talk, the workshop requires teachers to say very little. This approach is referred to as *student−centered instruction*, and it is a central component of process pedagogy. (p.104)

A key component of a learner−centered classroom for adolescents that supports optimal literacy development is the effective use of collaborative learning experiences (Adams &Hamm, 1990; Alvermann, 2000; Alvermann &Phelps, 1998; Anderson &Roit, 1993; Biancarosa &Snow, 2004; Calhoon &Fuchs, 2003; Collins, 1994; Fuchs &Fuchs, 2000; Guthrie &Humenick, 2004; Kucan &Beck, 1997; Langer, 1999; McCombs &Barton, 1998; Tharp, 1999; Tierney &Pearson, 1981, 1992). Two other aspects of an effective learner−centered classroom referenced throughout the literature are flexible grouping (e.g., Reutzel, 2003) and a focus on inquiry−based learning (e.g., Wilhelm et al., 2001), with or without computer support (Waxman &Tellez, 2002). Used together, these three structures for learning enable teachers to be maximally responsive to students' literacy and learning needs.

Based on her review of the literature, Curtis (2002) summarizes:

> The types of classroom environments shown to promote literacy development include ones that use a variety of approaches to skills instruction, integrate test preparation into instruction, make overt connections among in−school and out−of−school applications, enable strategy use, engage students in uses of their knowledge and skills, and incorporate collaborative work. (p. 10)

(For additional description of classroom learning environments that support student motivation and engagement with academic literacy tasks, see Meltzer and Hamann, [2004].)

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Research on Using this practice with English Language Learners

In her review of effective instructional practices for language minority students, Anstrom (1997) notes the appropriateness of cooperative learning practices for ELLs within the context of teaching and learning social studies:

> In a recent study concerning attributes of effective instruction for English language learners, the authors highlight the importance of providing opportunities for and encouraging interaction between English language learners and native English speakers (August &Pease−Alvarez, 1996). Cooperative learning offers language minority students the opportunity to interact with their native−speaking peers in such a manner and to communicate their thoughts and ideas in a supportive and non−threatening environment. When students work cooperatively to complete a task, language minority students receive instruction from their peers that is individually tailored to their language ability and academic needs. Working in structured groups increases the variety of ways information can be presented and related to what is already known. Furthermore, active listening and speaking in cooperative settings, provides a rich language environment for both comprehensible input and practice in speaking that students cannot get in a more traditional classroom environment (Olsen,

1992).

In a quasi−experimental study comparing two college−prep algebra classes with high ELL enrollments in southern California, Brenner (1998) found that in the classroom where students regularly engaged in small group discussions, there was more frequent communication about the subject and students were more comfortable when it came to participating in large−group discussions than in classrooms that did not employ small group work. Speaking about math was related to thinking about and doing math better as measured by performance outcomes. In a study that also looked at math instruction and achievement, Guti rrez (2002) found that having students work in groups seemed to improve their achievement. This improvement may occur because explaining to peers how they derived an answer or approached a problem requires students to practice clearly explaining themselves and solicit feedback on those explanations. In another example, Davison and Pearce (1992) found that having many opportunities to listen to English language mathematics terms in context was useful for the Crow−speaking Native American students in their study.

In their summary of the literature on effective instruction for ELLs, Waxman and Tellez (2002) assert that collaborative learning emerges as both an important structure for supporting instructional conversations and as a delivery strategy for addressing principles of culturally responsive instruction, such as diversity. They claim that group tasks are crucial for language learning and conclude, "Other aspects of collaborative learning communities like debate and compromise can be developed through aspects of instructional conversation practice. Further, students' language development can be enhanced by having them collaborate while using technology&(p. 2).

Sarroub et al. (under review) describe a high school teacher in a City&who uses the public library to select individually appropriate texts for guided reading with her ELLs (texts she knows will interest her students because she has learned about their lives, interests, and circumstances). A university−based researcher, graduate students, a paraprofessional, and high school student helpers all assist with the program, supporting its individuation. The described class is called ELL Literacy and it targets adolescents (e.g., refugees) who have had limited and interrupted previous schooling. More generally, the Funds of Knowledge work at the University of Arizona (and replicated elsewhere) focuses on teacher education strategies that prepare teachers to know and be responsive to students' family and community backgrounds (e.g., Moll, Amanti, Neff, &Gonzalez, 1992).

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Related Web Resources

Connect Archives (6)
Effective Practices for Developing Reading Comprehension. (131)
ELL Resource: Meeting the Needs of English Language Learners (116)
ELL Resource: Principles that Help; False Assumptions that Harm (about Bilingual Learners) (108)
Increasing Comprehension by Activating Prior Knowledge, ERIC Digest (95)
Learning on the Web: A Content Literacy Perspective (97)
Metacognition and Reading to Learn (57)
Teen Reading (138)
Training a Class in Discussion Skills (98)

Key Component C −−Across the Curriculum:
A successful adolescent literacy initiative supports reading and writing across content areas.

The following are promising practices related to Key Component C.

To effectively support content−area literacy, a teacher must understand two key points: 1) The literacy demands presented by each content area vary, and 2) Reading and writing are valuable ways to develop content area understanding. To support adolescent literacy at the optimal level, content−area teachers must understand the reading and writing demands for someone studying their discipline. These include vocabulary development, understanding text structures, recognizing and analyzing discipline−specific discourse features, and knowing how to teach these in ways that adolescents can use them to learn. Then teachers must skillfully weave the practices described in Key Component B into their content area teaching, in ways that support discipline−based understanding.

- Vocabulary Development
- Understanding Text Structures
- Recognizing and Analyzing Discourse Features
- Supporting the English classroom through literacy development
- Supporting the math classroom through literacy development
- Supporting the science classroom through literacy development
- Supporting the social studies classroom through literacy development

Vocabulary Development

What Is It?

The essence of good vocabulary instruction is the creation of contexts in which students constantly use relevant vocabulary in their reading, writing, and speaking. This is in contrast to the ineffective, but far more prevalent, "assign, define and test" approach. Teachers in each content area should implement purposeful vocabulary instruction to: 1) increase reading comprehension, 2) develop knowledge of new concepts, 3) improve range and specificity in writing, 4) help students communicate more effectively, and 5) develop deeper understanding of words and concepts with which students are only familiar.

Suggested Strategies and Resources

Vocabulary games and activities can be found at http://vocabulary.com/

There is an interactive virtual thesaurus available at http://plumbdesign.com/thesaurus/

An excellent article from Reading Online:
Teaching vocabulary to adolescents to improve comprehension by Mary E. Curtis and Ann Marie Longo from the Boys Town Reading Center
http://www.readingonline.org/articles/art_index.asp?HREF=/articles/curtis/index.html

Questions to Think About

Before you can implement this Key Component, your stakeholders will need to consider some or all of these questions. The questions could be used in group discussions, needs sensing activities, and informal small−group conversations.

- How do teachers currently support vocabulary development as part of content area instruction?
- How would planning and teaching change if the strategies described were common practice? How would it remain the same?
- What are the existing barriers to incorporating more of a literacy−focused approach to content area teaching and learning?
- What needs to happen to address these barriers?

Story Summaries

Christine Cziko's Freshman English Class, Thurgood Marshall High School

- Urban school with emphasis on college preparation
- 40% of students with GPAs of 2.0 or below at start of program
- High failure rate attributable to low reading comprehension levels in content areas
- 10−unit, yearlong course for all incoming freshmen
- Designed to improve students' oral and written language skills across the curriculum
- Students prompted to think about the importance of being literate
- Students taught to recognize and analyze discourse features
- Students exposed to how authors think when they write

At the Thurgood Marshall School, the Academic Literacy course began as a 10−unit, year−long course for all freshmen in Fall 1996. At that time, many students were failing, and reading comprehension was considered part of the problem. Offered through the Strategic Literacy Initiative, a research and professional development effort based in San Francisco, the course builds students' awareness of reading purposes and processes. The students begin by reading works by authors including Martin Luther King, Maxine Hong Kingston, and Frederick Douglass writing about the role of reading in their lives. They explore questions such as, "What roles does reading serve in people's personal and public lives?" The students are also prompted to think about their own relationships to reading, reflecting on questions such as, "What are my characteristics as a reader?" and "What strategies do I use as I read?"

Research Summary

Summary

Sections II and III in the research summary below are direct excerpts from Julie Meltzer and Edmund Hamann's Meeting the Literacy Development Needs of Adolescent English Language Learners Through Content Area Learning, Part II (2005). This is a publication of the Education Alliance at Brown University funded by the Northeast and Islands Regional Educational Laboratory.

I. General Research on Component C: Across the Curriculum
II. Research on Vocabulary Development
III. Research on Using this practice with English Language Learners
IV. References

General Research on Component C: Across the Curriculum

Evidence clearly points to the connection between increased use of reading and writing in the content areas and better achievement for all students. The field of ESL has long supported content−based instruction, which integrates the teaching of content and language, as an effective strategy for supporting the academic achievement of English language learners (see, for example, Thomas &Collier, 1997).

The research champions the explicit support of contextual literacy learning in content−focused

classrooms, especially for struggling adolescent readers, including English language learners (see for example, Mohan, 1992; Moore, et al, 2000; Reyhner &Davison, 1992; Schoenbach et al., 1999). Of course, this requires that teachers know the literacy demands of their particular content areas.

According to the research, three discipline−based literacy strategies are central: vocabulary development, understanding of text structures, and recognizing and analyzing discourse features. Teachers should combine these strategies with instructing students to take a problem−solving approach to reading comprehension. They should also have students use cognitive strategies in context. The combination of these strategies have been shown to effectively support the development of adolescent literacy in almost startling ways, including with English language learners (see, for example, Langer, 1999; Mohan, 1992; Schoenbach et al, 1999).

Good discipline−specific vocabulary instruction−−as opposed to the more pervasive "assign, define, and test,"−−has been shown to have a positive effective on reading comprehension. See, for example, Allen (1999); Baker et al. (1995) http://idea.uoregon.edu/%7Encite/documents/techrep/tech14.html; Graves, 2000; Smith (1997) http://www.indiana.edu/~reading/ieo/digests/d126.html; Stahl &Fairbanks (1986).

Understanding text structures is an important way to help learners increase reading comprehension of demanding content−area texts. Teachers should demystify expository and narrative text structures within the context of specific content areas. This will give secondary readers frames within which to interpret new information. Strategies for unpacking text structures include the use of signals for predicting and mapping, and the use of text queries (see, for example, Berkowitz, 1986; Garner &Reis, 1981; Pearson &Camperell, 1994; Pearson &Fielding, 1991; Schoenbach et al, 1999; Taylor, 1992).

Being able to recognize and analyze discourse features aids tremendously in content−area understanding. It also enhances content−focused writing (e.g., Langer &Flihan, 2000; Schoenbach et al., 1999). The explicit teaching of the discourse features particular to specific content areas is important for all students. However, it is especially important for English language learners and students coming from limited literacy backgrounds (e.g., Mohan, 1990; Reyhner &Davison, 1992; Spanos, 1992).

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Research on Vocabulary Development

Vocabulary development is essential to content−area learning and is the key to learning from and creating meaningful written texts. Many studies show that explicit vocabulary instruction has a positive effect on reading comprehension (Allen, 1999; Baker &Brown, 1984; Baker, Simmons, &Kameenui, 1995; Blachowicz &Fisher, 2000; Curtis &Longo, 2001; Graves, 2000a, 2000b; Kamil, 2003, 2004; National Reading Panel, 2000; Stahl &Fairbanks, 1986; Smith, 1997). According to Allen, teachers in each content area should implement purposeful vocabulary instruction to: (1) increase reading comprehension, (2) develop knowledge of new concepts, (3) improve range and specificity in writing, (4) help students communicate more effectively, and (5) develop deeper understanding of words and concepts with which students are only nominally familiar. However, vocabulary instruction is not typically given a central role in today's high school classroom.

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Learning academic content means, in large part, understanding the key concepts and the language of each discipline. At the middle and high school levels, students are confronted with a vast menu of challenging concepts as well as a diverse set of texts from which to learn about those concepts. Although reading is only one means through which to learn content, it is an important one. Students who are not strategic readers are handicapped in reaching the critical goal of becoming independent learners. Students need assistance with learning the key concepts and important terms of each unit of study as well as other relevant words they do not already know (Blachowicz &Fisher, 2000). To do this, students must be able to organize concepts and terms within their context, interact with the language of academic content in meaningful ways, and develop strategies to learn new words that may otherwise interrupt the fluency of their reading and, therefore, their reading comprehension.

Because written and spoken language form the basis of the communication of academic ideas, vocabulary and content should not be viewed as separate; nor is the first only a servant of the second. Instead, they must be seen as inextricably linked. For example, gaining an understanding of the word *photosynthesis* is not separate from developing biology content knowledge. Teachers must ask themselves: How will students in my classes become better speakers/writers/readers of math/social studies/science/business/art as a result of being in my class? That is, for students in content−area classes to maximize learning, they must have and consistently be expected to use a variety of strategies through which they can build word knowledge, link concepts, and learn unfamiliar terms (e.g., Baker et al.,1995; Dole, Sloan, &Trathen, 1995; Greenleaf &Mueller, 1997; McKeown &Beck, 1988). These activities must occur both as a consequence of content−area study and as part of becoming an independent learner. Therefore, in order to effectively teach content, middle and high school teachers must help students activate what they already know about words to reinforce and extend concepts.

Some students have developed much larger vocabularies than others. Almost always, a large vocabulary is the result of wide reading coupled with a sophisticated array of strategies for learning new words (Nagy, 1988), including the access and use of informational resources (dictionaries, people, texts, the Internet). Many students, however, arrive in high school with little reading experience or genre−specific experience only (e.g., fix−it magazines, coming−of−age stories, fantasy books). Those students typically bring insufficient strategies for vocabulary development across the content areas. According to Shostak (2002),

> Research has shown that although reading is essential for vocabulary growth and development, it is not sufficient for most students because the meanings they take away from their readings will not be deep and enduring; nor does it help them gain strategies for becoming independent word learners. (p. 2)

Readers who are competent in one or more areas may struggle with written materials in other areas (an excellent English student may struggle with her science textbook, for example). Even our strongest students require vocabulary development (hence, SAT prep courses). There is general consensus that students who struggle with reading in one or more content areas, or who are reluctant readers and, therefore, inexperienced readers?in other words, most of the learners in today's high schools?need serious, sustained content−area vocabulary development to achieve challenging content−area standards. In a real sense, all such students are learners of English.

Vocabulary is greatly influenced by, differs by, and, indeed, helps define each content area. Vocabulary is as unique to a content area as fingerprints are to a human being. A content area is distinguishable by its language, particularly the special and technical terms that label the concepts undergirding the subject matter (Vacca &Vacca, 1999, p. 314). To effectively teach vocabulary, teachers need to know the big concepts and how they relate to other concepts already and yet to be

learned (Blachowicz &Fisher, 2000). Educators must prioritize and select key vocabulary to teach before embarking on a unit of study or a significant piece of reading or writing (Allen, 1999). Finally, teachers should give their students strategies to learn vocabulary they do not know but will encounter within a given text (Baker et al., 1995; Shostak, 2002).

Effective vocabulary instruction requires learning environments in which students constantly use relevant vocabulary in their reading, writing, and speaking, both actively building word knowledge and deepening their understandings of the relationships among key terms (Allen, 1999; Blachowicz &Fisher, 2000; Curtis, 2002; McKeown, Beck, Omanson, &Pople, 1985). This is in contrast to the ineffective, but far more prevalent, assign, define, and test approach in which, after testing, the vocabulary is largely not used again (Allen, 1999). Based on their review of the research, Blachowicz and Fisher (2000) describe four principles that guide effective vocabulary instruction:

1. That students should be active in developing their understanding of words and ways to learn them.
2. That students should personalize word learning.
3. That students should be immersed in words.
4. That students should build on multiple sources of information to learn words through repeated exposures. (p. 504)

Students encounter three key vocabulary challenges on a daily basis in content−area classrooms: (1) *big concept* vocabulary that interrupts or derails reading comprehension if the reader does not grasp the concept; (2) texts with lots of technical or subject specific vocabulary; and (3) unknown academic words (Alvermann &Phelps, 1998; Graves, 2000a, 2000b). There is evidence that certain approaches to working with each type of vocabulary challenge are effective. For example, Frayer models, word sorts, concept maps, semantic feature analysis, and list−group−label are strategies teachers can use to develop students' understanding of vocabulary related to central concepts. Knowledge rating guides, vocabulary discussions, triple entry vocabulary journals, partner/small group pre−view activities, and vocabulary quick writes can help students learn important technical or specialized terms. Finally, context clues (typographic and syntactic/semantic), strategic dictionary use, and the study of word structures (roots, stems, prefixes, suffixes, compound words) can help build general academic vocabulary and assist students when they are faced with a word they do not know (Baker et al., 1995; Blachowicz &Fisher, 2000; Bos, Anders, Filip, &Jaffe, 1989; Goerss, Beck, &McKeown, 1999; Graves &Watts−Taffe, 2002; Jenkins, Pany, &Schreck, 1978; Nagy &Scott, 2000; Smith, 1997, 2002). There is little evidence, however, that direct vocabulary instruction through the use of a single strategy (e.g., using context clues) produces positive or transferable effects (e.g., Szymborski, 1995).

There is a split in the research community over vocabulary development with adolescents. Although there is agreement that effective ongoing content−area vocabulary instruction is important, some researchers cite evidence that explicit vocabulary instruction is needed to close the achievement gap (e.g., Marzano, 2003; McKeown &Beck, 1988; Shostak, 2002). Others make the point that any vocabulary instruction needs to be embedded in strategies to increase the amount of reading students do because most vocabulary is acquired through reading, not direct instruction (e.g., Allen, 1999; Graves, 2000a, 2000b; Nagy &Herman, 1984). Chall (1987) notes that along with direct training, students also need exposure to challenging reading materials in order to develop effective vocabularies, and that as students get older, the need to develop vocabularies for meaning necessarily takes precedence over developing vocabularies for recognition. Thus, reading is linked directly to vocabulary development, even as vocabulary development is linked to improved reading comprehension.

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Research on Using this practice with English Language Learners

In a study of four high school classes where ELLs fared well academically, Henze and Lucas (1993) note that explicit vocabulary instruction consciously emphasized the meaning of language rather than the structure. That is, rather than having students memorize lists of vocabulary while doing little to practice their use, teachers had ELLs (and other students) participate in activities where new vocabulary was used in authentic ways, making new words not only more intelligible, but more memorable as well.

Carlo et al. (2004) reported on a vocabulary enhancement intervention with Anglo and Latino fifth graders that taught meanings of academically useful words together with strategies for using information from context, morphology, knowledge about multiple meanings, and cognates. They found that both groups showed greater growth than a comparison group on knowledge of words taught, depth of vocabulary knowledge, understanding of multiple meanings, and reading comprehension. They also found that the effects were as large for ELLs as for monolingual English speakers. Interestingly, one aspect of the intervention incorporated the idea that native Spanish speakers should have access to the text's meaning in Spanish.

Explicit vocabulary instruction with ELLs can be aided if teachers know how to take advantage of students' existing first language vocabularies. As Cummins (2001) has highlighted, many low−incidence English language words, like the technical vocabulary students encounter across the content−areas, come from Greek and Latin roots. Once native Spanish, Portuguese, French, Italian, and Haitian Creole speakers recognize that science and math words in their first language often have cognates in English, rapid acquisition of important vocabulary often follows easily. Teachers need to be ready to troubleshoot the limitations of bilingual dictionaries and the use of cognates, however. A Spanish−speaking student who looks up the translation of *solicit* will find the word *solicitar*, an appropriate translation if *solicit* is being used to represent negative or controversial acts?e.g., solicit sex, drugs, etc.?but a deeply misleading translation if the original English usage meant something optimistic or not controversial, like *to solicit an idea*. (See Nagy, Garc’a, Durgunoglu, &Hancin−Bhatt, 1993, and Nagy, McClure, &Mir 1997, for more regarding Spanish−English bilinguals' use of cognates.)

As noted in Section III, the mathematics intervention with Native American students described by Davison and Pearce (1992) included explicit instruction of English language math vocabulary. The authors also identified the failure of elementary bilingual education to teach mathematics terminology in Crow as well as English (90% of the participants were L1 Crow speakers) as one reason that students were several years behind grade level when they were enrolled in middle school. The students participated in a literacy−oriented math intervention that helped many reduce the gap between their performance and grade−level expectations.

Loucky (1997) conducted a study that tested the English vocabulary and reading comprehension of about 1,500 Japanese college and university students. The study compared three different formats for teaching vocabulary in ESL classes. Loucky concluded that teachers can improve vocabulary instruction by: (1) having students practice with an intense concentrated quantity of new essential core vocabulary, met in a broad variety of new contexts; (2) stimulating activation of associative memory networks; (3) maximizing active student acquisition of new words and activating passive vocabulary through maximum productive or generative use; and (4) following a set pattern of steps in learning any new vocabulary.

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Related Web Resources

ELL Resource: Interesting Things for ESL Students (164)
LitSite Alaska: HS Vocabulary Strategies (1)
Plumb Design Visual Thesaurus (100)
Teaching Vocabulary in the Math Classroom (137)
Teaching Vocabulary to Adolescents to Improve Comprehension (25)
Vocabulary Strategies (20)

Vocabulary University Home Page (13)

Understanding Text Structures

What Is It?

Different disciplines require students to encounter different types of texts. Purposeful "decoding" of discipline−specific text structures (e.g., screenplays, scientific journal abstracts, marketing plans) and text features (e.g., bold or italicized print, graphics, indices, chapter headings, glossaries, hyperlinks, graphic organizers, chapter summaries, changes in point of view, bibliographies) make it possible for students to learn more from texts.

Suggested Strategies and Resources

For some strategies to help students better understand text structures, see http://english.unitecnology.ac.nz/resources/resources/learntolearn/demands.html

Another resource for the analysis of text structures is http://info.kochi−tech.ac.jp/lawrie/semantictextstr.htm

This link helps readers identify different types of text structures found in text books in various content areas: http://www.somers.k12.ny.us/intranet/reading/questions.html

Questions to Think About

Before you can implement this Key Component, your stakeholders will need to consider some or all of these questions. The questions could be used in group discussions, needs sensing activities, and informal small−group conversations.

- How do teachers currently support understanding of text structures as part of content area instruction?
- How would planning and teaching change if the strategies described were common practice? How would they remain the same?
- What are the existing barriers to incorporating more of a literacy−focused approach to content area teaching and learning?
- What needs to happen to address these barriers?

Story Summaries

Christine Cziko's Freshman English Class, Thurgood Marshall High School

- Urban school with emphasis on college preparation

- 40% of students with GPAs of 2.0 or below at start of program
- High failure rate attributable to low reading comprehension levels in content areas
- 10−unit, yearlong course for all incoming freshmen
- Designed to improve students' oral and written language skills across the curriculum
- Students prompted to think about the importance of being literate
- Students taught to recognize and analyze discourse features
- Students exposed to how authors think when they write

At the Thurgood Marshall School, the Academic Literacy course began as a 10−unit, year−long course for all freshmen in Fall 1996. At that time, many students were failing, and reading comprehension was considered part of the problem. Offered through the Strategic Literacy Initiative, a research and professional development effort based in San Francisco, the course builds students' awareness of reading purposes and processes. The students begin by reading works by authors including Martin Luther King, Maxine Hong Kingston, and Frederick Douglass writing about the role of reading in their lives. They explore questions such as, "What roles does reading serve in people's personal and public lives?" The students are also prompted to think about their own relationships to reading, reflecting on questions such as, "What are my characteristics as a reader?" and "What strategies do I use as I read?"

Research Summary

Summary

Sections II and III in the research summary below are direct excerpts from Julie Meltzer and Edmund Hamann's Meeting the Literacy Development Needs of Adolescent English Language Learners Through Content Area Learning, Part II (2005). This is a publication of the Education Alliance at Brown University funded by the Northeast and Islands Regional Educational Laboratory.

I. General Research on Component C: Across the Curriculum
II. Research on Understanding Text Structures
III. Research on Using this practice with English Language Learners
IV. References

General Research on Component C: Across the Curriculum

Evidence clearly points to the connection between increased use of reading and writing in the content areas and better achievement for all students. The field of ESL has long supported content−based instruction, which integrates the teaching of content and language, as an effective strategy for supporting the academic achievement of English language learners (see, for example, Thomas &Collier, 1997).

The research champions the explicit support of contextual literacy learning in content−focused classrooms, especially for struggling adolescent readers, including English language learners (see for example, Mohan, 1992; Moore, et al, 2000; Reyhner &Davison, 1992; Schoenbach et al., 1999). Of course, this requires that teachers know the literacy demands of their particular content areas.

According to the research, three discipline−based literacy strategies are central: vocabulary development, understanding of text structures, and recognizing and analyzing discourse features.

Teachers should combine these strategies with instructing students to take a problem−solving approach to reading comprehension. They should also have students use cognitive strategies in context. The combination of these strategies have been shown to effectively support the development of adolescent literacy in almost startling ways, including with English language learners (see, for example, Langer, 1999; Mohan, 1992; Schoenbach et al, 1999).

Good discipline−specific vocabulary instruction−−as opposed to the more pervasive "assign, define, and test,"−−has been shown to have a positive effective on reading comprehension. See, for example, Allen (1999); Baker et al. (1995) http://idea.uoregon.edu/%7Encite/documents/techrep/tech14.html; Graves, 2000; Smith (1997) http://www.indiana.edu/~reading/ieo/digests/d126.html; Stahl &Fairbanks (1986).

Understanding text structures is an important way to help learners increase reading comprehension of demanding content−area texts. Teachers should demystify expository and narrative text structures within the context of specific content areas. This will give secondary readers frames within which to interpret new information. Strategies for unpacking text structures include the use of signals for predicting and mapping, and the use of text queries (see, for example, Berkowitz, 1986; Garner &Reis, 1981; Pearson &Camperell, 1994; Pearson &Fielding, 1991; Schoenbach et al, 1999; Taylor, 1992).

Being able to recognize and analyze discourse features aids tremendously in content−area understanding. It also enhances content−focused writing (e.g., Langer &Flihan, 2000; Schoenbach et al., 1999). The explicit teaching of the discourse features particular to specific content areas is important for all students. However, it is especially important for English language learners and students coming from limited literacy backgrounds (e.g., Mohan, 1990; Reyhner &Davison, 1992; Spanos, 1992).

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Research on Understanding Text Structures

In engaging with a variety of disciplines, students may encounter many different types of texts, some of which are specific to particular content areas (e.g., technical manuals, primary sources, short stories, and history textbooks). Understanding text structures is an important part of increasing students' comprehension and retention of demanding content (Berkowitz, 1986; Dickson, Simmons, &Kameenui, 1995a, 1995b; Pearson &Campernell, 1994; Pearson &Fielding, 1991). According to Dickson et al. (1995a, 1995b), students from non−mainstream backgrounds often lag behind their peers in reading comprehension and demonstrate difficulty recognizing patterns in text, discerning relevant information, and recalling information. As a result, they require instruction that enables them to independently access text for comprehension.

To help students learn more from texts, instructors should explicitly teach the decoding of discipline−specific text types (e.g., screenplay, scientific journal abstract, marketing plan, and mystery novel). Each piece of text contains structures and features that readers must know about in order to comprehend or create a specified type of text. Text *structures* include the forms and patterns of particular kinds of writing (e.g., narrative, persuasive, descriptive, compare/contrast, listing, chronology, summary, and problem/solution/effect) and establish the interrelations between ideas through well−organized patterns (Dickson et al., 1995a, 1995b). Taylor (1992) refers to text structures as the underlying building blocks that organize text patterns in predictable and understandable ways. Therefore, text structures can be important clues to the logic of the ideas being presented. If students know which text structures are likely to be present in a given type of text, they are more likely to be

able to extract meaning from that text.

The physical aspects of text (e.g., bold or italicized print, graphics, indices, chapter headings, glossaries, hyperlinks, graphic organizers, chapter summaries, change in point of view, and bibliographies), also referred to as *text* features, are signposts. If readers know what they are and how to use them, text features can be important resources for making sense of a text. The knowledge of applicable structures and features is also helpful for decoding specialized text formats, such as flowcharts, citation rules, spreadsheets, etc. For students not familiar with a specific type of text, trying to read it as they would a more familiar form, or without understanding of relevant features, can be hazardous to comprehension. For example, imagine the struggle of a student who tries to read a scientific journal article or math textbook as he or she did a magazine article or short story. For students whose academic literacy habits are not strong, this can result in frustration and confusion (Garner &Reis, 1981).

Understanding expository and narrative text structures specific to content areas can provide readers with a frame of reference when interpreting new information or determining how to approach academic writing tasks. Students can apply their knowledge and awareness of well−presented texts and text structure to various content areas, reading comprehension tasks, and written composition (Dickson et al., 1995a, 1995b).

Many researchers note that academic texts often are not well written or constructed and that textbooks, in particular, do not necessarily follow the conventions for a well−presented text. For example, the main idea of a paragraph may be stated late in the paragraph or be missing all together. Dickson et al. (1995a, 1995b) note that, in this case, students will likely need strategies to invent a main idea if necessary. Further, students need to experience teacher modeling, explicit teaching, and practice in order to successfully identify the structures and features of increasingly complex texts in the different content areas.

Strategies for unpacking text structures include using signals for predicting, mapping, teaching story grammar, inventing main ideas, making hierarchical summaries, translating the main ideas into visual frames or organizers, scaffolding by example from the teacher, and selecting assignments that require attention to structures and features (e.g., chapter previews, text scavenger hunts, and use of textual clues in the completion of summaries) and text queries (Dickson et al., 1995a, 1995b; Pearson &Fielding, 1991; Schoenbach et al., 1999; Symons, Richards, &Greene, 1995; Taylor, 1992).

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Research on Using this practice with English Language Learners

In addition to students' need to understand *structures and features*, Scarcella (2002) identifies understanding *form* as another key element in ELLs' acquisition of advanced literacy. As she states:

> Learners who attend to the linguistic features of their texts are more likely to acquire these features and practice using them in their own communication. Learners can rely on many strategies that foster their ability to attend to form, including routinely analyzing texts for relationships, organization, word meanings, specific uses of words and idioms, and rhetorical effect. When they read, learners who attend to form ask themselves questions concerning the credibility of the author and the logic of the arguments presented. (p. 219)

She goes on to say, however, that most learners do not look at language forms. Indeed some use

strategies that actually prevent attending to form, including: reading for the gist reading for specific pieces of information (e.g., dates, names), using previous knowledge to guess at meaning without reading, listening for the gist from teachers' oral previews or summaries, and attending only to key discourse features (e.g., titles and headings). Each of these strategies may, most of the time, stave off complete ignorance on a topic, but they support only superficial (not advanced) understanding. Explicit and compelling instruction in how to attend to language form is likely to improve students' use of this skill.

Explicit instruction in text structure recognition has particular relevance for adolescent ELLs. Languages vary in the conventions they use for specific text genres (e.g., Egginton, 1987). Some conventions are straightforward and, as such, are relatively easy to decipher and highlight (e.g., the opposite use of commas and periods as place holders and decimal points in the rendering of numbers in English and Spanish). Others are more difficult to understand and require explicit instruction. Colombi (2002) offers an example of how typical complex nouns are constructed in two languages. In Spanish, a noun is typically followed by a prepositional phrase (e.g., *la p rdida del lenguaje*?the loss of language) while in English nouns can adjectively modify other nouns (e.g., language loss). Similarly, the use of hedges and indirect language, the placement and explicitness of topic sentences, and other conventions are sophisticated text structures that vary by language and dialect and thus are hazards to which ELLs must pay attention. (See also Gibbons, [1999].) Languages more diverse than English and Spanish often have even more complex convention differences. Just as with cognates, partial cognates, and false cognates, ELLs need explicit instruction about English genre rules so that for advanced literacy tasks they do not use literacy conventions from other languages. Communication of advanced concepts, like those from a college−level engineering class (Schleppegrell, 2002), can be undercut (with consequences for grades and academic motivation) by not knowing the expectations for linguistic expression in a given genre. Sarroub et al. (under review) describe a simple example of explicit teaching of recognition and pronunciation through rhyming and word play, in which a teacher helps an ELL student recognize and pronounce the word swan by noting how it is positioned in the text's rhyme scheme to rhyme with on. Although this example pertains to a particular discipline (English language arts) and genre (poetry), it demonstrates how specific disciplines can have predictable genre features that may help students to decode language.

That said, a crucial caveat must be offered. Although first language literacy can interfere at a superficial level with the strategies chosen in a second language for communication (written and oral), first language literacy is overwhelmingly correlated with favorably contributing to the development of second language literacy (Bankston &Zhou, 1995; Connor, 1996; Cummins, 1979; Durgunoglu, Nagy, &Hancin−Bhatt, 1993; Fitzgerald, 1995a, 1995b; Garcia, 2002; Henze &Lucas, 1993; Scarcella, 2002). Resilient or successful ELLs in a large CREDE study reported using their first language (Spanish) more often with their parents and peers than did non−resilient, less successful ELLs (Padron, Waxman, Brown, &Powers, 2000). Explicit instruction can clean up word order mistakes, awkward word choices, and other first language influences. More important, in terms of predicting and encouraging the academic success of ELLs, is for teachers to help students recognize how conventions in their first language compare with the conventions of the second language. This kind of metalinguistic awareness is consistent with developing the thought processes related to literacy development that were referenced in Section III, Part D. That is, knowing and accounting for the slightly different text structure conventions between two languages are smaller and less difficult cognitive steps than knowing that there are structures and conventions at all.

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Related Web Resources

An Exploration of Text Sets (117)
Darwin's "On The Origin of Species" (153)
Finding Text Structures (101)
Learning to Learn (48)

Recognizing and Analyzing Discourse Features

What Is It?

The words used to describe central concepts in various disciplines may differ substantially in meaning, depending upon the subject area context. Think about how the following terms carry different expectations across content areas: "research," "discussion," "graphic," "argument," "evidence," "problem solving," "conclusion". For example, "graphic" detail might apply to criteria for a short story whereas "clearly labeled graphic" may be part of the criteria for a science report. "Evidence" in terms of historical analysis refers to something qualitatively different than it does in a textual analysis. In both examples, understanding the meaning of the term in the context of the subject area is important to successful student performance.

Consider also the following subject−specific discourse conventions: debate, geometric proofs, historical reenactment, scientific hypotheses. Each is a literacy term that describes ways that a specific discipline reads about, writes about, speaks about, and listens to content in that subject area. These conventions of discourse use various language and formats to present, discuss, and judge the merits of subject−specific learning. The criteria for documentation, specificity, punctuation, format, and analysis are also important to know when reading, writing, or speaking in the context of a specific content area.

Teachers improve content area learning when they identify and make explicit the features of discourse that are central to understanding a particular subject area. Students benefit even more when teachers use and analyze these discourse features as an integral part of their teaching and learning.

Suggested Strategies and Resources

Specific strategies for ESL students that would be helpful to all students can be found at http://www.alliance.brown.edu/pubs/claiming_opportunities/claimopp_all.pdf. This site summarizes the challenges and offers suggestions for addressing the challenges.

Two interesting essays about academic discourse are at
http://education.nyu.edu/teachlearn/ifte/zamel2.htm and
http://www−personal.umich.edu/~moje/pdf/Journal/WorkingTowardThirdSpace.pdf.

Questions to Think About

Before you can implement this Key Component, your stakeholders will need to consider some or all of these questions. The questions could be used in group discussions, needs sensing activities, and informal small−group conversations.

- How do teachers currently support discourse analysis as part of content area instruction? How would planning and teaching change if the strategies described were common practice? How would they remain the same?
- What are the existing barriers to incorporating more of a literacy−focused approach to content area teaching and learning?
- What needs to happen to address these barriers?

Story Summaries

Christine Cziko's Freshman English Class, Thurgood Marshall High School

- Urban school with emphasis on college preparation
- 40% of students with GPAs of 2.0 or below at start of program
- High failure rate attributable to low reading comprehension levels in content areas
- 10−unit, yearlong course for all incoming freshmen
- Designed to improve students' oral and written language skills across the curriculum
- Students prompted to think about the importance of being literate
- Students taught to recognize and analyze discourse features
- Students exposed to how authors think when they write

At the Thurgood Marshall School, the Academic Literacy course began as a 10−unit, year−long course for all freshmen in Fall 1996. At that time, many students were failing, and reading comprehension was considered part of the problem. Offered through the Strategic Literacy Initiative, a research and professional development effort based in San Francisco, the course builds students' awareness of reading purposes and processes. The students begin by reading works by authors including Martin Luther King, Maxine Hong Kingston, and Frederick Douglass writing about the role of reading in their lives. They explore questions such as, "What roles does reading serve in people's personal and public lives?" The students are also prompted to think about their own relationships to reading, reflecting on questions such as, "What are my characteristics as a reader?" and "What strategies do I use as I read?"

Research Summary

Summary

Sections II and III in the research summary below are direct excerpts from Julie Meltzer and Edmund Hamann's Meeting the Literacy Development Needs of Adolescent English Language Learners Through Content Area Learning, Part II (2005). This is a publication of the Education Alliance at Brown University funded by the Northeast and Islands Regional Educational Laboratory.

I. General Research on Component C: Across the Curriculum
II. Research on Recognizing and Analyzing Discourse Features
III. Research on Using this practice with English Language Learners
IV. References

General Research on Component C: Across the Curriculum

Evidence clearly points to the connection between increased use of reading and writing in the content areas and better achievement for all students. The field of ESL has long supported content−based instruction, which integrates the teaching of content and language, as an effective strategy for supporting the academic achievement of English language learners (see, for example, Thomas &Collier, 1997).

The research champions the explicit support of contextual literacy learning in content−focused classrooms, especially for struggling adolescent readers, including English language learners (see for example, Mohan, 1992; Moore, et al, 2000; Reyhner &Davison, 1992; Schoenbach et al., 1999). Of course, this requires that teachers know the literacy demands of their particular content areas.

According to the research, three discipline−based literacy strategies are central: vocabulary development, understanding of text structures, and recognizing and analyzing discourse features. Teachers should combine these strategies with instructing students to take a problem−solving approach to reading comprehension. They should also have students use cognitive strategies in context. The combination of these strategies have been shown to effectively support the development of adolescent literacy in almost startling ways, including with English language learners (see, for example, Langer, 1999; Mohan, 1992; Schoenbach et al, 1999).

Good discipline−specific vocabulary instruction−−as opposed to the more pervasive "assign, define, and test,"−−has been shown to have a positive effective on reading comprehension. See, for example, Allen (1999); Baker et al. (1995) http://idea.uoregon.edu/%7Encite/documents/techrep/tech14.html; Graves, 2000; Smith (1997) http://www.indiana.edu/~reading/ieo/digests/d126.html; Stahl &Fairbanks (1986).

Understanding text structures is an important way to help learners increase reading comprehension of demanding content−area texts. Teachers should demystify expository and narrative text structures within the context of specific content areas. This will give secondary readers frames within which to interpret new information. Strategies for unpacking text structures include the use of signals for predicting and mapping, and the use of text queries (see, for example, Berkowitz, 1986; Garner &Reis, 1981; Pearson &Camperell, 1994; Pearson &Fielding, 1991; Schoenbach et al, 1999; Taylor, 1992).

Being able to recognize and analyze discourse features aids tremendously in content−area understanding. It also enhances content−focused writing (e.g., Langer &Flihan, 2000; Schoenbach et al., 1999). The explicit teaching of the discourse features particular to specific content areas is important for all students. However, it is especially important for English language learners and students coming from limited literacy backgrounds (e.g., Mohan, 1990; Reyhner &Davison, 1992; Spanos, 1992).

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Research on Recognizing and Analyzing Discourse Features

Discourse refers to the language used to discuss important concepts within a discipline. In a sense, different content areas represent different sub−cultures within the larger academic discourse (Zamel, 1998). How we talk science is different from how we talk history; how we write math is different from how we write poetry. There are a number of studies that examine how content−area discourses are defined by unique disciplinary−specific patterns for thinking, reading, writing, and speaking (e.g.,

Brown, 1992; Wineburg, 1991, 2001). Such academic communities have the power to mold language, language behavior, and operational assumptions about reading, writing, books, and schooling (Blanton, 1998). According to Gee (1998, 2000, 2001), discourses govern how we talk, think, and interact as in members of a culture. He says, A Discourse integrates ways of talking, listening, writing, reading, acting, interacting, believing, valuing, and feeling (and using various objects, symbols, images, tools, and technologies) in the service of enacting meaningful socially situated identities and activities (2001, capital D in discourse in original). He defines literacy as the control of secondary uses of language (i.e., uses of language in secondary discourses [that is, discourses beyond one's own family or cultural group]) (1998, p. 56). In some sense, then, the true performance assessment for effective content−area literacy development would be how well students can function within and use the discourses of each of the various academic disciplines.

This definition of literacy has particular implications for students trying to learn within the contexts of various subject areas. Zamel (1998) explains that students who want to be successful at learning within a content−area community

> . . . must take on its ways of knowing and its 'ways with words.' The idea of a culture suggests the kind of immersion, engagement, contextualization, [and] fullness of experience, that is necessary for someone to be initiated into and to be conversant in that culture, for someone to understand the ways in which that culture works. ...Students need to act as if they were members of the academy, or historians or anthropologists or economists. Elbow (1991), too, stresses this notion and points out that writing well within the disciplines requires not just using the lingo of the discipline but *doing* the discipline (p. 138). Doing academic discourse, in other words, involves far more than an academic exercise. (p. 188, italics in original)

By Zamel's definition, students who take a variety of content−area courses must navigate many subcultures in the course of a single day in order to be successful. Some or all of these subcultures may make little sense to them. Occasionally, however, there are teachers willing and able to actively support students so that they feel welcomed and assisted to be part of the club.

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Throughout the literature it is apparent that breaking the code (Schoenbach, Braunger, Greenleaf, &Litman, 2003) of how we read, write, talk, and think within a particular content area is substantial work. If we truly want students to be able to think like scientists and write like historians, teachers need to explicitly apprentice students into the discourse of their particular discipline (science, history, business, etc.). This requires teachers to model, make applicable strategies explicit, assess for understanding, and provide students with the tools to become active constructors of knowledge within each subject area. Delpit (1995) recommends specific instruction to speakers of non−standard varieties of English in the rules and customs of standard forms, so that students can recognize and generate such forms as appropriate.

Content−area discourse includes not only vocabulary development and understanding text structures, but also how the big ideas within a discipline are organized and connect; the kinds of resources, tools, and strategies used to think about that discipline; the spoken and written conventions of presentation in that discipline; and the understanding of how to carry out inquiry in that content area (e.g., Langer, 1992; Stevens &Bean, 2003).

The meanings of central concepts (e.g., research, graphic, argument, evidence, problem solving) differ in significant ways across disciplines. Accordingly, the conventions of discourse in each discipline

also vary. Conventions include the formats used to discuss and present important information in different content areas (e.g., debate, presentation of a geometric proof, historical reenactment, scientific hypotheses). To read, write, or speak competently in a given content area, one needs to know specific information related to that discourse (e.g., the criteria for documentation, specificity, punctuation, format, and approaches to analysis).

Zamel (1998) cautions, however, that discourse communities are neither tidy nor constant. Rather, they are always evolving and cannot be reduced to mere forms and formats. "It is clear that becoming acculturated into a new academic community does not simply involve practicing the discipline−specific language, norms, and conventions that many textbooks on academic reading and writing seem to imply

(p. 189). Therefore providing instruction on language forms and formats will not, on its own, give students full access to the discourse community of science or history. Teachers and students must be jointly engaged in the *doing* of science and history within an apprenticeship context for such instruction to be meaningful. Zamel further asserts that students must be encouraged to use their interests, questions, and prior experiences as starting points to interact with and learn how to become part of the discourse community of that discipline.

Being able to recognize and analyze the discourse features of particular disciplines aids tremendously in content−area understanding and content−focused writing (Langer, 1992; Langer &Flihan, 2000; Schoenbach et al., 1999). One illustration of this in the classroom is the Strategic Literacy Initiative being implemented by WestEd. Leaders of that project work with middle and high school teachers to build literacy support into content−area teaching and learning, using a four−part Reading Apprenticeship framework, as Schoenbach et al. (2003) describe:

> In Reading Apprenticeship classrooms, teachers reconceptualize subject−area learning as an apprenticeship in discipline−based practices of thinking, talking, reading, and writing. In a Reading Apprenticeship classroom, then, the curriculum includes more than just *what we read*. It includes *how we read* and *why we read in the ways we do*. ...The primary goal of Reading Apprenticeship is to increase academic opportunities for adolescents who do not see themselves as readers of rigorous texts. We see this increased access as a vital means of working toward equity in academic achievement in secondary school and beyond. As teachers become more aware of the ways they and their disciplinary colleagues make sense of challenging texts?asking different kinds of questions in reading science, social studies, literature, or mathematics, for example?they are able to talk more descriptively and explicitly. ...Making the invisible visible in this way lets students in on how reading works in different disciplines and enables them to break the codes of academic language. (The Reading Apprenticeship Framework section, ¦ 3)

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Research on Using this practice with English Language Learners

Explicit teaching of the discourse features particular to specific content areas is especially important for ELLs and students with a limited background in the academic literacy expectations of schools (Heath, 1983; Mohan, 1990; Reyhner &Davidson, 1992; Spanos, 1992). Instruction that bridges and builds upon students' past literacy experiences, serving to advance their academic literacy habits and skills in the English language arts, can support student success (Lee, 2004; Maloney, 2003).

In her discussion of how to help language minority students acquire skills to function in the discourse community of science, Anstrom (1997) notes:

> Attempting to carry on a scientific discussion assists in developing the ability to ask questions, propose tentative answers, make predictions, and evaluate evidence. However, the acquisition of certain linguistic structures of argumentation is thought to be a prerequisite for the kind of advanced reasoning used in scientific communication. If language minority students do not have access to these linguistic skills, they will not be able to engage in the level of discussion essential to scientific inquiry, and will have difficulty with science reasoning. Certain linguistic structures, such as logical connectors, and specialized vocabulary, both science terminology and vocabulary that may have different meanings in a scientific context, are problematic for language minority students. Moreover, discourse patterns common to science such as compare/ contrast, cause/effect, and problem/solution require a high level of linguistic functioning. Thus, cognitive development in science is heavily dependent upon linguistic development (Fathman et al., 1992).

Anstrom (1997) goes on to say that teachers will need to help students acquire the linguistic structures and discourse patterns frequently used in science. She notes, Mainstream science teachers must be aware of what students need to know linguistically in order to understand and express themselves in science activities and must be able to incorporate opportunities to learn the English language into their lessons.

There is a growing science education research literature that offers ideas and examples for how the discourse of science might be taught to ELLs. For example, there are several publications about the Cheche Konnen Project, a bilingual science initiative with L1 Haitian Creole speakers (e.g., Ballenger, 1997; Rosebery, Warren, &Conant, 1992; Warren et al., 2001), and Quest for Knowledge (e.g., Quiroz, 2001). The Cheche Konnen Project explicitly attempted to bridge the gap between the students' home and community−based talk practices and the expected talk of science class (Lemke, 1990). Joking, storytelling, and other everyday types of talk were welcome as points of entry into the science content. As engagement with that content grew, teachers redirected student talk into discourse forms that were more characteristic of academic science discourse.

Anstrom (1997) makes a similar case for what needs to happen in the math classroom:

> With language minority students, teachers must attend not only to their cognitive development but also to the linguistic demands of mathematical language. The importance of language in mathematics instruction is often overlooked in the mistaken belief that mathematics is somehow independent of language proficiency.

She notes that particularly with the increased emphasis placed on problem solving, command of mathematical language plays an important role in the development of mathematical ability. Mathematics vocabulary, special syntactic structures, inferring mathematical meaning, and discourse patterns typical of written text all contribute to the difficulties many language minority students have when learning mathematics in English.

Curry (2004) also discusses the different discourses that ELL students must negotiate to successfully develop competence at essayist literacy, the primary type of writing required in college−level humanities and social science classes. This type of writing is highly linear and requires the author [to advocate] a particular point of view, analysis, or course of action and support it with accepted types of evidence. In addition to understanding the linear and argumentative nature of much academic writing,

ELLs must grapple with issues of voice and identity (Essayist Literacy section, ¦ 1). She notes that although personal and narrative pieces forefront personal experience and voice, assigned essays often require writers to take an objective stance toward the topic and the audience, a position that many students find uncomfortable (p.5). To be successful at writing in the latter style, Curry states that students need to be familiar with general academic discourse as well as the specific organization and discourse of the content being studied. For example, to be successful as essay writers, students must know how to craft a thesis, make claims, build arguments, and draw on appropriate evidence. Curry asserts that deliberate and purposeful instruction in word choice issues, sentence structure issues, content scope, text organization, and critical thinking skills, along with multiple opportunities to practice, can assist ELLs to master essay writing.

Although focusing on elementary school students, a study by Catherine Snow (1990) of both native and non−native English speaking students illustrates the importance of these opportunities to practice. Snow found a strong correlation between schooling *in English* and the ability to give formal definitions (both formal and informal definition prove knowledge of a word, but the former better matches the academic genre preferred and rewarded in school). Snow concludes that the ability to practice definitions enables students to produce formal definitions. Considering Snow's study, however, Schleppegrell (2004) found that it also demonstrated the salience of student's recognition of social context. Explaining what something *means* or *is* is a common occurrence in everyday language. But giving an effective definition at school requires different linguistic resources from those needed to define words in conversational interaction (p. 37, underlining in original).

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Related Web Resources

Academic Discourse Features (154)
ESL Strategies for Secondary Students: Content−Based Instruction, Cooperative Learning, and CALP Instruction (102)
Everyday Funds of Knowledge and Discourse (183)

Supporting the English classroom through literacy development

What Is It?

In secondary English classrooms where literacy development is a key feature, words and books are everywhere. Reading comprehension is seen as a priority and there are a number of ways that its development is woven into the fabric of teaching and learning. Connections are constantly being made between life and text, and among different texts. Essential questions are generated and incorporated into writing and discussion. There is a celebration of language. If the goal is to explore a particular literary theme, a variety of reading choices is offered and/or both contemporary and classical pieces are selected and read. Writing is seen as a process and there are frequent authentic reasons to write. Students are exposed to how authors think when they write through teacher modeling, guest speakers, Internet interviews, articles from writing journals, and peer interviewing. Students conference with each other and the teacher about their writing. Learning is active and expectations are clear. There is understanding and support that to be literate is important and to not be fully literate is to be disenfranchised.

Suggested Strategies and Resources

For ideas on how to incorporate Reader's Theatre into the secondary English classroom, see, for example, http://humboldt.edu/~jmf2/floss/rt−notes.html.

Two good electronic resources for using young adult literature in the classroom are http://falcon.jmu.edu/~ramseyil/litgen.htm and http://scils.rutgers.edu/~kvander/YoungAdult/index.html.

For a list of WebQuests for high school students in various content areas, including English Language Arts, see http://www.webquest.org and http://www.eduscapes.com/sessions/travel/mhswebquests.htm.

For sets of high school English Language Arts lessons focused on active reading and writing, see http://ofcn.org/cyber.serv/academy/ace/lang/high.html and http://www.pbs.org/teachersource/

A Glimpse into the Classroom

Students are reading different pieces by the same author in small groups and then sharing with those in other groups what they have read to inductively understand the author's work. The Internet is used by the students and the teacher to easily access and project information to create context, answer questions about the author, and assist students to visualize setting. Students actively add to word walls focused on key words, fabulous phrases, and examples of certain types of clauses. Story maps,

character maps and other graphic organizers are created throughout the reading of pieces of literature as teaching, learning and assessment tools. A hypermedia presentation on the author and her works will be the culminating project for the author study.

Questions to Think About

Before you can implement this Key Component, your stakeholders will need to consider some or all of these questions. The questions could be used in group discussions, needs sensing activities, and informal small−group conversations.

- How would planning and teaching change if the strategies described were common practice? How would they remain the same?
- What are the existing barriers to incorporating more of a literacy−focused approach to content area teaching and learning?
- What needs to happen to address these barriers?

Story Summaries

Christine Cziko's Freshman English Class, Thurgood Marshall High School

- Urban school with emphasis on college preparation
- 40% of students with GPAs of 2.0 or below at start of program
- High failure rate attributable to low reading comprehension levels in content areas
- 10−unit, yearlong course for all incoming freshmen
- Designed to improve students' oral and written language skills across the curriculum
- Students prompted to think about the importance of being literate
- Students taught to recognize and analyze discourse features
- Students exposed to how authors think when they write

At the Thurgood Marshall School, the Academic Literacy course began as a 10−unit, year−long course for all freshmen in Fall 1996. At that time, many students were failing, and reading comprehension was considered part of the problem. Offered through the Strategic Literacy Initiative, a research and professional development effort based in San Francisco, the course builds students' awareness of reading purposes and processes. The students begin by reading works by authors including Martin Luther King, Maxine Hong Kingston, and Frederick Douglass writing about the role of reading in their lives. They explore questions such as, "What roles does reading serve in people's personal and public lives?" The students are also prompted to think about their own relationships to reading, reflecting on questions such as, "What are my characteristics as a reader?" and "What strategies do I use as I read?"

English Language Learners Share Their Stories, The ArtsLiteracy Project at Central Falls High School

- In this English language learners class at Central Falls High School in Rhode Island, most students have spoken English for only a few years or months, some for a few weeks.
- The city of Central Falls ranks the highest in the state of Rhode Island for community−wide limited English proficiency (29.5%, compared to the state average of 6.2%).

- These students and their teachers are participating in a literacy development opportunity offered through Brown University, called the ArtsLiteracy Project (ArtsLit).
- ArtsLit draws on research in language development, literacy, and arts education. The research suggests that acting, speaking, writing, planning, and organizing for a performance is a powerful tool for improving students' engagement in school, and especially in literacy activities.
- The ArtsLit professional development workshops and summer programs (http://www.artslit.org/programs.html) emphasize the teaching concepts of modeling, apprenticeship, and scaffolding.
- The ArtsLit curricular framework (or Performance Cycle: see http://www.artslit.org/handbook.html) emphasizes high standards, community building, interactive learning, student voice, and connections to life experiences.
- Aspects of the ArtsLit Performance Cycle that contribute to this practice are Entering Text, Comprehending Text, Rehearsing/Revising Text, and Performing Text.

Through the ArtsLiteracy Project's year−round professional development program, teachers learn arts−based literacy strategies and also address how these strategies can be incorporated meaningfully into daily classroom practice. ArtsLit's major focus is to construct a classroom community in which adolescents develop the skills and habits of mind to convey meaning through−−and recover meaning from−−print text.

The ArtsLiteracy Performance Cycle benefits English language learners by creating a safe, engaging, and welcoming community of learners and by offering an abundance of motivating and purposeful activities for practicing skills in reading, writing, speaking, and listening. Students benefit from the enactive learning activities and collaborative structure of the Performance Cycle. With these supportive elements, English language learners are better able to understand challenging text.

In this English language learner class, teacher Len Newman prepares his students for their final performance through a variety of activities: warm−ups to get the class moving and singing; rehearsals of scenes and readings of finished versions of their stories; and modeling a technique that the class then practices in small rehearsal groups and brings to the stage. Students have written stories that share a memorable life event and make a reference to the place where students spent their childhood before moving to Central Falls. On performance day, they will share their stories and demonstrate their skills to the whole student body at Central Falls High School in Central Falls, Rhode Island.

Fenway High School's Literacy Program

- 58% of Fenway High School's 270 students are eligible for free or reduced−price lunch and 8.2% are English language learners.
- Over the past five years, the faculty and administration at Fenway High School have worked hard to create a school−wide culture of literacy.
- A Foundations of Literacy course helps ninth graders to develop as independent readers and writers.
- Humanities courses reinforce literacy skills and focus on collaborative, project−based learning.
- Since the inception of its literacy program, students' performance on the English Language Arts test of the Massachusetts Comprehensive Assessment System (MCAS) has risen steadily. The school consistently ranks among the top performing urban high schools in the state.

Fenway High School is a small, urban, public high school that has been recognized as a New

American High School by the United States Department of Education and won recognition from the New England Association of Schools and Colleges and other outside institutions. Its literacy program has evolved over the past five years and will continue to be adjusted to enable it to better meet the needs of students.

The literacy program at Fenway consists of three main components:

- a year−long Foundations of Literacy course, which all ninth graders take three times per week in addition to their humanities course;
- in−service workshops for faculty; and
- co−teaching by the literacy coordinator and core subject area teachers to incorporate literacy strategies and skills.

The school's staff and students also participate in two 30−minute periods of sustained, silent reading ("Drop Everything and Read") each week.

Humanities, science, and math teachers use strategies introduced during in−service workshops, either on their own or through co−teaching experiences with the literacy coordinator in their classrooms. The literacy coordinator attributes the rising scores on the statewide assessment to three things: the humanities department's integration of literacy skills into its collaborative, project−based curriculum; the Foundations of Literacy course, which reinforces the skills being taught in humanities and also provides students with individualized coaching as they explore and compare a variety of texts and genres; and the school's culture of literacy.

Eulalia Texidor Ortiz's English Language Arts Class at S.U. Bartolom Javier Petrovitch SchoolBy participating in the Center for Integration of Technology (CENIT) program, an island−wide initiative designed to help teachers integrate technology into their academic curriculum, schools in Puerto Rico are changing, moving to a more constructivist learning and teaching style.

Each participating school has a lead teacher selected by CENIT staff who works with other participating teachers in the school to get them up to speed on using the new computers and software programs provided by CENIT funding. When schools open in August, teachers participating in the program begin to introduce their students to the new technology, giving them the opportunity to learn how to use it by taking part in technology−rich lessons in a variety of subjects.

One school currently participating in the CENIT program is the S.U. Bartolom Javier Petrovitch School of Cabo Rojo, where Eulalia Texidor Ortiz, a sixth, seventh, and eighth grade English language arts teacher, is the CENIT III Lead Teacher. As the lead teacher, Texidor Ortiz models authentic and reflective learning strategies, working closely with the students in her class to choose projects relevant to their personal interests and community concerns and helping them to decide which technologies best support their goals for a given project. As part of integrating technology into the curriculum, students are encouraged to use the computers provided to search for information on the Internet, and to use digital and video cameras and a myriad of software programs that enhance the learning experience.

Part of what drives the success of this approach is that Texidor Ortiz encourages her students to bring their personal interests into the classroom, often incorporating them into writing assignments and other projects.

The students, guided by the teacher, discuss in a group setting what topics they would like to write about for their assignments. Once this is done, the teacher, serving as a facilitator, supports them in

ways that allow them to become better writers and better readers. Texidor Ortiz's focus is maintaining the students? high motivation level, and she achieves this by giving them control of their own learning environments.

Research Summary

Summary

Evidence clearly points to the connection between increased use of reading and writing in the content areas and better achievement for all students. The field of ESL has long supported content−based instruction, which integrates the teaching of content and language, as an effective strategy for supporting the academic achievement of English language learners (see, for example, Thomas &Collier, 1997).

The research champions the explicit support of contextual literacy learning in content−focused classrooms, especially for struggling adolescent readers, including English language learners (see for example, Mohan, 1992; Moore, et al, 2000; Reyhner &Davison, 1992; Schoenbach et al., 1999). Of course, this requires that teachers know the literacy demands of their particular content areas.

According to the research, three discipline−based literacy strategies are central: vocabulary development, understanding of text structures, and recognizing and analyzing discourse features. Teachers should combine these strategies with instructing students to take a problem−solving approach to reading comprehension. They should also have students use cognitive strategies in context. The combination of these strategies have been shown to effectively support the development of adolescent literacy in almost startling ways, including with English language learners (see, for example, Langer, 1999; Mohan, 1992; Schoenbach et al, 1999).

Good discipline−specific vocabulary instruction−−as opposed to the more pervasive "assign, define, and test,"−−has been shown to have a positive effective on reading comprehension. See, for example, Allen (1999); Baker et al. (1995) http://idea.uoregon.edu/%7Encite/documents/techrep/tech14.html; Graves, 2000; Smith (1997) http://www.indiana.edu/~reading/ieo/digests/d126.html; Stahl &Fairbanks (1986).

Understanding text structures is an important way to help learners increase reading comprehension of demanding content−area texts. Teachers should demystify expository and narrative text structures within the context of specific content areas. This will give secondary readers frames within which to interpret new information. Strategies for unpacking text structures include the use of signals for predicting and mapping, and the use of text queries (see, for example, Berkowitz, 1986; Garner &Reis, 1981; Pearson &Camperell, 1994; Pearson &Fielding, 1991; Schoenbach et al, 1999; Taylor, 1992).

Being able to recognize and analyze discourse features aids tremendously in content−area understanding. It also enhances content−focused writing (e.g., Langer &Flihan, 2000; Schoenbach et al., 1999). The explicit teaching of the discourse features particular to specific content areas is important for all students. However, it is especially important for English language learners and students coming from limited literacy backgrounds (e.g., Mohan, 1990; Reyhner &Davison, 1992; Spanos, 1992).

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Related Web Resources

Academy Curricular Exchange, Language Arts Lessons, High School (9−12) (23)
Discovery Education: School Resources (36)
EdSitement (181)
ELL Resource: Language Arts Instruction and English Language Learners (175)
ELL Resource: Reading in a Second Language (43)
ELL Resource: Scaffolds that Help ELL Readers (186)
Index to Internet Sites: Children's and Young Adults' Authors &Illustrators (106)
Literacy Education Resources: Early Childhood to High School (105)
LitSite Alaska: Workbooks and Peer Work Index (179)
Online Poetry Classroom (184)
Reading (103)
Scripting for Reader's Theatre (104)
Speaking (91)
Writing (87)
Young Adult Literature (107)
Young Adult Literature: Middle &Secondary English−Language Arts (71)

Supporting the math classroom through literacy development

What Is It?

A secondary math classroom that supports literacy development is one in which students and teachers use language processes to enhance and demonstrate understanding. Teachers in these settings make connections, verbally and in writing, between current and prior lessons. Teachers model problem−solving by thinking aloud, and students are asked to articulate, verbally or in writing, how they solve problems. In such a classroom, students do not fear word problems but actively practice them. Teachers introduce mathematical figures as language features. Students and teachers are active in concept development. Common processes in such classrooms include word play, connections to real life, examples of real life applications, varied groupings, and team work to construct and present solutions to mathematical problems.

Suggested Strategies and Resources

Use of the following teaching and learning strategies will support literacy development and enhance the understanding of math concepts: Think Alouds, graphic organizers, word problems, brainteasers, math journals, Inquiry Models, Quick Writes, Word Walls, concept maps, flow charts, computer or graphic programming, creation of texts, Socratic Questioning, and WebQuests. (A description of most of these strategies can be found in the links under Key Component B.)

Specific examples of how many of these strategies can be directly integrated into the high school math classroom include the following:

A good rationale for using an interactive process for solving word problems, along with links to word problems across the math curriculum, can be found at http://www.hawaii.edu/suremath/literacy.html.

For some suggestions on how to motivate students in the mathematics classroom, see http://mathforum.org/~sarah/Discussion.Sessions/biblio.motivation.html.

For a list of WebQuests for high school students in various content areas, including math, see http://webquest.sdsu.edu/matrix.html

For some excellent mathematical quotations that connect words to mathematical concepts, see http://www.mathacademy.com/pr/quotes/index.asp.

For a listing of best practices in the mathematics classroom, see http://instech.tusd.k12.az.us/balancedlit/handbook/BLHS/blmathhs.htm.

Problems of the week, arranged by math topic, can be found at http://mathforum.org/pow/

This link describes three reading comprehension strategies shown to be helpful with mathematics textbooks:
http://www.nade.net/documents/SCP97/SCP97.2.pdf

For strategies on how to read a math textbook, see
http://wc.pima.edu/~carem/Mathtext.html or
http://acunix.wheatoncollege.edu/jsklensk/suggestions.html

For a series of books that link math and reading, see
http://www.mathgoodies.com/books/

For suggestions on how to create a more responsive math classroom, see
http://www.mathgoodies.com/articles/safe_math.html

An overview of strategies for teaching vocabulary in the math classroom can be found at
http://www.eduplace.com/state/pdf/author/chard_hmm05.pdf

A Glimpse into the Classroom

Students are working in small groups to categorize types of problems from an algebra text. They are comparing the problems to a criteria list for a high−quality final exam, selecting the problems they feel should be included, and writing a rationale for their selections. Groups will exchange problem selections and work the problems together to prepare for the final exam, which they will take individually.

Questions to Think About

Before you can implement this Key Component, your stakeholders will need to consider some or all of these questions. The questions could be used in group discussions, needs sensing activities, and informal small−group conversations.

- How would planning and teaching change if the strategies described were common practice? How would they remain the same?
- What are the existing barriers to incorporating more of a literacy−focused approach to content area teaching and learning?
- What needs to happen to address these barriers?

Story Summaries

Fenway High School's Literacy Program

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- Over the past five years, the faculty and administration at Fenway High School have worked hard to create a school−wide culture of literacy.
- Math courses teach reading and writing strategies to help students solve problems.

- Since the inception of its literacy program, students' performance on the English Language Arts test of the Massachusetts Comprehensive Assessment System (MCAS) has risen steadily. The school consistently ranks among the top performing urban high schools in the state.

Fenway High School is a small, urban, public high school that has been recognized as a New American High School by the United States Department of Education and won recognition from the New England Association of Schools and Colleges and other outside institutions. Its literacy program has evolved over the past five years and will continue to be adjusted to enable it to better meet the needs of students.

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- a year−long Foundations of Literacy course for all ninth graders, taught by the literacy coordinator;
- in−service workshops for faculty; and
- co−teaching by the literacy coordinator and core subject area teachers to incorporate literacy strategies and skills.

The school's staff and students also participate in two 30−minute periods of sustained, silent reading ("Drop Everything and Read") each week.

Humanities, science, and math teachers use strategies introduced during in−service workshops, either on their own or through co−teaching experiences with the literacy coordinator in their classrooms. In math classes, students use a reading guide to help them complete word problems and a metacognition strategy to help them improve their mathematical reasoning. The literacy coordinator attributes the rising scores on the statewide assessment to the focus of the humanities department on literacy skill development; the Foundations of Literacy course, which provides ninth graders with more time for reading and writing and with individualized assessment of their progress; and the school's culture, in which literacy is valued.

Research Summary

Summary

Evidence clearly points to the connection between increased use of reading and writing in the content areas and better achievement for all students. The field of ESL has long supported content−based instruction, which integrates the teaching of content and language, as an effective strategy for supporting the academic achievement of English language learners (see, for example, Thomas &Collier, 1997).

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approach to reading comprehension. They should also have students use cognitive strategies in context. The combination of these strategies have been shown to effectively support the development of adolescent literacy in almost startling ways, including with English language learners (see, for example, Langer, 1999; Mohan, 1992; Schoenbach et al, 1999).

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Related Web Resources

Best Practices in Teaching Mathematics (109)
Creating a Responsive Math Classroom (122)
Discovery Education: School Resources (36)
ELL Resource: The Inclusive Classroom: Teaching Math and Science to English−Language Learners (162)
ESL Math and Science for High School Students: Two Case Studies (169)
Linking Math and Reading (121)
Mathematics and Motivation: An Annotated Bibliography (65)

Platonic Realms Quotes Collection (quotes listing) (16)
Reading Strategies for Developmental Math Textbooks (5)
Strategies for Reading Math Textbooks (133)
Suggestions for Reading a Math Textbook (4)
Teaching Vocabulary in the Math Classroom (137)
The Math Forum @ Drexel (132)

Supporting the science classroom through literacy development

What Is It?

In secondary science classrooms where literacy development is a priority, reading, writing, and discussion happen on a daily basis. Understandings are built and expanded through the use of many kinds of texts, including the reading and analysis of essays, journal articles, Web sites, textbooks, and science fiction. Reading comprehension is supported through the use of electronic media, film, laboratory experiences, and visuals. The meanings of specialized vocabulary are actively constructed and reinforced; hypothesis, prediction, analysis and description occur in verbal and written form; and textbook features are explicitly introduced and used. The writing process is used to strengthen lab reports, analytic writing, solutions to problem sets, and research findings. The expectation is that students will be involved with active inquiry, that frequent presentation and discussion of findings, ideas and questions will occur, and that the reading and conducting of scientific research will be a part of the fabric of teaching and learning. Expectations are clear, there are choices in how students can present learning, students are grouped in various ways for different kinds of assignments, and student interests are taken into consideration.

Suggested Strategies and Resources

Use of the following teaching and learning strategies will support literacy development and enhance understanding of Science content: KWL Plus, Inquiry Models, Concept Mapping, flowcharts, Reciprocal Teaching, use of WebQuests, dialogue journals, publishing annotated resource lists or research on Web sites, writing children's informational texts, electronic collaboration with scientists, investigative groups, debate, forums, Socratic Questioning, fishbowl discussions, Word Walls, hypermedia presentations, and electronic simulations. (Descriptions of many of these strategies can be found in the links under Key Component B.)

For a general description of how many of the practices listed in Key Component B might look in the science classroom of the future, see http://horizon.unc.edu/projects/HSJ/Baird.asp.

For more examples of how these strategies can be specifically applied to the secondary science classroom, the following links are worth exploring:

Resources and strategies for how to use writing in the science classroom can be found at http://www.mdk12.org/instruction/curriculum/hsa/earth_space/writing_classroom.html.

For a good description of how one science teacher uses double entry journals, see "Using Dialogue Journals in Support of Science Instruction" at http://accessexcellence.org/MTC/96PT/Share/yorks.html.

For a list of WebQuests for high school students in various content areas, including science, see "Matrix of Examples" at http://www.webquest.org .

For a summary of best practices in the science classroom, see http://instech.tusd.k12.az.us/balancedlit/handbook/BLHS/blbpscihs.htm.

For a detailed description of a literacy−based end of year collaborative physics project, see http://ed.fnal.gov/help/97/sightsound/ssscen.html.

For an example of a student rubric to assess scientific inquiry projects, see http://www.nwrel.org/msec/images/science/pdf/secondaryteachers.pdf.

For a set of links and information about inquiry based learning in the high school science classroom, see http://ed.stanford.edu/STEP/resources−science.html.

A literacy infused project example for advanced biology students can be found at: http://www−ed.fnal.gov/linc/projects/ktgannon/presentation.html.

A collaborative physics project is described at http://quarknet.fnal.gov/.

Example of assessment rubrics for products for a collaborative physics project: http://www−ed.fnal.gov/help/97/sightsound/ssrubhom.html.

A Glimpse into the Classroom

Students are working in pairs to complete a WebQuest on various earth science phenomena. As they learn what they see as the essential facts and find the most important images and definitions of key vocabulary, they import these to a Hypercard stack. Three pairs are each working on the same topic. These six must then work together to develop one Hypercard stack, which will form the basis for their presentation to their classmates and be an electronic text for others.

Questions to Think About

Before you can implement this Key Component, your stakeholders will need to consider some or all of these questions. The questions could be used in group discussions, needs sensing activities, and informal small−group conversations.

- How would planning and teaching change if the strategies described were common practice? How would they remain the same?
- What are the existing barriers to incorporating more of a literacy−focused approach to content area teaching and learning?
- What needs to happen to address these barriers?

Research Summary

Summary

Evidence clearly points to the connection between increased use of reading and writing in the content areas and better achievement for all students. The field of ESL has long supported content−based instruction, which integrates the teaching of content and language, as an effective strategy for supporting the academic achievement of English language learners (see, for example, Thomas &Collier, 1997).

The research champions the explicit support of contextual literacy learning in content−focused classrooms, especially for struggling adolescent readers, including English language learners (see for example, Mohan, 1992; Moore, et al, 2000; Reyhner &Davison, 1992; Schoenbach et al., 1999). Of course, this requires that teachers know the literacy demands of their particular content areas.

According to the research, three discipline−based literacy strategies are central: vocabulary development, understanding of text structures, and recognizing and analyzing discourse features. Teachers should combine these strategies with instructing students to take a problem−solving approach to reading comprehension. They should also have students use cognitive strategies in context. The combination of these strategies have been shown to effectively support the development of adolescent literacy in almost startling ways, including with English language learners (see, for example, Langer, 1999; Mohan, 1992; Schoenbach et al, 1999).

Good discipline−specific vocabulary instruction−−as opposed to the more pervasive "assign, define, and test,"−−has been shown to have a positive effective on reading comprehension. See, for example, Allen (1999); Baker et al. (1995) http://idea.uoregon.edu/%7Encite/documents/techrep/tech14.html; Graves, 2000; Smith (1997) http://www.indiana.edu/~reading/ieo/digests/d126.html; Stahl &Fairbanks (1986).

Understanding text structures is an important way to help learners increase reading comprehension of demanding content−area texts. Teachers should demystify expository and narrative text structures within the context of specific content areas. This will give secondary readers frames within which to interpret new information. Strategies for unpacking text structures include the use of signals for predicting and mapping, and the use of text queries (see, for example, Berkowitz, 1986; Garner &Reis, 1981; Pearson &Camperell, 1994; Pearson &Fielding, 1991; Schoenbach et al, 1999; Taylor, 1992).

Being able to recognize and analyze discourse features aids tremendously in content−area understanding. It also enhances content−focused writing (e.g., Langer &Flihan, 2000; Schoenbach et al., 1999). The explicit teaching of the discourse features particular to specific content areas is important for all students. However, it is especially important for English language learners and students coming from limited literacy backgrounds (e.g., Mohan, 1990; Reyhner &Davison, 1992; Spanos, 1992).

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Related Web Resources

Basic science concepts: How Stuff Works (188)
Best Practices in Teaching Science (114)
Biology/Instructional Strategies/Writing in the Science Classroom (111)
Biome EcoWatch Project (14)
Creating a Twenty−five Word Abstract (82)
Darwin's "On The Origin of Species" (153)
Deformed Frogs in Minnesota! (18)
Discovery Education: School Resources (36)
Earth Exploration Toolbook (168)
Earthwatch Institute (160)
Ecology vocabulary and concepts related to frogs (177)
Frog dissection tutorial and virtual dissection (35)
Handbook of Engaged Learning Projects, Sight and Sound in Nature, Scoring Rubrics (24)
Handbook of Engaged Learning Projects: Sight and Sound in Nature; Scenario (115)
Inquiry−Based Learning (3)
It's Elemental: The Periodic Table of Elements (161)
Misconceptions about Evolution and the Mechanisms of Evolution (166)
National Geographic.com (178)
Newton's Three Laws of Motion and More (171)
QuarkNet (7)
Science and Technology pages of the Smithsonian Museum of Natural History (156)
Science at NASA (155)
Science Reference Services (40)
Secondary Science Inquiry Scoring Guide (134)
Students as investigators in Minnesota (147)
The Future of Secondary Education: The High School Science Classroom of the Future (110)
The World's Biomes and More (37)
To Spray or Not to Spray: A Debate Over Malaria and DDT (167)
Using Dialogue Journals in Support of Science Instruction (113)
Using the History of Science in the Chemistry Classroom (163)
Virtual Pond Dip (190)
Webquests for constructivist lessons across the curriculum (135)

Supporting the social studies classroom through literacy development

What Is It?

In a secondary Social Studies classroom that supports literacy development, a wide variety of types of resources, including reproductions of primary sources in texts, kits, or Web sites, (e.g., diary entries, newspaper accounts, broadsides, maps, inventories, historical photographs), film, and historical fiction, are used to develop understandings of eras, places, and events. Textbook features are made explicit, and specialized vocabulary is commonly used in classroom discussion. Student writing, and the thinking and approaches of social studies specialists (e.g., anthropologists, archeologists, economists, social historians, sociologists) are investigated. Active participation in the framing and exploration of essential questions is expected. Connections between eras, events, famous and infamous people, different representations of the same or similar events, and past and present are constantly being made. How languages develop and how language is used, both by those in power and by those who resist, is examined as part of historical, cultural, geographic, and psychological studies. Students are expected to read and write to learn; there is frequent discussion, presentation, and debate; and research skills are used in context on a regular basis. Expectations are clear, there are choices in how students can present learning, students are grouped in various ways for different kinds of assignments, and student interests are taken into consideration.

Suggested Strategies and Resources

Use of the following strategies will enhance literacy development and understanding of social studies content: KWL Plus, Anticipation Guides, Semantic Mapping, Reciprocal Teaching, Relevance Bubbles, Decision Making, webbing, Flow Charts, guided inquiry, writing of historical fiction, use of WebQuests, Reader's Theatre, Web site development, writing children's nonfiction texts, debate, point of view writing, investigative groups, Word Walls, use of case studies, case study development, focused imaging, interviews, Socratic Questioning, fishbowl discussions, simulations, skits, hypermedia presentations. (General descriptions of many of these can be found in the links under Best Practices in the Key Component B section of this Spotlight).

This list of literacy strategies and examples of how to use them in the high school social studies classroom for inquiry learning is on the Online Learning Centre website for New Zealand. http://www.tki.org.nz/r/socialscience/curriculum/SSOL/resources/strategies/a−z_e.php

For a list of WebQuests for high school students in various content areas, including Social Studies, see http://www.webquest.org

For a discussion and example of semantic mapping in the social studies classroom and in the context of a second language, see http://www.cal.org/resources/digest/int−for−k8.html

For examples of concept mapping in the social studies classroom, see:
http://www.mcps.k12.md.us/curriculum/socialstd/curriculum/nslg/102map.pdf

For a summary of best practices in the social studies classroom, see
http://instech.tusd.k12.az.us/balancedlit/handbook/BLHS/blsshs.htm

A Glimpse into the Classroom

Students are working in pairs on persuasive multimedia presentations that incorporate a variety of source documents and images to illustrate their essays supporting one side of a controversial topic in American history. They will present these to students of another class, who will rate the quality of their presentations according to the rubric developed by the class at the start of the project. A local cable network will videotape the presentations.

Questions to Think About

Before you can implement this Key Component, your stakeholders will need to consider some or all of these questions. The questions could be used in group discussions, needs sensing activities, and informal small−group conversations.

- How would planning and teaching change if the strategies described were common practice? How would they remain the same?
- What are the existing barriers to incorporating more of a literacy−focused approach to content area teaching and learning?
- What needs to happen to address these barriers?

Story Summaries

Christine Cziko's Freshman English Class, Thurgood Marshall High School

- Urban school with emphasis on college preparation
- 40% of students with GPAs of 2.0 or below at start of program
- High failure rate attributable to low reading comprehension levels in content areas
- 10−unit, yearlong course for all incoming freshmen
- Designed to improve students' oral and written language skills across the curriculum
- Students prompted to think about the importance of being literate
- Students taught to recognize and analyze discourse features
- Students exposed to how authors think when they write

At the Thurgood Marshall School, the Academic Literacy course began as a 10−unit, year−long course for all freshmen in Fall 1996. At that time, many students were failing, and reading comprehension was considered part of the problem. Offered through the Strategic Literacy Initiative, a research and professional development effort based in San Francisco, the course builds students' awareness of reading purposes and processes. The students begin by reading works by authors including Martin Luther King, Maxine Hong Kingston, and Frederick Douglass writing about the role of reading in their lives. They explore questions such as, "What roles does reading serve in people's

personal and public lives?" The students are also prompted to think about their own relationships to reading, reflecting on questions such as, "What are my characteristics as a reader?" and "What strategies do I use as I read?"

Research Summary

Summary

Evidence clearly points to the connection between increased use of reading and writing in the content areas and better achievement for all students. The field of ESL has long supported content−based instruction, which integrates the teaching of content and language, as an effective strategy for supporting the academic achievement of English language learners (see, for example, Thomas &Collier, 1997).

The research champions the explicit support of contextual literacy learning in content−focused classrooms, especially for struggling adolescent readers, including English language learners (see for example, Mohan, 1992; Moore, et al, 2000; Reyhner &Davison, 1992; Schoenbach et al., 1999). Of course, this requires that teachers know the literacy demands of their particular content areas.

According to the research, three discipline−based literacy strategies are central: vocabulary development, understanding of text structures, and recognizing and analyzing discourse features. Teachers should combine these strategies with instructing students to take a problem−solving approach to reading comprehension. They should also have students use cognitive strategies in context. The combination of these strategies have been shown to effectively support the development of adolescent literacy in almost startling ways, including with English language learners (see, for example, Langer, 1999; Mohan, 1992; Schoenbach et al, 1999).

Good discipline−specific vocabulary instruction−−as opposed to the more pervasive "assign, define, and test,"−−has been shown to have a positive effective on reading comprehension. See, for example, Allen (1999); Baker et al. (1995) http://idea.uoregon.edu/%7Encite/documents/techrep/tech14.html; Graves (2000); Smith (1997) http://www.indiana.edu/~reading/ieo/digests/d126.html; Stahl &Fairbanks (1986). See also, http://www.indiana.edu/~reading/ieo/bibs/vocabrng.html

Understanding text structures is an important way to help learners increase reading comprehension of demanding content−area texts. Teachers should demystify expository and narrative text structures within the context of specific content areas. This will give secondary readers frames within which to interpret new information. Strategies for unpacking text structures include the use of signals for predicting and mapping, and the use of text queries (see, for example, Berkowitz, 1986; Garner &Reis, 1981; Pearson &Camperell, 1994; Pearson &Fielding, 1991; Schoenbach et al, 1999; Taylor, 1992).

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Related Web Resources

Best Practice in Social Studies (17)
Discovery Education: School Resources (36)
EdSitement (181)
ELL Resource: Social Studies and ESL Students (148)
Literacy Instruction in Social Studies (Greece CSD, NY) (189)
Literacy Matters for Social Studies (146)
LitSite Alaska: Workbooks and Peer Work Index (179)
Problem Based Social Studies (96)
Reading Quest.org Making Sense in Social Studies. Strategies for Reading Comprehension (74)
Readquest Strategies for Reading Comprehension (143)
Webquests for constructivist lessons across the curriculum (135)

Key Component D −− Organizational Support:
A successful adolescent literacy initiative relies on key organizational structures and leadership capacity.

The following are promising practices related to Key Component D.

Experience with high school educational reform models (e.g., Coalition for Effective Schools; Breaking Ranks; Career Academies) suggests that implementing and sustaining change in secondary schools requires a host of organizational and leadership structures specific to the ongoing initiative.

- Meets the goals for adolescents in that particular community and its various constituents.
- Articulates, communicates, and actualizes a vision of literacy as a priority.
- Utilizes best practices in the area of systemic educational reform.
- Is defined in a way that connects to the larger educational program.
- Involves ongoing support for teacher professional development.
- Has a clear process for program review and evaluation.

Meets the goals for adolescents in that particular community and its various constituents.

What Is It?

A successful adolescent literacy initiative is clear about which specific issues must be addressed for learners in that community to develop the types of skills and strategies necessary to negotiate the literacy demands of 1) course work, 2) higher education, 3) the world of work, and 4) lifelong learning through reading and writing. Initiatives may address multiple goals but are designed specifically to address stated goals.

Suggested Strategies and Resources

In some communities, secondary literacy initiatives have been established particularly to meet the needs of specific groups such as English Language Learners or at−risk students. (For an example of a district−wide commitment to struggling readers whose literacy skills are insufficient for them to succeed in their secondary content area classes, see http://www.madison.k12.wi.us/tnl/langarts/hsread.htm#commitment.) Others have taken a broader approach but specifically designate the goals of the initiative and design all the aspects of the project to assist students and teachers to meet those goals (see, for example, http://www.mcsd.org/Report_files/secondary.pdf). Different communities have different issues facing them. One thing is clear, there is no "one size fits all" solution to the challenge of adolescent literacy development. Remember, too, while the needs of one group of students may appear greater than that of others, the need for continued support of literacy development through the content areas is an important piece of standards−based education for all secondary students (see http://www.reading.org/pdf/1036.pdf).

One caveat: Successful literacy initiatives involve "buy in" from teachers, students, administrators, parents, and representatives from the community. Invite people from all of these groups to the table to come to consensus on what a literacy initiative would need to address to be successful. Then ask the participants to be responsible for carrying back information about the initiative to their constituencies.

Questions to Think About

Before you can implement this Key Component, your stakeholders will need to consider some or all of these questions. The questions could be used in group discussions, needs sensing activities, and informal small−group conversations.

- Is this already in place? What would it take to put this into place?

- Are there other key support structures that you would see as essential to the success of an adolescent literacy initiative?

- What do you see as the most important goals of an adolescent literacy initiative in your school or district? What are the most pressing literacy problems? How do you feel these would best be addressed within the context of your educational program?

Story Summaries

Fenway High School's Literacy Program

- 58% of Fenway High School's 270 students are eligible for free or reduced−price lunch and 8.2% are English language learners.
- Over the past five years, the faculty and administration have worked together to develop and realize the school's vision of a literate community.
- The school's literacy efforts focus on developing independent readers and writers who use a variety of strategies to improve their comprehension and expression.
- The literacy program is an important piece of the school's integrated, flexible curriculum and helps to fulfill its goal of academic excellence and intellectual habits of mind.
- A literacy coordinator serves as a resource for students and teachers.
- Ongoing professional development and faculty collaboration support the literacy program.
- Since the inception of Fenway's literacy program, its students' performance on the English Language Arts test of the Massachusetts Comprehensive Assessment System (MCAS) has risen steadily. The school consistently ranks among the top performing urban high schools in the state.

Fenway High School is a small, urban, public high school that has been recognized as a New American High School by the United States Department of Education and won recognition from the New England Association of Schools and Colleges and other outside institutions. Its literacy program began with the faculty drafting its vision of a literacy community and identifying the necessary steps to realize this vision—including hiring a literacy coordinator. The program has evolved over the past five years and will continue to be adjusted to enable it to better meet the needs of students.

The literacy program at Fenway consists of three main components:

- a year−long Foundations of Literacy course for all ninth graders, taught by the literacy coordinator;
- in−service workshops for faculty; and
- co−teaching by the literacy coordinator and core subject area teachers to incorporate literacy strategies and skills.

The school's staff and students also participate in two 30−minute periods of sustained, silent reading ("Drop Everything and Read") each week.

Humanities, science, and math teachers use strategies introduced during in−service workshops, either on their own or through co−teaching experiences with the literacy coordinator in their classrooms. The literacy coordinator attributes the rising scores on the statewide assessment to the focus of the humanities department on literacy skill development; the Foundations of Literacy course, which introduces ninth graders to reading comprehension and writing strategies while helping them develop

the habits of independent readers and writers; and the school's culture, in which literacy is valued.

Muskegon High School &the Strategic Instruction Model

Muskegon High School is a large, urban public school facing many of the same challenges that schools across the country face today.

- 71% of its students receive free or reduced−price lunches.
- 8% are English Language Learners, a number that has been growing every year.
- Incoming ninth−graders struggle with reading comprehension.
- English teachers were becoming increasingly concerned about students' writing skills and lack of progress.

In the mid−1990s, state assessments indicated that half of the school's 400 ninth−graders read below grade level. Teachers and administrators responded by adopting and implementing several reading and writing strategies from the Strategic Instruction Model (SIM) developed by the University of Kansas Center for Research on Learning:

- Ninth−grade students who read significantly below grade level (two or more years below grade level) receive intensive instruction in the Word Identification Strategy. As a result, reading comprehension gains of three or four grade levels are common.
- A Strategic Reading class offers instruction in several reading comprehension strategies.
- English teachers integrate several writing strategies into their classroom activities. When compared with schools of similar size and demographics, Muskegon High School has consistently scored at or near the top on the state's writing assessment given in the 11th grade.
- Content teachers reinforce instruction in and encourage the use of reading and writing strategies in their classrooms.

Partnership Creates Path for Students' Future: University Park Campus School

In 1997, Clark University and the local school district partnered to found University Park Campus School (UPCS) and revitalize one of most troubled neighborhoods in Worcester, Mass., providing a way to prepare students for college and a promising future.

The partnership draws together community resources. The university offered $390,000 from a federal grant, Clark teachers and tutors, and access to Clark classes and facilities. The city provided the school building and agreed to pay for building maintenance, salaries and supplies. UPCS serves as a lab school for Clark University's education department.

UPCS faced many challenges:

- High school graduation and college were unlikely options for students from this area in the past.
- Every year, almost all of the seventh grade students who have entered UPCS have read far below grade level.

Rigor and high standards set the tone at UPCS. The admissions requirement was that students—who were chosen by lottery—live in the neighborhood and commit to the following:

- They would put in a longer school day.
- Coursework and homework would demand more time and be difficult.

- Absence would not be tolerated.
- Failure was not an option.

Every student pursues a challenging academic program consisting of honors−level classes and a traditional transcript: algebra, biology, physics, calculus, elective AP classes, Spanish, art, music, English, history, and geometry. Instruction is individualized to connect to each student's particular level of development. There is no tracking. Personalization is considered the key to student success.

A sense of community is important at UPCS. Many of the teachers regularly eat breakfast or lunch with students, and there is a lot of communication with parents and families. Students study in a building that is small, nurturing, intimate, and comfortable, but one that does not have a gym, cafeteria, or library. UPCS students thinks of themselves as young Clark University students as they use the university athletic complex, study at the library, and attend university events.

Literacy supports and an extended school day help students improve their skills. Before− and after−school Homework Centers provide daily support in reinforcing skills. Up to 80% of students take advantage of the before− or after−school academic help sessions offered by teachers. Clark University master's and work−study students provide tutoring in the homework centers and one−on−one tutoring.

On statewide testing, UPCS outscored students in Worcester and many of the most affluent towns in the state. No student at UPCS has ever failed the English Language Arts section of the Massachusetts Comprehensive Assessment System (MCAS).

A free college education is the reward. Students who have lived in the Clark neighborhood for the last five years of school and have met Clark's entrance requirements may attend Clark University tuition−free. Fifteen of the 31 in UPCS's first graduating class applied to Clark University and were accepted. Seven chose to attend, and others were accepted with full scholarships elsewhere. In 2003, all 31 graduating students are headed to college.

Research Summary

Summary

The link between adolescent literacy development and better content−area achievement is clear. However, few systemic high school literacy initiatives to date have been carried out beyond the planning and initial implementation stages. As research consistently indicates, a host of organizational structures, along with effective leadership, are crucial to appropriately sustaining any effective secondary reform initiative requires. The nine research−based components of the Comprehensive School Reform Demonstration Project (CSRD) summarize these as 1) effective research−based methods and strategies, 2) comprehensive design with aligned components, 3) professional development, 4) measurable goals and objectives, 5) support within the school, 6) parent and community involvement, 7) external technical support and assistance, 8) evaluation strategies, and 9) coordination of resources. (http://www.lab.brown.edu/public/csr/csrd.taf?function=detailR00CO)

Ten key strategies for success in urban schools focus on the importance of quality and ongoing professional development as a part of the life of the school. They also include the need for high expectations for student achievement on everyone's part, ongoing support systems, and ongoing assessment of program effectiveness (Hodges, 1994). Experience with high school educational reform

models (e.g., Coalition for Effective Schools; Breaking Ranks; Career Academies) reinforces this: Implementing and sustaining change in secondary schools requires a host of organizational and leadership structures specific to the ongoing initiative. Studies of secondary school restructuring efforts, where the necessary organizational supports and leadership capacities are not in place, tend to be short−lived; they also contribute to high levels of teacher frustration, stress, and burnout on the part of teachers charged with implementing change (e.g., Nolan &Meister, 2000).

Researchers who studied successful compensatory literacy programs for young adolescents concluded that these programs contain the following: 1) vision and definition, 2) developmental responsiveness, 3) academic effectiveness, 4) access to the world of the written word, and 5) organization to ensure success for all. The researchers found three examples of successful in−school programs at the middle school level. All were complex educational interventions that involved the following: A systematically developed approach to address adolescent literacy needs in their particular district;

Leadership at the district and administrative levels; Community and school support because of demonstrated success; Coherent educational philosophies that take into account the specific maturational, social, and cognitive needs of adolescents; Incorporation of specific instructional and curricular approaches; The capacity to function as an integral component of the district's educational program; and Ongoing purposeful professional development for teachers (Davidson &Koppenhaver, 1993).

Two additional sets of research−based findings, distinguishing between high and low performing secondary schools, may be particularly relevant. Although not adolescent literacy initiatives per se, both looked at systemic support for language and literacy development. One study looked at those secondary school "characteristics of teachers' professional lives that accompany student achievement in writing, reading, and English." The study found that "the more effective schools and districts nurtured a climate that 1) orchestrated coordinated efforts to improve student achievement, 2) fostered teacher participation in a variety of professional communities, 3) created structured improvement activities that offered teachers a strong sense of agency, 4) valued commitment to the profession of teaching, 5) engendered a caring attitude to colleagues and students, and 6) fostered a deep respect for life−long learning" (Langer, 1999). Embedded in the facilitation of such outcomes are a variety of organizational support structures and leadership capacities.

The second study looked at comprehensive school reform that was inclusive of limited English proficient students. It found that effective schools addressed issues in all six of the following domains: A) school vision, B) curriculum and instruction, C) language development, D) school structure, E) organizational culture, and F) community relations (Berman, et al., 2000). Obviously, this list reveals the complex constellation of intersecting and synergistic elements to support success.

Embedded in each of these lists are two hidden capacities. One is the leadership capacity on the part of administrators and teachers to shepherd the initiative by defining and following through on the tasks associated with various roles specific to the initiative. The other capacity involves having "belief structures" in place, which are sustained through action, messages from teachers and administrators, modeling, professional dialogue, and ongoing professional development. The literature stresses the need to believe that struggling readers and writers can succeed and that teachers and schools really have the power to transform lives (see, for example, Bernard, 1997).

In the case of a systemic adolescent literacy initiative, the quality, structure, and implementation of professional development can determine the success or failure of the initiative. We know that high−quality professional development must be structured so as to provide ongoing opportunities for building professional competence. These should include opportunities to learn new strategies, develop

curriculum, meet collaboratively to improve practice, support and mentor one another, stay current on research, conduct action research, and review program and student success (see, for example, Hodges, 1994; Joyce et al., 1999; Langer, 1999; Richardson, 2000).

We must also recognize the complexity of content−area, literacy−focused professional development . Secondary teachers do not see themselves as experts in supporting literacy through the content areas. They need substantial professional development that includes better understanding of the literacy demands of their content area. They also need to know how to support reading and writing across the curriculum and how to effectively use reading and writing to teach and learn. The Strategic Literacy Initiative (SLI) is one example. It is a research−based, professional development initiative focused on secondary literacy, and it has already shown demonstrable results in terms of student achievement (see http://www.wested.org/stratlit). SLI presents one model of how to assemble all components of successful professional development for secondary content area teachers so they can effectively support literacy development across the curriculum. SLI also provides an example of a curriculum for a ninth−grade academic literacy course that has produced results at one high school (Schoenbach, et al., 1999).

Two districts have recently carried out their own investigations of the research in the area of secondary literacy, and they have developed comprehensive plans for systemically addressing the issue. Both have carefully described the roles of administrators, teachers, reading specialists, and organizational support structures that they plan to employ (see, for example, http://www.mcsd.org/Report_files/secondary.pdf and http://www.madison.k12.wi.us/tnl/langarts/hsread.htm#commitment).

In summarizing the organizational structures and leadership capacities needed to support an adolescent literacy initiative, we drew from the research and believe that the following Best Practices aptly describe what needs to occur: Meets the agreed−upon goals for adolescents in that particular community. Articulates, communicates, and actualizes a vision of literacy as a priority. Utilizes best practices in the area of systemic educational reform. Is defined in a way that connects to the larger educational program. Involves ongoing support for teacher professional development. Has a clear process for program review and evaluation.

We have been encouraged by our discussions with practitioners and colleagues who see the need to articulate a research−based Adolescent Literacy Support Framework, one that addresses the necessary organizational structures and leadership capacity as a key component. Our views have been reinforced by the designs that various schools have developed and are currently in the early stages of implementing. These, without exception, have given careful consideration to all of the six Best Practices listed above. We look forward to watching their efforts and to being able to report in the future that faithful implementation of these Best Practices, as described in the Adolescent Literacy Support Framework, are indeed key to successfully addressing the adolescent literacy crisis. Being able to recognize and analyze discourse features aids tremendously in content−area understanding, and it also enhances content−focused writing (e.g. Langer &Flihan, 2000; Schoenbach et al., 1999). Explicit teaching of the discourse features particular to specific content areas is especially important for English language learners and students coming from limited literacy backgrounds (e.g. Mohan, 1990; Reyhner &Davison, 1992; Spanos, 1992).

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Related Web Resources

Adolescent Literacy: A position statement. (125)
Madison Metropolitan School District: High School Reading Task Force Report, June 1999. (123)
Secondary Literacy Report (124)

Has a clear process for program review and evaluation.

What Is It?

The strength of an adolescent literacy initiative lies in its ability to effectively develop students' comprehensive usage of language (reading, writing, speaking, listening) to learn. To ensure continued success and maximum responsiveness, the following is done on an ongoing basis: 1) outcomes and results are examined, 2) program components are reviewed, and 3) participant feedback is sought.

Suggested Strategies and Resources

Data−informed decision−making is a key component of successful education reform. To be deemed successful, an adolescent literacy initiative must address whether, and to what extent, it is meeting its stated goals. The literature repeatedly stresses ongoing program evaluation as an important element for determining how, and what is and is not working. Since both literacy and educational reform initiatives are complex and multifaceted, it is important to use a variety of tools and strategies for collecting data. These might include review of student work, student performance on standardized content area and/or reading and writing assessments, videotaping, and analysis of student presentations. To provide feedback on improvements in student and teachers attitudes, beliefs and dispositions regarding literacy development, climate and culture surveys, attendance records, attitude surveys, and teacher questionnaires can be used. It is also important to have a data collection and analysis plan in place and to charge those who will be reviewing the data with making recommendations to others.

Questions to Think About

Before you can implement this Key Component, your stakeholders will need to consider some or all of these questions. The questions could be used in group discussions, needs sensing activities, and informal small−group conversations.

- Is this best practice already in place in your organization (see practice listed at the top of the page)? What would it take to put this into place?
- Are there other key support structures that you would see as essential to the success of an adolescent literacy initiative?
- What do you see as the most important goals of an adolescent literacy initiative in your school or district? What are the most pressing literacy problems? How do you feel these would best be addressed within the context of your educational program?
- What kinds of professional development do you feel would be most helpful to teachers?
- How do you think an adolescent literacy initiative in the content areas could best be promoted in your district? How would you strategize to get teacher support? Parent support? Student support? Community support?

Story Summaries

Muskegon High School &the Strategic Instruction Model

Muskegon High School is a large, urban public school facing many of the same challenges that schools across the country face today.

- 71% of its students receive free or reduced−price lunches.
- 8% are English Language Learners, a number that has been growing every year.
- Incoming ninth−graders struggle with reading comprehension.
- English teachers were becoming increasingly concerned about students' writing skills and lack of progress.

Since the mid−1990s, teachers and administrators have adopted and implemented several components of the Strategic Instruction Model (SIM) developed and validated by the University of Kansas Center for Research on Learning:

- The school's literacy program is based in part on KU−CRL's Content Literacy Continuum, a framework that describes five levels of literacy support and that emphasizes the different types of expertise required to meet students' needs. The CLC emphasizes connections among the processes of reading, writing, listening, speaking, viewing, and presenting.
- Teachers have revised and tweaked the Strategic Reading class at the end of each school year, assessing what went well and what needed to be changed.
- The school's literacy program has evolved: SIM interventions are added as teachers and administrators identify additional needs.
- The school has conducted formal studies that document the effectiveness of SIM interventions. Informal observations provide additional support for these findings. The results also shape the future of Muskegon's literacy initiatives.

Research Summary

Summary

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Ten key strategies for success in urban schools focus on the importance of quality and ongoing professional development as a part of the life of the school. They also include the need for high expectations for student achievement on everyone's part, ongoing support systems, and ongoing

assessment of program effectiveness (Hodges, 1994). Experience with high school educational reform models (e.g., Coalition for Effective Schools; Breaking Ranks; Career Academies) reinforces this: Implementing and sustaining change in secondary schools requires a host of organizational and leadership structures specific to the ongoing initiative. Studies of secondary school restructuring efforts, where the necessary organizational supports and leadership capacities are not in place, tend to be short−lived; they also contribute to high levels of teacher frustration, stress, and burnout on the part of teachers charged with implementing change (e.g., Nolan &Meister, 2000).

Researchers who studied successful compensatory literacy programs for young adolescents concluded that these programs contain the following: 1) vision and definition, 2) developmental responsiveness, 3) academic effectiveness, 4) access to the world of the written word, and 5) organization to ensure success for all. The researchers found three examples of successful in−school programs at the middle school level. All were complex educational interventions that involved the following: A systematically developed approach to address adolescent literacy needs in their particular district;

Leadership at the district and administrative levels; Community and school support because of demonstrated success; Coherent educational philosophies that take into account the specific maturational, social, and cognitive needs of adolescents; Incorporation of specific instructional and curricular approaches; The capacity to function as an integral component of the district's educational program; and Ongoing purposeful professional development for teachers (Davidson &Koppenhaver, 1993).

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building professional competence. These should include opportunities to learn new strategies, develop curriculum, meet collaboratively to improve practice, support and mentor one another, stay current on research, conduct action research, and review program and student success (see, for example, Hodges, 1994; Joyce et al., 1999; Langer, 1999; Richardson, 2000).

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Related Web Resources

Monitoring a Schoolwide Literacy Plan (165)
Using Research to Inform Practice in Urban Schools: Ten Key Strategies for Success (29)

Articulates, communicates, and actualizes a vision of literacy as a priority.

What Is It?

For a systemic adolescent literacy initiative to succeed, the goals and structure of the initiative, and of how literacy is a priority throughout the educational program, must be broadly communicated and adequately resourced so that it is taken seriously and supported by teachers, students, parents, community members, specialists, and administrators alike. This is an ongoing task throughout the life of the initiative.

Suggested Strategies and Resources

Priorities are clearly communicated through the allocation of the resources of time, money, space, printed and spoken messages, and materials. The school context of teaching and learning, in schools where students are "beating the odds," is palpable; it can be felt as soon as people come in the door (see case descriptions of such schools at http://cela.albany.edu/reports/eie1/index.html).

If there is a decision to support literacy as a central focus of the secondary educational program, this should be visible in all of the school's work and throughout the school environment. Everybody needs to know what is going on and how it is being supported. Even more importantly, everyone needs to believe that struggling readers and writers can improve their literacy skills to the point where they can be successful in the content areas.

The messages need to come from building and district administrators, curriculum specialists and department heads, teachers, and students, and need to be constantly reinforced. If high expectations for literacy and learning are not demonstrated by teachers and administrators, not built into teacher evaluation structures and practices, not reflected in the available materials and resources, and do not lead to students having adequate support for their literacy development, the initiative will likely fail.

Questions to Think About

Before you can implement this Key Component, your stakeholders will need to consider some or all of these questions. The questions could be used in group discussions, needs sensing activities, and informal small−group conversations.

- Is this best practice already in place in your organization (see practice listed at the top of the page)? What would it take to put this into place?
- Are there other key support structures that you would see as essential to the success of an adolescent literacy initiative?
- What do you see as the most important goals of an adolescent literacy initiative in your school

or district? What are the most pressing literacy problems? How do you feel these would best be addressed within the context of your educational program?
- What kinds of professional development do you feel would be most helpful to teachers?
- How do you think an adolescent literacy initiative in the content areas could best be promoted in your district? How would you strategize to get teacher support? Parent support? Student support? Community support?

Story Summaries

Fenway High School's Literacy Program

- 58% of Fenway High School's 270 students are eligible for free or reduced−price lunch and 8.2% are English language learners.
- Over the past five years, the faculty and administration have worked together to develop and realize the school's vision of a literate community.
- The school's literacy efforts focus on developing independent readers and writers who use a variety of strategies to improve their comprehension and expression.
- The literacy program is an important piece of the school's integrated, flexible curriculum and helps to fulfill its goal of academic excellence and intellectual habits of mind.
- A literacy coordinator serves as a resource for students and teachers.
- Ongoing professional development and faculty collaboration support the literacy program.
- Since the inception of Fenway's literacy program, its students' performance on the English Language Arts test of the Massachusetts Comprehensive Assessment System (MCAS) has risen steadily. The school consistently ranks among the top performing urban high schools in the state.

Fenway High School is a small, urban, public high school that has been recognized as a New American High School by the United States Department of Education and won recognition from the New England Association of Schools and Colleges and other outside institutions. Its literacy program began with the faculty drafting its vision of a literacy community and identifying the necessary steps to realize this vision—including hiring a literacy coordinator. The program has evolved over the past five years and will continue to be adjusted to enable it to better meet the needs of students.

The literacy program at Fenway consists of three main components:

- a year−long Foundations of Literacy course for all ninth graders, taught by the literacy coordinator;
- in−service workshops for faculty; and
- co−teaching by the literacy coordinator and core subject area teachers to incorporate literacy strategies and skills.

The school's staff and students also participate in two 30−minute periods of sustained, silent reading ("Drop Everything and Read") each week.

Humanities, science, and math teachers use strategies introduced during in−service workshops, either on their own or through co−teaching experiences with the literacy coordinator in their classrooms. The literacy coordinator attributes the rising scores on the statewide assessment to the focus of the humanities department on literacy skill development; the Foundations of Literacy course, which introduces ninth graders to reading comprehension and writing strategies while helping them develop

the habits of independent readers and writers; and the school's culture, in which literacy is valued.

Muskegon High School &the Strategic Instruction Model

Muskegon High School is a large, urban public school facing many of the same challenges that schools across the country face today.

- 71% of its students receive free or reduced−price lunches.
- 8% are English Language Learners, a number that has been growing every year.
- Incoming ninth−graders struggle with reading comprehension.
- English teachers were becoming increasingly concerned about students' writing skills and lack of progress.

Since the mid−1990s, teachers and administrators have adopted and implemented several reading and writing strategies from the Strategic Instruction Model (SIM) developed and validated by the University of Kansas Center for Research on Learning:

- Ninth−grade students who read significantly below grade level (two or more years below grade level) receive intensive instruction in the Word Identification Strategy.
- A Strategic Reading class offers instruction in several reading comprehension strategies.
- English teachers integrate several writing strategies into their classroom activities.
- Content teachers reinforce instruction in and encourage the use of reading and writing strategies in their classrooms.
- The school board adopted a plan to officially include SIM's writing strategies as part of the high school curriculum.

Results of Muskegon's literacy efforts have been impressive: Reading comprehension gains of three or four grade levels are common, and in comparison to similar schools, MHS consistently scores at or near the top on the state's writing assessment.

Partnership Creates Path for Students' Future: University Park Campus School

In 1997, Clark University and the local school district partnered to found University Park Campus School (UPCS) and revitalize one of most troubled neighborhoods in Worcester, Mass., providing a way to prepare students for college and a promising future.

UPCS faced major challenges: Every year, almost all of the seventh grade students who have entered UPCS have read far below grade level. High school graduation and college were unlikely options for these students in the past.

UPCS faced its literacy challenge squarely:

- The admissions requirement was that students—who were chosen by lottery—live in the neighborhood and commit to the following:
    - They would put in a longer school day.
    - Coursework and homework would demand more time and be difficult.
    - Absence would not be tolerated.
    - Failure was not an option.
- A literacy teacher/coordinator provided UPCS teachers with workshops on effective reading and writing instruction, co−taught with content−area teachers, and worked with math and science teachers to identify which literacy standards and indicators would be incorporated and

focused upon in which courses. These activities enabled the teachers to align a coherent approach and commitment to literacy support and development.

- All UPCS teachers use a set of common literacy strategies, as appropriate, in their content−area classes, including teacher read−alouds, use of literature circles, debates, presentations and exhibitions, and incorporation of the arts for revisiting text.
- The reading and writing workshop approach and use of the writing process are common throughout grades 7−12.
- Daily reading, writing, and discussion allow teachers to diagnose student literacy habits and skills and to develop instructional plans to meet student needs.
- All incoming seventh grade students attend a month−long August Academy that is focused on literacy development.
- An Early Literacy Intervention Plan assists students who perform below the third−grade level in reading.
- The collaboration with Clark University has allowed UPCS to further develop the literacy initiative. UPCS teachers from all content areas co−teach with university faculty during the summer. These four−credit courses are provided free to Worcester Public School teachers.

Research Summary

Summary

The link between adolescent literacy development and better content−area achievement is clear. However, few systemic high school literacy initiatives to date have been carried out beyond the planning and initial implementation stages. As research consistently indicates, a host of organizational structures, along with effective leadership, are crucial to appropriately sustaining any effective secondary reform initiative requires. The nine research−based components of the Comprehensive School Reform Demonstration Project (CSRD) summarize these as 1) effective research−based methods and strategies, 2) comprehensive design with aligned components, 3) professional development, 4) measurable goals and objectives, 5) support within the school, 6) parent and community involvement, 7) external technical support and assistance, 8) evaluation strategies, and 9) coordination of resources. (http://www.lab.brown.edu/public/csr/csr_components.shtml)

Ten key strategies for success in urban schools focus on the importance of quality and ongoing professional development as a part of the life of the school. They also include the need for high expectations for student achievement on everyone's part, ongoing support systems, and ongoing assessment of program effectiveness (Hodges, 1994). Experience with high school educational reform models (e.g., Coalition for Effective Schools; Breaking Ranks; Career Academies) reinforces this: Implementing and sustaining change in secondary schools requires a host of organizational and leadership structures specific to the ongoing initiative. Studies of secondary school restructuring efforts, where the necessary organizational supports and leadership capacities are not in place, tend to be short−lived; they also contribute to high levels of teacher frustration, stress, and burnout on the part of teachers charged with implementing change (e.g., Nolan &Meister, 2000).

Researchers who studied successful compensatory literacy programs for young adolescents concluded that these programs contain the following: 1) vision and definition, 2) developmental responsiveness, 3) academic effectiveness, 4) access to the world of the written word, and 5) organization to ensure success for all. The researchers found three examples of successful in−school programs at the middle school level. All were complex educational interventions that involved the following: A systematically developed approach to address adolescent literacy needs in their particular district;

Leadership at the district and administrative levels; Community and school support because of demonstrated success; Coherent educational philosophies that take into account the specific maturational, social, and cognitive needs of adolescents; Incorporation of specific instructional and curricular approaches; The capacity to function as an integral component of the district's educational program; and Ongoing purposeful professional development for teachers (Davidson &Koppenhaver, 1993).

Two additional sets of research−based findings, distinguishing between high and low performing secondary schools, may be particularly relevant. Although not adolescent literacy initiatives per se, both looked at systemic support for language and literacy development. One study looked at those secondary school "characteristics of teachers' professional lives that accompany student achievement in writing, reading, and English." The study found that "the more effective schools and districts nurtured a climate that 1) orchestrated coordinated efforts to improve student achievement, 2) fostered teacher participation in a variety of professional communities, 3) created structured improvement activities that offered teachers a strong sense of agency, 4) valued commitment to the profession of teaching, 5) engendered a caring attitude to colleagues and students, and 6) fostered a deep respect for life−long learning" (Langer, 1999). Embedded in the facilitation of such outcomes are a variety of organizational support structures and leadership capacities.

The second study looked at comprehensive school reform that was inclusive of limited English proficient students. It found that effective schools addressed issues in all six of the following domains: A) school vision, B) curriculum and instruction, C) language development, D) school structure, E) organizational culture, and F) community relations (Berman, et al., 2000). Obviously, this list reveals the complex constellation of intersecting and synergistic elements to support success.

Embedded in each of these lists are two hidden capacities. One is the leadership capacity on the part of administrators and teachers to shepherd the initiative by defining and following through on the tasks associated with various roles specific to the initiative. The other capacity involves having "belief structures" in place, which are sustained through action, messages from teachers and administrators, modeling, professional dialogue, and ongoing professional development. The literature stresses the need to believe that struggling readers and writers can succeed and that teachers and schools really have the power to transform lives (see, for example, Bernard, 1997).

In the case of a systemic adolescent literacy initiative, the quality, structure, and implementation of professional development can determine the success or failure of the initiative. We know that high−quality professional development must be structured so as to provide ongoing opportunities for building professional competence. These should include opportunities to learn new strategies, develop curriculum, meet collaboratively to improve practice, support and mentor one another, stay current on research, conduct action research, and review program and student success (see, for example, Hodges, 1994; Joyce et al., 1999; Langer, 1999; Richardson, 2000).

We must also recognize the complexity of content−area, literacy−focused professional development . Secondary teachers do not see themselves as experts in supporting literacy through the content areas. They need substantial professional development that includes better understanding of the literacy demands of their content area. They also need to know how to support reading and writing across the curriculum and how to effectively use reading and writing to teach and learn. The Strategic Literacy Initiative (SLI) is one example. It is a research−based, professional development initiative focused on secondary literacy, and it has already shown demonstrable results in terms of student achievement (see http://www.wested.org/stratlit). SLI presents one model of how to assemble all components of successful professional development for secondary content area teachers so they can effectively support literacy development across the curriculum. SLI also provides an example of a curriculum for

a ninth−grade academic literacy course that has produced results at one high school (Schoenbach, et al., 1999).

Two districts have recently carried out their own investigations of the research in the area of secondary literacy, and they have developed comprehensive plans for systemically addressing the issue. Both have carefully described the roles of administrators, teachers, reading specialists, and organizational support structures that they plan to employ (see, for example, http://www.mcsd.org/Report_files/secondary.pdf and http://www.madison.k12.wi.us/tnl/langarts/hsread.htm#commitment).

In summarizing the organizational structures and leadership capacities needed to support an adolescent literacy initiative, we drew from the research and believe that the following Best Practices aptly describe what needs to occur: Meets the agreed−upon goals for adolescents in that particular community. Articulates, communicates, and actualizes a vision of literacy as a priority. Utilizes best practices in the area of systemic educational reform. Is defined in a way that connects to the larger educational program. Involves ongoing support for teacher professional development. Has a clear process for program review and evaluation.

We have been encouraged by our discussions with practitioners and colleagues who see the need to articulate a research−based Adolescent Literacy Support Framework, one that addresses the necessary organizational structures and leadership capacity as a key component. Our views have been reinforced by the designs that various schools have developed and are currently in the early stages of implementing. These, without exception, have given careful consideration to all of the six Best Practices listed above. We look forward to watching their efforts and to being able to report in the future that faithful implementation of these Best Practices, as described in the Adolescent Literacy Support Framework, are indeed key to successfully addressing the adolescent literacy crisis. Being able to recognize and analyze discourse features aids tremendously in content−area understanding, and it also enhances content−focused writing (e.g. Langer &Flihan, 2000; Schoenbach et al., 1999). Explicit teaching of the discourse features particular to specific content areas is especially important for English language learners and students coming from limited literacy backgrounds (e.g. Mohan, 1990; Reyhner &Davison, 1992; Spanos, 1992).

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Related Web Resources

Excellence in English in Middle and High School: How Teachers Professional Lives Support Student Achievement (126)

Utilizes best practices in the area of systemic educational reform.

What Is It?

Comprehensive educational reform requires leadership, support, buy−in from stakeholders, and organizational structures and resources that are allocated in ways to meet the effort's needs. It also requires ongoing communication, ongoing professional development, data−informed decision making, participatory decision−making processes, and thoughtful, deliberate review.

Suggested Strategies and Resources

The nine research−based components of the Comprehensive School Reform Demonstration Project (CSRD) provide a quick overview of the essential elements of successful school reform efforts. Upon reviewing them, it is easy to see how they can be employed in service of an adolescent literacy initiative (see http://www.lab.brown.edu/public/csr/csr _components.shtml).

The Breaking Ranks framework from NASSP is also a valuable source to get a sense of the needed support for a successful secondary literacy initiative (see http://nassp.org for more information).

These documents discuss the need for high and consistent expectations and access of all students to the curriculum. Standards−based curriculum alignment and implementation is therefore a powerful lever for education reform and, more specifically, for support of literacy development across the content areas. The process makes teachers and administrators aware of literacy demands inherent in meeting and exceeding academic content standards. This allows teachers' professional conversation to shift away from what students lack to the teachers' need to use effective instructional strategies to support student success toward these goals.

All systemic reform efforts also require a thorough review of the available resources of materials, personnel, time, space, and facilities to ensure that they are being optimally utilized to support the goals of the initiative. For a literacy initiative, this requires special attention to how to best use staff to provide intensive support of both teachers and students, how to best use the library/resource center, how to best use technology, and how to best structure quality professional development.

Questions to Think About

Before you can implement this Key Component, your stakeholders will need to consider some or all of these questions. The questions could be used in group discussions, needs sensing activities, and informal small−group conversations.

- Is this best practice already in place in your organization (see practice listed at the top of the

page)? What would it take to put this into place?
- Are there other key support structures that you would see as essential to the success of an adolescent literacy initiative?
- What do you see as the most important goals of an adolescent literacy initiative in your school or district? What are the most pressing literacy problems? How do you feel these would best be addressed within the context of your educational program?
- What kinds of professional development do you feel would be most helpful to teachers?
- How do you think an adolescent literacy initiative in the content areas could best be promoted in your district? How would you strategize to get teacher support? Parent support? Student support? Community support?

Story Summaries

English Language Learners Share Their Stories, The ArtsLiteracy Project at Central Falls High School

- In Central Falls, Rhode Island, many factors place the student population at risk for educational failure: a mobility rate of 44%, a graduation rate of 58%, a dropout rate of 42%, a community−wide Limited English Proficiency rate of 29.5%, and a high percentage (96%) of students eligible for subsidized lunch programs.
- In this high school English language learners class, students have spoken English for only a few years or months, and some for a few weeks.
- These students and their teachers are participating in a literacy development opportunity, offered through Brown University, called the ArtsLiteracy Project (ArtsLit).

The Central Falls Rhode Island School District has demonstrated a high commitment to improving teaching and learning. School administrators show strong support for curriculum development in both literacy and the arts. School staff have been determined advocates of the ArtsLiteracy Project (ArtsLit). ArtsLit has been highly active in the district, helping teachers and students use the performing arts to improve students? literacy development. In addition, a growing network of community organizations supports in−school and after−school work. Central Falls itself is a tightly knit, ethnically diverse community that is rich in cultural traditions. Students, parents, the school, and the community organizations sharing this one−square−mile neighborhood are working together to improve the education and opportunities available for young people.

Fenway High School's Literacy Program

- 58% of Fenway High School's 270 students are eligible for free or reduced−price lunch and 8.2% are English language learners.
- Over the past five years, the faculty and administration have worked together to develop and realize the school's vision of a literate community.
- The school's literacy efforts focus on developing independent readers and writers who use a variety of strategies to improve their comprehension and expression.
- The literacy program is an important piece of the school's integrated, flexible curriculum and helps to fulfill its goal of academic excellence and intellectual habits of mind.
- A literacy coordinator serves as a resource for students and teachers.
- Ongoing professional development and faculty collaboration support the literacy program.
- Since the inception of Fenway's literacy program, its students' performance on the English Language Arts test of the Massachusetts Comprehensive Assessment System (MCAS) has

risen steadily. The school consistently ranks among the top performing urban high schools in the state.

Fenway High School is a small, urban, public high school that has been recognized as a New American High School by the United States Department of Education and won recognition from the New England Association of Schools and Colleges and other outside institutions. Its literacy program began with the faculty drafting its vision of a literacy community and identifying the necessary steps to realize this vision—including hiring a literacy coordinator. The program has evolved over the past five years and will continue to be adjusted to enable it to better meet the needs of students.

The literacy program at Fenway consists of three main components:

- a year−long Foundations of Literacy course for all ninth graders, taught by the literacy coordinator;
- in−service workshops for faculty; and
- co−teaching by the literacy coordinator and core subject area teachers to incorporate literacy strategies and skills.

The school's staff and students also participate in two 30−minute periods of sustained, silent reading ("Drop Everything and Read") each week.

Humanities, science, and math teachers use strategies introduced during in−service workshops, either on their own or through co−teaching experiences with the literacy coordinator in their classrooms. The literacy coordinator attributes the rising scores on the statewide assessment to the focus of the humanities department on literacy skill development; the Foundations of Literacy course, which introduces ninth graders to reading comprehension and writing strategies while helping them develop the habits of independent readers and writers; and the school's culture, in which literacy is valued.

Partnership Creates Path for Students' Future: University Park Campus School

In 1997, Clark University and the local school district partnered to found University Park Campus School (UPCS) and revitalize one of most troubled neighborhoods in Worcester, Mass., providing a way to prepare students for college and a promising future.

The partnership draws together community resources. The university offered $390,000 from a federal grant, Clark teachers and tutors, and access to Clark classes and facilities. The city provided the school building and agreed to pay for building maintenance, salaries, and supplies. The goal was to provide students from this economically disadvantaged area with the chance to fulfill their dream to attend college.

UPCS faced major challenges:

- University Park Campus School is located in Main South, the most economically disadvantaged area of Worcester, MA, and a neighborhood associated with high crime rate and low academic standards.
- Year after year, almost all of the seventh grade students who have entered UPCS have read far below grade level. In 1997, 44% of the first class of seventh graders read at or below third−grade level and 56% read at or below fourth−grade level.
- At UPCS, 68% of students qualify for free or reduced−price lunches.
- In the class of 2004, 73% of the students do not speak English at home.
- High school graduation, much less college, were unlikely options for these students.

UPCS implemented its literacy plan systemically:

- A literacy teacher/coordinator provided UPCS teachers with workshops on effective reading and writing instruction, co−taught with content−area teachers, and worked with math and science teachers to identify which literacy standards and indicators would be incorporated and focused upon in which courses. These activities enabled the teachers to align a coherent approach and commitment to literacy support and development.
- Data from both classroom and statewide assessments are regularly used to inform classroom practice. All teachers at the high school level require the completion of quarterly portfolios, incorporating reading, writing, speaking (presenting, exhibiting), technology−driven presentations, and listening. The portfolios are evaluated through a rubric collaboratively developed with students.
- UPCS has also developed school−wide tools based on a rubric from the Massachusetts state standards, the Massachusetts Comprehensive Assessment System (MCAS). Teachers utilize the rubric in all subject areas. Teachers also use MCAS results to further diagnose program strengths and weaknesses and to effectively address individual student needs.
- UPCS teachers host rounds based on the medical model in order to provide the opportunity to share best practices. Teachers use the Wednesday afternoon common planning time to review student work with each other and reflect on teaching and learning.

Bobby Marchand's Special Education Class at Central Falls High School

- In Central Falls, Rhode Island, many factors place the student population at risk for educational failure: a mobility rate of 44%, a graduation rate of 58%, and a dropout rate of 42%, community−wide Limited English Proficiency rate of 29.5%, and 95% of students eligible for subsidized lunch programs.
- These special education students and their teachers in Central Falls, Rhode Island are participating in a literacy development opportunity, offered through Brown University's Education Department, called the ArtsLiteracy Project (ArtsLit).

The Central Falls Rhode Island School District has demonstrated a high commitment to improving teaching and learning. School administrators show strong support for curriculum development in both literacy and the arts. School staff have been determined advocates of the ArtsLiteracy Project (ArtsLit). ArtsLit has been highly active in the district, helping teachers and students use the performing arts to improve students' literacy development. In addition, a growing network of community organizations supports in−school and after−school work. Central Falls itself is a tightly knit, ethnically diverse community that is rich in cultural traditions. Students, parents, the school, and the community organizations sharing this one−square−mile neighborhood are working together to improve the education and opportunities available for young people.

Research Summary

Summary

The link between adolescent literacy development and better content−area achievement is clear. However, few systemic high school literacy initiatives to date have been carried out beyond the planning and initial implementation stages. As research consistently indicates, a host of organizational structures, along with effective leadership, are crucial to appropriately sustaining any effective secondary reform initiative requires. The nine research−based components of the Comprehensive

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Embedded in each of these lists are two hidden capacities. One is the leadership capacity on the part of administrators and teachers to shepherd the initiative by defining and following through on the

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Two districts have recently carried out their own investigations of the research in the area of secondary literacy, and they have developed comprehensive plans for systemically addressing the issue. Both have carefully described the roles of administrators, teachers, reading specialists, and organizational support structures that they plan to employ (see, for example, http://www.mcsd.org/Report_files/secondary.pdf and http://www.madison.k12.wi.us/tnl/langarts/hsread.htm#commitment).

In summarizing the organizational structures and leadership capacities needed to support an adolescent literacy initiative, we drew from the research and believe that the following Best Practices aptly describe what needs to occur: Meets the agreed−upon goals for adolescents in that particular community. Articulates, communicates, and actualizes a vision of literacy as a priority. Utilizes best practices in the area of systemic educational reform. Is defined in a way that connects to the larger educational program. Involves ongoing support for teacher professional development. Has a clear process for program review and evaluation.

We have been encouraged by our discussions with practitioners and colleagues who see the need to articulate a research−based Adolescent Literacy Support Framework, one that addresses the necessary organizational structures and leadership capacity as a key component. Our views have been reinforced by the designs that various schools have developed and are currently in the early stages of implementing. These, without exception, have given careful consideration to all of the six Best Practices listed above. We look forward to watching their efforts and to being able to report in the future that faithful implementation of these Best Practices, as described in the Adolescent Literacy Support Framework, are indeed key to successfully addressing the adolescent literacy crisis.

References

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Related Web Resources

Comprehensive School Reform (136)
National Association of Secondary School Principals (127)
NCBE Resource Collection Series (128)

Is defined in a way that connects to the larger educational program.

What Is It?

The components of the initiative are designed in concert with, and as a part of, the larger educational program. There are clear pathways between parts of the initiative, an understanding of who is intended to be served by which aspects of the initiative, and a consensus on how various kinds of learners will build the requisite skills and strategies to become highly functioning, literate graduates.

Suggested Strategies and Resources

There must be a concerted coordinated effort to support literacy achievement. Connections to the overall educational program must be designed into the overall initiative from the beginning. Strategies to do this include: 1) use student performance indicators to ensure flexible placement and the matching of support resources most accurately with need, 2) develop the initiative so that many levels of student achievement can be simultaneously accommodated within the same classrooms, 3) reevaluate specialized staffing and use personnel differently to target specific goals, 4) have content area literacy be focused upon at all levels and in all subject area classes, 5) bundle resources so students receive intensive intervention which also places them in authentic service roles vis−ˆ−vis the general community (e.g., remedial reading and writing students tutor younger children in reading; ESL students write a parent newsletter), and 6) deliberately infuse arts−based literacy support at different points throughout a student's educational experience (see, for example, http://artslit.org).

However organized, adolescent literacy development must be ongoing and part of a standards−based curriculum. For some examples of how this might look at the high school level, see http://mcsd.org/Report_files/secondary.pdf and http://madison.k12.wi.us/tnl/langarts/hsread.htm#commitment and http://cela.albany.edu/eie1/main.html.

Questions to Think About

Before you can implement this Key Component, your stakeholders will need to consider some or all of these questions. The questions could be used in group discussions, needs sensing activities, and informal small−group conversations.

- Is this best practice already in place in your organization (see practice listed at the top of the page)? What would it take to put this into place?
- Are there other key support structures that you would see as essential to the success of an adolescent literacy initiative?
- What do you see as the most important goals of an adolescent literacy initiative in your school

or district? What are the most pressing literacy problems? How do you feel these would best be addressed within the context of your educational program?
- What kinds of professional development do you feel would be most helpful to teachers?
- How do you think an adolescent literacy initiative in the content areas could best be promoted in your district? How would you strategize to get teacher support? Parent support? Student support? Community support?

Story Summaries

Fenway High School's Literacy Program

- 58% of Fenway High School's 270 students are eligible for free or reduced−price lunch and 8.2% are English language learners.
- Over the past five years, the faculty and administration have worked together to develop and realize the school's vision of a literate community.
- The school's literacy efforts focus on developing independent readers and writers who use a variety of strategies to improve their comprehension and expression.
- The literacy program is an important piece of the school's integrated, flexible curriculum and helps to fulfill its goal of academic excellence and intellectual habits of mind.
- A literacy coordinator serves as a resource for students and teachers.
- Ongoing professional development and faculty collaboration support the literacy program.
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the habits of independent readers and writers; and the school's culture, in which literacy is valued.

Muskegon High School &the Strategic Instruction Model

Muskegon High School is a large, urban public school facing many of the same challenges that schools across the country face today.

- 71% of its students receive free or reduced−price lunches.
- 8% are English Language Learners, a number that has been growing every year.
- Incoming ninth−graders struggle with reading comprehension.
- English teachers were becoming increasingly concerned about students' writing skills and lack of progress.

Since the mid−1990s, teachers and administrators have adopted and implemented several reading and writing strategies from the Strategic Instruction Model (SIM) developed and validated by the University of Kansas Center for Research on Learning:

- The school's literacy program is based in part on KU−CRL's Content Literacy Continuum, a framework that describes five levels of literacy support and that emphasizes the different types of expertise required to meet students' needs.
- Ninth−grade students who read significantly below grade level (two or more years below grade level) receive intensive instruction in the Word Identification Strategy.
- A Strategic Reading class offers instruction in several reading comprehension strategies.
- English teachers integrate several writing strategies into their classroom activities..
- Content teachers reinforce instruction in and encourage the use of reading and writing strategies in their classrooms.

Partnership Creates Path for Students' Future: University Park Campus School

In 1997, Clark University and the local school district partnered to found University Park Campus School (UPCS) and revitalize one of most troubled neighborhoods in Worcester, Mass., providing a way to prepare students for college and a promising future.

- The admissions requirement was that students—who were chosen by lottery—live in the neighborhood and commit to the following:
    - They would put in a longer school day.
    - Coursework and homework would demand more time and be difficult.
    - Absence would not be tolerated.
    - Failure was not an option.
- Rigor and high standards set the tone at UPCS.
- Every student pursues a challenging academic program consisting of honors−level classes and a traditional transcript: algebra, biology, physics, calculus, elective AP classes, Spanish, art, music, English, history, and geometry.
- Instruction is individualized to connect to each student's particular level of development. There is no tracking.
- Personalization is considered key to student success. Many of the teachers regularly eat breakfast or lunch with students. There is a lot of communication with parents and families.
- Students study in a building that is small, nurturing, intimate, and comfortable, but one that does not have a gym, cafeteria, or library. UPCS students and teachers use various Clark University facilities throughout the day.
- Before− and after−school Homework Centers provide daily support in reinforcing skills. Up

to 80% of students take advantage of the before− or after−school academic help sessions offered by teachers.

- Clark University master's and work−study students provide tutoring in the homework centers and one−on−one.
- A free college education is the reward. Students who have lived in the neighborhood for the last five years of school and have met Clark's entrance requirements may attend Clark University tuition−free.

Research Summary

Summary

The link between adolescent literacy development and better content−area achievement is clear. However, few systemic high school literacy initiatives to date have been carried out beyond the planning and initial implementation stages. As research consistently indicates, a host of organizational structures, along with effective leadership, are crucial to appropriately sustaining any effective secondary reform initiative requires. The nine research−based components of the Comprehensive School Reform Demonstration Project (CSRD) summarize these as 1) effective research−based methods and strategies, 2) comprehensive design with aligned components, 3) professional development, 4) measurable goals and objectives, 5) support within the school, 6) parent and community involvement, 7) external technical support and assistance, 8) evaluation strategies, and 9) coordination of resources. (http://www.lab.brown.edu/public/csr/csr_components.shtml)

Ten key strategies for success in urban schools focus on the importance of quality and ongoing professional development as a part of the life of the school. They also include the need for high expectations for student achievement on everyone's part, ongoing support systems, and ongoing assessment of program effectiveness (Hodges, 1994). Experience with high school educational reform models (e.g., Coalition for Effective Schools; Breaking Ranks; Career Academies) reinforces this: Implementing and sustaining change in secondary schools requires a host of organizational and leadership structures specific to the ongoing initiative. Studies of secondary school restructuring efforts, where the necessary organizational supports and leadership capacities are not in place, tend to be short−lived; they also contribute to high levels of teacher frustration, stress, and burnout on the part of teachers charged with implementing change (e.g., Nolan &Meister, 2000).

Researchers who studied successful compensatory literacy programs for young adolescents concluded that these programs contain the following: 1) vision and definition, 2) developmental responsiveness, 3) academic effectiveness, 4) access to the world of the written word, and 5) organization to ensure success for all. The researchers found three examples of successful in−school programs at the middle school level. All were complex educational interventions that involved the following: A systematically developed approach to address adolescent literacy needs in their particular district;

Leadership at the district and administrative levels; Community and school support because of demonstrated success; Coherent educational philosophies that take into account the specific maturational, social, and cognitive needs of adolescents; Incorporation of specific instructional and curricular approaches; The capacity to function as an integral component of the district's educational program; and Ongoing purposeful professional development for teachers (Davidson &Koppenhaver, 1993).

Two additional sets of research−based findings, distinguishing between high and low performing secondary schools, may be particularly relevant. Although not adolescent literacy initiatives per se, both looked at systemic support for language and literacy development. One study looked at those secondary school "characteristics of teachers' professional lives that accompany student achievement in writing, reading, and English." The study found that "the more effective schools and districts nurtured a climate that 1) orchestrated coordinated efforts to improve student achievement, 2) fostered teacher participation in a variety of professional communities, 3) created structured improvement activities that offered teachers a strong sense of agency, 4) valued commitment to the profession of teaching, 5) engendered a caring attitude to colleagues and students, and 6) fostered a deep respect for life−long learning" (Langer, 1999). Embedded in the facilitation of such outcomes are a variety of organizational support structures and leadership capacities.

The second study looked at comprehensive school reform that was inclusive of limited English proficient students. It found that effective schools addressed issues in all six of the following domains: A) school vision, B) curriculum and instruction, C) language development, D) school structure, E) organizational culture, and F) community relations (Berman, et al., 2000). Obviously, this list reveals the complex constellation of intersecting and synergistic elements to support success.

Embedded in each of these lists are two hidden capacities. One is the leadership capacity on the part of administrators and teachers to shepherd the initiative by defining and following through on the tasks associated with various roles specific to the initiative. The other capacity involves having "belief structures" in place, which are sustained through action, messages from teachers and administrators, modeling, professional dialogue, and ongoing professional development. The literature stresses the need to believe that struggling readers and writers can succeed and that teachers and schools really have the power to transform lives (see, for example, Bernard, 1997).

In the case of a systemic adolescent literacy initiative, the quality, structure, and implementation of professional development can determine the success or failure of the initiative. We know that high−quality professional development must be structured so as to provide ongoing opportunities for building professional competence. These should include opportunities to learn new strategies, develop curriculum, meet collaboratively to improve practice, support and mentor one another, stay current on research, conduct action research, and review program and student success (see, for example, Hodges, 1994; Joyce et al., 1999; Langer, 1999; Richardson, 2000).

We must also recognize the complexity of content−area, literacy−focused professional development . Secondary teachers do not see themselves as experts in supporting literacy through the content areas. They need substantial professional development that includes better understanding of the literacy demands of their content area. They also need to know how to support reading and writing across the curriculum and how to effectively use reading and writing to teach and learn. The Strategic Literacy Initiative (SLI) is one example. It is a research−based, professional development initiative focused on secondary literacy, and it has already shown demonstrable results in terms of student achievement (see http://www.wested.org/stratlit). SLI presents one model of how to assemble all components of successful professional development for secondary content area teachers so they can effectively support literacy development across the curriculum. SLI also provides an example of a curriculum for a ninth−grade academic literacy course that has produced results at one high school (Schoenbach, et al., 1999).

Two districts have recently carried out their own investigations of the research in the area of secondary literacy, and they have developed comprehensive plans for systemically addressing the issue. Both have carefully described the roles of administrators, teachers, reading specialists, and organizational support structures that they plan to employ (see, for example,

http://www.mcsd.org/Report_files/secondary.pdf and
http://www.madison.k12.wi.us/tnl/langarts/hsread.htm#commitment).

In summarizing the organizational structures and leadership capacities needed to support an adolescent literacy initiative, we drew from the research and believe that the following Best Practices aptly describe what needs to occur: Meets the agreed−upon goals for adolescents in that particular community. Articulates, communicates, and actualizes a vision of literacy as a priority. Utilizes best practices in the area of systemic educational reform. Is defined in a way that connects to the larger educational program. Involves ongoing support for teacher professional development. Has a clear process for program review and evaluation.

We have been encouraged by our discussions with practitioners and colleagues who see the need to articulate a research−based Adolescent Literacy Support Framework, one that addresses the necessary organizational structures and leadership capacity as a key component. Our views have been reinforced by the designs that various schools have developed and are currently in the early stages of implementing. These, without exception, have given careful consideration to all of the six Best Practices listed above. We look forward to watching their efforts and to being able to report in the future that faithful implementation of these Best Practices, as described in the Adolescent Literacy Support Framework, are indeed key to successfully addressing the adolescent literacy crisis. Being able to recognize and analyze discourse features aids tremendously in content−area understanding, and it also enhances content−focused writing (e.g. Langer &Flihan, 2000; Schoenbach et al., 1999). Explicit teaching of the discourse features particular to specific content areas is especially important for English language learners and students coming from limited literacy backgrounds (e.g. Mohan, 1990; Reyhner &Davison, 1992; Spanos, 1992).

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Related Web Resources

Excellence in English in Middle and High School: How Teachers Professional Lives Support Student Achievement (126)
Madison Metropolitan School District: High School Reading Task Force Report, June 1999. (123)
Secondary Literacy Report (124)
The Arts/Literacy Project (68)

Involves ongoing support for teacher professional development.

What Is It?

Successful adolescent literacy programs provide extensive, targeted, and creative ongoing staff development opportunities. These include opportunities to learn new strategies, develop curriculum, meet collaboratively to improve practice, support and mentor one another, stay current on research, conduct action research, and review program and student success.

For a description of a peer coaching professional development model of mainstream teachers of ELLS, see http://www.ncela.gwu.edu/pubs/directions/03.htm

Suggested Strategies and Resources

No one would argue that good professional development is key. Secondary content area teachers see that many of their students do not have adequate literacy skills to succeed academically, but few have an understanding of how to best support literacy development in their specific course content. The quality and the design of professional development to meet this need can determine the success or failure of the entire initiative. Literacy−based ongoing professional development must be perceived as part of the life of the school, as opposed to being seen as an interruption or an extra. The challenge of how to schedule professional development in ways that maximize its effectiveness and potency to change teacher practice must be met.

Research has found that more effective schools and districts were substantially different in their professional climate, ongoing professional development, and professional demeanor (see http://cela.albany.edu/eie1/main.html).

For a general overview of professional development strategies that lead to improved student achievement, see http://www.nsdc.org/library/publications/jsd/richardson211.cfm.

For a list of ten key strategies for success in urban schools, six of which focus on professional development, see http://www.temple.edu/LSS/htmlpublications/spotlights/100/spot103.htm.

For a description of a successful professional development initiative that effectively supports adolescent literacy, see http://wested.org/stratlit/.

Questions to Think About

Before you can implement this Key Component, your stakeholders will need to consider some or all of these questions. The questions could be used in group discussions, needs sensing activities, and

informal small−group conversations.

- Is this best practice already in place in your organization (see practice listed at the top of the page)? What would it take to put this into place?
- Are there other key support structures that you would see as essential to the success of an adolescent literacy initiative?
- What do you see as the most important goals of an adolescent literacy initiative in your school or district? What are the most pressing literacy problems? How do you feel these would best be addressed within the context of your educational program?
- What kinds of professional development do you feel would be most helpful to teachers?
- How do you think an adolescent literacy initiative in the content areas could best be promoted in your district? How would you strategize to get teacher support? Parent support? Student support? Community support?

Story Summaries

Fenway High School's Literacy Program

- 58% of Fenway High School's 270 students are eligible for free or reduced−price lunch and 8.2% are English language learners.
- Over the past five years, the faculty and administration have worked together to develop and realize the school's vision of a literate community.
- The school's literacy efforts focus on developing independent readers and writers who use a variety of strategies to improve their comprehension and expression.
- The literacy program is an important piece of the school's integrated, flexible curriculum and helps to fulfill its goal of academic excellence and intellectual habits of mind.
- A literacy coordinator serves as a resource for students and teachers.
- Ongoing professional development and faculty collaboration support the literacy program.
- Since the inception of Fenway's literacy program, its students' performance on the English Language Arts test of the Massachusetts Comprehensive Assessment System (MCAS) has risen steadily. The school consistently ranks among the top performing urban high schools in the state.

Fenway High School is a small, urban, public high school that has been recognized as a New American High School by the United States Department of Education and won recognition from the New England Association of Schools and Colleges and other outside institutions. Its literacy program began with the faculty drafting its vision of a literacy community and identifying the necessary steps to realize this vision—including hiring a literacy coordinator. The program has evolved over the past five years and will continue to be adjusted to enable it to better meet the needs of students.

The literacy program at Fenway consists of three main components:

- a year−long Foundations of Literacy course for all ninth graders, taught by the literacy coordinator;
- in−service workshops for faculty; and
- co−teaching by the literacy coordinator and core subject area teachers to incorporate literacy strategies and skills.

The school's staff and students also participate in two 30−minute periods of sustained, silent reading ("Drop Everything and Read") each week.

Humanities, science, and math teachers use strategies introduced during in−service workshops, either on their own or through co−teaching experiences with the literacy coordinator in their classrooms. The literacy coordinator attributes the rising scores on the statewide assessment to the focus of the humanities department on literacy skill development; the Foundations of Literacy course, which introduces ninth graders to reading comprehension and writing strategies while helping them develop the habits of independent readers and writers; and the school's culture, in which literacy is valued.

Muskegon High School &the Strategic Instruction Model

Muskegon High School is a large, urban public school facing many of the same challenges that schools across the country face today.

- 71% of its students receive free or reduced−price lunches.
- 8% are English Language Learners, a number that has been growing every year.
- Incoming ninth−graders struggle with reading comprehension.
- English teachers were becoming increasingly concerned about students' writing skills and lack of progress.

Since the mid−1990s, teachers and administrators have adopted and implemented several reading and writing strategies from the Strategic Instruction Model (SIM) developed and validated by the University of Kansas Center for Research on Learning:

- Ninth−grade students who read significantly below grade level (two or more years below grade level) receive intensive instruction in the Word Identification Strategy.
- Teachers worked together for a year to develop a Strategic Reading class that offers instruction in several reading comprehension strategies.
- Every English teacher participated in professional development activities related to SIM's writing strategies. They all are learning a second level of the reading comprehension strategies now.
- "Shared strategies" are being woven throughout the school within general education classes: Content teachers have requested and attended workshops to enable them to reinforce instruction in and encourage the use of reading and writing strategies in their classrooms.
- Staff meetings focus on ways to improve students' achievement, often resulting in ideas related to SIM.

Partnership Creates Path for Students' Future: University Park Campus School

In 1997, Clark University and the local school district partnered to found University Park Campus School (UPCS) and revitalize one of most troubled neighborhoods in Worcester, Mass., providing a way to prepare students for college and a promising future.

The partnership provides UPCS teachers, Clark professors, and university graduate and undergraduate students with many ongoing opportunities in teacher education:

- UPCS serves as a lab school for the Clark University?s education department, and UPCS teachers and Clark professors teach together or teach one another?s classes.
- Clark graduate students who are already certified teachers spend their master?s year teaching at UPCS.

- Undergraduate work−study students and volunteers staff the homework center.
- In addition, several Clark faculty members host on−site seminars for UPCS students, while other students attend college−level courses on the campus.

Multiple forms of ongoing professional development support the literacy initiative.

- In the early years of the partnership, a literacy teacher/coordinator provided UPCS teachers with workshops on effective reading and writing instruction, co−taught with content−area teachers, and worked with math and science teachers to identify which literacy standards and indicators would be incorporated and focused upon in which courses. These activities enabled the teachers to align a coherent approach and commitment to literacy support and development.
- All teachers at the high school level require the completion of quarterly portfolios, incorporating reading, writing, speaking (presenting, exhibiting), technology−driven presentations, and listening. The portfolios are evaluated through a rubric collaboratively developed with students.
- UPCS has also developed school−wide tools based on a rubric from the Massachusetts state standards, the Massachusetts Comprehensive Assessment System (MCAS). Teachers utilize the rubric in all subject areas. Teachers use MCAS results to further diagnose program strengths and weaknesses and to effectively address individual student needs.
- UPCS teachers host rounds based on the medical model in order to provide the opportunity to share best practice. The process begins with a pre−round, in which the person hosting the round explains the lesson to follow, as well as learning objectives and rationale. Teachers and students then observe the presentation of the lesson. A post−round follows, during which colleagues offer feedback and discuss teaching strategies.
- Teachers use the Wednesday afternoon common planning time to review student work with each other and to reflect on teaching and learning.

English Language Learners Share Their Stories, The ArtsLiteracy Project at Central Falls High School

- Teachers and their students at Central Falls High School in Rhode Island are participating in a literacy development opportunity, offered through Brown University, called the ArtsLiteracy Project (ArtsLit).
- ArtsLit and the school district leadership provide extensive, targeted, creative, and ongoing staff development opportunities?where teachers learn new strategies, develop curriculum, meet collaboratively to improve practice, support and mentor one another, and review program and student success.

The ArtsLiteracy Project, based in the Education Department at Brown University, offers a year−round professional development program that helps teachers and artists link the performing arts to student literacy development. ArtsLiteracy workshops not only provide teachers with opportunities to learn arts−based literacy strategies alongside artists and students, but also address how these strategies can be incorporated meaningfully into daily classroom practice. At ArtsLit's intensive summer professional development training, teams of teachers and actors plan and teach a course to secondary school students and are coached by experienced mentors. They observe each other's teaching, debrief, and reflect.

The ArtsLit Performance Cycle serves as an instructional model to all teachers and artists who participate in the Project. Through the Performance Cycle, teachers, artists, and mentors guide students in reading and comprehending text, writing original scripts, and producing quality

performances. Experienced teachers and artists, some of whom joined this professional community when it began in 1998, now serve active roles as teachers and mentors.

Bobby Marchand's Special Education Class at Central Falls High School

- These special education students and their teachers in Central Falls, Rhode Island are participating in a literacy development opportunity, offered through Brown University, called the ArtsLiteracy Project (ArtsLit).
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Summary

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Embedded in each of these lists are two hidden capacities. One is the leadership capacity on the part of administrators and teachers to shepherd the initiative by defining and following through on the tasks associated with various roles specific to the initiative. The other capacity involves having "belief structures" in place, which are sustained through action, messages from teachers and administrators, modeling, professional dialogue, and ongoing professional development. The literature stresses the need to believe that struggling readers and writers can succeed and that teachers and schools really have the power to transform lives (see, for example, Bernard, 1997).

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In summarizing the organizational structures and leadership capacities needed to support an adolescent literacy initiative, we drew from the research and believe that the following Best Practices aptly describe what needs to occur: Meets the agreed−upon goals for adolescents in that particular community. Articulates, communicates, and actualizes a vision of literacy as a priority. Utilizes best practices in the area of systemic educational reform. Is defined in a way that connects to the larger educational program. Involves ongoing support for teacher professional development. Has a clear process for program review and evaluation.

We have been encouraged by our discussions with practitioners and colleagues who see the need to articulate a research−based Adolescent Literacy Support Framework, one that addresses the necessary organizational structures and leadership capacity as a key component. Our views have been reinforced by the designs that various schools have developed and are currently in the early stages of implementing. These, without exception, have given careful consideration to all of the six Best Practices listed above. We look forward to watching their efforts and to being able to report in the future that faithful implementation of these Best Practices, as described in the Adolescent Literacy Support Framework, are indeed key to successfully addressing the adolescent literacy crisis. Being able to recognize and analyze discourse features aids tremendously in content−area understanding, and it also enhances content−focused writing (e.g. Langer &Flihan, 2000; Schoenbach et al., 1999). Explicit teaching of the discourse features particular to specific content areas is especially important for English language learners and students coming from limited literacy backgrounds (e.g. Mohan, 1990; Reyhner &Davison, 1992; Spanos, 1992).

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Related Web Resources

Directions in Language and Education (49)
Making Technology Happen (118)
Strategic Literacy Initiative (10)
Using Research to Inform Practice in Urban Schools: Ten Key Strategies for Success (29)

Stories

This section presents Knowledge Loom stories about classrooms, schools, or districts that exemplify one or more of the practices in the spotlight.

Each story contains a full feature article and a set of facts about how the practice was put into action. Each story lists the practices it exemplifies and the name of the content provider.

For an overview of additional content presented on The Knowledge Loom Web site that may not have been selected for this print document, see the Spotlight Map located earlier in the documentt.

Christine Cziko's Freshman English Class, Thurgood Marshall High School

Christine Cziko's Freshman English Class, Thurgood Marshall High School

San Francisco, CA

School Type: Public

School Setting: Urban

Level: High

School Design: Traditional

Content Presented By:

Center for Resource Management (CRM)

The Education Alliance at Brown University

The following is an adaptation of a story written by Christine Cziko, a former high school English teacher from San Francisco. It originally appeared in California English (vol. 3, no. 4, 1998) as "Reading Happens in Your Mind, Not in Your Mouth: Teaching & Learning 'Academic Literacy' in an Urban High School." The full article, in its original form, can be found at: http://www.WestEd.org/stratlit/prodevel/happens.shtml

Although I have been teaching English for over 20 years in both middle and high school classrooms, I hadn't thought explicitly about teaching reading until 1995, when I became involved in the Strategic Literacy Initiative (SLI), a research and professional development effort based in San Francisco. I had become increasingly concerned about getting my students to read, but reluctant to look at the problem of reading head−on.

More and more, students in my urban classroom were not reading books, either for class or for pleasure. I couldn't count on many to finish a short story for homework. Even those who insisted that they had "done the reading" often could not explain what they had read.

I tried to find ways to provide everyone with at least some common experience with the book at hand. I read to students, gave time in class to read, "talked through" the book, and, when desperate, showed the video. I started to feel that I was in a kind of co−dependent relationship with my students−−an arrangement that actually enabled them to not read.

My first conscious reaction to this dilemma was resistance: "This is high school, teaching reading is not my job!" But since it was clearly the job that had to be done, I couldn't hold onto that attitude for long. In 1995 I joined the HERALD Project's Strategic Literacy Initiative. The HERALD Project had been working with high school teachers in San Francisco to improve students' oral and written language skills across the curriculum.

The Academic Literacy course began as a 10−unit, year−long course for all our freshmen in Fall 1996. We knew that for students to become active readers, they had to first believe that reading with

comprehension was something that could be learned; that it was not a mystery that you either "get" or "don't get," and that 9th grade was not too late learn.

We thought that if we could create classrooms in which students could use some of the energy they put into hiding what they don't understand into revealing and working to figure out their confusions, we might create a powerful new learning dynamic. We thought about ways to make it "cool" to be able to articulate what in a particular text is confusing and why, and about how to invite the entire class to contribute strategies to unlock difficult text. The model was: teachers as "master readers" and students as "apprentice readers." It was not a remedial course.

We began by reading works by authors including Martin Luther King, Maxine Hong Kingston, and Frederick Douglass writing about the role of reading in their lives. They explored questions such as, "What roles does reading serve in people's personal and public lives?" The students were also prompted to think about their own relationships to reading, reflecting on questions such as, "What are my characteristics as a reader?" and "What strategies do I use as I read?"

We also read and discussed articles that provided a common conceptual vocabulary for thinking about one's own cognitive processes. Students learned about schema, metacognition, and attention management. The following comment illustrates how students internalized some of these ideas and strategies.

In Academic Literacy they taught you about different channels of your brain. Like my teacher would say, "You have one channel for being with your friends, and one channel for getting dressed, and you have a channel for being in school." And so then we would be supposed to ask ourselves, "What channel am I on now? Am I on my school channel?"

Another key element was in our modified version of Silent Sustained Reading. Books were self−selected, but students were expected to finish a 200−page book each month and keep a record of both what they were reading and what they were learning about themselves as readers. They were introduced to and given frequent opportunities to practice a variety of cognitive and "text−wise" strategies: questioning, clarifying, summarizing, and predicting; use of graphic organizers; and breaking sentences into manageable parts.

After seven months of instruction, students on average moved from being able to independently read a text at the level of Charlotte's Web to a text comparable in difficulty to To Kill A Mockingbird. According to the test developers, this is equivalent to a change from the early 7th grade level to the late 9th grade level.

Although we realize that we are just beginning to figure out how to do this work, one student's comment reflects a common feeling among many of the Academic Literacy students: "I feel proud of myself as a reader. I really did grow."

Demographics

African American, not Hispanic	28%
American Indian or Alaska Native	1%
Asian	34%
Filipino	10%
Asian	34%
Hispanic or LatinoHispanic or Latino	16%

White not Hispanic	3%
Students receiving free or reduced−priced lunch	18%
English language learners	8%

Background

The Strategic Literacy Initiative (SLI), formerly The Humanities Education, Research, and Language Development (HERALD) Project, is a professional development and research program serving middle and high school educators in the San Francisco Bay Area and nationally. Since 1995, teachers working with SLI have served over 90,000 middle and high school students. SLI is based at WestEd, a non−profit education research, development, and service agency whose researchers, program developers and policy analysts conduct and study wide−ranging programs aimed at improving education and other opportunities for children, youths, and adults.

Design &Implementation

The goal of the Strategic Literacy Initiative (SLI) is to support middle and high school subject−area teachers to help their students become successful readers of academic texts by building the confidence, motivation, knowledge, and strategies they need to do so.

The Reading Apprenticeship(r) is a powerful, research−based framework that serves as the conceptual core of SLI's work. The Reading Apprenticeship(r) framework combines affective and cognitive aspects to promote adolescents' engagement and achievement in reading the variety of texts they face in their content area classes. The following are the key assumptions of a Reading Apprenticeship(r) approach:

- Reading involves complex, invisible processes; making them visible helps students become independent, strategic readers.
- Diversity is the norm in classrooms.
- Students need to be apprenticed by content area teachers to acquire the tools and strategies necessary for academic success.
- The explicit teaching of comprehension strategies in context is part of a Reading Apprenticeship(r) classroom.
- Students are motivated to become strategic readers when they are active agents in their own learning.
- It's never too late for students to become skilled readers.

Please see http://www.WestEd.org/stratlit/pubsPres/RFU_Ch2.shtml for a more detailed description of the SLI framework.

Through this work, SLI has gained a national reputation for leadership in professional development programs to improve adolescent literacy. The Strategic Literacy Initiative's highly acclaimed professional development series offers school teams of middle and high school teachers opportunities to:

- Participate in a three−day summer institute and four release days of professional development throughout the year
- Inquire into their own and others' reading processes
- Investigate students' reading strengths and needs through the use of student case videos
- Learn about powerful classroom practices that support reading improvement in content areas
- Explore classroom−tested instructional resources and assessment materials

- Meet regularly with their school team to plan and share resources
- Network with teacher teams from other Bay Area secondary schools
- Connect to a Web−based, national professional development network for adolescent literacy.

Results

At Thurgood Marshall, responses on their pre− and post−reading surveys also showed significant changes for many students. For example, in the pre−course survey students reported reading an average of six books in the previous year; in the post−course survey students reported reading an average of eleven books during the current year.

In general, students' survey responses as well as reflective letters they wrote after comparing their own pre− and post−surveys, indicated that they grew more knowledgeable about selecting books to read and about ways to create reading situations that worked for them. These surveys and letters also show that most Academic Literacy students came to value reading in new ways, and that they acquired a greater sense of their own agency, responsibility and control of how they read over the course of the school year, as well as a much more elaborate set of ideas, strategies and resources for doing so.

More broadly, a growing database of evaluation results on students whose teachers participated in intensive professional development with Strategic Literacy Initiative (SLI), at other schools, shows significant gains on standardized reading comprehension tests, with English language learners showing the greatest gains. These gains remain as students progress to higher−level courses and encounter more complex texts across various disciplines.

In 1999, SLI published the Reading Apprenticeship(r) framework that it had developed in collaboration with teams of teachers in the San Francisco Bay Area. Reading for Understanding: A Guide to Improving Reading in Middle and High School Classrooms, describes the kinds of successes and struggles teachers and students have experienced using this approach.

Their research shows that participating teachers have developed:

- New understandings of the reading process
- New ways of thinking about students' reading, especially their sources of difficulty
- Powerful literacy support strategies linked to these ideas
- Confidence that they can make a difference in student reading achievement in their content areas.

Student survey and test data demonstrate that students in Reading Apprenticeship(r) classrooms:

- Read more, become more confident, and take more pleasure in reading
- Identify their preferences, strengths, and weaknesses in reading
- Understand that reading involves thinking
- Gain a range of strategies to support their reading comprehension
- Make statistically significant gains on a standardized, norm−referenced test of reading comprehension (degrees of reading power).

Replication Details

Participation in the Strategic Literacy Initiative (SLI) program requires a substantial commitment. Interdisciplinary school teams of 3−8 members meet in a network of up to 30 teachers for a three−day summer institute and four days of professional development scheduled throughout the school year. Working with experienced SLI facilitators and teacher leaders, teachers inquire into their own and others' reading process; investigate students' reading strengths and needs through the use of student case videos; and learn about powerful classroom practices and instructional resources that support reading improvement across content areas.

In addition, a team facilitator from each school team participates in two leadership training institutes throughout the year to support school−based team meetings between network sessions in which teachers share classroom practices and student work.

Expectations of participants:

Individual teachers

- Commitment to a professional learning community through participation in a 3−day summer institute, four release days, and regular on−site planning sessions during the school year
- Commitment to helping students develop high levels of content area literacy
- Commitment to the planning, implementation and sharing of Reading Apprenticeship(r) practices and student work within and across school teams.

Schools

- Recruitment of interdisciplinary school teams of 3 to 8 members, including a site administrator when possible
- Substitute coverage for four full days during the school year for each participating teacher
- Stipends for teachers participating in the 3−day summer institute and planning meetings at school sites between network sessions
- A team facilitator released for two additional days of leadership training
- Administrative support for teacher and student inquiry into reading.

Districts, county offices of education, or school reform networks

- Recruitment of participating schools
- Facilities arrangement for each network session, including meeting space, audio−visual equipment, and continental breakfast and lunch for participants
- Ongoing communication with participating schools and teachers regarding network goals and events
- Commitment to professional development for teachers and schools that addresses equity and high expectations for all students.

Costs and Funding

The cost of a year−long series for a network of 30 teachers is $30,000 ($1,000/teacher).

This cost includes:

3−day summer institute
Four full−day professional development sessions
Two additional training days for school team facilitators

Planning support from the SLI professional development team for site−based team meetings
Copies of reading for understanding and other resource materials for each participant,
Access to the SLI listserv

The SLI has been funded by The Stuart Foundations, The William and Flora Hewlett Foundation, The Stupski Family Foundation, The Spencer Foundation, The MacArthur Foundation, The Gabilan Foundation, and The San Francisco Foundation. We also offer "fee for service" contracts for professional development services to schools, districts, county offices of education, and a variety of school reform networks.

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Rating Criteria

Christine Cziko's class at Thurgood Marshall High School in San Francisco participated in West Ed's Strategic Literacy Initiative (SLI) Strategic Literacy Initiative (SLI). This program was selected for its use of practices that fit the research−based adolescent literacy framework and for promising gains in student performance. These gains are documented (http://www.wested.org/stratlit/pubsPres/HER/p01green.htm) through case studies and results on the Degree of Reading Power test.

The Strategic Literacy Initiative is a professional development and research program serving middle and high school educators in the San Francisco Bay Area and nationally. SLI's 1999 book, Reading for Understanding: A Guide to Improving Reading in Middle and High School Classrooms, describes the Reading Apprenticeship¨ framework developed in collaborative work with teams of teachers in the San Francisco Bay Area, and the kinds of successes and struggles teachers and students have experienced using this approach. Through this work, SLI has gained a national reputation for leadership in professional development programs to improve adolescent literacy.

This is a snapshot of one teacher's exemplary work. The Knowledge Loom will also follow schools

and school districts for success stories that report school−wide gains across the content areas.

This story exemplifies the following practices:
Making Connections to Students' Lives
Having Students Interact with Each Other and with Text
Creating Responsive Classrooms
Roles of the Teacher
Reading and Writing
Speaking and Listening
An Emphasis on Thinking
Creating a Student−Centered Classroom
Vocabulary Development
Understanding Text Structures
Recognizing and Analyzing Discourse Features
Supporting the English classroom through literacy development
Supporting the social studies classroom through literacy development

Bobby Marchand's Special Education Class at Central Falls High School

Bobby Marchand's Special Education Class at Central Falls High School

Central Falls, RI

School Type: Public

School Setting: Urban

Level: High

School Design: Traditional

Content Presented By:

Center for Resource Management (CRM)

The Education Alliance at Brown University

ArtsLiteracy Project

It is an issue close to the hearts of the five students who make up this class: the need for tolerating differences. Together on the stage of the high school auditorium, students in Bobby Marchand's special education class work to develop an original performance that stresses the intolerance of peers for one another's musical tastes.

Using improvisational techniques to create vignettes, the students improve their ability to articulate point of view, to compromise, and to organize and carry out a project from beginning to end. These are all challenges that regularly face the five adolescents, who are considered emotionally disturbed and unable to collaborate with other students in mainstream classrooms. From their improvisations, they develop scripts for each scene, sequence the vignettes, and, with the help of their teacher and the classroom artist, create a quality production. On the day of the final performance, the five students shine, and the show's powerful message is carried to students throughout the school.

These students and their teacher are participating in The ArtsLiteracy Project (ArtsLit). Based in the Education Department at Brown University, ArtsLit is dedicated to developing the literacy of youth through the performing and visual arts. As ArtsLit Project Director Kurt Wootton says, "We are in the business of transformation. Transforming students into readers, writers, and performers. Transforming teachers into artists. Transforming artists into educators? The most important thing we can do is to take care of the teachers, artists, and students we work with, and to create a space where transformation can occur."

But the process isn't always smooth. Starting a six−week long ArtsLit engagement with a class of special needs students, Wootton found himself on a stage at Central Falls High School with a group of students − one of whom had rolled himself up in a curtain. However inappropriate, the student's message was clear: "I'm not doing this."

Wootton calmly but enthusiastically forged ahead through the warm−ups and Building Community activities for which ArtsLit has become well known. He began the active Entering Text activities,

introducing the important concepts and vocabulary that the students would need in order to understand the text that they would later develop into a student performance. On stage, the students worked successfully with each other to carry out Wootton's directions for the thinking and moving activities − carefully moving around the student in the "curtain−cocoon." For this group, these activities easily beat sitting in rows in a traditional classroom. And, the students had fun.

Not overnight, but within days, the unwilling student emerged from hiding and surprised everyone again. Wootton does not say exactly why he emerged. Educators use the word "engagement" to describe the relationship to learning that helped this student. But, the student may have given a simpler explanation. He became very interested in playing the lead part in the performance that would culminate the six−week engagement. He worked hard to win the part and played the lead.

ArtsLit is not a traditional drama program that replicates plays for an audience. Neither is it "process drama" work, which uses role playing to deepen participants' understanding of content or to develop skill in perspective−taking. While it combines elements of both approaches, ArtsLit's major focus is to construct a classroom community in which adolescents develop the skills and habits of mind to convey meaning through −− and recover meaning from −− a range of symbol systems, most explicitly, print text.

The program has both professional development and curriculum development components. These two components are linked by an ongoing research and design effort. The Project integrates research and practice in the fields of English language arts, theatre, literature, and teacher education. The research suggests that the multi−sensory learning involved in theater work −− acting, speaking, writing, planning, and organizing for a performance −− is a powerful tool for improving students' engagement in school, and especially in literacy activities.

ArtsLit offers a year−round professional development program that brings together teachers and artists to collaboratively develop approaches to literacy development through the arts. Artists and teachers work as a team to plan classes that engage students in reading, writing, and showing their understanding of text. The ArtsLit curriculum framework is built around an evolving set of principles that teachers and artists put into practice as they plan and teach. These include: (1) designing units around students' culminating performance; (2) making both literacy and performance objectives explicit; (3) establishing an array of classroom activities that integrate reading, writing, performance, and discussion; (4) creating opportunities for students and teacher/artist teams to reflect on and assess their work.

Special education teacher Bobby Marchand and other teachers participating in the program say that their teaching has been infused with strategies they learned through ArtsLit. They report that using the ArtsLit approach helps motivate students to read and write and participate more actively in classroom discussion. An additional benefit is how the ArtsLit approach builds a supportive classroom learning community. According to participating teachers, the rewards and the benefits that stretch throughout the year are great, "even exhilarating." Teachers find they have no desire to return to conventional ways of teaching literature and language, even though putting together performance units is "sometimes exhausting."

Demographics

The city of Central Falls, the smallest municipality in Rhode Island at 1.3 square miles, is also one of the most densely populated cities in the country. With a population of about 17,000, the city houses 13,656 persons per square mile. The city's land area, mostly narrow streets lined with multi−family housing, is 98% developed, leaving limited land for further expansion. There is only one high school

in Central Falls.

Central Falls ranks the highest in the state for children under age six living in poverty and for rate of community−wide Limited English Proficiency (29.5%, compared to the state average of 6.2%). Nearly 42% of Central Falls youth come from single−parent homes, and its rate of incarcerated parents is double that of the state.

Additionally, Central Falls ranks lowest in the state for students and for adults receiving a high school diploma. Recent state assessment test scores show that Central Falls students rank the lowest for overall student performance in the state. Other factors that place the student population at risk for educational failure include a mobility rate of 44%, compared to the state average of 18%; a graduation rate of 58%, compared to the state average of 83%; and a dropout rate of 42%, compared to the state average of 17%.

Central Falls has a history of industrial development and was at one time called Chocolate Mill, after the chocolate factory established there in 1790. The demographics have shifted dramatically over the past two decades, with the Hispanic population continuing to rise. An inner−city community, Central Falls represents a range of ethnic groups.

Student population statistics (2000):

White	30%
Black	11%
Hispanic	57%
Asian/Pacific Islander	1%
Native American	1%

Student eligibility for subsidized lunch programs: 95% (2000)

Students (K−12) receiving English as a Second Language services or Bilingual Education: 29% (1999−2000)

Children under age 18 living in families headed by a person without a spouse present in the home: 38.3% (2000)

Children ages 2 to 22 receiving special education services through Rhode Island elementary and secondary schools: 24% (2000)

Median annual household income

- for Central Falls households: $18,617 (1990)
- for all Rhode Island households: $32,181 (1990)

Background

At Central Falls High School, the five special education students that make up Bobby Marchand's class have been classified as emotionally disturbed. Following repeated discipline problems at the middle school level, they were grouped together as high school freshmen in a self−contained classroom in the hopes that their behavior could be better managed and their academic progress improved. Central to this classroom is a need for motivation. The ArtsLiteracy Project was a perfect

match for these students' needs.

The ArtsLiteracy Project (ArtsLit) is dedicated to developing the literacy of youth through the performing and visual arts. Founded in 1998 and based in the Education Department at Brown University, ArtsLit gathers an international community of artists, teachers, youth, college students, and professors with the goal of collaboratively creating innovative approaches to literacy development through the arts. It offers a range of opportunities for teachers, artists, youth, and the arts and education community.

In ArtLit's year−round professional development program, teachers learn arts−based literacy strategies alongside artists and students, and they also address how these strategies can be incorporated meaningfully into daily classroom practice. Training begins in a summer lab school at Brown Summer High School, and the strategies are later transferred to public school classrooms during the academic year.

In the lab school, pairs of teachers and actors work together with a class of secondary school students to "bring a text to life." Coached by experienced mentors, pairs of teachers and actors research, plan, and teach a course to secondary school students; observe one another teach; debrief; reflect; and participate in a range of workshops. Students work on both performance and literacy skills based on national standards and launch a culminating performance as an exhibition of their understanding of the text. This performance process is repeated with mentors during the academic year.

Design &Implementation

An important aspect of the ArtsLiteracy Project's (ArtsLit) design is how it connects to university resources. Housed within Brown University's Education Department, ArtsLit plays a vital role connecting Brown's academic resources with local, professional performing artists; teachers; and elementary, middle, and high school students. An undergraduate/graduate course at Brown serves as the Project's "think tank" on arts and literacy. Constant documentation and evaluation of Project work inform its design.

The following section describes two key facets of ArtsLit's design and implementation:

- Ongoing professional development, which includes intensive summer training, yearlong coaching, and supplemental workshops;
- The grounding of work in The ArtsLiteracy Curricular Framework: The Performance Cycle [Note to Web design: make this a link to the section that follows], whose philosophy and strategies support adolescent literacy best practices (e.g., collaborative learning; vocabulary development; an emphasis on reading, writing, speaking, listening, and thinking; and metacognition.)

Ongoing Professional Development

In ArtsLit professional development, teachers participate in the following:

- Professional development lab school for teams of local teachers and actors who co−teach a course entitled "From the Page to the Stage" at Brown Summer High School;
- In−school and after−school partnerships where teachers transfer the summer training to their classrooms during the academic year with ongoing support of the Project mentor teachers;
- Weekend and weeklong workshops, in which experienced teachers and artists lead novices through the Performance Cycle.

Professional development lab school:

At Brown Summer High School, teachers and actors work together with a class of high school students to "bring a text to life."

Coached by experienced mentors, teachers and actors work in pairs to research, plan, and teach a daily two−hour course, entitled "From the Page to the Stage," to high school students. The teacher−actor pairs observe one another teach, debrief, reflect, and participate in a range of workshops. They launch a culminating performance at the end of the summer as an exhibition of the students' understanding of the text.

This intensive summer training introduces teachers to the ArtsLit curricular framework and strategies, which are later applied to teachers' public school classrooms during the academic year.

In−school and after−school partnerships:

During the school year, the in−school and after−school partnerships involve two levels of professional development components:

1. Workshops − Through weekend and weeklong workshops, ArtsLit models how the arts can be used as a tool in the classroom to enhance student literacy. Participants analyze a challenging text through discussion, writing, reading, and performance.

2. Classroom Application − Artists and teachers actively work together in classrooms to apply the methodologies practiced in workshops to the specific needs of the students. Artist−teacher collaboration might take three forms: (1) artist modeling tools for teacher, (2) teacher and artist co−teaching, and (3) teacher teaching while artist supports. An experienced mentor teacher coaches artist−teacher teams and facilitates reflection on each day's work and on the overall process.

Most school−year units last about six or seven weeks and involve twelve artist visits based on the following structure:

- Week One: Building Community and Entering Text
- Weeks Two and Three: Comprehending Text (This portion might last as long as a month depending on the length and the amount of text read in class and at home.)
- Week Four: Creating Text
- Weeks Five and Six: Rehearsing/Revising Text
- End of Week Six: Performing Text
- Week Seven: Reflection (discussion and writing)

While any text can be used, the following are recent examples: *The Great Gatsby* by F. Scott Fitzgerald
Othello and *The Taming of the Shrew* by William Shakespeare
St. Joan by George Bernard Shaw
Aida (both the folk tale and opera)
The Christmas Carol by Charles Dickens
Cider House Rules by John Irving (both the novel and play)
The Piano Lesson by August Wilson
Antigone by Sophocles
Metamorphosis by Ovid
poetry by Langston Hughes

stories from students' lives

Weekend and weeklong workshops:

ArtsLiteracy workshops for teachers and artists are offered on weekends in the fall and spring and for a week during the summer. The workshops address how ArtsLit strategies can be incorporated meaningfully into daily classroom practice. They offer participants a chance to learn from one another as they refresh and refine their skills. Teachers of all levels have an opportunity to learn arts−based literacy strategies alongside artists and students. Artists have the benefit of drawing on their performance experience while collaborating with teachers, other artists, and youth to develop arts−based literacy curricula.

The ArtsLiteracy Curricular Framework: The Performance Cycle

The Performance Cycle serves as an instructional model to all teachers and artists who participate in The ArtsLiteracy Project (ArtsLit). Through the Performance Cycle, teachers guide students in reading and comprehending text, writing original scripts, and producing a quality performance.

For a full description of the Performance Cycle and activities for each element, see http://www.artslit.org/handbook.html

The ArtsLiteracy Project Performance Cycle

The following describes how the seven elements of the Performance Cycle relate to key components of the Adolescent Literacy in the Content Areas spotlight.

Performance Cycle Elements:

1. Building Community

Through Building Community, ArtsLit promotes safety, support, personalization (not being anonymous to teachers or to other students); student voice; enactive learning; and an important social context for learning and fun.

Building Community as Key Component A practices:

- Making Connections to Students' Lives
- Having Students Interact With Each Other and With Text
- Creating Responsive Classrooms

> "We are in the business of transformation. Transforming students into readers, writers, and performers. Transforming teachers into artists. Transforming artists into

> educators. As you well know, transformation in any environment doesn't come easy. In our organization, what we have realized is that the most important thing we can do is to take care of the teachers, artists, and students we work with, and to create a space where transformation can occur. We create a community where teachers and artists care about each other and spend time with each other outside of our program. This is how teachers should be treated in their professional lives and this is how we want our teachers to treat our students, to create an environment where everyone is valued and taken care of." Kurt Wootton, ArtsLiteracy Project Director
>
> "We teach how we are taught." ArtsLit teacher

2. Entering Text

In ArtsLit, Entering Text always takes place before students read challenging text. ArtsLit provides instructional scaffolding by engaging students actively and collaboratively in the concepts and vocabulary that they will encounter in the text. In doing so, ArtsLit also develops teachers' and artists' capacity for using strategies of metacognition, reading for understanding, and student engagement.

Entering Text as Key Component B practices:

- Emphasis on Thinking
- Creating a Student−Centered Classroom

Entering Text as a Key Component C practice:

- Vocabulary Development

> "From a literacy perspective, we're particularly interested in the idea of visibility because students' reading processes are generally invisible. When a student is reading a book, silently, it's difficult to tell how they understand it or even if they understand it. The arts are one way of making these invisible cognitive processes visible." Kurt Wootton, ArtsLiteracy Project Director

3. Comprehending Text

ArtsLit uses highly enactive and collaborative learning to support reading for understanding and continues to integrate metacognition and engagement throughout the Performance Cycle. Activities based on explicit comprehension strategies such as (but not limited to) fluency, prediction, and visualization provide abundant opportunities to practice higher order thinking skills and to master the text.

Comprehending Text as Key Component B practices:

- Speaking and Listening
- Collaborative Learning

4. Creating Text

In the process of creating original scripts for performances, ArtsLit provides an abundance of opportunities to practice and master written language. Students also use writing to interpret the experiences of the characters in the text in terms of their own experiences and to derive meaning from

the text.

Creating Text as Key Component B practices:

- Reading and Writing (time on task)
- Speaking and Listening
- Collaborative Learning

5 and 6. Rehearsing/Revising Text, Performing Text

ArtsLit's rehearsal process provides a chance for students to continuously revise their performance. Throughout the revision process, students both give and receive feedback on their work. This feedback from peers and teachers allows for continuous assessment and elevates the work to a higher level of quality.

Rehearsing/Revising Text, Performing Text as Key Component A practices:

- Making Connections to Students' Lives
- Having Students Interact With Each Other and With Text
- Creating Responsive Classrooms

Rehearsing/Revising Text, Performing Text as Key Component B practices:

- Speaking and Listening
- Collaborative Learning

> "Students have a range of skills, passions, and talents they can bring into the classroom – if we extended the invitation. When space is opened in the classroom for students to bring their set of skills and interests, traditional teacher/student roles are inverted. The teacher becomes a student and the student a teacher.
>
> This summer one of our artists put the structure for the performance on the board. A student responded, 'I don't think that's an effective way to end the performance, I think we should end with the other piece.' The teacher responded, 'Does the rest of the class agree with that? O.K, we'll change it.'
>
> Even though the teacher and artist have the ultimate responsibility for the class, such dialogue offers all students legitimate voice in the decision−making process." Kurt Wootton, ArtsLiteracy Project Director

7. Reflection

After each day's activities and after a performance, deliberate reflection becomes a welcomed habit and opportunity for expressing one's individual voice. It also provides opportunities for supporting metacognition, community building, organizational development, and professional development.

Reflection as a Key Component B practice:

- Emphasis on Thinking: Metacognition and Higher Order Thinking

Reflection as a Key Component D practice:

- Involves Ongoing Support for Teacher Professional Development

  "We create constant opportunities for feedback and reflection – in our organization, our professional development, and our classrooms. Our teachers spend three full days at the end of the summer reflecting on our process and how we can improve as an organization. This reflection is critical to our organization's responsiveness to the needs of our teachers, artists, and students." Kurt Wootton, ArtsLiteracy Project Director

Results

- Attendance and classroom participation have greatly improved since Bobby Marchand became involved with The Arts/Literacy Project (ArtsLit).
- Additional student outcomes include better understanding of the literature being studied, the development of higher expectations for themselves and others, and leadership development−−as students who participate in performance units over time become peer mentors to newcomers.
- Teachers participating in the program say that their teaching throughout the year has been infused with the strategies that they learned through ArtsLit.
- They claim that using the ArtsLit approach results in teaching students who are more motivated to read and write and who participate more actively in classroom discussion.
- An additional benefit is that the ArtsLit approach builds a supportive classroom learning community.
- According to participating teachers, the rewards of ArtsLit −− and the benefits that stretch throughout the year −− are great, "even exhilarating."
- Teachers find they have no desire to return to conventional ways of teaching literature and language, although putting together performance units is "sometimes exhausting."

Replication Details

Replication Tips

Provide a clear focus for program design
All the work of The ArtsLiteracy Project (ArtsLit) is grounded in a curricular framework whose philosophy and strategies support adolescent literacy. The curriculum engages participants in a group activity – creating an original performance – that provides clarity and consistency in program design.

Create a classroom community through motivating activities
ArtsLit's work is centered on a curricular framework, called the Performance Cycle. The framework provides a recurring, structured, and predictable sequence that supports students' engagement, focus, and attention. Especially relevant to students who experience behavior problems are the elements that engage students socially in a community, that give the students voice and agency, and that provide personally valid purposes for reading, writing, listening, thinking, and speaking. Of particular benefit to special education students are ArtsLit's enactive learning activities and collaborative structure.

Plan literacy activities using the performing arts
The ArtsLit Performance Cycle represents a way performance might be connected with text in both school and out−of−school settings. Most of the activities work with students of any age, although certain aspects of activities should be adapted depending on the age group. Although the categories are not necessarily chronological, in planning a unit it usually helps to begin with community building activities and end with a final performance exhibiting students' understanding of a text.

Collaborate with teachers, professional artists, and mentors
When planning a classroom unit in collaboration with partner artists and mentors, teachers find that these units vary widely according to the needs of their students and the contributions of the collaborators. Collaborations between teacher, artist, and mentor teacher often involve other teachers in the school, university student teachers, undergraduates, and other outside artists.

Meet students' diverse learning needs
A given group of adolescents will be at a variety of stages in their emotional, social, and physical maturation, and, because these stages are not fixed but fluid, the needs of the same individual can vary within short periods of time. The need for guidance, clear expectations, and consequences must be balanced with respect, choice, and flexibility. The complexity of these combined factors requires that the design and facilitation of learning experiences for adolescents be purposeful and carried out with these understandings in mind on the part of educators.

Provide ongoing professional development
Ongoing professional development meets teachers' learning needs and includes intensive summer training, yearlong coaching, and supplemental workshops. Teachers attend training to learn strategies, work one−on−one with mentors to implement those strategies, and present or participate in workshops to further complement their growth.

Conduct consistent evaluation
Artslit constantly conducts documentation, evaluation, and dissemination of Project work to refine its design and broaden its impact.

Contact ArtsLit
Schools interested in replicating The ArtsLiteracy Project may inquire about professional development opportunities and contact Project staff through http://www.artslit.org/.

Costs and Funding

The ArtsLiteracy Project (ArtsLit), part of the Education Department at Brown University, has been funded by various national and local grants since 1998. Currently, it is supported by the National Endowment of the Arts, Rhode Island State Council for the Arts, U.S. Department of Education, and The Educational Foundation of America. ArtsLit collaborates with artists from the Providence Black Repertory Company, Trinity Repertory Company, and other local theatres and arts organizations. ArtsLit works in Rhode Island with teachers and administrators at Blackstone Academy in Pawtucket and all schools in the Central Falls School District, including Calcutt Middle School, Central Falls High School, Ella Risk Elementary School, Feinstein Elementary School, Robertson Elementary School, and Veterans Memorial Elementary School.

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Rating Criteria

Central Falls High School participates in the Arts/Literacy Project, which links Brown University's academic resources with local professional performing artists, teachers, and students. Staff members from the Northeast and Islands Regional Educational Laboratory at Brown University visited the school and observed the program in action. This program was selected for its use of practices that fit the research−based adolescent literacy framework and for promising preliminary results (improvement on measures of attendance, student attitude, and participation in class). Additionally, The Arts/Literacy Project will enter its second cyle of funding by the National Endowment for the Arts, having been awarded their largest current grant in the Education category. Arts/Literacy Project is also funded by the Rhode Island Foundation, the Providence Journal Charitable Foundation, and Brown University. Its collaborative partners are Trinity Repertory Company and the Black Repertory Company.

This is a snapshot of the exemplary work of an individual teacher in the context of the project. The Knowledge Loom will also follow schools for success stories that report school−wide gains across the content areas.

This story exemplifies the following practices:
Making Connections to Students' Lives
Having Students Interact with Each Other and with Text
Creating Responsive Classrooms
Utilizes best practices in the area of systemic educational reform.
Involves ongoing support for teacher professional development.

Fenway High School's Literacy Program

Fenway High School's Literacy Program

Boston, MA

School Type: Public
School Setting: Urban
Level: High
School Design: Small School
Content Presented By:

Jobs for the Future

Fenway High School

Fenway's culture of literacy is evident from the first activity incoming students undertake. In the first hour on their first day, 9th graders, along with students in grades 10−12, meet in the auditorium to participate in an activity developed by the humanities team. This year, the team had selected a short story by Jesus Colon entitled "Little Things Are Big," which presents a real−life dilemma without an end. At the assembly, teachers and students discussed which members of the school community should be selected to read aloud. This resulted in new students, old students, top students, struggling students, new teachers, interns, the director, the physical education coach, and others reading, in turn, at their own ability and in their own voice and style.

After completing the reading of the story, the teachers and students broke into small groups, each led by a faculty member and facilitated by a student. The purpose of these smaller discussions was to draw out questions about personal experiences, speculate about the story's ending, and move into Fenway's year−long Humanities Essential Question: "How do you do the right thing in the face of injustice/in an unjust society?" For homework, students were asked to write an ending to the story and to defend the conclusion they chose on the basis of what they have seen or experienced in the society in which we live. This defense was the students' first discussion paper and the first entry in their portfolios.

Fenway's journey to build a school−wide culture of literacy began in 1999. The impetus for this effort came from

- the humanities teachers' concerns about the large number of students with low skill levels entering from the middle schools and the heterogeneous setting;
- a few faculty lobbying for tracked language arts classes—separate from history—as a response, with others passionately advocating for continuing with humanities classes of heterogeneously grouped students;
- the impending implementation of a single instrument, high−stakes assessment;
- the opportunity to get and use money from the state to support Massachusetts Comprehensive Assessment System (MCAS) preparation; and
- an opportunity provided by the district to hire a literacy coach.

Fenway High School's former director, Larry Myatt, and other staff members felt strongly that the school should retain the thematic humanities format. Over the years, he argued, it had proven far more successful in its power to inspire students to read, write, and think critically than an earlier, fragmented (basic skills) approach that separated grammar, writing, literature, and history into

discrete components. With his assistance, members of the humanities team focused on some key questions and a needs assessment that would help them to become more strategic in their teaching of literacy skills within the humanities format. Myatt also managed to draw out the district's timeline for hiring a literacy coach until the faculty had identified its coaching needs and located the right person for the job.

At the same time, Myatt also recognized the importance of building a culture of literacy with the adults in the building. In conjunction with the humanities and Learning Center teams, he initiated a process with staff in the winter of 1999 to identify what the school would look like as a literate community, i.e., what faculty, students, and staff would be doing. The planning team wanted this effort to model the literacy work they would like to observe in all classrooms: intentional, small group work. During the first faculty meeting, individuals were given 15 minutes to write a response to the question "What would teachers and students be doing DIFFERENTLY in a culture that valued and promoted literacy?" The responses were analyzed and the themes presented by content area in a faculty meeting three weeks later. Then, staff members were asked to regroup, to intentionally gravitate to small groups with colleagues from other departments, and to talk about what they had written. Following these discussions, the faculty was asked to write again for 15 minutes to respond in more detail to the same question. These responses elicited strategies linked to literacy that could be used in each content area, e.g., creating display boards and developing hypotheses in science, and using new techniques to support the comprehension of word problems in math. In the end, the entire faculty recognized that it wanted to develop a school−wide culture of literacy and was willing to work toward that outcome.

Realizing that they would need a special person to take on this task, the planning team asked the staff to write a description of the person they felt could lead the school in its journey toward greater literacy. Some of the skills and characteristics they suggested were:

- experience in urban school classrooms;
- extensive knowledge of writing theory and reading programs;
- passion for reading, writing, speaking, and listening;
- willingness and ability to balance the role of content expert with day−to−day practitioner;
- willingness to work with the humanities team to balance content and skills in its curriculum;
- openness to working with other colleagues to infuse literacy skills in math, science, and electives; and
- support for co−teaching.

This process resulted in several outcomes:

- A literacy coordinator, in keeping with the faculty's vision, was hired in the fall of 1999.
- Co−teaching and model teaching lessons were implemented on a regular basis to develop a common vision of good practice and a balanced approach to humanities content and skill development.
- The Foundations of Literacy course for 9th graders was initiated in the fall of 2000.
- Teachers' understanding of literacy and the strategies they use in their own reading and writing was enhanced.
- The school increased its emphasis on literacy across the curriculum. The literacy skills and strategies used by 9th graders were strengthened.

What It Looks Like

If you peeked into the 9th grade Foundations of Literacy class on a given day, you might see the

following: Kids are at tables in groups of three or four. There is lots of lively discussion. Kids are sharing poems together or shouting across to other groups to share a poem. Half of the class time usually is focused on writing, while the other half focuses on reading. Class starts with a mini−lesson. After the mini−lesson, the two teachers circulate around, hunching over tables to work with some students while other students work with each other. Classroom management is not really an issue because there are clear purposes for each chunk of time and the students understand when to be quiet and when it is okay to chat.

Looking in classrooms throughout the school, you might be struck by how much group work is going on. You would see teachers doing mini−lectures, kids working in groups, reading from Facing History and Ourselves, doing journal writing. The curriculum is heavy on activities and projects throughout, and evidence of these in progress can be seen around the school and in just about every classroom.

During Sustained Silent Reading (SSR), the kids are really reading.

(Adapted from an interview with a teacher intern at Fenway during the 2002−2003 school year.)

Demographics

In the 2001−2002 school year, Boston's Fenway High School had 270 students enrolled in grades 9−12. The student population consisted of 55 percent Black, 20 percent Hispanic, 20 percent White, and 5 percent Asian. Students with limited English proficiency were 8.2 percent of the school, while 58 percent of the students were eligible for free or reduced−price lunch. The school's attendance rate was 93.8 percent.

Background

Mission &Structure.

Fenway High School was founded in 1983 as an alternative academic program for disadvantaged and/or disaffected students who were failing in one of Boston's large public high schools. From the beginning, it was a pioneer in the small schools movement, which values personalized relationships between teachers and students; integrated, flexible curriculum; on−site, shared decision making; and learning partnerships with outside organizations.

In 1994, the school's co−directors worked with system officials to create the Boston Pilot School model, which gave Fenway control over its educational programs, governance, staffing, and budget. The school has used this autonomy to focus its resources on the learning needs of its diverse students. The Fenway Board of Trustees, representing staff, parents, students, collaborators, and community members, is responsible for overseeing school operations and ensuring that Fenway fulfills its mission.

The school's mission is to create a socially committed and morally responsible community of learners, which values its students as individuals. Its goal is to encourage academic excellence and intellectual habits of mind, self−esteem, and leadership development among all students. Its motto, which is posted in several places in the school, is "Work hard. Be yourself. Do the right thing."

The typical school day at Fenway begins at 8:45 a.m. and ends at 3:25 p.m. Classes vary in length from 70 minutes to 2.5 hours. Some classes meet for the full double period on one day and then for a single period on another. Often there is an all−school assembly with foci ranging from guest speakers

and performers to town meeting−type forums to discuss topics important to general life at the school. Help is available in the Learning Center both during and after school. Many students stay after school to work in the computer labs, on the yearbook, or on the school's online literary magazine; to participate in the Massachusetts Pre−Engineering Program (MassPEP), Latino Club, Boys and Girls Discussion Groups, the Prom Committee, or intramural sports; or to get help from the Learning Center.

Students are grouped into "houses," or learning families, each of which has its own faculty and student support staff. Students typically remain in the same house throughout their four years at the school, so that they are well−known by their teachers and form strong bonds with their classmates. Each teacher within a house also serves as an advisor to a group of about 20 students. Each house has a strong relationship with one or more of Fenway's external collaborators, e.g., the Museum of Science.

Central to Fenway's curriculum is the idea that students and teachers should always be asking questions−of each other, of themselves, and of the issues they study. The faculty tries to develop the habit of asking questions by teaching and using a specific set of questions that reflect five habits of mind:

- Perspective: Whose viewpoint are we hearing, seeing, reading? Are there other ways to interpret this information?
- Evidence: How do we know that this is true? What is the source and is it credible?
- Connections: Where have I seen this before? Is it related to other ideas or things I have studied?
- Relevance: Why does that matter? Who cares about this idea?
- Supposition: What if...? Are there alternatives? Suppose that...

Students take the core subjects of humanities (combination of English and history), math, and science, and they attend regular Advisory meetings. They can also choose among minors such as Spanish, study skills, or the Ventures program (see description below). Students often work in small groups to complete collaborative projects and also to help each other with individual assignments. The close relationship between faculty and students yields a spirited classroom environment, with students participating actively in discussions and special projects.

Advisory meets three hours a week and focuses on students' academic and interpersonal needs. Through Advisory meetings, students and teachers build strong, supportive relationships. The 9th and 10th grade Advisory curriculum includes such topics as health, sexuality, decision making, stress management, violence prevention, civil rights and responsibilities, and community building. The 11th and 12th grade Advisories focus more on issues of higher education, college and career exploration, preparation for graduation, and life beyond Fenway. All students are required to write a substantial reflective essay about their years at Fenway and their future plans, and they must register to vote or develop a substantive argument for non−participation in the electoral process.

Advisory can also be a time for students to work on class portfolios or prepare for exhibitions, Junior Review, or graduation portfolios. Fenway's personalized design puts the point of contact between the home and school squarely on the Advisory relationship and allows teachers to ensure that each student's work and emotional life, both critical to success, are on track. It also guarantees that each student will have at least one advocate who knows him or her, and the family, very well.

Spanish is the sole foreign language offered at Fenway. In keeping with the growing recognition of the importance of world languages, Fenway seeks through its language minor to have students

develop a facility in another language and acquire an understanding of a different culture, including its history, politics, literature, religion, and art. Project−based learning is incorporated as much as possible in Spanish classes, helping students to conduct authentic research in ways and at a pace that work best for them but with high standards for all.

The Ventures program uses the context of entrepreneurship to teach 10th through 12th grade students how to interact effectively with people beyond the school and to help them get what they need for success in college or in a chosen field of work. The program's goals are to help students develop initiative, resourcefulness, communication and problem−solving skills, respect for others, self−discipline, and self−confidence; to understand and be able to use basic business and entrepreneurial concepts (e.g., "bottom line"), methodologies (e.g., market research), and tools (e.g., cold calls and letters); and to learn to network with community agencies and entrepreneurs, building relationships that provide opportunities, resources, and mentoring. The Ventures pathway culminates with the full−time, six−week Senior Internship, a Fenway graduation requirement.

Assessment.

Fenway High School teachers and administrators are strong advocates for assessing student performance in a variety of ways: classroom−based diagnostics, portfolios, exhibitions, standardized tests, work internships, integrated projects, and college acceptances (for seniors). Teachers write in−depth narrative reports on all students twice a year. They also give quarterly grades in between these reports.

At the close of 11th grade, all candidates must have their three prior years of academic experience reviewed by teachers, advisors, and collaborators in order to move into Senior Institute. During this ritual assessment of credentials, known as Junior Review, each student must prove his or her abilities in major subject areas and demonstrate readiness for the challenging senior year by showing good attendance, strong portfolios, excellent use of the habits of mind, and social and intellectual maturity.

Senior Institute is the final stage of study for Fenway students and may last one or two years, depending upon recommendations made at Junior Review. It is Fenway's way of preparing students for the "real world." During Senior Institute, students work with advisors to prepare for the process of graduation by portfolio and exhibition and to design and pursue projects that demonstrate their skills. The five components of Senior Institute are coursework (including college or high school classes); senior portfolios in math, science, and humanities classes; Senior Internship; standardized test requirements; and an Advisory Portfolio which includes higher education and future planning, voter registration, and a reflective essay on the Fenway experience. The majority of Fenway's graduates attend college upon graduation or enter into a career ladder position in one of the school's collaborating institutions.

Design &Implementation

Why literacy?

Literacy is a tool−−a means to communicate, access and construct knowledge, and express ideas. To be literate in one discipline is not necessarily the same as being literate in another. Just as there are different discipline literacies, there are different cultural literacies as well. As teachers, our job is to show students how to build upon the literacies they know and value to access and communicate ideas in any arena, so that no door is closed to them. It is our responsibility to help students sharpen and polish this tool because being literate means access, and it means opportunity.
Robin Hennessy, Literacy Coordinator

The literacy program at Fenway, which reflects the importance of creating a culture of literacy school−wide, consists of three components:

- A year−long Foundations of Literacy course, which all 9th graders take;
- In−service workshops for the faculty focusing on content area reading and writing; and
- The co−teaching and curriculum development of units in core subject areas in which literacy skills are incorporated.

Although the program is well established at this point, it is important to note that it is still a work in progress. The literacy coordinator, the director, and the faculty are always engaged in conversation about how to improve it.

Foundations of Literacy Course. In the fall of 2000, the Foundations of Literacy course, which is taught by Literacy Coordinator Robin Hennessy, was initiated. The class meets three times per week and is conducted as a Readers'/Writers' Workshop. The goal of the course is to support the students' development as independent readers and writers, while at the same time fostering a community of learners. The students learn to read and write for a variety of purposes and are exposed to multiple genres, including fiction, nonfiction, memoir, poetry, and short stories.

In Foundations, students learn to employ a variety of strategies used by proficient readers and writers. To improve reading comprehension, students practice metacognition, the art of thinking about their thinking, so they can monitor their understanding of difficult texts. They respond to texts in a variety of ways, including writing, talking, drawing, and acting. As they study literature in its various forms, students learn to read like writers; they pay attention to the writer's craft and apply their understanding to their own writing. While students learn to approach writing as a process, they asses and refine theirs and others' writing pieces. Grammar, mechanics, and usage are taught as needed to improve writing skills.

The literacy coordinator tests all 9th graders upon their entrance into and exit from 9th grade, using the Scholastic Reading Inventory (SRI), a reading comprehension test published by Scholastic. In addition, she conducts reading inventories for students, whose scores are very low on the SRI, to obtain a clearer understanding of their individual strengths and weaknesses. During the course, she assesses students' progress by reading their notebooks, observing their reading habits, conferencing with them, examining the work they are producing, and using Lauren Leslie and JoAnne Caldwell's Qualitative Reading Inventory (QRI) to understand the history of their lives as readers and writers, what they like to do, and what they like to read.

There are several components to the course: in−class reading time, in−class writing time, genre studies, independent reading and writing times, and research projects. The amount of time spent on each component depends on the time of year.

Each period usually starts with a mini−lesson in which the teacher shares and models different reading and writing strategies, such as "SMART" (Self−Monitoring Approach to Reading and Thinking), having readers use checks and question marks to identify what they do or do not understand as they read. During the mini−lessons, the teacher often models a particular strategy using "think−alouds." In addition, each lesson provides time for the literacy coordinator to conference with individual students, and often for focused work on a particular reading or writing skill in small groups. To see the progress of their work over time, the students maintain a portfolio in which they collect their work. Students regularly review their portfolios and reflect on their individual growth as a reader and writer.

Skills are taught through

- think−alouds, which allow students to understand their processing of text;
- dialectical journals, in which students record responses to a particular piece of the text and then trade their notebooks with each other so that other students can respond to their ideas and writing;
- literature circles, student led discussions of reading in which each participant is given a specific role; and
- a research project.

The research project is used to reinforce skills for reading in different contexts. Students learn how reading nonfiction differs from reading fiction and how to take notes from nonfiction books. The end product is a research project, a mini−version of their senior thesis.

In the third term of the year, the literacy coordinator splits the students in each Foundations course into two groups for instructional purposes. An intern, who has been co−teaching with Hennessy since the start of school in September, works with students who are functioning on a higher reading level, while Hennessy focuses on the lower−skilled readers. In this way, both teachers can tailor instruction to meet the needs of their smaller group of students.

In−service Workshops. During the first year of implementation, the literacy coordinator conducted four or five in−service workshops on particular aspects of literacy. These workshops addressed topics such as metacognition and reading as an active process, reciprocal teaching, and assessing student writing. In addition, she has facilitated meetings to set school−wide literacy goals, including adopting an all−school "drop everything and read" (DEAR) time. In collaboration with the curriculum coordinator from Boston Arts Academy, a separate school that shares the same building, she began this year with a workshop on how to create reading guides and teach pre−, during, and post−reading strategies.

This fall, Fenway instituted Teaching and Learning Groups to maintain the school's focus on instruction. The groups engage in discussions of pedagogical issues, and their members visit each other's classrooms. For example, one teacher shares a problem that he or she is having with portfolios. The entire group brainstorms potential solutions. These groups became Teacher Action Groups in the spring semester, and their findings were shared with the entire school.

Co−teaching. Depending on need, the literacy coordinator co−teaches with different content area teachers in the building during double blocks.

She has worked with a science teacher to assist students in organizing and developing a thesis for their science position paper. In addition, she has taught students how to use a reading strategy, SMART (Self−Monitoring Apprpoach to Reading and Thinking), to help them monitor their understanding of the science text as they are reading it.

Hennessy has also worked with a humanities teacher on a year−long project to integrate literature circles into the curriculum. This involves taking the students to the Boston Museum of Fine Arts and using the text from their literature circles to construct art.

With a math teacher, Hennessy has created a reading guide to assist students in completing word problems. She has also introduced one math class to metacognition strategies, such as showing students how to record their thinking as they solve a math problem.

In addition to co−teaching in different content areas, the literacy coordinator meets regularly with the humanities, math, and science teams during common planning time. At present, she is working cooperatively with each team to develop content−specific writing rubrics to be implemented in the fall.

Keys to Success. From the beginning, three factors have enabled the program to be effective: the school's culture, administrative support, and faculty support. The school's culture provides a foundation upon which literacy initiatives have been fostered. The New England Association of Schools and Colleges, in its accreditation report for Fenway, identified it as a "community that values the ability to speak, read, write, research, and calculate well."

Administrative support has been critical in the development and maintenance of the program. From initiating the focus on literacy in the school to supporting the literacy coordinator's role and ensuring that the schedule provides her with double blocks to co−teach, to plan in−service workshops, and to complete diagnostic assessments, the former director, Larry Myatt, and current acting director, Luz Padua, have helped to foster a culture of literacy. Furthermore, the faculty has welcomed the literacy coordinator into their classrooms and planning meetings. It has been their willingness to "try on" new pedagogical tools that continues to make the program a success.

Results

Since the initiation of the literacy program in the fall of 2000, Fenway students have demonstrated higher levels of academic achievement in English Language Arts. In 2001, pass rates for Fenway High School 10th graders exceeded the state average. This placed Fenway first among urban high schools in the state (excluding the results of the three elite examination schools in Boston, which restrict enrollment to the top quintile of academic achievers in the city) and ahead of many suburban schools. In that year, 87 percent of Fenway 10th graders passed the English Language Arts exam compared to 69 percent of urban high school students statewide. The average pass rate for all Massachusetts schools urban, suburban, and rural was 82 percent in English.

In 2002, the school saw a drop in the number of 10th graders who failed the English Language Arts section of the MCAS and a rise in the number of students deemed proficient.

Year	Advanced	Proficient	Needs Improvement	Failing
1999	0%	12%	31%	57%
2000	0%	5%	34%	60%
2001	5%	32%	50%	12%
2002	4%	46%	39%	9%

Students' end−of−the−year writing portfolios also offer evidence of growth. According to the literacy coordinator, students' progress is obvious when writing samples from the beginning of 9th grade are compared to those from the end of the year. Students continue to add to these portfolios until their junior year, when the portfolios undergo Junior Review by a committee of teachers.

In annual surveys of Boston high schools, Fenway graduates consistently rank at or near the top in college−going and retention rates. In each of the last three years, approximately 80 percent of Fenway graduates were still enrolled in college the year following graduation, far above the 60 percent average college attendance rate for the district's non−examination high schools.

Replication Details

Larry Myatt, the former director of Fenway High School in Boston, offers the following tip to schools seeking to implement an effective literacy program:

- If a school wants to have a culture of literacy, the administrators and faculty need to work together to determine what it might look like in practice. In developing this vision, it is important that the adults model what they hope students will be doing in classrooms, e.g., writing their vision of a culture of literacy, discussing their visions together, rewriting their visions.

Robin Hennessy, literacy coordinator at Fenway High School, offers these additional tips:

- Teachers must model the desired literate behavior for their students. For example, during DEAR ("Drop Everything and Read") time, teachers should not be sitting at their desks grading papers but should sit with the students and engage in their own reading.
- Teachers should also always model for students how to read a particular text within a particular content area. Reading in each content area requires a specific skill set. Teachers need to make this skill set explicit through modeling.
- There needs to be a wide range of books available to students. I encourage schools to ask students to create a list of books they would like to see in their classroom libraries.
- Independent reading time must be built into the schedule.
- For teachers of language arts, I recommend any of the Readers'/Writers' Workshop texts: *In the Middle*, Nancy Atwell; *Time for Meaning*, Randy Bomer; *Seeking Diversity*, Linda Reif; *Reading and Writing Together*, Nancy Steineke; and anything by Lucy McCormick Calkins.
- For teachers in all content areas, I recommend *Strategic Learning in the Content Areas*, available from the Wisconsin Department of Education. This is a good text for an entire teaching staff.

Costs and Funding

The literacy program at Fenway High School requires one full time equivalent (FTE) position for a literacy coordinator and some funding for extra books and resources for the Foundations of Literacy course.

Contact Information

The Fenway Institute

Rooted in Fenway High School, one of the most successful inner−city public high schools in the country, the Fenway Institute for Urban School Renewal helps emergent small high schools acquire the deep operational expertise they need to be effective. Transferring the organizational and instructional knowledge of Fenway High School through expert coaching and hands−on practice, the Institute advances the development of exemplary schools for urban youth.

For more information on Fenway Institute services, please contact
The Fenway Institute
174 Ipswich Street, Boston, MA 02215
(617) 262−7929

Fenway High School Literacy Coordinator

Fenway's literacy coordinator, Robin M. Hennessy, can be reached by phone at (617)635−9911 or by email at rhennessy@boston.k12.ma.us.

Rating Criteria

More than an interesting concept or collection of promising practices, Fenway High School is a proven model for raising the achievement of low−income urban youth. Demonstrating outstanding student achievement on both standardized tests and alternative performance measures, Fenway High School shows that urban schools can meet the accountability measures required of publicly funded schools without sacrificing a student−centered approach to learning.

On state graduation exams, Fenway has consistently ranked among the top performing urban high schools in the state. On the 2001 exam, 88% of Fenway 10th graders passed the English Language Arts exam and 79% passed the math exam, compared to 69% of urban high school students statewide passing English and 60% passing math. Fenway repeated this strong performance on the 2002 exam. Ninety−one percent (91%) of Fenway 10th graders passed the English Language Arts exam and 69% passed the math exam. In contrast, the average pass rate for Boston high School students was 64% in English and 48% in math.

Fenway High School's success in raising the achievement of students of color is also reflected in its test score results. Statewide, 63% of Latino and African American 10th graders passed the 2002 English exam and 43% passed the math exam. In contrast, 90% of Fenway's Latino and African American students passed the English exam and 65% passed the math exam.

To Fenway High School, the most meaningful measure of achievement is the college and career success of its students. In annual surveys of Boston high schools, Fenway graduates consistently rank at or near the top in college−going and retention rates. In each of the last three years, approximately 80% of Fenway graduates were still enrolled in college the year following graduation, above the 60% average college attendance rate for the district's non−examination high schools.

Finally, Fenway is the first pilot school in the Boston district to be accredited by the New England Association of Schools and Colleges (NEASC). In its accreditation report (2002), Fenway was described as a "model learning community… serving as a beacon for what public education can and must do to produce an educated citizenry."

Fenway has been able to achieve outstanding results with a full range of students under conditions that are within reach of other public schools and systems; it need not be the exception to the rule.

This story exemplifies the following practices:
Creating Responsive Classrooms
Roles of the Teacher
Reading and Writing
An Emphasis on Thinking
Creating a Student−Centered Classroom
Supporting the English classroom through literacy development
Supporting the math classroom through literacy development
Meets the goals for adolescents in that particular community and its various constituents.
Articulates, communicates, and actualizes a vision of literacy as a priority.
Utilizes best practices in the area of systemic educational reform.
Is defined in a way that connects to the larger educational program.
Involves ongoing support for teacher professional development.

Muskegon High School &the Strategic Instruction Model

Muskegon High School &the Strategic Instruction Model

Muskegon, MI

School Type: Public

School Setting: Urban

Level: High

School Design: Traditional

Content Presented By:

University of Kansas Center for Research on Learning

As Muskegon High School begins another school year, Principal Arlyn Zack strides through the hallways, peeking into nearly every classroom to see how his educational community fares. What he finds—universally—is teachers teaching and students learning. Everyone is engaged, committed, and excited about the possibilities the year holds.

Thanks to the dedicated efforts of teachers and administrators who have worked since the mid−1990s to improve literacy among the school's student population, reading comprehension rates have improved, writing skills are reinforced across the curriculum, and faculty from diverse departments frequently can be found collaborating on literacy issues.

Muskegon's success story began in the mid−1990s, when assessment tests indicated that half of the 400 ninth−graders at the school read below grade level. One−third of the 400 students read significantly below grade level, defined as two or more years below grade level.

At the same time, students with learning disabilities at the school were showing tremendous gains in reading comprehension, thanks to explicit instruction in Strategic Instruction Model (SIM) reading strategies developed and validated at the University of Kansas Center for Research on Learning (KU−CRL).

Impressed, the School Improvement Team Reading Committee designed a SIM−based intervention as a way of reaching low−achieving poor readers. Students who had been identified as reading significantly below grade level were designated to receive 50 minutes of intensive instruction every day in the Word Identification Strategy, a strategy used to successfully decode and identify unknown words in reading material.

Students were taught in small groups (one teacher to four or five students). They were pulled out of their English classes for this instruction, which lasted three to eight weeks, depending on how many sessions each student required to reach mastery. After a student mastered the strategy, he or she returned to the English class.

The committee has documented substantial success among students who complete the SIM intervention. Reading comprehension gains of three or four grade levels are common.

From that narrowly focused beginning, Muskegon High School has implemented a comprehensive literacy program designed to reach all students. The program is based in part on KU−CRL's Content Literacy Continuum (CLC), a framework that describes five levels of literacy support that should be in place in every high school. The CLC emphasizes connections among the processes of reading, writing, listening, speaking, viewing, and presenting.

"The continuum emphasizes how important it is to infuse literacy instruction throughout the high school curriculum," said Mike Hock, KU−CRL's associate director of administration. "It emphasizes that a host of high school teachers with different types of expertise will be required to meet the needs of these adolescents who have not developed the literacy skills they need to learn and succeed."

Muskegon teachers have carefully constructed their literacy program to meet pressing needs, including a rising number of English Language Learners and growing disparity in students' academic abilities.

They spent a year developing a one−semester reading comprehension course, Strategic Reading. The course begins with full assessment during the first few weeks, then offers instruction in SIM's Vocabulary LINCing Strategy, Visual Imagery Strategy, Self−Questioning Strategy, and Paraphrasing Strategy. Students read high−interest material and two novels in the class. Teachers have revised and tweaked the class at the end of each school year, assessing what went well and what needed to be changed.

To address concerns regarding students' writing skills and lack of progress, every English teacher participated in professional development activities related to SIM's writing strategies: the Sentence Writing Strategy, Paragraph Writing Strategy, and Error Monitoring Strategy. The writing strategies were written into the high school's curriculum, and the school board adopted the plan. Now, when compared with schools of similar size and demographics, Muskegon High School consistently scores at or near the top on the state's writing assessment given in the 11th grade.

Sue Woodruff, a retired Muskegon teacher and certified instructor for SIM interventions who continues to work closely with the school, said departments across the school have begun to fully embrace many aspects of SIM interventions and the Content Literacy Continuum. "Shared strategies" are being woven throughout the school within general education classes:

- Content teachers requested a writing strategies workshop to enable them to reinforce interventions students have learned in English classrooms and to develop consistent expectations for student writing throughout the school.
- The Social Studies Department requires the use of the Paragraph Writing Strategy in its classrooms.
- Science teachers support and encourage the use of reading comprehension strategies to help students understand their textbooks.

"We are integrating more and more parts of the CLC into what we do as everyday practices here," Zack said. "No question in my mind that even though we have a long way to go, we'll accomplish it because our teachers are seeing success in kids who have not previously been successful. Our staff is extremely excited about the improvement that they have seen in student achievement and participation."

Both formal studies and informal observations bear out the benefits of Muskegon's initiatives, providing fuel for the enthusiasm that is sweeping through the school. (See the Results section for more details.)

"Teachers share ideas about instruction between departments and within departments," Zack said. "Meetings are focusing on what can be done to improve students' achievement. SIM ideas are the best ideas to come out of it. The teachers have embraced them, and we see this translated into what is happening in the classroom!"

Muskegon High School continues to nurture and refine its literacy initiative as teachers and administrators study what works in their SIM offerings. The Strategic Reading class has been so successful that the school now offers three levels of Strategic Reading & Writing through its Special Education Department. Students have multiple opportunities to return to general education English classes once they have mastered the strategies they need to be successful. Another class is being developed to meet the needs of students who require more intensive reading instruction.

In addition, all English teachers are learning a second level of the reading comprehension strategies and will be incorporating them into their regular literature and novel reading instruction.

The array of services and supports offered to students at Muskegon High School and the corresponding gains in students' performance have combined to create powerful, positive changes for both students and teachers.

"Collaborating with KU−CRL has meant more to the students of Muskegon High School than anything else we have ever done," Zack said. "Finally, we are meeting the needs of all of our students."

Demographics

Muskegon High School is a traditional public school in a small city on the eastern shore of Lake Michigan. It serves roughly 1400 students and faces many of the same challenges that schools across the country face today.

Student population statistics:

African American, not Hispanic	**64%**
American Indian or Alaska Native	**<1%**
Asian	**<1%**
White not Hispanic	**24%**
Students receiving free or reduced−priced lunch	**71%**
English language learners	**8%**

Background

The Strategic Instruction Model (SIM), developed and validated at the University of Kansas Center for Research on Learning (KU−CRL), consists of three major domains of research−based interventions to improve the literacy performance of at−risk adolescents; these interventions consist of (1) routines used by teachers that focus on helping them think about, adapt, and present critical content information in a "learner−friendly" fashion; (2) learning strategies taught to students to help them acquire, remember, and express subject matter content in ways that enhance their performance and enable them to successfully respond to complex curricular demands; and (3) support tools that facilitate the operation of effective classroom environments (e.g., structures for student and teacher collaboration), effective out−of−school programs (e.g., assignment completion strategies, tutorial programs), and effective student performance (e.g., data collection, goal setting, self−advocacy

strategies).

In the mid−1990s, assessment tests indicated that half of the 400 ninth−graders at Muskegon High School in Michigan read below grade level. One−third of the 400 students read significantly below grade level, defined as two or more years below grade level.

The School Improvement Team Reading Committee became interested in SIM because of tremendous gains noted in a group of students with learning disabilities who had been instructed in some of SIM's reading strategies. The committee devised a SIM intervention as a way of reaching low−achieving poor readers within their English classes.

By the end of the 1990s, the committee recognized a need for more intensive interventions. Incoming ninth−grade students still were struggling with comprehension. In addition, the school population was becoming more diverse, with increasing numbers of English Language Learners and greater disparity among academic abilities. English teachers were becoming increasingly concerned about students' writing skills and lack of progress.

All of these conditions led to the implementation of several SIM components focused on improving students' ability to read and write.

Description of SIM interventions used at Muskegon High School:

The Word Identification Strategy provides challenged readers a functional and efficient strategy to successfully decode and identify unknown words in their reading materials. The strategy is based on the premise that most words in the English language can be pronounced by identifying prefixes, suffixes, and stems, and by following three short syllabication rules. In a research study, students made an average of 20 errors in a passage of 400 words before learning this strategy. After learning the Word Identification Strategy, students reduced their errors to an average of three per 400 words. Reading comprehension increased from 40 percent on the pretest to 70 percent on grade−level passages.

The Visual Imagery Strategy is a reading comprehension strategy for creating mental movies of narrative passages. Students visualize the scenery, characters, and action and describe the scenes to themselves. Research results showed that students who demonstrated a 35 percent comprehension and recall rate before learning the strategy improved to an 86 percent comprehension and recall rate after learning the strategy.

The Self−Questioning Strategy helps students create their own motivation for reading. Students create questions in their minds, predict the answers to those questions, search for the answers to those questions as they read, and paraphrase the answers to themselves. Research results have shown average gains of 40 percentage points in reading comprehension on grade−level materials after students have learned the strategy.

The Paraphrasing Strategy is designed to help students focus on the most important information in a passage. Students read short passages of materials, identify the main idea and details, and rephrase the content in their own words. Using grade−level materials, students performed at a 48 percent comprehension rate before learning the strategy. During the posttest, these students comprehended 84 percent of the material

The Sentence Writing Strategy program comprises two parts: Fundamentals in the Sentence Writing Strategy and Proficiency in the Sentence Writing Strategy. Together, these components constitute a

strategy for recognizing and writing 14 sentence patterns with four types of sentences: simple, compound, complex, and compound−complex. The program consists of two products: an Instructor's Manual and a Student Lessons Manual. The Instructor's Manual features a systematic sequence of instructional procedures; the Student Lessons Manual features exercises that correspond to instructional procedures. Research results showed that students wrote an average of 65 percent complete sentences on the pretest and an average of 88 percent complete sentences on the posttest.

The Paragraph Writing Strategy is a strategy for organizing ideas related to a topic, planning the point of view and verb tense to be used in the paragraph, planning the sequence in which ideas will be expressed, and writing a variety of topic, detail, and clincher sentences. The program consists of two products: an Instructor's Manual and a Student Lessons Manual. The Instructor's Manual features a systematic sequence of instructional procedures; the Student Lessons Manual features exercises that correspond to the instructional procedures. Research results showed that the students earned an average of 40 percent of the points available when writing a paragraph on the pretest and an average of 71 percent of the points available when writing a paragraph on the posttest.

The Error Monitoring Strategy is a strategy students can use to independently detect and correct errors in their written work, thereby increasing the overall quality of their final product. Instruction stresses the importance of proofreading written work for content and mechanical errors and eliminating those errors before work is submitted. This strategy also includes the development of personal strategies to avoid future errors. Research results demonstrated that students who mastered this strategy dramatically increased their ability to find and correct errors in their written products. Before instruction, they were making one error in every four words. After instruction, they made only one error in every 20 words.

The LINCS Vocabulary Strategy helps students learn the meaning of new vocabulary words using powerful memory−enhancement techniques. Strategy steps cue students to focus on critical elements of the concept and to use visual imagery, associations with prior knowledge, and key−word mnemonic devices to create a study card. Steps then cue students to study the card to enhance comprehension and recall of the concept. Research results showed that in a social studies class in which this strategy was taught to students, students with learning disabilities answered a mean of 53 percent of questions correctly in the pretest and 77 percent of questions correctly after learning the strategy. In a control class in which students did not learn the strategy, the mean percentage of correct answers decreased from pretest to posttest.

The Content Literacy Continuum is a framework that describes five levels of literacy support that should be in place in every high school. It emphasizes the connections among the literacy processes of reading, writing, listening, speaking, viewing, and presenting.

- *Level 1: Ensuring mastery of critical content in all subject area classes.*
  Subject−matter teachers use tools such as graphic organizers and other instructional tactics to promote understanding and mastery of content for all students.
- *Level 2: Weaving learning strategies within rigorous general education classes.*
  Teachers incorporate selected learning strategies into their content−based instruction. An example of this is the Paraphrasing Strategy, a set of specific steps to follow when paraphrasing reading materials.
- *Level 3: Supporting mastery of learning strategies for targeted students.*
  Students with literacy problems receive specialized, intensive instruction from someone other than the subject−matter teacher (such as a special education teacher, study skills teacher, or resource room teacher)
- *Level 4: Developing intensive instructional options for students who lack foundational skills.*

Students learn content literacy skills through specialized, direct, and intensive instruction from reading specialists and special education teachers.

- *Level 5: Developing intensive clinical options for language interventions.*
  Students with underlying language disorders receive individual or small−group language therapy from speech pathologists in collaboration with other support personnel teaching literacy skills.

Design &Implementation

Because of school−wide concern regarding students' reading comprehension and writing skills, Muskegon High School, a large public school in Michigan, implemented several components of the Strategic Instruction Model, a set of reading strategies developed at the University of Kansas Center for Research on Learning:

1. All ninth−graders were evaluated for word identification skills. Those scoring two years or more below grade level were targeted for intensive instruction using SIM's Word Identification Strategy.
2. The School Improvement Team's Reading Committee developed a Strategic Reading class, which includes instruction in three SIM reading comprehension strategies.
3. SIM's writing strategies were written into the high school's curriculum, and the school board adopted the plan.

The following sections go into more detail regarding each of these initiatives.

Word Identification Strategy

Beginning in the mid−1990s, all ninth−grade students in Muskegon High School were pretested using the Word Identification Subtest (Form A) of the Slosson Diagnostic Screening Test for Reading. Students who earned scores two or more years below grade level were designated to receive intensive reading instruction.

These students received 50 minutes of intensive instruction every day on the Word Identification Strategy. They were pulled−out of their English classes and taught in small groups (one teacher to four or five students). The instruction lasted three to eight weeks, depending on how many sessions each student required to reach mastery. After a student had mastered the strategy, he or she returned to instruction in the English class.

All participating students took a posttest, the Word Identification Subtest on the Slosson Diagnostic Screening Test for Reading (Form B). (See the Results section for average pretest and posttest scores.)

Strategic Reading Class

In the fall of 1999, the Reading Committee of the School Improvement Team recognized that a number of students needed more than just the decoding strategy. Teachers spent a year developing a one−semester reading comprehension course. The curriculum of the Strategic Reading class included full assessment during the first few weeks then instruction in several SIM interventions: the LINCS Vocabulary Strategy, Visual Imagery Strategy, Self−Questioning Strategy, and Paraphrasing Strategy. Students read high−interest material and two novels in the class. (See the Results section for average pretest and posttest scores of students who participated in the Strategic Reading class.)

Teachers have revised and tweaked the class at the end of each school year, assessing what went well and what needed changing.

Now, Muskegon High School's Special Education Department offers three levels of Strategic Reading and Writing. When teachers believe students have mastered the strategies they need to be successful, students may move to a general education English class.

In addition, use of the reading comprehension strategies has spread into general education content classrooms. The Science Department, for example, is implementing these strategies to help students understand their textbooks. The expectation is that all science teachers will encourage use of the Paraphrasing Strategy to help students identify and understand the main ideas and critical details in their texts.

Writing Strategies

Sparked by concern within the English Department about students' writing skills, every English teacher at Muskegon High School participated in professional development activities related to SIM's writing strategies: the Sentence Writing Strategy, Paragraph Writing Strategy, and Error Monitoring Strategy. The school even wrote the strategies into its curriculum, which the school board adopted.

Departments across the school have begun to embrace these interventions. General Education content teachers requested a writing strategies workshop to enable them to reinforce interventions students have learned in English classrooms and to develop consistent expectations for student writing throughout the school. As a result, content teachers from many subject areas support the Sentence Writing and Paragraph Writing strategies. The Social Studies Department, for example, requires the use of the Paragraph Writing Strategy in its classrooms.

Results

Muskegon High School, a large urban public school in Michigan, has seen success—in both formal studies and informal observations—for each Strategic Instruction Model initiative implemented. The following sections provide more details about each initiative and any formal studies conducted to assess its effectiveness.

Word Identification Strategy

The Muskegon High School Improvement Team documented substantial success among students who completed this SIM intervention. Participating students were pretested using the Word Identification Subtest (Form A) of the Slosson Diagnostic Screening Test for Reading and posttested using Form B of the same test. The chart below shows pretest and posttest scores for the 1995−1996 and 1996−1997 school years.

Pretest	5.7
Posttest	9.6
Change	3.9

Pretest	6.7
Posttest	9.8
Change	3.1

In addition, the school conducted a formal study of the decoding ability of students who received instruction in the Word Identification Strategy compared to similar students who did not receive this instruction. The following chart shows students' average grade−level scores on the Slosson pretest and the posttest. Male African−Americans, male Hispanics, and students with learning disabilities at Muskegon High School made mean gains of about three grade levels with regard to decoding while they were in the program. Similar students in a comparison high school made either small gains or no gains on the average.

Experimental Pretest	5
Experimental Posttest	9
Control Pretest	6
Control Posttest	6

Experimental Pretest	6
Experimental Posttest	9
Control Pretest	7
Control Posttest	6

Experimental Pretest	5
Experimental Posttest	9

Although no formal studies of the Word Identification Strategy intervention have been conducted at Muskegon since 1998−99, data have been collected and analyzed every year, and the results remain quite consistent.

Strategic Reading Class

During the spring semester of the 2002−2003 school year, Muskegon High School conducted a formal study to assess the effectiveness of the Strategic Reading class. The chart below shows the average extended scaled scores on the Gates−McGintie Reading Test for both Muskegon High School students who took the class and those at a comparison school who did not.

Muskegon High School Pretest	5.9
Muskegon High School Posttest	6.8
Comparison School Pretest	6.3
Comparison School Posttest	5.8

The chart below reflects average scores on the Gates−McGinitie Reading Test for students in the Strategic Reading class during four consecutive semesters. Strategic Reading is a semester−long class, so each set of data represents a different group of students.

Pretest:	6.0
Posttest:	7.5

Pretest:	5.9
Posttest:	7.3

Pretest:	5.0

Posttest: 6.3

Pretest: 5.9
Posttest: 6.8

Writing Strategies

No formal studies have been conducted to determine the effectiveness of implementing SIM's writing strategies at Muskegon High School. However, when compared with schools of similar size and demographics, Muskegon High School has consistently scored at or near the top on the state's writing assessment given in the 11th grade.

In addition, the willingness of teachers throughout the school to adopt these strategies is an indication of the value teachers place on strategy use.

Replication Details

Michigan's Muskegon High School has implemented a highly successful literacy program based on the Strategic Instruction Model (SIM) developed at the University of Kansas Center for Research on Learning. SIM's creators offer the following guidelines for successful implementation of the model:

Low achieving students require a comprehensive, well−conceptualized array of services that are focused on developing independent learners and performers capable of meeting high expectations both in the general education curriculum and in life.

The Strategic Instruction Model's Student Success Formula (Student Success = Validated Interventions + Service−Delivery Systems + Professional Development Programs) requires a multifaceted approach by a team of well−trained and coordinated professionals. Students must receive daily instruction in the skills and strategies they need to succeed. Teachers must have clear responsibilities in the process.

Students must have access to instruction in multiple strategies, across multiple settings and academic areas, from multiple teachers, across multiple schools and grades, and in multiple instructional areas.

Foundational policy−level supports include planning times that are conducive to teacher collaboration; sufficient budgetary support, supplies, and personnel; and continuing professional−development opportunities focused on helping teachers use research−based practices that have been shown to affect the performance of students. Professional development must be viewed as a continuous process in which everyone in the school engages and must involve at least four phases:

1. initiation (basic information)
2. learning and implementation (in−depth explanations, models, practice, and feedback)
3. follow−up support (coaching, troubleshooting, support−team meetings, and implementation refinement)
4. maintenance (routinized use of the innovation within the system)

Underlying SIM's Student Success Formula is a foundation of strong and active administrative support and coordination. School administrators must be active instructional leaders and demonstrate their commitment by visiting classrooms, attending all professional development activities side−by−side with teachers, taking part in support−team meetings, insisting that interventions be

implemented, and ensuring that each staff member is accountable for student outcomes.

Implementing SIM Interventions

Most SIM materials are available only for educators who attend professional development workshops conducted by a Certified SIM Professional Developer.

Certified instructors typically teach one intervention during a three−hour session and provide follow−up support. After the session, teachers return to the classroom and include the newly learned intervention in their instruction. During the course of one academic year, a teacher can effectively master three or four interventions.

Certified SIM Professional Developers offer a variety of instructional and implementation packages that can be individualized to meet specific school needs. Overall costs depend on the professional developer's fee, manuals used (average price about $15), and district expenses needed to hold workshops.

More information about professional development opportunities is available from the Center for Research on Learning: 785.864.4780, www.kucrl.org.

Costs and Funding

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Rating Criteria

For more than 25 years, researchers at the University of Kansas Center for Research on Learning have worked to develop an integrated model to address many of the needs of diverse learners. Out of this effort, the Strategic Instruction Model (SIM) has evolved.

SIM consists of three major domains of research−based interventions to improve the literacy performance of at−risk adolescents; these interventions consist of (1) routines used by teachers that focus on helping them think about, adapt, and present critical content information in a "learner−friendly" fashion; (2) learning strategies taught to students to help them acquire, remember, and express subject matter content in ways that enhance their performance and enable them to successfully respond to complex curricular demands; and (3) support tools that facilitate the operation of effective classroom environments (e.g., structures for student and teacher collaboration), effective

out−of−school programs (e.g., assignment completion strategies, tutorial programs), and effective student performance (e.g., data collection, goal setting, self−advocacy strategies).

SIM is based on research from a variety of fields and theoretical perspectives; all components of the model have been evaluated in light of rigorous standards:

1. An instructional procedure must be palatable for teachers. If it isn't, teachers won't adopt it for use in their classrooms.
2. An instructional procedure must have value and be perceived to have value by high−achieving and average−achieving students.
3. A procedure must be sufficiently powerful to have an effect on low−achieving students.
4. A procedure must result in statistically significant gains for students.
5. A procedure must result in socially significant gains for students. In other words, if a procedure results in an increase in a student's performance from 20 percent to 40 percent, although the result might be statistically significant, it is not socially significant because the student is still failing.
6. The degree to which students will maintain a skill or strategy they have been taught and generalize it for use in other settings is important in determining whether the instructional procedure is successful and has merit.

The key to making strategic instruction a reality is to realize that it takes time—months or years even—and a strong administrative and instructional commitment.

This story exemplifies the following practices:
Roles of the Teacher
Reading and Writing
Meets the goals for adolescents in that particular community and its various constituents.
Has a clear process for program review and evaluation.
Articulates, communicates, and actualizes a vision of literacy as a priority.
Is defined in a way that connects to the larger educational program.
Involves ongoing support for teacher professional development.

Partnership Creates Path for Students' Future: University Park Campus School

University Park Campus School

Worcester, MA

School Type: Public

School Setting: Urban

Level: 7−12

School Design: Small School

Content Presented By:

Center for Resource Management (CRM)

The Education Alliance at Brown University

Jobs for the Future

University Park Campus School

Demographics

The University Park Campus School (UPCS) is located in Main South, the most economically disadvantaged and crime−ridden area of Worcester, Mass., a city of 173,000. UPCS students are 8.3% African American, 17.5% Asian, 33.5% Hispanic, and 40.8% White; 72% qualify for free/reduced lunch; and 5.3% have special needs. In the class of 2004, 73% of the students do not speak English at home; in the class of 2003, 65%. The attendance rate for students is 97%.

Background

High school graduation, much less college, were unlikely options for students from this economically disadvantaged area until 1997 when Clark University partnered with the Worcester school district to develop a rigorous neighborhood school, University Park Campus School (UPCS). The city provided the school building and agreed to pay for building maintenance, salaries, and supplies. The university offered $390,000 from a federal grant, Clark faculty and tutors, and access to Clark classes and facilities. Several Clark faculty members host on−site seminars for UPCS students, while other students attend college−level courses on the campus. Clark graduate students who are already certified teachers spend their master's year teaching at UPCS. Undergraduate work−study students and volunteers staff the homework center.

The admissions requirement was that students—who were chosen by lottery—live in the neighborhood and commit to meeting the following expectations:

- They would put in a longer school day.
- Coursework and homework would demand more time and be difficult.
- Absence would not be tolerated.
- Failure was not an option.

A free college education was the reward. If students had lived in the Clark neighborhood for the last five years of school and met Clark's entrance requirements, they would be able to attend Clark University tuition−free. This offer is part of the two−year old University Park Partnership, a redevelopment collaboration funded largely by a grant from the U.S. Department of Housing and Urban Development. It is open not just to UPCS graduates but also to others who live in the designated University Park neighborhood.

The 19 boys and 16 girls in the first class of the University Park Campus School (UPCS) came from 11 elementary feeder schools. In 1997, 44% of the first class of seventh graders at UPCS read at or below third−grade level and 56% read at or below a fourth−grade level. Year after year, almost all of the seventh−grade students who have entered UPCS have read far below grade level. A literacy initiative has been a central focus of the school since its inception. Now, every student that has come through the program at UPCS has graduated and headed to college.

Design &Implementation

School Program

Rigor and high standards set the tone at University Park Campus School (UPCS) in Worcester, Mass. Every student pursues a challenging academic program consisting of honors−level classes and a traditional transcript: algebra, biology, physics, calculus, elective AP classes, Spanish, art, music, English, history, and geometry. Students can enroll in classes at Clark University during their junior and senior years; these college−level classes are taken on top of their expected high school load. Students can attend special seminars at Clark in many areas, such as the arts, technology, world languages, music, theatre, video production, and photography.

Personalization is considered key to student success. Instruction is individualized to connect to each student's particular level of development, and there is no tracking. Making connections is a core element in the daily life of the school: connecting prior knowledge to new in−depth learning, instruction to assessment, process to content, the classroom to personal meaning, and connecting to one another affectively as well as cognitively. Many of the teachers regularly eat breakfast or lunch with students. Teachers communicate regularly with parents and families. Students study in a building that is small, nurturing, intimate, and comfortable, but one that does not have a gym, cafeteria, or library. For various needs, UPCS students and teachers use Clark University facilities throughout the day.

Literacy Initiative

All UPCS teachers use a set of common literacy strategies, as appropriate, in their content−area classes, including teacher read−alouds, literature circles, debates, presentations and exhibitions, and incorporation of the arts for revisiting text.

School−wide instructional strategies support the development of literacy skills and include the following:

- Literacy−rich student work exhibited throughout the school
- Block scheduling
- Reading and writing across the curricula
- A writing process model across classrooms, grades 7 − 12
- Portfolios in all subject areas
- Self−paced reading and writing workshops that allow teachers to individualize instruction

- Use of the workshop approach throughout content−area classes
- Common elements of instruction that include: sustained silent reading, quarterly as well as cumulative portfolios, presentations and exhibitions, the use of debate, and dialogue journals.

All incoming seventh−grade students attend a month−long August Academy that is focused on literacy development. Daily reading, writing, and discussion allow teachers to diagnose students' literacy habits and skills and to develop instructional plans to meet student needs. The August Academy gives seventh graders a month−long head start to ease their transition to the middle school.

In addition, the school has an Early Literacy Intervention Plan for students who perform below the third−grade level in reading. Early on, these students receive assistance from UPCS teachers who work closely with an elementary reading specialist. Significant support continues throughout middle school.

Before− and after−school Homework Centers provide daily support in reinforcing skills. Clark University Masters and work−study students provide tutoring in the homework centers and one−on−one. Completion of homework is the norm, not the exception. Up to 80% of students take advantage of the before− or after−school academic help sessions offered by teachers.

A literacy teacher/coordinator has provided UPCS teachers with workshops on effective reading and writing instruction, co−taught with content−area teachers, and worked with math and science teachers to identify which literacy standards and indicators would be incorporated and focused upon in which courses. These activities enabled the teachers to align a coherent approach and commitment to literacy support and development.

The collaboration with Clark University has allowed UPCS to further develop the literacy initiative. UPCS teachers from all content areas co−teach with university faculty during the summer. These four−credit courses are provided free to Worcester Public School teachers. UPCS serves as a lab school for the Clark University's education department, and UPCS teachers and Clark professors teach together or teach one another's classes.

UPCS teachers host rounds based on the medical model in order to provide the opportunity to share best practices with their colleagues and with Clark master's students. The process begins with a pre−round, in which the person hosting the round explains the lesson to follow, as well as learning objectives and rationale. Teachers and students then observe the presentation of the lesson. A post−round follows, during which colleagues offer feedback and discuss teaching strategies. Teachers use common planning time on Wednesday afternoons to review student work with each other and reflect on teaching and learning.

Results

On statewide testing, University Park Campus School (UPCS) outscored students in the city of Worcester and many of the most affluent towns in the state of Massachusetts. No student at UPCS has ever failed the English Language Arts section of the Massachusetts Comprehensive Assessment System (MCAS).

It is rare for a student to receive all A's at UPCS, because the course load is difficult. Often, students earn higher grades in their courses at Clark University than they do in their classes at UPCS.

Fifteen of the 31students in UPCS's first graduating class applied to Clark University and were accepted. Seven chose to attend, and others were accepted with full scholarships elsewhere.

Class of 2003

- All students were accepted to colleges and universities, including Boston College, Brown University, Clark University, Dartmouth University, Georgetown University, and College of the Holy Cross.
- All students passed the MCAS on the first attempt.
- UPCS ranked13th of 332 schools in the state in math on the MCAS (40% Advanced; 47% Proficient; 13% Needs Improvement).
- UPCS ranked 34th of 332 schools in the state in English Language Arts on the MCAS (24% Advanced; 41% Proficient; 34% Needs Improvement).

Class of 2004

- In this class 73% of the students do not speak English at home.
- All of these students passed the MCAS on the first attempt.
- UPCS ranked 8th of 341 schools in the state in math on the MCAS.
- UPCS ranked 11th of 341 schools in English Language Arts on the MCAS.

Replication Details

University Park Campus School (UPCS) offers the following advice for others interested in creating a similar literacy program:

- Literacy and core academic skills must be the focus in grades 7 and 8.
- One specific method does not work with every child. Teachers must possess knowledge of a variety of strategies in order to successfully address student deficiencies.
- Use looping to benchmark progress. This enables teachers to monitor students' progress over time and students to develop more sustained relationships with teachers.

Another key to success at UPCS has been the use of data to inform practice:

Data from both classroom and statewide assessments are regularly used to inform classroom practice. All teachers at the high school level require the completion of quarterly portfolios, incorporating reading, writing, speaking (presenting, exhibiting), technology−driven presentations, and listening. The portfolios are evaluated through a rubric collaboratively developed with students. UPCS has also developed school−wide tools based on actual MCAS rubric that teachers utilize in all subject areas. Teachers use MCAS data to further diagnose program strengths and weaknesses and to effectively address individual student needs.

Early in the development of the program, extended school days contributed to success:

Extended school days allowed for more flexible use of time, more time for learning, and more connection to Clark University, the neighborhood, and special programs. The longer school day was cut in 2002 due to budget constraints. However, a number of structures continue to supplement the regular school day and extend academic learning time. Middle school classes have regularly scheduled, 2.5−hour, integrated thematic learning blocks. High school classes are taught in a combination of 60− and 90−minute blocks, allowing for literacy−rich instruction to take place. Looping occurs in the middle school to provide student support and continuity of instruction. Students enroll in classes at Clark in their junior and senior years, which are often scheduled beyond the boundaries of the traditional school day. These are in addition to their UPCS classes. Up to 80% of the students participate in optional before− and after−school programs that keep the school open from

7:30 a.m. to 6 p.m.

Costs and Funding

Clark University partnered with the Worcester, Mass. Public School district to develop a rigorous neighborhood school encompassing grades 7−12, and the University Park Campus School (UPCS) was established in 1997. The university offered $390,000 from a federal grant, Clark faculty and tutors, and access to Clark classes and facilities. The city provided the school building and agreed to pay for building maintenance, salaries, and supplies. Worcester's expenditure per pupil is $5,561.

The August Academy, funded by the Balfour Foundation, adds a month of literacy instruction to the academic year of all seventh graders.

Summer and vacation programs funded by the Nellie Mae Foundation draw scores of UPCS students and other youth from the neighborhood.

Contact Information

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Rating Criteria

The primary criterion for the selection of University Park Campus School as a success story was its capacity for meeting Massachusetts state standards, as measured by the Massachusetts Comprehensive Assessment System (MCAS). Factors constituting this capacity include research−based effective practices for high schools and adolescent literacy.

This story exemplifies the following practices:
Making Connections to Students' Lives
Creating a Student−Centered Classroom
Meets the goals for adolescents in that particular community and its various constituents.
Articulates, communicates, and actualizes a vision of literacy as a priority.
Utilizes best practices in the area of systemic educational reform.
Is defined in a way that connects to the larger educational program.
Involves ongoing support for teacher professional development.

English Language Learners Share Their Stories, The ArtsLiteracy Project at Central Falls High School

Len Newman and Richard Kinslow's English Language Learner Class at Central Falls High School

Central Falls, RI

School Type: Public

School Setting: Urban

Level: High

School Design: Traditional

Content Presented By:

The Education Alliance at Brown University

ArtsLiteracy Project

The stage is set with 20 English language learners, their teachers Len Newman and Richard Kinslow, their ArtsLiteracy Project mentor John Holdridge, and a visiting performance artist Erminio Pinque. Working together over the next three months, they will develop a theatrical performance based on various texts and on students' personal stories. Students will write about their lives, their dreams, and their hopes for the future. On performance day, the students will share their stories and demonstrate their skills to the whole student body at Central Falls High School in Central Falls, Rhode Island.

By participating in the ArtsLiteracy Project (ArtsLit), these students and their teachers have learned new strategies for literacy development. Based in the Education Department at Brown University, ArtsLit offers a year−round professional development program that links literacy development to the performing and visual arts. Artists and teachers work as a team to plan classes that engage students in reading, writing, and showing their understanding of text. The goal is for teachers to build a classroom community in which adolescents develop the skills and habits of mind to convey meaning through−−and recover meaning from−−print text.

As ArtsLit Director Kurt Wootton says, "From a literacy perspective, we're particularly interested in the idea of visibility because students' reading processes are generally invisible. When a student is reading a book, silently, it's difficult to tell how they understand it or even if they understand it. The arts are one way of making these invisible cognitive processes visible."

Today's activity, Rehearsing/Revising Text, is the fifth phase of the Performance Cycle (http://www.artslit.org/handbook.html) that serves as an instructional model to teachers and artists who participate in ArtsLit. Through the Performance Cycle, teachers guide students in reading and comprehending text, writing original scripts, and producing a quality performance. Teachers say this work is "exhilarating." As one student describes it, "Performing leaves you with questions, and you want to find the answers, so you keep reading."

This afternoon when the students gather for class, they walk into a classroom where desks and chairs have been pushed into a surprising, untraditional configuration. Class opens with an even more atypical activity−all students rise to their feet and sing an African chant, clapping rhythmically as

Newman moves around the inner side of the circle. Next, each person in the circle enacts a favorite activity. The group's energy runs high, and students smile and laugh often.

After the warm−up activity, Newman removes students' stories from a binder of hand−written drafts, drawings, and typed copies. As he delivers each printed story to its student author, he makes a friendly comment about individual progress. Immediately upon delivery, each student reads his or her story silently and intently. For some of the students, it is the first look they have at their stories as finished documents. They carefully prepare to read these stories to the class.

Students read aloud, and the class is transported to places around the world. Each story shares a memorable life event and makes a reference to the place where students spent their childhood before moving to Central Falls. Their readings reveal that although they are in their late teens, these students have spoken English for only a few years or months, some for several weeks. Few students have problems pronouncing or decoding the printed word because they know the text they have created, but most struggle to project their voices. After each story, the class applauds enthusiastically, and teachers comment on individual progress.

The stories paint recollections of the natural beauty and communities they left in places like Puerto Rico, Bolivia, Guatemala, and Colombia. The students bravely share meaningful moments in their lives. One student reads about being a youngster who drove and crashed the family car. Another reads about being a playful little boy unaware that his young mother was on her deathbed. Students show quiet respect and awe when a story is a tribute to a family member. While reading the story of his mother's death, the student breaks into tears. Tenderly, one teacher and several fellow students surround and console him.

After they each share their story, Newman leads the group in a transitional activity. He directs the class to take out their yellow folders, which contain scripts for a performance of Silverstein's *The Giving Tree*. In small groups, students take parts of Silverstein's story and rehearse scenes. The next assignment asks students to add "blocking" movements that communicate the meaning of the scene.

After a quick run−through, the class goes to the auditorium, walks on stage, and practices the sequence again with the addition of the blocking movements. Newman and Kinslow debrief the rehearsal with the class, noting how well the students' technique has conveyed understanding of the text and how much more the students could project their voices in a performance. This is only the second time that the students have rehearsed the scenes, and they express pleasure with the progress they have made. Newman reflects on the high level of student engagement in both activities: "This was a most extraordinary day!"

Many of these students have left one community to find another in this tightly knit class and in the ethnically diverse city of Central Falls, Rhode Island. This is the only high school in Central Falls. The smallest municipality in Rhode Island at 1.3 square miles, Central Falls is also one of the most densely populated cities in the country and the most disadvantaged community in Rhode Island.

Central Falls ranks the highest in the state for the rate of community−wide Limited English Proficiency (29.5%, compared to the state average of 6.2%). It ranks lowest in the state for overall student performance. Other factors that place the student population at risk for educational failure include a mobility rate of 44%; a graduation rate of 58%; and a dropout rate of 42%. Ninety−six percent of students are eligible for subsidized lunch programs, 20−30% receive English as a second language educational services, and 20−25% receive special education services.

As disheartening as these statistics may appear, other facts about this community are more

encouraging and indicate the great capacity for Central Falls to benefit from and support literacy work. Central Falls is rich in cultural traditions and community values. In this small, tightly knit neighborhood, almost all students walk to school. Most families know each other and participate in social and religious activities together each week. A growing network of community organizations is available to support in−school and after−school work, and the district's administrators and teachers are committed to making connections between these local organizations and Central Falls students.

The school district has demonstrated a commitment to improving teaching and learning. Exemplary after−school programs already exist. In school, administrators show strong support for curriculum development in both literacy and the arts. They have developed and put into place a Core Literature Curriculum that focuses on integrating the arts into core academic subjects. School staff in particular have been champions of the ArtsLiteracy Project.

Teachers Len Newman and Richard Kinslow have been working with artists and Project mentors in ArtsLit since 1998 and now are sharing their knowledge with others. These two veteran teachers use Artslit methodologies so regularly that it has changed their classroom culture and Artslit is at work in their classroom on any given day.

In fact, Len Newman recently traveled with his binder of student stories and drawings to Washington, D.C. He had been invited to share the results of this year's class with researchers from the Arts Education Partnership (AEP). Newman's work with ArtsLit received national recognition from AEP, a partnership which "affirms the power of the arts to enliven and transform education and schools."

Kurt Wootton's description of the ArtsLiteracy Project strikes a similar note: "We are in the business of transformation. Transforming students into readers, writers, and performers. Transforming teachers into artists. Transforming artists into educators−−In our organization, what we have realized is that the most important thing we can do is to take care of the teachers, artists, and students we work with, and to create a space where transformation can occur."

Demographics

The city of Central Falls, the smallest municipality in Rhode Island at 1.3 square miles, is also one of the most densely populated cities in the country. With a population of about 17,000, the city houses 13,656 persons per square mile. The city's land area, mostly narrow streets lined with multi−family housing, is 98% developed, leaving limited land for further expansion. There is only one high school in Central Falls.

Central Falls ranks the highest in the state for children under age six living in poverty and for rate of community−wide limited English proficiency (29.5%, compared to the state average of 6.2%). Nearly 42% of Central Falls youth come from single−parent homes, and its rate of incarcerated parents is double that of the state.

Additionally, Central Falls ranks lowest in the state for students and for adults receiving a high school diploma. Recent state assessment test scores show that Central Falls students rank the lowest for overall student performance in the state. Other factors that place the student population at risk for educational failure include a mobility rate of 44%, compared to the state average of 18%; a graduation rate of 58%, compared to the state average of 83%; and a dropout rate of 42%, compared to the state average of 17%.

Central Falls has a history of industrial development and was at one time called Chocolate Mill, after the chocolate factory established there in 1790. The demographics have shifted dramatically over the

past two decades, with the Hispanic population continuing to rise. An inner−city community, Central Falls represents a range of ethnic groups.

Student population statistics: Hispanic (64%), white (27%), and black (9%).

Student eligibility for subsidized lunch programs: 96%

Students (K−12) receiving English as a second language services or bilingual education: 30% (1999−2000)

Children under age 18 living in families headed by a person without a spouse present in the home: 38.3%

Children ages 2 to 22 receiving special education services through Rhode Island elementary and secondary schools: 26% (2002)

Median annual household income:

- for Central Falls households: $18,617 (1990)
- for all Rhode Island households: $32,181 (1990)

Background

At Central Falls High School, the two teachers conducting the English learners class have been involved in the ArtsLiteracy Project (ArtsLit) since 1998. They have found that using the arts as a literacy strategy has improved their ability to advance students' literacy skills.

The ArtsLiteracy Project (ArtsLit) is dedicated to developing the literacy of youth through the performing and visual arts. Founded in 1998 and based in the Education Department at Brown University, ArtsLit gathers an international community of artists, teachers, youth, college students, and professors with the goal of collaboratively creating innovative approaches to literacy development through the arts. It offers a range of opportunities for teachers, artists, youth, and the arts and education community.

In ArtLit's year−round professional development program, teachers learn arts−based literacy strategies alongside artists and students, and they also address how the methodology into which these strategies fit can be incorporated meaningfully into daily classroom practice. Training begins in a summer lab school at Brown Summer High School, and the strategies are later transferred to public school classrooms during the academic year.

In the lab school, pairs of teachers and artists work together with a class of secondary school students to "bring a text to life." Coached by experienced mentors, pairs of teachers and actors research, plan, and teach a course to secondary school students; observe one another teach; debrief; reflect; and participate in a range of workshops. Students work on both performance and literacy skills based on national standards and launch a culminating performance as an exhibition of their understanding of the text. This performance process is repeated with mentors during the academic year.

Design &Implementation

An important aspect of the ArtsLiteracy Project's (ArtsLit) design is how it connects to university resources. Housed within Brown University's Education Department, ArtsLit plays a vital role

connecting Brown's academic resources with local, professional performing artists; teachers; and elementary, middle, and high school students. An undergraduate/graduate course at Brown serves as the Project's "think tank" on arts and literacy. Constant documentation and evaluation of Project work inform its design.

The following section describes two key facets of ArtsLit's design and implementation:

- Ongoing professional development, which includes intensive summer training, yearlong coaching, and supplemental workshops;
- The grounding of work in The ArtsLiteracy Curricular Framework: The Performance Cycle, whose philosophy and strategies support adolescent literacy best practices (e.g., collaborative learning; vocabulary development; an emphasis on reading, writing, speaking, listening, and thinking; and metacognition.)

Ongoing Professional Development

In ArtsLit professional development, teachers participate in the following:

- Professional development lab school for teams of local teachers and actors who co−teach a course entitled "From the Page to the Stage" at Brown Summer High School;
- In−school and after−school partnerships where teachers transfer the summer training to their classrooms during the academic year with ongoing support of the Project mentor teachers;
- Weekend and weeklong workshops, in which experienced teachers and artists lead novices through the Performance Cycle.

Professional development lab school:

At Brown Summer High School, teachers and actors work together with a class of high school students to "bring a text to life."

Coached by experienced mentors, teachers and actors work in pairs to research, plan, and teach a daily two−hour course, entitled "From the Page to the Stage," to high school students. The teacher−actor pairs observe one another teach, debrief, reflect, and participate in a range of workshops. They launch a culminating performance at the end of the summer as an exhibition of the students' understanding of the text.

This intensive summer training introduces teachers to the ArtsLit curricular framework and strategies, which are later applied to teachers' public school classrooms during the academic year.

In−school and after−school partnerships:

During the school year, the in−school and after−school partnerships involve two levels of professional development components:

1. Workshops − Through weekend and weeklong workshops, ArtsLit models how the arts can be used as a tool in the classroom to enhance student literacy. Participants analyze a challenging text through discussion, writing, reading, and performance.

2. Classroom Application − Artists and teachers actively work together in classrooms to apply the methodologies practiced in workshops to the specific needs of the students. Artist−teacher collaboration might take three forms: (1) artist modeling tools for teacher, (2) teacher and artist

co−teaching, and (3) teacher teaching while artist supports. An experienced mentor teacher coaches artist−teacher teams and facilitates reflection on each day's work and on the overall process.

Most school−year units last about six or seven weeks and involve twelve artist visits based on the following structure:

- Week One: Building Community and Entering Text
- Weeks Two and Three: Comprehending Text (This portion might last as long as a month depending on the length and the amount of text read in class and at home.)
- Week Four: Creating Text
- Weeks Five and Six: Rehearsing/Revising Text
- End of Week Six: Performing Text
- Week Seven: Reflection (discussion and writing)

While any text can be used, the following are recent examples: *The Great Gatsby* by F. Scott Fitzgerald
Othello and *The Taming of the Shrew* by William Shakespeare
St. Joan by George Bernard Shaw
Aida (both the folk tale and opera)
The Christmas Carol by Charles Dickens
Cider House Rules by John Irving (both the novel and play)
The Piano Lesson by August Wilson
Antigone by Sophocles
Metamorphosis by Ovid
poetry by Langston Hughes
stories from students' lives

Weekend and weeklong workshops:

ArtsLiteracy workshops for teachers and artists are offered on weekends in the fall and spring and for a week during the summer. The workshops address how ArtsLit strategies can be incorporated meaningfully into daily classroom practice. They offer participants a chance to learn from one another as they refresh and refine their skills. Teachers of all levels have an opportunity to learn arts−based literacy strategies alongside artists and students. Artists have the benefit of drawing on their performance experience while collaborating with teachers, other artists, and youth to develop arts−based literacy curricula.

The ArtsLiteracy Curricular Framework: The Performance Cycle

The Performance Cycle serves as an instructional model to all teachers and artists who participate in The ArtsLiteracy Project (ArtsLit). Through the Performance Cycle, teachers guide students in reading and comprehending text, writing original scripts, and producing a quality performance.

For a full description of the Performance Cycle and activities for each element, see http://www.artslit.org/handbook.html

The ArtsLiteracy Project Performance Cycle

THE PERFORMANCE CYCLE

The following describes how the seven elements of the Performance Cycle relate to key components of the Adolescent Literacy in the Content Areas spotlight.

Performance Cycle Elements:

1. Building Community

Through Building Community, ArtsLit promotes safety, support, personalization (not being anonymous to teachers or to other students); student voice; enactive learning; and an important social context for learning and fun.

Building Community as Key Component A practices:

- Making Connections to Students' Lives
- Having Students Interact With Each Other and With Text
- Creating Responsive Classrooms

> "We are in the business of transformation. Transforming students into readers, writers, and performers. Transforming teachers into artists. Transforming artists into educators. As you well know, transformation in any environment doesn't come easy. In our organization, what we have realized is that the most important thing we can do is to take care of the teachers, artists, and students we work with, and to create a space where transformation can occur. We create a community where teachers and artists care about each other and spend time with each other outside of our program. This is how teachers should be treated in their professional lives and this is how we want our teachers to treat our students, to create an environment where everyone is valued and taken care of."
> Kurt Wootton, ArtsLiteracy Project Director

> "We teach how we are taught."
> ArtsLit teacher

2. Entering Text

In ArtsLit, Entering Text always takes place before students read challenging text. ArtsLit provides instructional scaffolding by engaging students actively and collaboratively in the concepts and vocabulary that they will encounter in the text. In doing so, ArtsLit also develops teachers' and artists' capacity for using strategies of metacognition, reading for understanding, and student engagement.

<u>Entering Text as Key Component B practices:</u>

- Emphasis on Thinking

- Creating a Student−Centered Classroom

Entering Text as a Key Component C practice:

- Vocabulary Development

> "From a literacy perspective, we're particularly interested in the idea of visibility because students' reading processes are generally invisible. When a student is reading a book, silently, it's difficult to tell how they understand it or even if they understand it. The arts are one way of making these invisible cognitive processes visible."
> Kurt Wootton, ArtsLiteracy Project Director

3. Comprehending Text

ArtsLit uses highly enactive and collaborative learning to support reading for understanding and continues to integrate metacognition and engagement throughout the Performance Cycle. Activities based on explicit comprehension strategies such as (but not limited to) fluency, prediction, and visualization provide abundant opportunities to practice higher order thinking skills and to master the text.

Comprehending Text as Key Component B practices:

- Speaking and Listening
- Collaborative Learning

4. Creating Text

In the process of creating original scripts for performances, ArtsLit provides an abundance of opportunities to practice and master written language. Students also use writing to interpret the experiences of the characters in the text in terms of their own experiences and to derive meaning from the text.

Creating Text as Key Component B practices:

- Reading and Writing (time on task)
- Speaking and Listening
- Collaborative Learning

5 and 6. Rehearsing/Revising Text, Performing Text

ArtsLit's rehearsal process provides a chance for students to continuously revise their performance. Throughout the revision process, students both give and receive feedback on their work. This feedback from peers and teachers allows for continuous assessment and elevates the work to a higher level of quality.

Rehearsing/Revising Text, Performing Text as Key Component A practices:

- Making Connections to Students' Lives
- Having Students Interact With Each Other and With Text
- Creating Responsive Classrooms

Rehearsing/Revising Text, Performing Text as Key Component B practices:

- Speaking and Listening
- Collaborative Learning

"Students have a range of skills, passions, and talents they can bring into the classroom ? if we extended the invitation. When space is opened in the classroom for students to bring their set of skills and interests, traditional teacher/student roles are inverted. The teacher becomes a student and the student a teacher.

This summer one of our artists put the structure for the performance on the board. A student responded, 'I don't think that's an effective way to end the performance, I think we should end with the other piece.' The teacher responded, 'Does the rest of the class agree with that? O.K, we'll change it.'

Even though the teacher and artist have the ultimate responsibility for the class, such dialogue offers all students legitimate voice in the decision−making process."
Kurt Wootton, ArtsLiteracy Project Director

7. Reflection

After each day's activities and after a performance, deliberate reflection becomes a welcomed habit and opportunity for expressing one's individual voice. It also provides opportunities for supporting metacognition, community building, organizational development, and professional development.

Reflection as a Key Component B practice:

- Emphasis on Thinking: Metacognition and Higher Order Thinking

Reflection as a Key Component D practice:

- Involves Ongoing Support for Teacher Professional Development

"We create constant opportunities for feedback and reflection − in our organization, our professional development, and our classrooms. Our teachers spend three full days at the end of the summer reflecting on our process and how we can improve as an organization. This reflection is critical to our organization's responsiveness to the needs of our teachers, artists, and students."
Kurt Wootton, ArtsLiteracy Project Director

Results

- Attendance and classroom participation have greatly improved since teachers Len Newman and Richard Kinslow became involved with The ArtsLiteracy Project (ArtsLit) in 1998.
- Additional student outcomes include better understanding of the literature being studied, the development of higher expectations for themselves and others, and leadership development−−as students who participate in performance units over time become peer mentors to newcomers.
- Teachers participating in the program say that their teaching throughout the year has been infused with the strategies that they learned through ArtsLit.
- They claim that using the ArtsLit approach results in teaching students who are more

motivated to read and write and who participate more actively in classroom discussion.
- An additional benefit is that the ArtsLit approach builds a supportive classroom learning community.
- According to participating teachers, the rewards of ArtsLit and the benefits that stretch throughout the year are great, "even exhilarating."
- Teachers find they have no desire to return to conventional ways of teaching literature and language, although putting together performance units is "sometimes exhausting."
- In 2003, ArtsLit and Central Falls recently ranked first in the vetting of over 200 proposals for grants for Professional Development Model Development and Dissemination by the U.S. Department of Education.
- The ArtsLiteracy Project has been selected as a research site by the Arts Education Partnership, an organization formed in 1995 through a cooperative agreement between the National Endowment for the Arts, the U.S. Department of Education, the National Assembly of State Arts Agencies (NASAA), and the Council of Chief State School Officers (CCSSO).

Replication Details

Provide a clear focus for program design
All the work of The ArtsLiteracy Project (ArtsLit) is grounded in a curricular framework whose philosophy and strategies support adolescent literacy. The curriculum engages participants in a group activity−−creating an original performance−−that provides clarity and consistency in program design.

Create a classroom community through motivating activities
ArtsLit's work is centered on a curricular framework, called the Performance Cycle. The framework benefits English language learners by creating a safe, engaging, and welcoming community of learners and by offering an abundance of motivating activities for practicing skills in reading, writing, speaking, and listening. Students benefit particularly from the enactive and purposeful learning activities and collaborative learning of the Performance Cycle. With these supportive elements, English language learners are better able to understand challenging text.

Plan literacy activities using the performing arts
The ArtsLit Performance Cycle represents a way performance might be connected with text in both school and out−of−school settings. Most of the activities work with students of any age, although certain aspects of activities should be adapted depending on the age group. Although the categories are not necessarily chronological, in planning a unit it usually helps to begin with community building activities and end with a final performance exhibiting students' understanding of a text.

Collaborate with teachers, professional artists, and mentors
When planning a classroom unit in collaboration with partner artists and mentors, teachers find that these units vary widely according to the needs of their students and the contributions of the collaborators. Collaborations between teacher, artist, and mentor teacher often involve other teachers in the school, university student teachers, undergraduates, and other outside artists.

Meet students' diverse learning needs
A given group of adolescents will be at a variety of stages in their emotional, social, and physical maturation, and, because these stages are not fixed but fluid, the needs of the same individual can vary within short periods of time. The need for guidance, clear expectations, and consequences must be balanced with respect, choice, and flexibility. The complexity of these combined factors requires that the design and facilitation of learning experiences for adolescents be purposeful and carried out with these understandings in mind on the part of educators.

Provide ongoing professional development
Ongoing professional development meets teachers' learning needs and includes intensive summer training, yearlong coaching, and supplemental workshops. Teachers attend training to learn strategies, work one−on−one with mentors to implement those strategies, and present or participate in workshops to further complement their growth.

Conduct consistent evaluation
Artslit constantly conducts documentation, evaluation, and dissemination of Project work to refine its design and broaden its impact.

Contact ArtsLit
Schools interested in replicating The ArtsLiteracy Project may inquire about professional development opportunities and contact Project staff through http://www.artslit.org/.

Costs and Funding

The ArtsLiteracy Project (ArtsLit), part of the Education Department at Brown University, has been funded by various national and local grants since 1998. Currently, it is supported by the National Endowment of the Arts, Rhode Island State Council for the Arts, U.S. Department of Education, and The Educational Foundation of America. ArtsLit collaborates with artists from the Providence Black Repertory Company, Trinity Repertory Company, and other local theatres and arts organizations. ArtsLit works in Rhode Island with teachers and administrators at Blackstone Academy in Pawtucket and all schools in the Central Falls Rhode Island School District, including Calcutt Middle School, Central Falls High School, Ella Risk Elementary School, Feinstein Elementary School, Robertson Elementary School, and Veterans Memorial Elementary School.

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Rating Criteria

This story exemplifies the following practices:
Making Connections to Students' Lives
Having Students Interact with Each Other and with Text
Creating Responsive Classrooms
Roles of the Teacher
Creating a Student−Centered Classroom
Supporting the English classroom through literacy development
Utilizes best practices in the area of systemic educational reform.
Involves ongoing support for teacher professional development.

Eulalia Texidor Ortiz's English Language Arts Class at S.U. Bartolom Javier Petrovitch School

S.U. Bartolomé Javier Petrovitch School

Cabo Rojo, PR

School Type: Public

School Setting: Rural

Level: K−9

School Design: Traditional

Content Presented By:

NEIRTEC, Northeast &Islands Regional Technology in Education Consortium

The Education Alliance at Brown University

Eulalia Texidor Ortiz has been 'in love' with technology for many years, which is why for the middle school English language arts teacher, being selected to be a Lead Teacher with the CENIT program at the S.U. Bartolomé Javier Petrovitch School in Cabo Rojo, was an honor.

Texidor Ortiz, who teaches sixth, seventh, and eighth grades at the school, acknowledges that participating in CENIT has truly opened her eyes, giving her the opportunity to learn to develop challenging activities that integrate technology into the curriculum and promote learning through a different system, one that expects and encourages students to be more involved in their learning. She is now more than a teacher; she's a facilitator, a role she accepts wholeheartedly.

"Through CENIT I have learned the importance of involving the students in their own learning process in a way that is more participatory. But at the same time, I have learned that our traditional teacher role changes to that of a facilitator," Texidor Ortiz said.

At the beginning of each school year, Texidor Ortiz sits with the students in her classes and has candid conversations with them about what they would like their writing assignments to be about and how they think technology should be used in each assignment.

"Because many of the students don't like to write, it's very important for me to give them this opportunity, and to use different methods to keep them motivated. But I always have a condition: whatever topic they choose, they must make sure to integrate technology into it, whether it be through the use of video cameras, digital cameras, computers or other technology based mediums. And I remind them that once their work is finished they must turn in a written report and make an oral presentation of their work before the entire class using Power Point," she added.

With this kind of support and encouragement, students in Texidor Ortiz's class feel comfortable taking charge of their learning development, so much so that one of the last ideas they suggested for a writing assignment was making a field trip to an ice skating rink not too far away from the school so that they could explore it and write their observations.

"One of the activities we decided to participate in as a group was visiting an ice skating rink that was recently built in the area. The students had to work on practicing how to write descriptive paragraphs using different verb tenses, and since they wanted to learn more about this kind of activity, we decided that it would be a good topic to write about. I agreed and asked them to think about how they would incorporate the use of technology," she said.

With that topic in mind, Texidor Ortiz set out to try to make the field trip a reality, but given the lack of resources at the school, she knew they would need help to pay for the trip. That's when she sought the support of AlACiMa (the Spanish acronym for The Puerto Rico Math and Science Partnership), a local project that focuses on science and mathematics and is run and supported by the four major universities on the island, the Department of Education, and other organizations. AlACiMa agreed to pay for the field trip as long as she and her students would incorporate science, physical education, and industrial arts into their study of the rink. Now the students would also focus their attention on these other issues; from the science angle, they would look at the friction of the bodies on the ice as people skate; from the physical education point of view, the students would look at ice skating as a sport; and to meet the industrial arts requirement, they would focus on analyzing the way the ice rink was built. For the writing part of the assignment, the students would have to focus on describing what happened before, during, and after the field trip; this would allow them to use verbs in different tenses.

Texidor Ortiz also increased the use of technology in the assignment by having the students use the Internet to find information about the topic of ice skating. The final components of the assignment required the students to turn in a written report, in English, and make an oral presentation before the entire class using Power Point.

"The day of the field trip, some students took with them video or digital cameras to document their trip. This trip was not only fun for all who participated; it was also an experience in learning," she added, citing the success of the trip.

"After we returned to the classroom all students received rubrics, a good way for them to understand what would be expected from their investigation and from their projects. The students began writing their descriptive paragraphs in English with my help by using Microsoft Word, and later those who had videos or digital photos of the trip integrated them into their writings; other students used Clip Art," she added.

She said the activity, which took the class about a month and a half to complete, proved to be successful from all aspects. It had the added benefit of having AlACiMa involved, which allowed the students to experience the activity from the standpoint of science and mathematics.

For those students who didn't participate in the ice skating writing activity, Texidor Ortiz developed an alternate writing project. Students completing this project focused on a problem or a situation in their communities they felt could be improved somehow.

"That group of students worked on the activity with the community by using the software Inspiration, which helps students create conceptual maps. These students decided to identify a situation in their community that concerned them. For this they went out and took pictures of those things they were concerned about. Later they identified one person in the community whom they thought would be able to help them find a solution to the problem, and they wrote that person a letter expressing their concerns. At the end of this activity, students were also required to hand in a written report and present their findings to the entire class with a Power Point presentation," she added.

While the use of technology in Texidor Ortiz's class may seem like second nature to her and the students, things didn't always run so smoothly in the classroom or in the school, for that matter.

She said that before the arrival of CENIT, the school's computers were all very old and outdated. They were only used to present certain concepts to the students, and not meant for the kind of uses she is now able to provide to her students.

"We had nine computers in the school, but because they didn't meet our needs, I got the school administration to buy us tape recorders which would allow the students to record themselves reading, ultimately improving their diction in English. I would divide the class into groups, some students would use the computers, others would use the tape recorders, and the rest would use other materials. Everyone would take turns, and for three days the students would rotate from one thing to the other, until finally all of them had used all the equipment. This was okay, but it was much too difficult and less constructivist," she added, reflecting about the past.

"Now all of the students can take advantage of the technology that is available and participate at the same time; it's excellent."

Demographics

The S.U. Bartolomé Javier Petrovitch School in Cabo Rojo, Puerto Rico is a public school located in the southwest region of the island. The school serves grades K to 9 and has over 800 students. Now, due to space constraints, the school is working on an alternate hours schedule, with a group of the students attending classes in the morning hours and another group attending classes in the afternoon. This school has a mobile computer laboratory, which was equipped and funded by the Puerto Rico Department of Education through the CENIT program.

Background

The Center for Integration of Technology (CENIT) program, established by the Puerto Rico Department of Education in 2001, is an island−wide initiative designed to help teachers integrate technology into their academic curriculum. For the past three years the PR Department of Education, with support from the Northeast and Islands Regional Technology in Education Consortium (NEIRTEC), has identified various groups of high−need or low−performing schools to participate in the program for a year. To date over 170 schools have participated in the program. Each group of participating schools begins the program in January by receiving funding and support from the Department of Education to order and install a computer lab. For each school, CENIT staff members then select a lead teacher to work with other participating teachers in the school to get them up to speed on using the new computers and software programs. In June teachers attend a five−day Authentic Task Academy to get more acquainted with the CENIT program and gather ideas for how to integrate technology and real−world problems into the classroom. When schools open in August, teachers participating in the program begin to introduce their students to the new technology, giving them the opportunity to learn with the new programs by taking part in technology−rich lessons in subjects such as social studies, science, literature, and math. Teachers meet throughout the rest of the semester, get further training, and in December give presentations outlining their experiences during their participation in CENIT. Teachers who participate in the CENIT program have access to an Internet−based program called Blackboard, where they can find information about the program and are able to communicate with each other and express concerns or share ideas about the program.

At the S.U. Bartolomé Javier Petrovitch School of Cabo Rojo, the challenge of participating in the CENIT program was getting used to a shift in teaching modalities. Now teachers would have to serve

as facilitators, not just designing lessons that use technology but actually involving the students in deciding which technology tools would best support their goals for a project. As part of the technology integrating process, students are encouraged to use the computers provided to search for information on the Internet and to use digital and video cameras and a myriad of software programs that enhance the learning experience.

Design &Implementation

At each CENIT school participating in the program, CENIT staff chooses a lead teacher who ultimately serves as a guide for other teachers in the school to work on integrating technology into the curriculum. The lead teacher, along with other participating teachers, attends workshops and seminars to get better acquainted with the new computer systems and all the different software programs used to enhance the students' learning experiences.

At the S.U. Bartolomé Javier Petrovitch School in Cabo Rojo, the lead teacher, Eulalia Texidor Ortiz, after having participated in CENIT workshops and other training, takes to the task of integrating technology into the school's curriculum following the vision of the program.

To determine what writing assignments her students would benefit most from, Texidor Ortiz first looks at what English language art concepts the students need to be focusing on at any given time. Then she consults with the students to get a feel for what their interests are and how their ideas, combined with the integration of technology, could make for the perfect activity for the entire class. Once a topic is selected for the writing assignment, Texidor Ortiz and her students determine how to integrate technology into it; whether it be through the use of video cameras, digital cameras, computers or other technology based mediums. She further adds to this integration by having the students use the Internet as a research tool to find relevant information about the topic at hand. Once the students finish this activity, they must turn in a written report and make an oral presentation of their work before the entire class using Power Point. In some cases, as in the ice skating project described in the success story section, Texidor Ortiz also works with the students to integrate other disciplines, such as science and math.

Results

Teachers who participated in the CENIT program in Puerto Rico schools credit the program with improving their students' general achievement. They add that not only are the students learning and becoming more advanced with the use of technology, but they are also more motivated and interested in being in school.

One teacher says, "CENIT has meant a change of attitude in schools. The students now want to learn. Now they want to be in the classrooms. Students now lean more towards completing homework because they want to include their work in an electronic portfolio."

According to data collected in an external evaluation report conducted by the Evaluation and Research Group of Puerto Rico, 85% of teachers participating in the CENIT program credit the program with having a positive impact on their students' achievement. In general, the report also shows an increase in grade point average for those students involved in the program.

A student survey conducted by the evaluators found that students agree with their teachers. Of those students surveyed, 90% said that they consider the new technology a useful tool to help increase their general knowledge. Furthermore, the report shows, 88% believe that taking classes that integrate the use of technology is good for their overall achievement, and 82% of the students credit the use of

technology in the classroom with improved grades in tests.

CENIT Director Frank Maldonado Font adds that the program has surpassed everyone's expectations.

"I believe that the project has been and continues to be an absolute success, and now it's even better," Maldonado Font said. "We have been showing teachers how to integrate technology into the curriculum and everything has been improving."

"You can definitely tell the difference between a classroom where there's a CENIT teacher present and the classroom without it. The teachers and the students are very different now, and this change shows," he added.

Replication Details

English language arts teacher Eulalia Texidor Ortiz attributes the success of the CENIT program at the S.U. Bartolomé Javier Petrovitch School in Cabo Rojo to the commitment and dedication of the teachers and the students. She adds that as with everything else in life, teachers at the school have had to have a lot of patience, and an open mind, to be successful at integrating technology into the curriculum. To other teachers trying to do the same in their classes, she recommends setting clear goals with the students and making sure that they have a clear idea of what is expected of them in regards to the use of technology in the classroom. She also suggests making sure that students are familiar with software programs being used in the classroom before they are asked to use them to support their learning of content.

Costs and Funding

The Center for Integration of Technology (CENIT) program, established by the Puerto Rico Department of Education in 2001, is an island−wide initiative designed to help teachers integrate technology into the academic curriculum. For the past three years the PR Department of Education, with support from the Northeast and Islands Regional Technology in Education Consortium (NEIRTEC), and funding from DOE, has identified various groups of high−need or low−performing schools to participate in the program for a year. Participating schools receive computer equipment, including printers, scanners and other supplies, in addition to ongoing professional development.

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Rating Criteria

Eulalia Texidor Ortiz is always interested in finding ways of improving the educational experience for students at the S.U. Bartolom Javier Petrovitch school in Cabo Rojo, and wherever else she can. While most of her 27−year career as a teacher has focused on teaching English, she has also been

actively involved in creating a link between the classroom and technology.

Prior to being selected to participate in CENIT, through her interests in technology, Texidor Ortiz had been involved in writing technology−centered proposals for her school and in offering technology workshops to other teachers as a Resource Teacher with CITeD, the Spanish acronym for the Centers for Technological Innovation for Teaching. For these reasons, she says, when the time came to select a Lead Teacher for CENIT, she was chosen for the job.

In addition to serving as the Lead Teacher of CENIT at her school, Texidor Ortiz is a coordinator for the SUNBEAMS (Students United with NASA Becoming Enthusiastic About Math and Science) project in Puerto Rico, where she offers workshops to teachers interested in incorporating lessons developed by NASA staff into their teaching. She is also a mentor with the program Living With a Star (LWS), also through NASA. She has collaborated with the Department of Education in the development of English lessons that are aligned with technology standards.

CENIT Director Frank Maldonado Font is proud of the success the program has had over the years at all the participating schools in Puerto Rico. He is quick to point to the dedication and the commitment demonstrated by each teacher participating in the program. He further adds that when CENIT staff interview teachers for the Lead Teacher positions at each school, they look for someone who is full of enthusiasm and the desire to work hard to lead the rest of the team in the right direction. The success currently taking place at the S.U. Bartolomé Javier Petrovitch school in Cabo Rojo is something Maldonado Font attributes to the ultimate overall success of the project.

This story exemplifies the following practices:
Making Connections to Students' Lives
Reading and Writing
Creating a Student−Centered Classroom
Supporting the English classroom through literacy development

Related Web Resources

This is an annotated list of resources found on other Web sites that relate to this spotlight topic on The Knowledge Loom. We encourage you to access them from the links provided on The Knowledge Loom. To do this, go to the Web address noted in the header. Then click on the Related Resources link.

For an overview of additional content presented on The Knowledge Loom Web site that may not have been selected for this print document, see the Spotlight Overview located earlier in the document.

1) LitSite Alaska: HS Vocabulary Strategies
http://litsite.alaska.edu/uaa/workbooks/readingvocabulary.html

Four interactive vocabulary strategies to use in the high school classroom are described by Kathie Steele, the reading coordinator for Chugiak High School in the Eagle River District. LitSite Alaska is a project of the University of Alaska Anchorage and the Alaska Literary Consortium, funded in part, by a grant from the National Endowment for the Arts.

2) Muskingum College, Center for Advancement of Learning, Learning Strategies Database
http://www.muskingum.edu/%7Ecal/database/

A reading strategies database describing general and specific reading comprehension strategies related to before, during, and after reading, vocabulary, motivation, text structure, and more.

3) Inquiry−Based Learning
http://ei.cornell.edu/pubs/NARST_CEIRP_03.pdf

This article provides information on four types of inquiry−based learning for science learning.

4) Suggestions for Reading a Math Textbook
http://acunix.wheatoncollege.edu/jsklensk/suggestions.html

For more strategies on how to read a math textbook, see this Web site.

5) Reading Strategies for Developmental Math Textbooks
http://www.nade.net/documents/SCP97/SCP97.2.pdf

Decsriptions of three reading strategies useful with math textbooks.

6) Connect Archives
http://www.synergylearning.org/connect/index.html

Archives for Connect, A Magazine of Teachers' Innovations in K−8 Science and Math, are available from Synergy Learning. The articles provide unique teaching ideas, which reflect scientific literacy and National Science Education Standards. Association, a division of the American Library Association, provides regularly updated lists of young adult books recommended by both librarians and teens. It also contains information about Teen Read Week, tips to encourage reading, and links to useful sites and publications for educators concerned about literacy.

7) QuarkNet
http://quarknet.fnal.gov/

This site describes a collaborative physics project.

8) Metacognitive skills
http://www.homestead.com/peoplelearn/MetaRead.htm

For a short article on how to help poor readers become more metacognitively aware when reading textbooks, see this Web site.

9) Beating the Odds: Teaching Middle and High School Students to Read and Write Well

http://cela.albany.edu/

This CELA report describes research into effective secondary instruction in reading, writing and English Language Arts. Use CELA's internal search tool to access the report.

10) Strategic Literacy Initiative
http://www.wested.org/stratlit/

General information about the research−based literacy−focused professional development initiative that has demonstrated results with high school students.

11) This is About. . .
http://www.wested.org/stratlit/ideas/englishappren.shtml"

Description of a strategy to help students organize the ideas present in a selection of text.

12) Suggested Guidelines for Designing Small−Group Work
http://instech.tusd.k12.az.us/balancedlit/handbook/BLHS/blsgwhs.htm

Tips for designing and supporting discussion groups from the Tucson Unified School District.

13) Vocabulary University Home Page
http://www.vocabulary.com

Free vocabulary puzzles that enhance vocabulary mastery and enriches classroom curriculum. These exercises help prepare for PSAT/MNSQT, SSAT, GET, SAT, and ACT tests. They supplement personal vocabulary acquisition and are being used in home−schooling and ESL classes.

14) Biome EcoWatch Project
http://www−ed.fnal.gov/linc/projects/ktgannon/presentation.html

The site outlines a literacy infused project for advanced biology students.

15) ABC's of the Writing Process
http://www.angelfire.com/wi/writingprocess/secwplinks.html

The website is a great reference for the writing process and links with other sites related to writing in the secondary classroom.

16) Platonic Realms Quotes Collection (quotes listing)
http://www.mathacademy.com/pr/quotes/index.asp

Quotes from famous people regarding mathematics.

17) Best Practice in Social Studies
http://instech.tusd.k12.az.us/balancedlit/handbook/BLHS/blsshs.htm

Lists all the best practices in teaching social studies.

18) Deformed Frogs in Minnesota!
http://whyfiles.org/055oddball/frog.html

This Why File discusses how chemical exposure alters hormones in frogs.

19) What Secondary Teachers Can Do to Teach Reading
http://www.edletter.org/past/issues/1999−ja/secondary.shtml

This brief article by Vickie Jacobs describes how content−area teachers can use pre−reading, guided reading, and post−reading strategies to support their students' learning.

20) Vocabulary Strategies
http://people.uncw.edu/sherrilld/edn356/notes/vocabulary_Strategies.htm

This site provides 18 K−12 vocabulary development strategies, with links to examples of each.

21) Plagiarism: What It is and How to Recognize and Avoid It
http://www.indiana.edu/~wts/wts/plagiarism.html

Information about plagiarism: what it is and how to recognize it and avoid it.

22) Technical Writing for Skill Development
http://www−ed.fnal.gov/lincon/w98/projects/bbilligmeier/babsum.html

Provides a description of an authentic writing project for unmotivated learners.

23) Academy Curricular Exchange, Language Arts Lessons, High School (9−12)
http://ofcn.org/cyber.serv/academy/ace/lang/high.html

The Organization for Community Networks, Academy Curricular Exchange offers a set of high school English Language Arts lessons focused on active reading and writing.

24) Handbook of Engaged Learning Projects, Sight and Sound in Nature, Scoring Rubrics
http://www−ed.fnal.gov/help/97/sightsound/ssrubhom.html

This collaborative physics project contains an example of assessment rubrics for student work.

25) Teaching Vocabulary to Adolescents to Improve Comprehension
http://www.readingonline.org/articles/art_index.asp?HREF=curtis/index.html

This paper describes a 16 week intervention Mary E. Curtis and Ann Marie Longo used to teach vocabulary to adolescents to improve comprehension at the Boys Town Reading Center.

26) Crtical Thinking Overview
http://www.coping.org/write/percept/critical.htm

For accessible information about what critical thinking is and is not, go to this Web site.

27) Evaluating Sustained Silent Reading in Reading Classes
http://iteslj.org/Articles/Chow−SSR.html

This literature review looks at the effective components of sustained silent reading programs for English Language Learners.

28) Language Arts Reading Strategies
http://www.howard.k12.md.us/langarts/Curriculum/strategies.htm

The Howard County School system in Maryland offers descriptions of how teachers can explicitly teach and model reading comprehension strategies. Examples are given for grades 6−12.

29) Using Research to Inform Practice in Urban Schools: Ten Key Strategies for Success
http://www.temple.edu/LSS/htmlpublications/spotlights/100/spot103.htm

These ten strategies aim to facilitate use of research to inform practice in urban schools.

30) Strategic Literacy Initiative
http://www.wested.org/stratlit

General information about the research−based literacy−focused professional development initiative that has demonstrated results with high school students.

31) The Metacognitive Process
http://www.ncrel.org/sdrs/areas/issues/students/learning/lr1metp.htm

This NCREL resource describes the metacognitive processes of successful learners.

32) Apprenticing Adolescent Readers to Academic Literacy
http://www.wested.org/stratlit/pubsPres/HER/p01green.htm

Authors describe an instructional framework − Reading Apprenticeship − that is based on a socially and cognitively complex conception of literacy, and they examine an Academic Literacy course using this framework.

33) Reading Practice and Sustained Silent Reading
http://readingonline.org/critical/topping/rolarC.html

The debate continues over the effectiveness of sustained silent reading. Several studies have found high positive correlation between reading practice and reading achievement, while others suggest mixed results and the importance of the quality of the practice.

34) Building Reading Proficiency at the Secondary Level: A Guide to Resources
http://www.sedl.org/pubs/reading16/

With the goal of building a guide to resources, this publication reviews the scholarly literature to determine: (a) current theoretical perspectives and research findings on building reading proficiency at the secondary level and (b) their implications for classroom instruction. Rather than reporting all the factors that can impact secondary−level reading proficiency, the publication presents those for which a research base establishes essential importance and for which there are pedagogical implications. Programs and strategies that align with those findings are described. Available free online in these formats: full text, PDF, searchable database

35) Frog dissection tutorial and virtual dissection
http://curry.edschool.virginia.edu/go/frog/Frog2/

Written for high school students, this Web site presents the virtual dissection of the frog, an excellent

substitute for hands−on dissection as well as providing a complete tutorial for students who will participate in an actual dissection. It provides clear visuals and descriptions for each photo. The ?Guess What?? feature supports vocabulary and comprehension in the form of detailed descriptions of structures, functions, and some interesting trivia.

36) Discovery Education: School Resources
http://school.discoveryeducation.com/

This website offers free access to a library of K−12 lesson plans in science, math, social studies, English language arts, and fine arts, along with several other curriculum resources and regularly updated links to high−quality sites with instructional materials.

37) The World's Biomes and More
http://www.ucmp.berkeley.edu/glossary/gloss5/biome/

At The World?s Biome?s Page, the student can investigate the five major types of biomes. The home page (for The Berkeley Museum of Paleontology) is an entire curriculum.

38) Using Collaborative Strategic Reading
http://www.dldcec.org/pdf/teaching_how−tos/using_collaborative.pdf

This pdf file, published by the Council for Exceptional Children, gives step−by step instructions and descriptions of Collaborative Strategic Reading and how to implement and support it in the 5−12 classroom.

39) Content Area Reading Strategies
www.cfep.uci.edu/crlp/CONTENT_LIT.pdf

This article includes actual examples of content area reading strategies contributed by high school teachers. Many of these appeared in Literacy Strategies Improve Content Area Learning, 63rd Yearbook of the Claremont Reading Conference, 1999.

40) Science Reference Services
http://www.loc.gov/rr/scitech

This link from The Library of Congress site offers clickable high−interest ?Online Abstracts, Indexes and Full Texts? such as Alexander Graham Bell?s drawings, a handbook of food−borne pathogens called the ?Bad Bug Book?, and ?Eric Weistein?s World of Science? which is an online encyclopedia for chemistry, physics, and astronomy.

41) Teacher Resources from the Strategic Literacy Initiative at WestEd
http://www.wested.org/cs/sli/print/docs/685

StratLit invites teachers to submit lessons that support students becoming more active readers through a Reading Apprenticeship approach to teaching content area classes.

42) ELL Resource: Learning Resources at Literacynet.org
http://www.literacynet.org/cnnsf/

Web site that offers online English language practice using current and past CNN San Francisco bureau and CBS 5 − KPIX (CBS Broadcasting) news stories. The material is intended for adult

literacy and educational purposes. Learners can read the text, listen to the text, and view a short video clip of the story. Each module includes the full text of each story and interactive activities to test comprehension. Learners can use the materials independently or teachers can incorporate the stories into class activities.

43) ELL Resource: Reading in a Second Language
http://www.lang.ltsn.ac.uk/resources/goodpractice.aspx?resourceid=1420

Article which is part of a guide to good practice in teaching languages. It seamlessly integrates what we currently know from research into L2 reading and what should be done in classroom to help students learn to read in a second language. The three main sections of the article are entitled: basic cognitive issues, reading fluency and vocabulary acquisition, and higher−level skills.

44) Revaluing: Coming to Know Who We Are and What We Can Do
http://www.ncte.org/library/files/Free/Journals/vm/VM0101Revaluing.pdf

Article from the September 2002 issue of Voices in the Middle in which the authors describe a project involving six eighth graders in a bilingual Reading Detective Club with the goal of helping them revalue themselves and what they were able to do as readers. As a result of their participation in the program, students' understanding of reading strategies improved a great deal, and they began to see bilingualism as a resource rather than a source of confusion. The authors make the case that when students believe their thinking and ideas are valued beyond getting a correct answer, their self−efficacy and engagement with reading are likely to increase. The article concludes with recommendations for classroom practice.

45) Ten Great Activities: Teaching With the Newspaper
http://www.educationworld.com/a_lesson/lesson/lesson139.shtml

Web page that contains ten practical suggestions for classroom activities using the newspaper. The page starts with some reasons why newspapers are effective teaching tools and continues with activities that teach skills such as reading and writing for meaning, map reading, media literacy, sequencing, word meaning, and math.

46) ELL Resource: Twenty−Five Great Ideas for Teaching Current Events
http://www.educationworld.com/a_lesson/lesson/lesson072.shtml

Web page with ideas for working news into the classroom and connecting current events to all subjects. Two examples are finding adjectives that start with each letter of the alphabet and listening for details. The suggested activities are interesting and well−suited for ELLs because they are challenging wihtout being overwhelming.

47) How the Language Really Works: The Fundamentals of Critical Reading and Effective Writing
http://www.criticalreading.com/waystoreadtoc.htm

This site makes the argument that critical reading is essential to making meaning from text and suggests several ways to have students critically read and engage with text.

48) Learning to Learn
http://english.unitecnology.ac.nz/resources/resources/learntolearn/demands.html

This article that discusses the language demands of textbook reading and offers strategies teachers and

students can use to help with textbook comprehension.

49) Directions in Language and Education
http://www.ncela.gwu.edu/pubs/directions/

From the National Clearinghouse for Bilingual Education comes this description of a peer coaching professional development model for mainstream teachers of linguistically and culturally diverse students.

50) Motivating Low Performing Adolescent Readers
http://www.indiana.edu/~reading/ieo/digests/d112.html

The focus of this ERIC Digest is on motivating the low performing adolescent in a remedial reading or subject area classroom. The premise is that students who are disengaged from their own learning processes are not likely to perform well in school.

51) Fostering High Levels of Reading and Learning in Secondary Students
http://www.readingonline.org/articles/graves1/main.html

This commentary addresses the "teaching for understanding" approach that has the potential to change the way secondary teachers teach.

52) Report of the National Reading Panel: Teaching Children to Read
http://www.nichd.nih.gov/publications/nrp/smallbook.htm

An evidence−based assessment of the scientific research literature on reading and its implications for reading instruction.

53) When Students Do Not Feel Motivated for Literacy Learning: How a Responsive Classroom Culture Helps
http://curry.edschool.virginia.edu/go/clic/nrrc/rspon_r8.html

This paper offers the perspectives of a fifth grade student and his classmates on their experiences when they did not feel motivated for academic tasks.

54) Learning Strategies
http://ericcass.uncg.edu/virtuallib/achievement/4007.html

This ERIC resource documents the research on learning strategies and how teachers can teach them.

55) The Case for Explicit, Teacher−led, Cognitive Strategy Instruction
http://olam.ed.asu.edu/barak/barak1.html

An overview and discussion of the cognitive strategy research of 1975 to 1990 which has produced an impressive series of results.

56) Support for Sustained Silent Reading
http://www.angelfire.com/ok/freshenglish/ssr.html

Research on sustained silent reading.

57) Metacognition and Reading to Learn
http://www.indiana.edu/~reading/ieo/digests/d96.html

This ERIC digest is a concise summary of the research on metacognition and reading to learn.

58) Metacognition and Its Relation to Reading Comprehension: A Synthesis of the Research
http://idea.uoregon.edu/%7Encite/documents/techrep/tech23.html

The purpose of this research synthesis is to examine recent research on the relation between metacognition and reading comprehension, as it pertains to diverse learners.

59) Teaching Composition: Research on Effective Practices
http://www.nwrel.org/scpd/sirs/2/topsyn2.html

This report focuses on the basic skills of writing.

60) Proofs and Evidence: Effectiveness of the Five Standards for Effective Pedagogy
http://www.crede.ucsc.edu/standards/effectiveness.shtml

Research base for the CREDE standards of effective pedagogy.

61) Vocabulary Acquisition: Curricular and Instructional Implications for Diverse Learners
http://idea.uoregon.edu/%7Encite/documents/techrep/tech14.html

This document was prepared by the National Center to Improve the Tools of Educators and funded by the U.S. Office of Special Education Programs.

62) Vocabulary Instruction and Reading Comprehension.
http://www.indiana.edu/~reading/ieo/digests/d126.html

ERIC Digest describing research linking vocabulary instruction with improving reading comprehension.

63) Guidelines for Teaching Middle and High School Students to Read and Write Well
http://cela.albany.edu/publication/brochure/guidelines.pdf

Six features of effective instruction. (From National Research Center on English Learning and Achievement).

64) Writing and Reading Relationships: Constructive Tasks
http://cela.albany.edu/publication/article/writeread.htm

This excerpt is a chapter in Writing: Research/Theory/Practice.

65) Mathematics and Motivation: An Annotated Bibliography
http://forum.swarthmore.edu/~sarah/Discussion.Sessions/biblio.motivation.html

This is a collection of articles, chapters and Forum discussions that begin to address how student motivation affects mathematics learning and instruction.

66) ELL Resource: LEP Students and the Integration of Language and Content: Knowledge

Structures and Tasks
http://www.ncela.gwu.edu/pubs/symposia/first/lep.htm

This paper reviews research relating to LEP students and the integration of language and content.

67) Student Achievement for Teachers: Motivation in Instructional Design
http://www.ericdigests.org/1998−1/motivation.htm

This digest describes the ARCS Model (a motivational model that enhances the teaching−learning environment) and outlines some of the ways in which ARCS components may be applied to instructional design.

68) The Arts/Literacy Project
http://www.artslit.org

Project overview, handbook, resources, and contacts for ideas on how to make use of the arts to make connections between students lives and literary classics.

69) Literature Learning and Thinking in High School Classrooms
http://cela.albany.edu/newslet/spring97/miller.html

This article from the Center on English Learning &Achievement provides a brief look at some of the things a group of teachers did to help students internalize a dialogic way of learning and some of the ways that students applied their knowledge.

70) A Horizon of Possibilities: A Critical Framework for Transforming Multiethnic Literature Instruction
http://www.readingonline.org/articles/willis/

This article focuses on a semester−long qualitative research study in which the teaching of a work of African−American literature that highlights issues of social justice was critically framed.

71) Young Adult Literature: Middle &Secondary English−Language Arts
http://falcon.jmu.edu/~ramseyil/yalit.htm

This site lists resources to support the curriculum in English and Language Arts for K−12 Education. It includes sections on African−American, Asian−American, Native American, and Hispanic literature

72) Multicultural Book Reviews
http://www.isomedia.com/homes/jmele/joe.html

Site where you can submit your own book reviews. This site is intended to be a place where educators share information.

73) Digital library and archives, formerly the scholarly communications project. The ALAN Review
http://scholar.lib.vt.edu/ejournals/ALAN/fall95/Ericson.html

Recommended multicultural adolescent literature featuring memorable homes. Homes are an important part of the lives shared by adolescents of all cultures. Promoting the reading of books that look at homes in the lives of teenagers from many cultures can encourage reading and discussion

around cross−cultural issues in the classroom.

74) Reading Quest.org Making Sense in Social Studies. Strategies for Reading Comprehension
http://curry.edschool.virginia.edu/go/readquest/strat/

This site contains a list of strategies for reading comprehension.

75) Reciprocal Teaching
http://www.ncrel.org/sdrs/areas/issues/students/atrisk/at6lk38.htm

This North Central Regional Educational Laboratory Web site page offers a summary of reciprocal teaching.

76) Anticipation/Reaction Guide
http://www.ncrel.org/sdrs/areas/issues/students/learning/lr1anti.htm

The Anticipation/Reaction Guide is used to assess students' knowledge before they begin a lesson.

77) Graphic Organizers in Secondary Schools
http://www.indiana.edu/~reading/ieo/bibs/graphsec.html

This non−comprehensive coverage of the use of graphic organizers in secondary education was assembled from various resources on the World Wide Web, bookstores, libraries, and other.

78) Graphic Organizers
http://www.ncrel.org/sdrs/areas/issues/students/learning/lr1grorg.htm

This detailed information on graphic organizers is from North Central Regional Education Laboratory (NCREL).

79) Index of Graphic Organizers
http://www.graphic.org/goindex.html

The graphic organizers displayed on this site were constructed using "Inspiration" graphic organizer software.

80) Graphic Organizers
http://www.sdcoe.k12.ca.us/score/actbank/torganiz.htm

These graphic organizers were developed by Schools of California Online Resources for Education (S.C.O.R.E.)

81) Reading Process Analysis
http://www.wested.org/stratlit/ideas/readingprocess.shtml

This site explains the how and why of the reading process.

82) Creating a Twenty−five Word Abstract
http://www.wested.org/stratlit/ideas/twentyfiveword.shtml

This activity was created by a science teacher who wanted his students to use summarizing to better

access the classroom text. This activity can be applied in any content area.

83) A Metacognitive Double−Entry Journal
http://www.wested.org/stratlit/ideas/whatnhow.shtml

Students paraphrase the content of a text in their own words in the left−hand column and, in the right−hand column, students are metacognitive about their reading, detailing how they figured out what the passage may mean.

84) District Assessments
http://instech.tusd.k12.az.us/balancedlit/handbook/BLHS/blasmths.htm

Ideas for documenting student progress in reading and writing through systematic observation from the Tucson Unified School District.

85) What is RubiStar?
http://rubistar.4teachers.org/

RubiStar is a tool to help the teacher who wants to use rubrics but does not have the time to develop them from scratch.

86) Sustained Silent Reading in Secondary Schools
http://www.angelfire.com/ok/freshenglish/ssr.html

List of citations from ERIC that addresses the topic of Sustained Silent Reading in secondary schools. Also includes directions for securing full−text copies of these records.

87) Writing
http://www.sasked.gov.sk.ca/docs/ela102030/teach4.html

Lots of ideas for teaching and learning strategies to improve student writing abilities.

88) Writing Across the Curriculum
http://writing2.richmond.edu/wac/2entrynb.html

Shows examples of group writing activities offered by the Center for Instruction Development and Research at the University of Washington at Seattle.

89) LitSite Alaska: HS Reading Strategies
http://litsite.alaska.edu/uaa/workbooks/readingstrategies.html

Characteristics of best practices in reading and four reading comprehension strategies to use in the high school classroom are described by Kathie Steele, the reading coordinator for Chugiak High School in Eagle River District. LitSite Alaska is a project of the University of Alaska Anchorage and the Alaska Literary Consortium, funded in part, by a grant from the National Endowment for the Arts.

90) Best Practice in Teaching Writing
http://instech.tusd.k12.az.us/balancedlit/handbook/BLHS/blwhs.htm

Descriptions of strategies for teaching writing from the Tucson Unified School District.

91) Speaking
http://www.sasked.gov.sk.ca/docs/ela102030/teach2.html

Extensive list of ideas and descriptions of teaching learning strategies for improving presentation and speaking skills.

92) SEDL —SCIMAST Classroom Compass —Cooperative Learning. II: Models that Promote Cooperative Learning.
http://www.sedl.org/scimath/compass/v01n02/2.html

These models can enhance the effective use of cooperative learning groups.

93) Reciprocal Teaching: Strategic Reading
http://instech.tusd.k12.az.us/balancedlit/handbook/BLHS/blrechs.htm

This site describes the strategy for teaching strategic reading.

94) Reading Strategies: Scaffolding Students' Interactions with Text
http://web001.greece.k12.ny.us/academics.cfm?subpage=930

This page on the Greece Central School District (Greece, NY) website lists and defines 22 different reading strategies, labeling each as a before, during, and/or after reading strategy.

95) Increasing Comprehension by Activating Prior Knowledge, ERIC Digest
http://www.ericdigests.org/pre−9219/prior.htm

This ERIC document explains the research connecting the activation of prior knowledge with increased reading comprehension.

96) Problem Based Social Studies
http://www.bie.org/pbss/index.php

This Web page from the Buck Institute for Education provides a series of free curriculum units to guide problem based learning in social studies. It includes units related to real−world problems in economics and government, many on high−interest topics for students.

97) Learning on the Web: A Content Literacy Perspective
http://www.readingonline.org/articles/art_index.asp?HREF=/articles/mceneaney/index.html

An article describing electronic learning from a content−reading perspective in the International Reading Association Online journal.

98) Training a Class in Discussion Skills
http://www.ualr.edu/~teenread/id96.htm

Written by Barbara Stanford, UALR College of Education. This document discusses the how and why of training a class in discussion skills, plus some challenges for the classes to try.

99) Reading Next
http://www.all4ed.org/publications/ReadingNext/ReadingNext.pdf

This report, based on a 2004 meeting of five leading literacy researchers, outlines 15 recommendations for an effective adolescent literacy program. It also provides concrete strategies for implementing the recommendations and a bibiliography of research supporting each recommendation. Written by Catherine Snow and Gina Biancarosa.

100) Plumb Design Visual Thesaurus
http://www.visualthesaurus.com

The Plumb Design Visual Thesaurus is an exploration of sense relationships within the English language.

101) Finding Text Structures
http://www.info.kochi−tech.ac.jp/lawrie/semantictextstr.htm

An introduction to structure in writing and how to find text structures.

102) ESL Strategies for Secondary Students: Content−Based Instruction, Cooperative Learning, and CALP Instruction
http://www.tc.columbia.edu/academic/tesol/Webjournal/nicole.pdf

A short article on how all teachers who work with language−minority students can and must play a part in helping their students to gain content−based instruction (CBI), linguistic ability (CALP), and academic skills, with an emphasis on the importance of cooperative learning.

103) Reading
http://www.sasked.gov.sk.ca/docs/ela102030/teach5.html

Teaching learning strategies for reading.

104) Scripting for Reader's Theatre
http://www.humboldt.edu/~jmf2/floss/rt−notes.html

Strategies for creating good Reader's Theatre scripts.

105) Literacy Education Resources: Early Childhood to High School
http://reading.indiana.edu/

This site contains links to online resources about literacy education from early childhood to the high school level. Formerly an ERIC site, the Clearinghouse on Reading, English, and Communication is an information repository of the Indiana University School of Education.

106) Index to Internet Sites: Children's and Young Adults' Authors &Illustrators
http://falcon.jmu.edu/~ramseyil/biochildhome.htm

This is a meta−site designed to foster easy access to curriculum related sites for teachers, school librarians, parents, and students.

107) Young Adult Literature
http://scils.rutgers.edu/~kvander/YoungAdult/index.html

This site discusses young adult literature with links to specific types of books.

108) ELL Resource: Principles that Help; False Assumptions that Harm (about Bilingual Learners)
http://www.ed.arizona.edu/celt/fs7.html

Web page created by the Center for Expansion of Language and Thinking at the University of Arizona. Each false assumption and helpful principle is briefly discussed. The false assumptions that harm bilingual learners are: 1. Learning proceeds from part to whole. 2. Programs should be teacher−centered because learning is the transfer of knowledge from the teacher to the student. 3. Schoolwork should focus on the future. 4. Learning occurs when students work alone. 5. In a second language, oral language acquisition precedes the development of literacy. 6. Limited English speakers have limited learning potential. 7. Learning should take place in English to facilitate the acquisition of English.

109) Best Practices in Teaching Mathematics
http://instech.tusd.k12.az.us/balancedlit/handbook/BLHS/blmathhs.htm

Lists all the best practices in teaching mathematics.

110) The Future of Secondary Education: The High School Science Classroom of the Future
http://horizon.unc.edu/projects/HSJ/Baird.asp

Abstract written by Bill Baird of Auburn University.

111) Biology/Instructional Strategies/Writing in the Science Classroom
http://www.mdk12.org/instruction/curriculum/hsa/earth_space/writing_classroom.html

Communication is a major aspect of the nature of science.

112) Writing in the Science Classroom
ht http://owl.english.purdue.edu/handouts/print/research/r_ressteps.html

Classroom materials giving a step−by−step procedure for writing research papers.

113) Using Dialogue Journals in Support of Science Instruction
http://www.accessexcellence.org/MTC/96PT/Share/yorks.html

This covers a year−long lesson/class activity that encourages the students to ask themselves "do I understand. . .?"

114) Best Practices in Teaching Science
http://instech.tusd.k12.az.us/balancedlit/handbook/BLHS/blbpscihs.htm

Lists all the best practices in teaching science.

115) Handbook of Engaged Learning Projects: Sight and Sound in Nature; Scenario
http://www−ed.fnal.gov/help/97/sightsound/ssscen.html

This site describes the development/rationale of a second−semester project designed to help students learn concepts relevant to physics.

116) ELL Resource: Meeting the Needs of English Language Learners
http://www.ncte.org/library/files/Free/Journals/tp/TP0121Meeting.pdf

Article from the Fall 2000 issue of *Talking Points* where the authors offer eight major questions and a student survey to help educators better consider how to create optimal learning conditions. Examples of the questions are: Are students involved in authentic reading and writing experiences? Is the content meaningful? Does it serve a purpose for the learners? The authors make the case that teachers working with multilingual and multicultural students need to not only follow whole language principles but also be informed about second language acquisition theory and research and issues related to diversity. They need to learn about materials that support their students' first languages and are culturally relevant. They also need to develop effective methods to help students whose backgrounds and experiences are different from their own.

117) An Exploration of Text Sets
http://www.readwritethink.org/lessons/lesson_view.asp?id=305

A lesson plan that supports readers of a range of abilities and experience through the use of text sets. "A text set is a collection that focuses on one concept or topic and includes multiple genres such as books, charts and maps, informational pamphlets, poetry and songs, photographs, non−fiction books, almanacs or encyclopedias. In this lesson, the class community will put together a collection of text sets on topics of keen interest. They will then explore these texts using three key reading strategies: (1) graffiti boards, (2) browsing for key information, and (3) uninterrupted reading/focused freewriting."

118) Making Technology Happen
http://www.southern.org/pubs/MTH/makingtech.shtml

Making Technology Happen: Best Practices and Policies from Exemplary K−12 Schools, published by The Southern Growth Policy Board, addresses findings on best practices in the implementation of technology in schools. This online version of the book reviews how more than 200 exemplary schools are bringing technology into their classrooms. Areas of discussion include planning, training, providing technical support, re−engineering organizations, obtaining resources and evaluating how district, state and federal policies impact the process.

119) Literacy Strategies: Gradual Release of Responsbility Model for Strategy Instruction
http://web001.greece.k12.ny.us/academics.cfm?subpage=1177

This Web page from the Greece Central School District in Greece, NY, describes a research−based process for explicit strategy instruction. Links on the left provide detailed instructions on the use of specific strategies (Questioning, Predicting, Clarifying, etc.).

120) Secondary Content Teacher Reading Strategies
http://www.ops.org/reading/secondarystrat1.htm

This site contains lesson plans secondary school teachers can use to teach reading strategies.

121) Linking Math and Reading
http://www.mathgoodies.com/books/

For a series of books that link math and reading, see this Web site.

122) Creating a Responsive Math Classroom
http://www.mathgoodies.com/articles/safe_math.html

For suggestions on how to create a more responsive math classroom, see this Web site.

123) Madison Metropolitan School District: High School Reading Task Force Report, June 1999.
http://www.madison.k12.wi.us/tnl/langarts/hsread.htm

Report from the Madison Metropolitan School District that describes a district−wide plan to support struggling adolescent readers.

124) Secondary Literacy Report
http://www.mcsd.org/Report_files/secondary.pdf

Report from the Montrose County School District describing a district−wide plan to strengthen literacy at the secondary level.

125) Adolescent Literacy: A position statement.
http://www.reading.org/pdf/1036.pdf

Report from the Commission on Adolescent Literacy of the International Reading Association.

126) Excellence in English in Middle and High School: How Teachers Professional Lives Support Student Achievement
http://cela.albany.edu/reports/eie1/index.html

This CELA study examined the characteristics of teachers' professional lives that accompany student achievement in writing, reading, and English.

127) National Association of Secondary School Principals
http://www.nassp.org

The online community for principals, assistant principals, and aspiring principals which features reporting on legal issues that effect school leaders.

128) NCBE Resource Collection Series
http://www.ncela.gwu.edu/pubs/resource/resourceguide.pdf

A National Study of Title VII Comprehensive School Programs.

129) Madison Metropolitan School District: High School Reading Task Force Report, June 1999.
http://www.madison.k12.wi.us/tnl/langarts/hsread.htm#commitment

Report from the Madison Metropolitan School District that describes a district−wide plan to support struggling adolescent readers.

130) The 6+1 Traits of Effective Writing
http://www.lkwash.wednet.edu/lwsd/pdf/6+1Traits.pdf

This guide for high school parents provides a clear overview of the writing process and rubrics for assessing various aspects of the writing, as well as an easy to understand glossary of terms.

131) Effective Practices for Developing Reading Comprehension.
http://www.scholastic.com/dodea/Module_1/resources/dodea_m1_pa_duke.pdf

Research on reading comprehension strategy instruction.

132) The Math Forum @ Drexel
http://mathforum.org/pow

The math forum has problems of the week as a resource for teachers and students in secondary math classes.

133) Strategies for Reading Math Textbooks
http://wc.pima.edu/~carem/Mathtext.html

For strategies on how to read a math textbook, see this Web site.

134) Secondary Science Inquiry Scoring Guide
http://www.nwrel.org/msec/science_inq/guides.html

Teacher's version of a secondary school science inquiry scoring guide.

135) Webquests for constructivist lessons across the curriculum
http://webquest.org/

At this site, view and obtain vetted lessons in 12 curricular areas and all grades, using the WebQuest model, a constructivist lesson format used widely around the world.

136) Comprehensive School Reform
http://www.alliance.brown.edu/pubs/csr/index.shtml?components

Contains an updated list of the eleven components of the federal program with a clickable Self−Assessment Tool. The components of comprehensive school reform provide a guide for schools to use in creating a comprehensive school reform plan that includes a research−based whole school reform model.

137) Teaching Vocabulary in the Math Classroom
http://www.eduplace.com/state/pdf/author/chard_hmm05.pdf

For an overview of strategies for teaching vocabulary in the math classroom, see this Web site.

138) Teen Reading
http://www.ala.org/ala/yalsa/teenreading/teenstopten/05TTT.htm

This web site, sponsored by the Young Adult Library Services Association, a division of the American Library Association, provides regularly updated lists of young adult books recommended by both librarians and teens. It also contains information about Teen Read Week, tips to encourage reading, and links to useful sites and publications for educators concerned about literacy.

139) Critical Thinking Across the Curriculum Project
http://www.kcmetro.cc.mo.us/longview/ctac/reading.htm

For resources from the Critical Thinking Across the Curriculum Project, go to this Web site.

140) ELL Resource: OWL Online Writing Lab at Purdue

http://owl.english.purdue.edu/handouts/esl/index.html

Series of pages that are part of one of the best online writing labs. One can find links to handouts, interactive exercises that help students with grammar problems, idioms, and academic conventions. The section for teachers links to various pedagogical resources, including online journals, lists of other online resources, and an annotated bibliography for ESL instructors.

141) Mathematics and Motivation
http://mathforum.org/~sarah/Discussion.Sessions/biblio.motivation.html

This site explains how student motivation affects mathematics learning and instruction.

142) Interactive Student Notebooks
http://www.pasd.com/PSSA/reading/notebook.htm

This site suggests a variety of ways to have students interact with a text including personal response, making connections, and comparing and contrasting with other texts.

143) Readquest Strategies for Reading Comprehension
http://curry.edschool.virginia.edu/go/readquest/

From the readquest Web site, designed for social studies teachers who wish to engage their students more effectively with the content in their classes, this Web page contains specific information for teaching and downloadable student pages for 27 strategies.

144) ESL Teacher's Role in Intercultural Communication
http://www.everythingesl.net/inservices/_teachers_role_intercultural_c_06908.php

Short article that discusses the role of teachers of ELLs and the objectives of an effective staff development workshop. It also discusses the "hidden curriculum" (everything about the school that is not part of the academic curriculum) and how it affects ELLs. The Web page links to three handouts that were used in staff development workshops. See also a related article called "English Language Learners and the 'Hidden Curriculum'" (http://www.everythingesl.net/inservices/goal3.php)

145) ELL Resource: Strategies for All Teachers in Working with ELLs
http://www.albany.edu/lap/strategy.htm

Website hosting modules of an instructional model created by the Language Advocacy Project at the University of Albany. The model was designed to help teacher trainers elicit discussions among teachers about issues in the education of LEP students. Each module includes background notes and transparencies. Topics include: Integrating the ESL Students into the General Classroom, NYS Regulations, Standards and ESL Students and ESL Students and Special Education.

146) Literacy Matters for Social Studies
http://www.literacymatters.org/content/socialstudies.htm

A resource developed by the Education Development Center, EDC, with numerous Web resources for social studies teachers, parents, and students.

147) Students as investigators in Minnesota
http://www.pca.state.mn.us/hot/frog−bg.html

For students who are interested in exploring the topic of pollutants in greater depth, this Web page tells the story of the Minnesota students? findings.

148) ELL Resource: Social Studies and ESL Students
http://www.albany.edu/lap/MODULE%208.doc

Handout that forms part of an Instructional model created by the Language Advocacy Project (LAP) at the University at Albany. This unit deals specifically with social studies. It includes suggestions about where to start with these students and strategies for helping ESL students understand social studies textbooks.

149) ELL Resource: Spelling and the Middle School English Language Learner
http://www.ncte.org/library/files/Free/Journals/vm/VM0114Spelling.pdf

Short article published in the May 2004 issue of Voices in the Middle discussing four issues that teachers of ELL students should attend to when helping these students learn spelling. The four issues are: knowledge of the characteristics of the English spelling system, assessment of students' current knowledge, familiarization with the language that the students speak and use of specific instructional strategies.

150) ELL Resource: Sounds of English
http://www.soundsofenglish.org/

"Website designed for teachers and students learning English pronunciation. The site includes sections on how to pronounce specific sounds, word stress, sentence stress and intonation. Some exercises and activities can be done online by listening to MP3 files. ""Tips for teachers"" offers ideas for pronunciation activities using poetry, drama, bingo, contrastive stress, pronunciation partners, humming and scavenger hunts. "

151) ESL Science
http://bogglesworld.com/esl_science_archives.htm

A site with handouts and activities with science as content for teachers who teach elementary and middle school English and ESL. Some topics included are arthropods, mollusks, and clouds. One of the handouts is on science and scientists. Students look at the vocabulary used to describe what scientists do, such as research, hypothesize, experiment, collect data, and predict. Then, they look at a list of scientists and have to define what each scientist does using a relative clause.

152) Shared Spelling Strategies
http://www.readwritethink.org/lessons/lesson_view.asp?id=48

Lesson plan intended to help 6−8th grade students "construct" spelling by using sound, sight recall, and analyzing strategies, instead of memorizing lists of words.

153) Darwin's "On The Origin of Species"
http://talkorigins.org/faqs/origin.html

This resource provides the complete text of Charles Darwin?s The Origin of the Species, integrating science and text structure, and is also valuable for illustrating the value of the scientific process to students (hypothesis, evidence etc.). Its student−friendly format allows students to click on individual chapter titles. The complete classic text would otherwise seem overwhelming to students.

154) Academic Discourse Features
http://education.nyu.edu/teachlearn/ifte/zamel2.htm

For an interesting essay on academic discourse, see this Web site.

155) Science at NASA
http://science.nasa.gov/

This student−oriented site provides news from NASA in a magazine format that is organized by content area.

156) Science and Technology pages of the Smithsonian Museum of Natural History
http://www.si.edu/science_and_technology

The Science and Technology page lists and annotates engaging topics, and the homepage for the Museum of Natural History takes the visitor to interesting presentations (microorganisms, pearl formation, dinosaurs).

157) Improving Mathematics and Science Instruction for LEP Middle and High School Students Through Language Activities
http://www.ncela.gwu.edu/pubs/symposia/third/reyhner.htm

This paper presents an overview of a series of studies on how to improve the education of ethnic minority limited English proficient students in general, and how to improve the education of LEP American Indian students in the areas of mathematics and science in particular.

158) ELL Resource: The Role of Metacognition in Second Language Teaching and Learning
http://www.cal.org/ericcll/digest/0110anderson.html

Digest of literature on metacoginition and second language teaching and learning. It discusses the five primary components of metacognition: preparing and planning for learning, selecting and using learning strategies, monitoring strategy use, orchestrating various strategies, and evaluating strategy use and learning. It recommends that teachers model these strategies.

159) Writing in Response to Reading/Reading−Writing Connection
http://www.pasd.com/PSSA/reading/notebook.htm

This site suggests a variety of ways to have students interact with a text including personal response, making connections, and comparing and contrasting with other texts.

160) Earthwatch Institute
http://earthwatch.org/education/teachlive/teachlive.html

The Earthwatch Institute site is an excellent ecology site for students of all reading levels. The Institute sponsors expeditions for teachers (see detailed information on this site) and their work with students is reflected here. Select an ecosystem or historical human culture for a menu to access the site of each specific teacher. Sites also provide lesson plan examples and related links for more information.

161) It's Elemental: The Periodic Table of Elements
http://pubs.acs.org/cen/80th/elements.html

This site is a periodic table where passing the cursor over the symbol reveals the element?s name and clicking on the symbol takes the reader for an engaging in−depth article about the element.

162) ELL Resource: The Inclusive Classroom: Teaching Math and Science to English−Language Learners
http://www.nwrel.org/msec/just_good.pdf

Publication prepared by the Northwest Regional Educational Lab for teachers of ELLs. The three main sections are understanding the specialized languages of math and science, linking second language strategies with content instruction and collaborating with other teachers. The second section, which is the more extensive one, discusses thematic instruction, cooperative learning, inquiry and problem solving, vocabulary development, classroom discourse, affective influences and assessment.

163) Using the History of Science in the Chemistry Classroom
http://cse.edc.org/products/historyscience

This resource profiles 15 famous scientists (Click on ?Historical Entries?) and shows scientists in a human light. It is written so students will make the connection between scientists and themselves.

164) ELL Resource: Interesting Things for ESL Students
http://www.manythings.org/

Website with loads of word games, puzzles, quizzes, exercises, slang, proverbs for ELLs to practice vocabulary, sentence construction, grammar, listening and pronunciation. All the exercises are self−scoring and students get immediate feedback.

165) Monitoring a Schoolwide Literacy Plan
http://www.ncrel.org/sdrs/areas/issues/content/cntareas/reading/li700.htm

For a discussion of the issues involved in monitoring a schoolwide literacy plan, see this Web site.

166) Misconceptions about Evolution and the Mechanisms of Evolution
http://evolution.berkeley.edu/evosite/misconceps/index.shtml

The "misconceptions" page gives five common misconceptions about evolution, presented with cartoons in a student−friendly reading format. The "history" page breaks down evolutionary theory into four historical periods. Clicking on topics brings up the accompanying bullets of information. Another valuable feature of this site is "Readings and Resources", which goes directly to more in−depth articles on very specific topics such as the evolution of human brain size.

167) To Spray or Not to Spray: A Debate Over Malaria and DDT
http://ublib.buffalo.edu/libraries/projects/cases/ddt/ddt.html

At this Website, scientists with conflicting interests converse in the office of the UN Secretary for Public Health. The debate is over whether a worldwide ban on DDT should be enacted and it provides an example of how scientists discuss topics.

168) Earth Exploration Toolbook
http://serc.carleton.edu/eet/chapters.html

This very teacher friendly site focuses on environmental issues. Each topic has been created as a unit

that provides students with projects to explore, teaching students to read scientific maps and graphs and to analyze and translate the information. Our two favorites for engaging adolescent learners are Analyzing the Antarctic Ozone Hole and When Dinner is Served ? Phytoplankton Blooms in the Gulf of Maine.

169) ESL Math and Science for High School Students: Two Case Studies
http://www.ncela.gwu.edu/pubs/symposia/third/spanos.htm

A paper that documents the experiences of the author in implementing a content−ESL program for high school mathematics and science. It is made up of case studies of one ESL−math class and one ESL−science class. The research questions were: (1) What are the linguistic demands of mathematical and scientific content? (2) How is student acquisition of this content assessed? (3) How can teachers provide contexts for students to utilize learning strategies in acquiring this content? and (4) How is the role of learning strategy instruction in this acquisition process measured? The answers led to recommendations regarding the education of language minority high school students. For example, language teachers should be trained to integrate language and content instruction.

170) Lesson Plan Index of Read Write Think
http://www.readwritethink.org/lessons/index.asp

Index of lesson plans searchable by grade levels. The lesson plans are thoughtful, well−written, and ask students to engage with the text and with each other. Each lesson plan begins with a theoretical basis, concludes with an assement component, is matched to IRA/NCTE Standards, and links to additional resources.

171) Newton's Three Laws of Motion and More
http://csep10.phys.utk.edu/astr161/lect/history/newton3laws.html

Part of a lecture series for an on−line astronomy course, this Web site integrates science and history. While integrating physics and mathematics, it also provides the history and development of the current theory through the contributions of Aristotle, Copernicus, Galileo, and Kepler in language appropriate for high school students. Go to the home page/main index and click on ?Plate tectonics? (#9 The Earth) to see an example of other age−appropriate presentations.

172) ESL Teacher as a Cultural Broker
http://www.everythingesl.net/inservices/crosscultural.php

"Web page that deals with the role of the ESL/bilingual professionals as teachers of strategies which help their colleagues and other mainstream staff members understand the role that culture plays in the behavior and reactions of second language learners and their parents. The page contains links to downloadable activities that explore myths in second language acquisition and biases and stereotypes. "

173) Using Literature to Teach Geography in High Schools
http://www.indiana.edu/~ssdc/glitdig.htm

This short ERIC digest article argues for using literature in the teaching of high school geography. It also includes sample questions that might be used when teaching John Steinbeck's novel *The Grapes of Wrath* in a geography class.

174) LitSite Alaska: Writing with Empathy

http://litsite.alaska.edu/uaa/workbooks/writingempathy.html

English teacher Andromeda Romano−Lax describes how students use observation, consider perspectives, and examine bias to "get past the surface" and write about how other people might be thinking and feeling. Included is a detailed writing workbook featuring reading and writing assignments for different skill levels.

175) ELL Resource: Language Arts Instruction and English Language Learners
http://www.phschool.com/eteach/language_arts/2001_12/essay.html

Article on a textbook publisher website useful for reading teachers of ELLs. Sections of special relevance are: Differential Preparation for Second−Language Schooling, Second−Language Literacy Development, Implications for English Language Arts Instruction, Instructional Considerations When Preparing Lessons to Support English Language Learners.

176) Vary Your Reading Strategies
http://www.utexas.edu/student/utlc/lrnres/handouts/553.html

This simple chart from the University of Texas Learning Center describes ways to vary reading strategies to match the types of text structures found in various content areas. Strategies and objectives are provided for social studies, mathematics, humanities, and the natural sciences.

177) Ecology vocabulary and concepts related to frogs
http://elib.cs.berkeley.edu/aw/declines/declines.html

This site uses frog declines as an indicator of a worldwide problem and presents an investigation of environmental factors suspected for causing malformations and population declines of frogs. The site integrates common ecology terms and uses them content−specific to frogs.

178) National Geographic.com
http://nationalgeographic.com/index.html

The National Geographic Magazine online links to an Educator?s Homepage, which contains resources for teachers and students, and lesson ideas, which prompt students to research online, participate in group activities, take positions on issues, and make inferences. Our favorites: Standards #7 Grand Canyon, #14 Coastal Development, and #18 Parasites and Disease.

179) LitSite Alaska: Workbooks and Peer Work Index
http://litsite.alaska.edu/uaa/workbooks/workbooks.html

This part of the site is full of activities and exercises contributed by educators, parents and students from around Alaska. Each Workbook is divided into sections for multiple skill levels that are grade−specific. Note especially the following activities: Angel Card Discussion Technique, Book Report, Justice and Freedom, Newspapers in Education −− High School Reading, and Writing with Empathy.

180) LitSite Alaska: Justice and Freedom
http://litsite.alaska.edu/uaa/workbooks/justice.html

This writing exercise asks students to respond to actual internment camp orders delivered to Japanese Americans in 1942. It is designed to prompt serious reflection about the historical implications of

WWII for Japanese−Americans in the U.S. (including Alaska) and the concepts of justice and freedom.

181) EdSitement
http://www.edsitement.neh.gov/

This website from the National Endowment for the Humanities provides high−quality searchable lesson plans in social studies and English language arts.

182) ELL Resource: Connecting Students to Culturally Relevant Texts
http://www.ncte.org/library/files/Free/Journals/tp/TP0152Connecting.pdf

Article from *Talking Points* where the authors illustrate how connecting readers with culturally relevant books can launch learners on the path to academic success and help them udnerstand who they are. Readers can more easily construct meaning from a text that contains familiar elements because their background knowledge helps them make predictions and inferences about the story. The article includes examples of books that can be used and questions that teachers can ask their students. It ends with an insightful quote by Paulo Freire, "Reading the world always precedes reading the word, and reading the word implies continually reading the world."

183) Everyday Funds of Knowledge and Discourse
http://www−personal.umich.edu/~moje/pdf/Journal/WorkingTowardThirdSpace.pdf

For an interesting essay about academic discourse, see this Web site.

184) Online Poetry Classroom
http://www.onlinepoetryclassroom.org/

This website, sponsored by the Academy of American Poets, provides access to curriculum units and lesson plans created by teacher participants in Online Poetry Classroom workshops. These workshops bring middle school and high school teachers together with practicing poets and technology experts to develop new strategies for teaching poetry. The site also contains a searchable database of poets and poems, interactive teacher forums, and a teacher resource center full of relevant links.

185) LitSite Alaska: Newspapers in Education, HS Writing
http://litsite.alaska.edu/uaa/workbooks/highnewswrite.html

Tom Janz provides writing activities for high school students based on reading current stories about events in their own communities and the rest of the world. LitSite Alaska is a project of the University of Alaska Anchorage and the Alaska Literary Consortium, funded in part, by a grant from the National Endowment for the Arts.

186) ELL Resource: Scaffolds that Help ELL Readers
http://www.ncte.org/library/files/Free/Journals/vm/VM0111Scaffolds.pdf

Article written by a teacher who used T−charts and sticky notes to support reading comprehension and help her ELL students with the recall and synthesis of key text information. Published in the September 2003 issue of Voices from the Middle.

187) LitSite Alaska: Newspapers in Education −− High School Reading
http://litsite.alaska.edu/uaa/workbooks/highnewsread.html

Journalist and educator Tom Janz provides reading and writing activities for high school students that involve current news stories about their own communities and the rest of the world.

188) Basic science concepts: How Stuff Works
http://science.howstuffworks.com

The science resources in How Stuff Works include concrete examples and analogies students can understand, while providing clear descriptions, engaging graphics, and easy reading for basic concepts. They also provide real world examples like how refraction makes a rainbow and how animals become resistant to antibiotics.

189) Literacy Instruction in Social Studies (Greece CSD, NY)
http://web001.greece.k12.ny.us/academics.cfm?subpage=1361

This site from the Greece Central School District in Greece, NY, contains several documents providing guidance on K−12 integration of literacy into social studies instruction, including guidelines on helping students to respond to Document Based Questions.

190) Virtual Pond Dip
http://www.microscopy−uk.org.uk/index.html?http://www.microscopy−uk.org.uk/ponddip/

This site is a ?virtual pond dip? where high school students click on a critter in the jar and gather information at a level appropriate to high school students. The site also provides information on microscope history and technology and on terrestrial microscopic organisms. Most of these resources are presented in engaging formats, especially the Pond Life Identification Kit. At the bottom of the page, click on Microscope Magazine Article Library for a library of magazine articles broken out by category of interest.

191) LitSite Alaska: Book Report
http://litsite.alaska.edu/uaa/workbooks/bookreport.html

Joanne Congdon's Book Report Exercise teaches characterization, dialogue, and the creation of conflict for dramatic effect in a fictional narrative. It also gives students practice in using quotation marks and parenthetical references, and in creating a bibliography.

Content Providers

This is an annotated list of organizations that provided content for this topic on The Knowledge Loom.

1) The Education Alliance at Brown University

The Education Alliance, a department at Brown University, has been working to effect real change in education for more than 25 years. The organization helps schools and school districts provide equitable opportunities for all students to succeed. It applies research findings and develops solutions to problems in such areas as school change, secondary school restructuring, professional development, first and second language acquisition, educational leadership, and cultural and linguistic diversity.

2) Center for Resource Management (CRM)

The Center for Resource Management (CRM) is a major partner organization of the Northeast Regional Educational Laboratory at Brown University (LAB) and conducts several projects aimed at supporting state and local district efforts to implement standards−based reform with diverse student populations.

The Center for Resource Management, Inc. (CRM) is a professional services firm specializing in research, evaluation, training, technology integration, and software development for education and human service organizations. For more than 20 years, CRM has worked with education and human service organizations at the national, regional, state, and local levels.