

Reading Research Report

Historical perspective

Samuels and Farstrup posits that from the early 1900s through the 1960s, the predominant paradigm for reading instruction was skills based. Reading scholars and researchers recognized the relationships between reading and learning and essentially pursued two lines of inquiry through descriptive, correlation, and experimental research: (1) the identification of reading and study skills associated with each of the content areas, and (2) the effects of various instructional variables on the acquisition of reading and study skills and learning in content areas.

The shift from a reading and study skills paradigm to a cognition and learning paradigm became noticeable in the reading field in the 1970s and 1980s, with numerous investigations conducted to better understand the role of cognitive and metacognitive processes in reading and to validate learning strategies grounded in cognitive and metacognitive principles. Frank Smith, Kenneth and Yetta Goodman led the charge with the reading research. Smith's two classics *Understand Reading a Psycholinguistics Analysis of Reading* and *Understanding Reading* laid the groundwork for much of what is held in reading research and instruction today. Reading research throughout the United States became increasingly multidisciplinary. It resulted in an era of unprecedented advances in the theory and model building, leading to a renaissance in research on learning from text. Researchers for the most part within their own disciplines of cognitive and instructional psychology, psycholinguistics, sociolinguistics, and reading education took aim on the reading process, with comprehension as the bull's-eye. Today reading research continues to be grounded solidly in cognitive learning theory, although some might argue that a social constructivist paradigmatic shift currently is under way (Samuels and Farstrup).

Constructivism, a psychological and philosophical perspective, contends that individuals form or construct much of what they learn and understand. It highlights the interaction of persons with situations in the acquisition and refinement of skills and knowledge. A basic assumption of constructivism is that people are active learners and must construct knowledge for themselves (Schunk).

From a constructivist perspective, teachers do not teach in the traditional sense of standing in front of a room of students and delivering instruction. Rather they use materials with which learners become actively involved through manipulation or social interaction (Schunk).

Social constructivist research is interested in such issues as beliefs of students, and teachers toward teaching and learning, the role of literature in content study and the connections between reading and talking to learn as well as reading and writing to learn. Teachers who hold constructivist beliefs recognize that students learn with text, not necessarily from text (Farstrup & Samuels, 2002).

Within the cognition and learning paradigm, research related to schema theory, text structure, metacognition, and strategic learning has had a major impact on content area reading practices. According to a schema theoretic view, readers are in a better position to comprehend what they are reading whenever they use prior knowledge (schemata) to construct meaning. Schemata reflect the experiences, conceptual understanding, attitudes, values, and skills readers bring to the text. Schema activation is

the mechanism by which readers access what they know and match it to the information in text. For comprehension to occur, the reader must activate or build a schema that fits with information in text (Rumelhardt).

Metacognition involves the ability to control one's own cognitive activities. Metacognitive ability and strategic learning are closely related. Good readers are strategic readers. They are metacognitively aware, knowledgeable about their own reading processes and in control of reading activities (Brown, Bransford, Ferrara, & Campione, 1983).

Duke and Pearson suggest that good comprehension instruction includes both explicit instruction in specific comprehension strategies and a great deal of time and opportunity for actual reading and writing. In order for good reading instruction to take place, the following features must be included:

- A great deal of time actually reading. Learners must have the opportunity to apply their knowledge, skills, and strategies during actual reading.
- Experience reading the range of text genres that we wish students to comprehend.
- An environment rich in vocabulary and concept development through reading experience, and above all, discussion of words and their meaning.
- Lots of time writing.
- An environment rich in high quality talk about text.

Research based national guidelines for reading instruction suggests the following strategies for use in reading classrooms:

According to **Frank Smith** in *Understanding Reading* 1994, Reading and writing are interdependent processes that are necessary and beneficial to one another. Smith suggests the following as ways reading and writing support each other:

- Reading is an important component of the writing process, because it is through the act of reading that the author monitors the meaning he or she has constructed;
- The knowledge used in writing often comes from what has been read, and writing often becomes the stimulus for further reading;
- Reading provides models for which the writer can learn about genre, style, voice;
- Reading helps the writer begin to understand the importance of structure, organization, and the conventions of language such as grammar, punctuation, and spelling;
- Reading one's own writing provides the opportunity to learn to read with a critical eye;
- Reflecting on how meaning is created during writing helps the reader better understand the role he or she must play in the construction of meaning while reading;
- Writing in response to reading allows the reader to revise the initial meaning constructed for the text;
- Writing before reading can have positive effects on comprehension as well as subsequent writing; and writing provides support for

comprehension skills and strategies such as determining main idea and supporting details or inferring character traits.

Annette Gourgey, an educational psychologist and learning consultant who teaches at Baruch College and at the Borough of Manhattan Community College of the City University of New York, stresses metacognitive strategies. According to Gourgey, educators are increasingly recognizing the value of instruction that focuses on the development of comprehension strategies for thinking and independent learning. Included in this formulation are metacognitive skills or fostering awareness and control of one's learning. A metacognitive approach to education involves teaching students to identify learning goals, to monitor their understanding and their progress toward their goals, and to clarify misunderstanding when they have lost comprehension. Some ways in which metacognition can help enhance reading skills are as follows:

- clarifying the purpose for reading;
- activating relevant prior knowledge;
- allocating attention to the important details;
- evaluating content for internal consistency and compatibility with prior knowledge;
- self monitoring to verify comprehension;
- drawing and testing inferences;

Martha Casazza, a professor at National-Louis University in Chicago and chair of the Developmental Studies Department, feels more emphasis should be placed on direct instruction. The following model, referred to as EMQA, stresses summary writing through explanation, modeling, questioning, and application.

Explanation

Most learners, especially college students who have been placed into a developmental reading course, need to know what they are learning and why it is important. In this first component of the EMQA model, summarizing is introduced and described explicitly. Students learn that to summarize they must reduce the material to the key concepts, put these in their own words, and omit personal opinion. Through discussion they learn that summarizing will help them to monitor their own comprehension and thus learn efficiently. The instructor emphasizes that summarizing is a skill that will facilitate learning across the curriculum. To reinforce this idea, the primary materials used for instruction should come from content textbooks or periodicals; they should be in short exercises written to teach summarizing.

- Delete minor and redundant details
- Combine similar details into categories and provide a label, then
- Select main idea sentences when the author provides them or
- Invent main idea sentences when the author is explicit

Modeling

The next step in the instructional process is perhaps the most important and the one that must be repeated regularly in classroom activities. This is the modeling component of EMQA. For the four rules of summarizing to really make sense to the students, they must be modeled both verbally and in writing. The modeling should include examples of both the process and the product that results.

Questioning

The questioning portion of the direct instruction model should occur naturally and within each of the other components, but the instructor can structure activities to ensure that it becomes a part of the direct learning experience.

Application

The final component in the EMQA model is application, providing a range of opportunities for students to construct summaries. The student works both individually and in groups.

Portfolio

Yvonne Siu-Runyan, Professor Emerita at the University of Northern Colorado's School for the Study of Teaching and Teacher Education and **Kenneth Wolfe**, an Associate Professor at the University of Colorado, have written numerous articles supporting the portfolio process. Together they have defined and outlined the portfolio process and how it can be used to assist students in improving their reading and writing skills. Their recommendations are as follows:

1. The purposes for keeping a portfolio ultimately determine the form that the portfolio will take. The movement to student portfolios has been driven by new conceptions of teaching and learning, and dissatisfaction with the dominance of standardized tests. In particular, cognitive revolution, along with an increasing recognition of the social and contextual nature of learning, has led to the view that learning is a dynamic and complex process that is strongly shaped by the social context and setting in which it occurs.
2. A portfolio is selective. A portfolio is not a random assortment of odds and ends, but a selective collection of information gathered for specific purposes. These purposes vary depending upon the person creating the portfolio and the context in which it is constructed.
3. A portfolio is a collection of students work and records of progress. The heart of a portfolio is student work, such as writing samples, reading journals, collaborative projects, and artistic creations. It is through the examination of collections of student work, which represents contextualized and complex performances, that students and teachers can gain insights into ways to support student learning. In addition to student work, records of student progress such as

student made reading logs and self assessments, or teacher-constructed checklists of writing skills or observational notes, are invaluable as well.

4. A portfolio contains diverse information. Portfolios should contain a diverse set of information gathered across a variety of learning contexts, content areas, and forms of communication; otherwise the full range of an individual's talents and interests may not be revealed.
5. A portfolio shows development over time. One of the chief values of a portfolio is its ability to show the growth of a piece of work or of a learner over time. Standardized tests provide a black-and-white snapshots, while a portfolio, by comparison, is more like a movie that shows not only events over time, but shows them with sound and color as well. Viewing learning over time also allows the documentation of process as well as product and enables students and teachers to see patterns in their performance.
6. A portfolio is reflective. More than anything else, the portfolio process should inspire reflection. Collecting and examining one's work provides a powerful opportunity for studying the biographers of a work as well as one's development as a learner. Reflection is what allows us to learn from our experiences; it is an assessment of where we have been and where we want to go next.
7. A portfolio is collaborative. Learning is not a solitary process, and constructing a portfolio should not be either. Interactions with others peers, teachers etc., should permeate the portfolio process as learners set goals, carry out their work, and reflect on their accomplishments. Collaboration is a form of social reflection that provides learners with responses to and critiques of their work.
8. The aim of a portfolio is to advance student learning. While portfolios are constructed for a number of purposes, all of these purposes must serve one ultimate goal, to promote student learning.

In examining some of the most current research involving methods and techniques being used in classrooms around the nation, research assumptions suggest that attention is being focused in the following areas: teaching style and fit, conduciveness of the surrounding learning environment, vocabulary development, classroom delivery methods, emphasis on the reading/writing connection, and the infusion of technology.

Research in developmental education, whether it is reading, writing, or math, has long supported the idea of selection and fit in the developmental classroom. Additionally, faculty in developmental education can benefit from knowing style (Crosling & Webb). Knowing style allows faculty members to alter and vary the approach in the classroom to meet the unique needs of developmental students (www.indstate.edu/ctl/styles/id.hrml). Understanding style can also help faculty create a distinctive learning environment for developmental students. For example, a reading classroom should offer an environment that focuses on preparation for college study, reading remediation, and reading enjoyment. Preparatory and college level instruction

requires students to integrate skills, read and analyze various types of reading material including content area and persuasive writings, research sources in print and on the Web and remediate weaknesses. In order to meet the needs of reading students taking College Preparatory classes, we need to provide a variety of approaches other than just teacher-directed, group, and independent activities (Drummond). A model incorporating the kind of learning environment that can assist developmental students in achieving the optimal success in a reading course was designed for the South Campus of Florida Community College. This lab, equipped with the latest in computer technology, can serve as a guide in developing other reading classrooms collegewide.

Model for a Reading and Writing Lab

A strategic initiative written in support of creating a new reading and English lab at the South Campus of Florida Community College stressed providing students with the optimum-learning environment that reflects the college's commitment to quality and keeps pace with its efforts at technology enhancement. The initiative, which was funded, recommended creating a laboratory setting that focused on the following areas:

- Prepare students for distinctive success in the global information age
 - Our rapidly increasing knowledge-based economy, particularly in the global marketplace, compels the nation to increase the number of people who have skills for job requirements that were not needed or even thought of a couple of decades ago. Eighty percent of sustainable jobs today require some education beyond high school and 65 percent of the workforce need skills that include advanced reading, critical thinking, mathematics, writing, and interpersonal group skills. According to the Bureau of Labor Statistics, the growth rate in jobs between 1994 and 2005 is greater for those categories that require at least an associate degree.
 - In order to better prepare students to meet the challenges presented by the global information age, it is necessary to provide lab instruction using software that emphasizes critical reading and thinking skills as well as instruction on how to evaluate and synthesize materials obtained on the Internet.
- Optimize access to and participation in college programs
 - Good remedial education can benefit institutions. Students who are admitted to a college and who successfully complete remediation become regular attendees who pay tuition, participate in the collegiate experience, and contribute to the campus culture. Thus, a successful remediation program actually can help partially offset the costs of providing remediation while helping with retention.
- Elevate “customer service” to a level unsurpassed in higher education

- Over the past decade, technology, and specifically computers, has been used to enhance the teaching-learning process, particularly in remedial courses that are hierarchical, linear, and stable in their structure and content. We believe in allowing students to use a computer-based, skill-building program for remediation after failing a course. Providing these services to them is the highest order of customer service we can provide.

Support for the above recommendations was derived from a number of sources. In terms of overall classroom strategies, particular attention should be given to Tom Drummond's collection of practices that constitute excellence in college teaching. Drummond, a faculty member at North Seattle Community College, spent several years (1994-2002) collecting and refining a list of the most effective actions teachers take, and requisite conditions teachers establish to facilitate learning (Drummond). In brief, Drummond's list includes 12 best practices. In speaking to these practices, Drummond emphasizes that becoming an excellent college teacher is a continuous life-long professional challenge. The list includes information on the following "best practice" suggestions:

- Lecture practices that enhance retention
- Group discussion
- Thoughtful questions
- Reflective responses to learner contributions
- Rewarding learner participation
- Active learning strategies
- Cooperative group assignments
- Goals to grades connections
- Modeling
- Double loop feedback
- Climate setting
- Fostering learner responsibility

*An attachment of Drummond's article is included in the printed copy of this text.

This brings us to the research supporting the use of technology in the reading classroom. First, there is a good deal of research available that looks at the use of technology in the developmental reading classroom. More recently, some of this research has explored the use of hybrid courses with developmental students. It appears that face-to-face instruction combined with assisted technology has proven extremely successful in helping developmental reading students and students with learning disabilities (Engstrom).

Numerous research studies, including those explored in the *Journal of Adolescent & Adult Literacy*, support the use of technology in an integrated reading, writing, and skills curriculum. One such article, *Reading, Writing, and Assistive Technology: An Integrated Developmental Curriculum for College Students*, supported the use of technology with college students whose reading scores were between fourth- and

seventh-grade levels. This article describes the benefits of common assistive technology software programs and examples of learning activities designed to scaffold students' comprehension and writing using this technology. The article adds to the growing body of evidence that points to the benefit of combining technology with solid instructional and learning strategies.

More and more, research points to the fact that the influence of electronic media and the ever-expanding uses of the Internet make infusing technology in developmental classrooms even more important today. Students need to have the ability to critically read and write across systems that contain symbols and codes (Watts, Semali, Rodenberg, Giles & Macaul.). It seems that students are immersed in a world full of multiple literacies. It is important that students in today's classrooms be able to transfer the analytical skills that they commonly use when reading traditional print texts, along with some other strategies, to navigate and read online texts (Stokes).

Students are part of the youth media culture — like it or not — and already are literate communicators who spend more time engaging with mass media outside classrooms than they spend in schools. Just as we teach students to be aware of author purpose and text structure in reading, we must also help them identify such organizational structures in viewing and representing ideas through popular and electronic media. If educators fail to acknowledge the meaning-making capabilities of extracurricular media messages and information, any attempts to increase literacy learning will be rendered incomplete (Watts, Semali, Rodenberg, Giles & Macaul.).

The use of technology also extends to studies examining the use of online discussions as part of the hybrid delivery method. Students' comments about the experience clearly suggest that the electronic discussions provided things that could not be made available in class, such as varying amounts of time individual students had for reflecting and responding and affording students opportunities to participate in ongoing discussion. Students reported that the online discussions provided them with “think time” and that this time for reflecting and responding improved the quality of their discussions. They also reported that the asynchronous format allowed them to complete their thoughts without interruption. In addition, students noted that quieter classmates participated more fully online than during class. However, students also reported that previous face-to-face discussions were crucial for the success of the electronic experience in terms of building rapport, comfort level, and their willingness to take intellectual risks (Beeghly).

Resources

Journals and Texts

Beeghly, D.G. (2005, September). It's About Time: Using Electronic Literature Discussion Groups With Adult Learners. *Journal of Adolescent & Adult Literacy*, 49(1), 12–21. doi: 10.1598/JAAL.49.1.2

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Eastern Kentucky University Teaching and Learning Center (2005). *Teaching Style Tips*
<http://www.tlc.eku.edu/tips>

<http://rwc.hunter.cuny.edu/reading-writing/on-line.html>

Literacy Links: Adult and Family Literacy

[BuildLiteracy.org](#)

This site answers frequently asked questions about adult literacy, libraries, and coalitions. In addition, the Website features tips on coalition building, profiles of existing literacy coalitions, and a menu of literacy coalition activities.

[Community Partnerships for Adult Learning \(C-PAL\)](#)

Supported by the Office of Vocational and Adult Education at the U.S. Department of Education, C-PAL is dedicated to facilitating the building of partnerships to improve the quality of adult education in the United States. The Website features a high-quality and broadly representative selection of adult education resources. Visit the [ToolBox](#) to find how-to's, research, and relevant websites sorted by topic and potential user.

[Frontier College](#)

Frontier College is a Canada-wide, volunteer-based, literacy organization that teaches literacy to adolescents and adults, with particular focus on groups often marginalized by society.

[LITERACY.org](#)

This site serves as a gateway to electronic resources and tools for the national and international adult literacy communities.

[National Adult Literacy Database \(NALD\)](#)

NALD is a comprehensive database of adult literacy programs, resources, services, and activities across Canada. It also links with other services and databases in North America and overseas.

[National Center for Family Literacy \(NCFL\)](#)

NCFL is a nonprofit organization supporting family literacy services for families across the United States through programming, training, research, advocacy, and dissemination

[National Institute for Literacy \(NIFL\)](#)

NIFL is a federal organization that shares information about literacy and supports the development of high-quality literacy services so all Americans can develop essential basic skills.

[PBS LiteracyLink](#)

LiteracyLink seeks to improve the quality of instruction provided to adult students by offering professional development resources and training to literacy educators. In addition, the website offers general information to the public about literacy.

